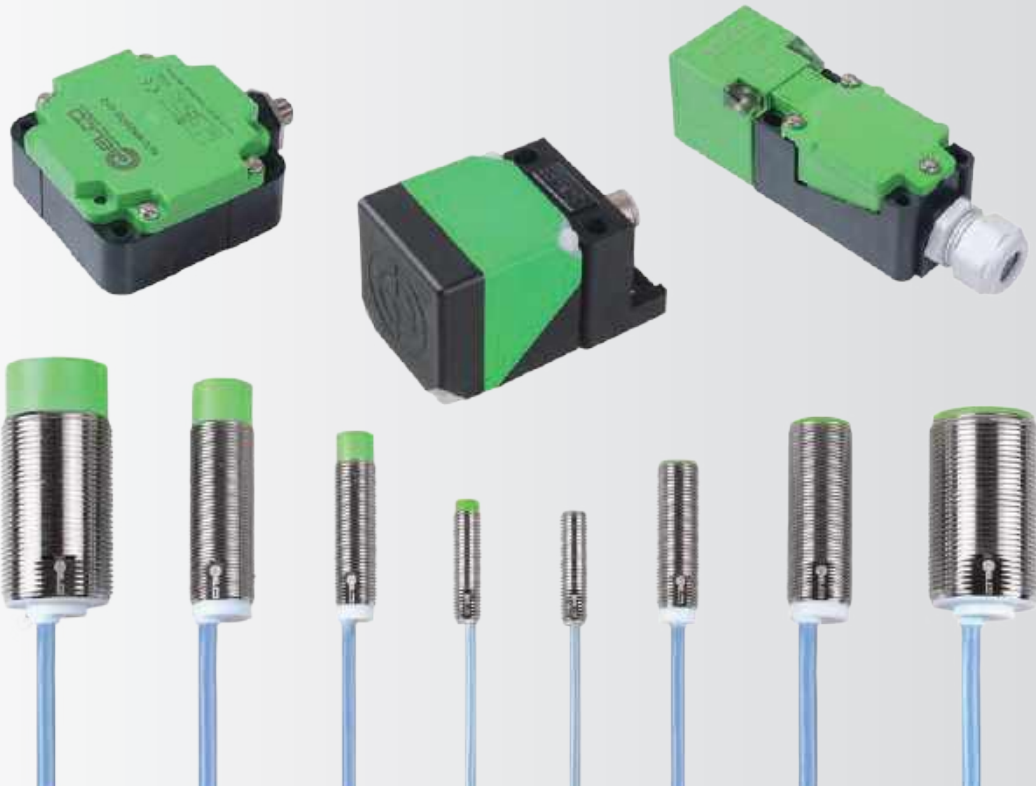


# Inductive Sensors



# COMPANY PROFILE

## Company Profile

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Elco (Tianjin) Electronics Co., Ltd. is a leading enterprise in China's industrial automation. It was established in Tianjin in 2003, and its sales and service network covers the whole country. As a provider of local industrial automation products and a supplier of intelligent manufacturing solutions in China, Elco has occupied a leading position in automobiles, auto parts, construction machinery, robots, food and pharmaceutical, printing and packaging, textile machinery, logistics equipment, electronics manufacturing and many other fields.

ELCO provides the full range of services from system layer, control layer, network layer to execution layer to the implementation of overall planning of intelligent factory. The products and solutions are not limited to the ElcoCloud platform and include MES (Manufacturing Execution System), Industrial Fieldbus, Industrial Ethernet, Industrial wireless communication, IoT gateway chip, automated production lines consisting of robotics and intelligent equipments, integration of automatic & electric controlling system, intelligent logistics warehouse system, IoT integrated development solutions and services etc. This leads to a truly intelligent manufacturing and improves the productivity, efficiency and flexibility.

Over several years, ELCO provides comprehensive support for the development of China's manufacturing industry through innovative technology, excellent products and solutions. To meet the customers needs all over the world and to allow global availability and competitive prices, Elco has established a new branch in Germany: Elco Industrie Automation in Oberstenfeld.










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# << Inductive Sensor

## Introduction

### Inductive sensor

When the metal conductive objects close to the magnetic field and reach the induction area, high-frequency alternating magnetic field generated by a LC oscillation circuit, which is composed of a coil wound on a ferrite, through the eddy current effect generated by internal of metal objects to achieve non-contact detection.

### Standards

All ELCO's inductive proximity sensors conform to IEC 60947-5-2.

### Housing material

The housing material of sensor including nickel plated copper, also stainless steel and plastic with resistance of compression and temperature rapid change. Most of square sensor is plastic housing. These materials can also be used to produce square sensors with adjustable sensing surface or compact (small square) sensors. Such sensors can be used in the occasions of limited installation space or required large detection range.

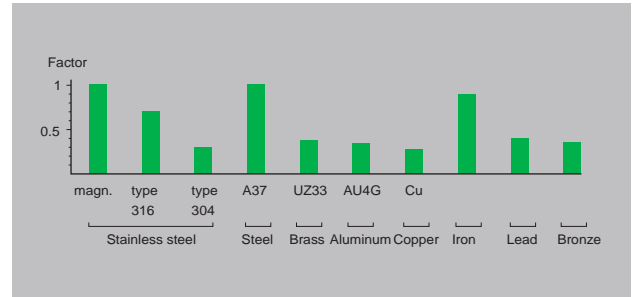
### Application

Inductive proximity switch is a low cost method for non-contact detection of metal objects, which is widely used in the following sectors, such as:

- Automotive Industry
- Metallurgical sector
- Machine tool sector
- Robot industry
- Conveyor system
- Paper and printing industry
- Mechanical Engineering

### Attenuation coefficient

When detect different materials with inductive sensors, there will be different detection distance even using the same product, please refer to following Figure.



### Special inductive sensor

ELCO can provide special sensor for special environment to adapt to the field environment, avoid malfunction occurred and extend the service life.

### General parameters

Shock resistance 30G, 11 ms

Anti-vibration 55 Hz, 1 mm

Voltage drop

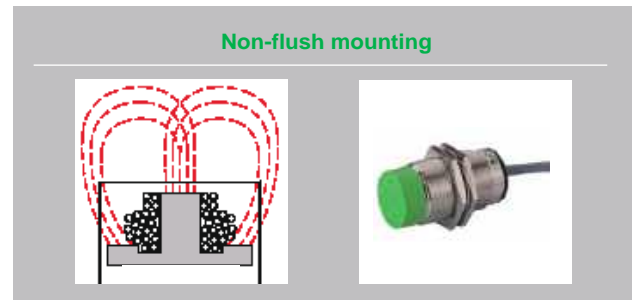
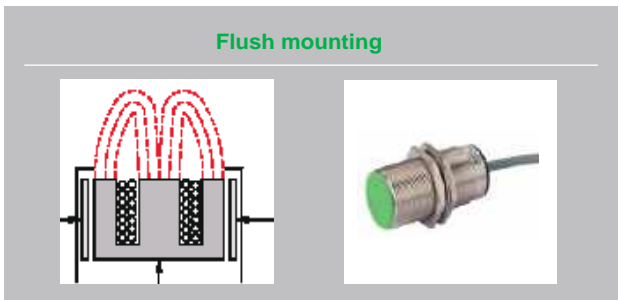
- 2-wire non-polarity DC transistor output proximity switch <5V
- 2-wire polarity DC transistor output proximity switch <5V
- 2-wire AC / DC proximity switch <6V
- 3-wire DC transistor output proximity switch <1.8 V
- 4-wire DC transistor output proximity switch <1.8 V

Fastening nut	M8	M12	M18	M30
Fastening torque Nm	Brass 2	Brass 10	Brass 30	Brass 40
		Plastic 1	Plastic 3	Plastic 5
	Stainless steel 5	Stainless steel 25	Stainless steel 50	Stainless steel 100

### Flush mounting and non-flush mounting

**Flush mounting**, the sensing surface and the base surface are flushed to protect the detection surface of sensor.

**Non-flush mounting**, the sensing surface is higher than the base surface. Generally, the non-flushing sensor has larger detection range.

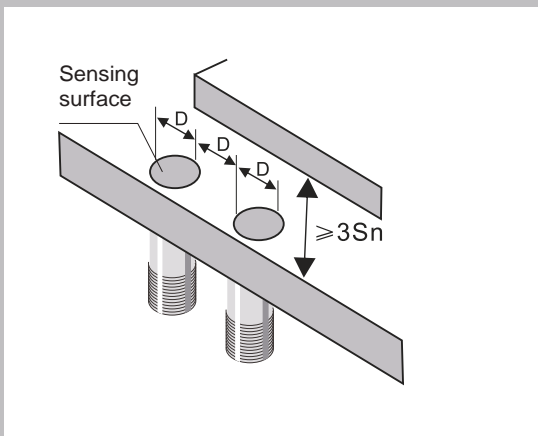


### Installation space requirements

To avoid the interference of the surrounding metal objects or other sensors during installation, there shall have the minimum installation space.

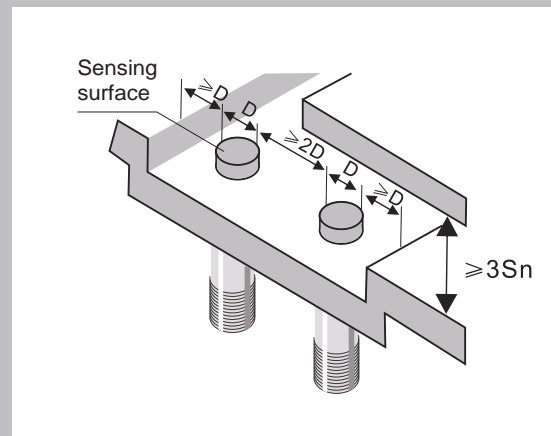
#### Flush

The sensing surface is flushed with the metal surface during installation. The distance from the switch surface to opposite metal object should be  $\geq 3S_n$ . The distance between two adjacent switches must be  $\geq D$ .



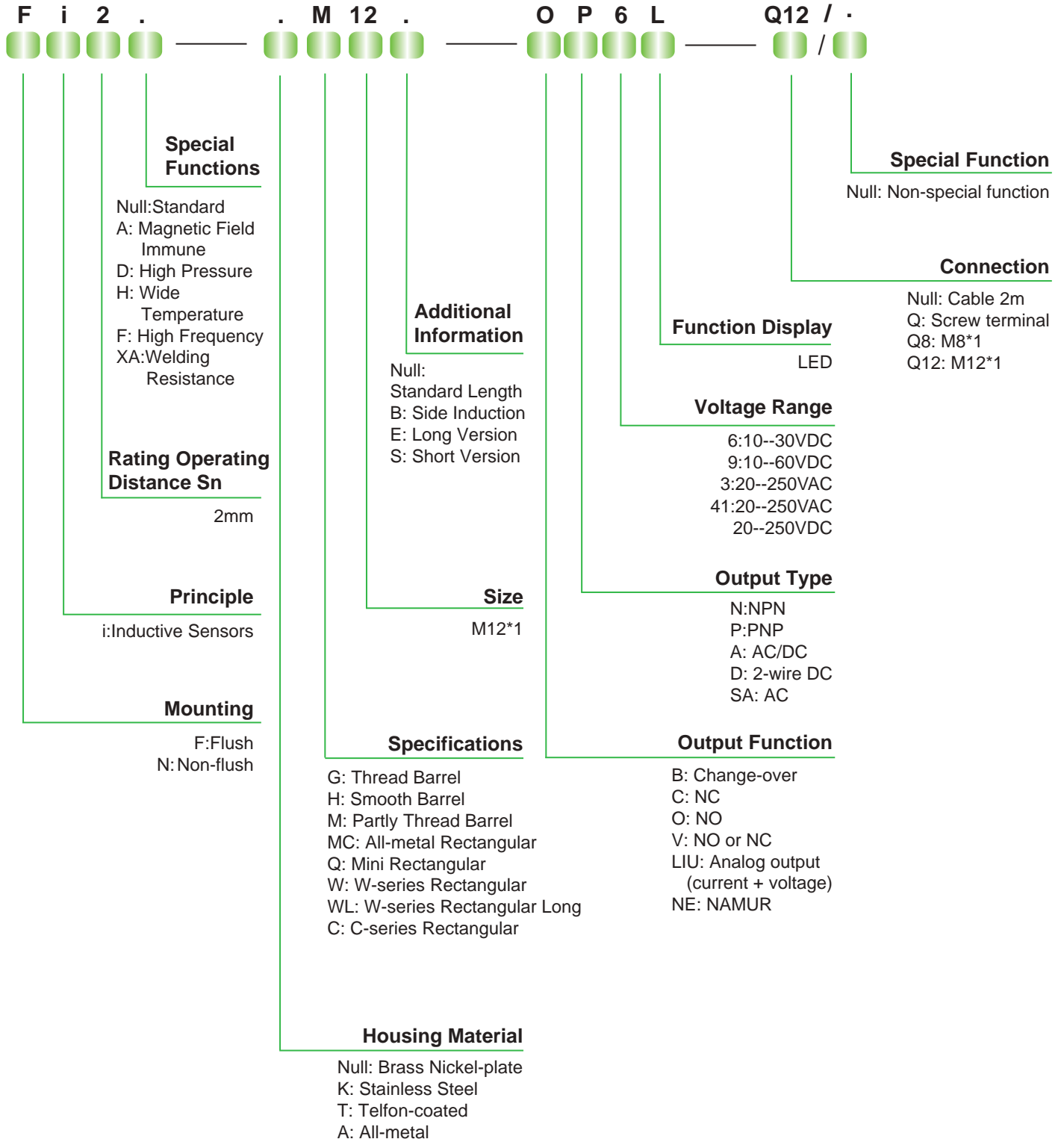
#### Non-flush

Since there is no metal housing in the sensing surface, the mounting type can be identified through the sensor head. The distance from sensing surface to the metal mounting medium must be  $\geq 2S_n$ . The distance from the sensing surface to opposite metal object must be  $\geq 3S_n$ . The distance between the other two adjacent proximity switches must be  $\geq 2D$ .



# << Inductive Sensor

## Type Code





## Inductive Sensor

### Metal Barrel-H3/H4



#### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator, compact size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi0.8-KH03-OP6L	0.8 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
Fi0.8-KH03-ON6L	0.8 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
Fi0.8-KH03-CP6L	0.8 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
Fi0.8-KH03-CN6L	0.8 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
Fi1-KH04-OP6L	1 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 2
Fi1-KH04-ON6L	1 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 2
Fi1-KH04-CP6L	1 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 2
Fi1-KH04-CN6L	1 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 2

#### Dimensions:

Fig. 1

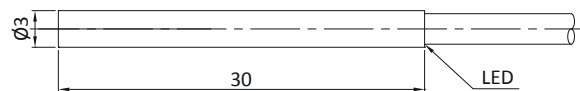
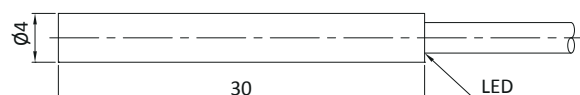


Fig. 2





## Metal Barrel-M4/M5

01



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, compact size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI0.8-KM04-OP6L	0.8 mm	Flush	PNP NO	10...30 V DC	$\leq 100$ mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
FI0.8-KM04-ON6L	0.8 mm	Flush	NPN NO	10...30 V DC	$\leq 100$ mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
FI0.8-KM04-CP6L	0.8 mm	Flush	PNP NC	10...30 V DC	$\leq 100$ mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
FI0.8-KM04-CN6L	0.8 mm	Flush	NPN NC	10...30 V DC	$\leq 100$ mA	2500 Hz	-25 ... 70 °C	2 m cable	Fig. 1
FI1-KM05-OP6L	1 mm	Flush	PNP NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2 m cable	Fig. 2
FI1-KM05-ON6L	1 mm	Flush	NPN NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2 m cable	Fig. 2
FI1-KM05-CP6L	1 mm	Flush	PNP NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2 m cable	Fig. 2
FI1-KM05-CN6L	1 mm	Flush	NPN NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2 m cable	Fig. 2
FI1-KM05-OP6L-Q8	1 mm	Flush	PNP NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
FI1-KM05-ON6L-Q8	1 mm	Flush	NPN NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
FI1-KM05-CP6L-Q8	1 mm	Flush	PNP NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
FI1-KM05-CN6L-Q8	1 mm	Flush	NPN NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3

### Dimensions:

Fig. 1

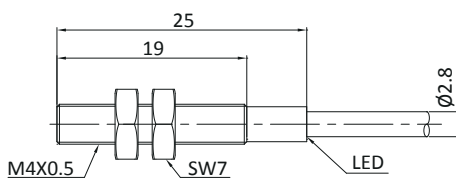


Fig. 2

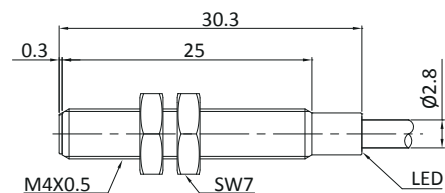
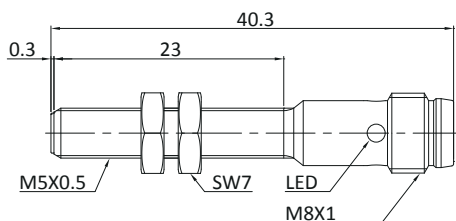


Fig. 3



# << Inductive Sensor

## Metal Barrel-H6.5



### Description:

Stainless steel housing, smooth barrel, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5-OD6L	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5-CD6L	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5-OD6L	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5-CD6L	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5-OD6L-Q8	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5-CD6L-Q8	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5-OD6L-Q8	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5-CD6L-Q8	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

### Dimensions:

Fig. 1

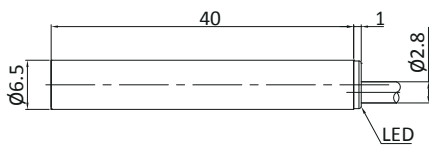


Fig. 2

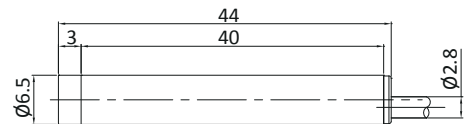


Fig. 3

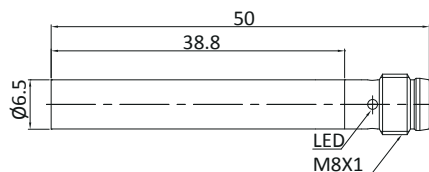
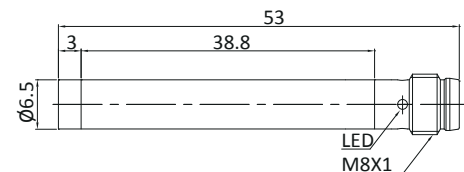


Fig. 4



## Metal Barrel-H6.5

01



### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5-OP6L	1.5mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5-ON6L	1.5mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5-CP6L	1.5mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5-CN6L	1.5mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5-OP6L	2mm	Non-flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5-ON6L	2mm	Non-flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5-CP6L	2mm	Non-flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5-CN6L	2mm	Non-flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5-OP6L-Q8	1.5mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5-ON6L-Q8	1.5mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5-CP6L-Q8	1.5mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5-CN6L-Q8	1.5mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5-OP6L-Q8	2mm	Non-flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5-ON6L-Q8	2mm	Non-flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5-CP6L-Q8	2mm	Non-flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5-CN6L-Q8	2mm	Non-flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

### Dimensions:

Fig. 1

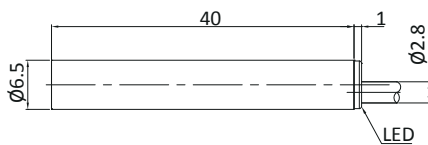


Fig. 2

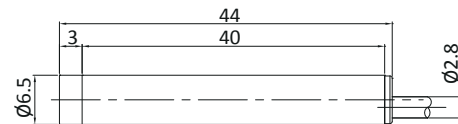


Fig. 3

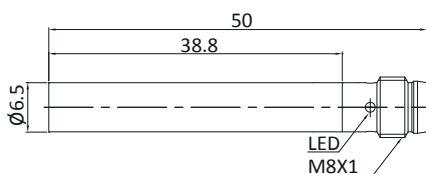
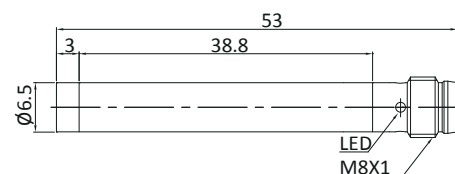


Fig. 4



## Inductive Sensor

### Metal Barrel-H6.5S (Short)



#### Description:

Stainless steel housing, smooth barrel, DC 2-wire output, IP67 protection class, LED indicator, compact size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5S-OD6L	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5S-CD6L	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5S-OD6L	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5S-CD6L	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5S-OD6L-Q8	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5S-CD6L-Q8	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5S-OD6L-Q8	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5S-CD6L-Q8	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

#### Dimensions:

Fig. 1

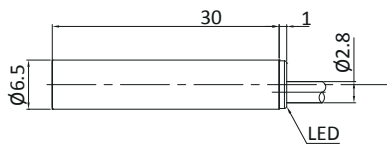


Fig. 2

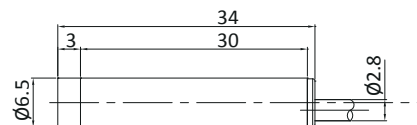


Fig. 3

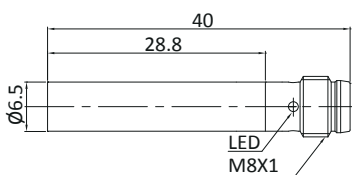
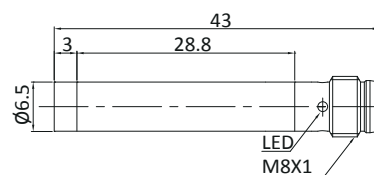


Fig. 4



## Metal Barrel-H6.5S (Short)



### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator, compact size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5S-OP6L	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5S-ON6L	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5S-CP6L	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5S-CN6L	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5S-OP6L	2 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5S-ON6L	2 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5S-CP6L	2 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5S-CN6L	2 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5S-OP6L-Q8	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5S-ON6L-Q8	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5S-CP6L-Q8	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5S-CN6L-Q8	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5S-OP6L-Q8	2 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5S-ON6L-Q8	2 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5S-CP6L-Q8	2 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5S-CN6L-Q8	2 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

### Dimensions:

Fig. 1

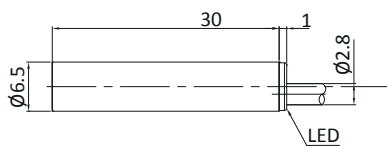


Fig. 2

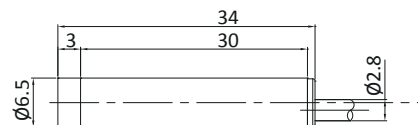


Fig. 3

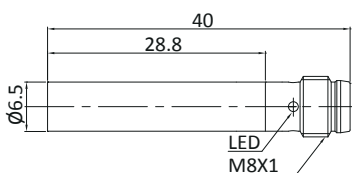
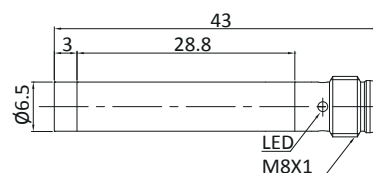


Fig. 4



## Inductive Sensor

### Metal Barrel-H6.5E (Long)



#### Description:

Stainless steel housing, smooth barrel, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5E-OD6L	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5E-CD6L	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5E-OD6L	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5E-CD6L	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5E-OD6L-Q8	1.5 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5E-CD6L-Q8	1.5 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5E-OD6L-Q8	2 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5E-CD6L-Q8	2 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

#### Dimensions:

Fig. 1

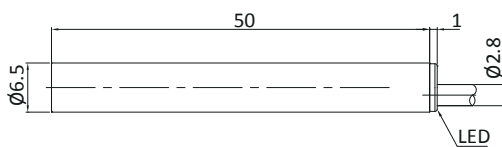


Fig. 2

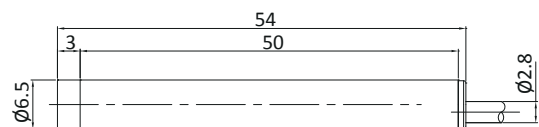


Fig. 3

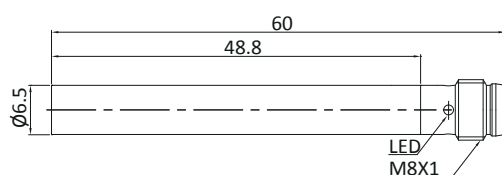
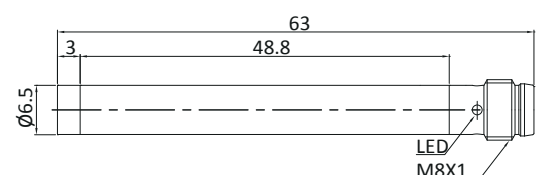


Fig. 4





## Metal Barrel-H6.5E (Long )



### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KH6.5E-OP6L	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5E-ON6L	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5E-CP6L	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi1.5-KH6.5E-CN6L	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KH6.5E-OP6L	2 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5E-ON6L	2 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5E-CP6L	2 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2-KH6.5E-CN6L	2 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi1.5-KH6.5E-OP6L-Q8	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5E-ON6L-Q8	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5E-CP6L-Q8	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Fi1.5-KH6.5E-CN6L-Q8	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 3
Ni2-KH6.5E-OP6L-Q8	2 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5E-ON6L-Q8	2 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5E-CP6L-Q8	2 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4
Ni2-KH6.5E-CN6L-Q8	2 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 4

### Dimensions:

Fig. 1

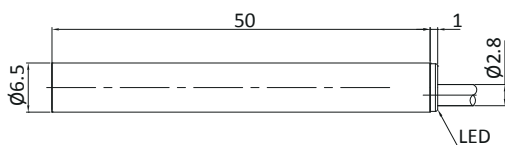


Fig. 2

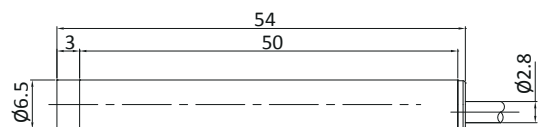


Fig. 3

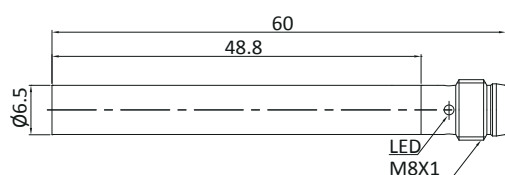
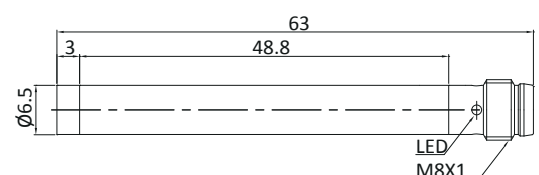
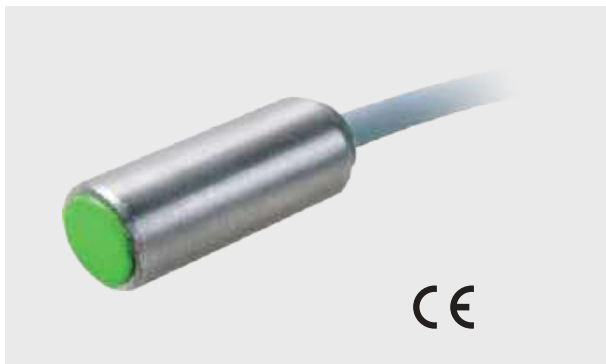


Fig. 4



## Inductive Sensor

### Metal Barrel-KH08SS



#### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator, super short size.

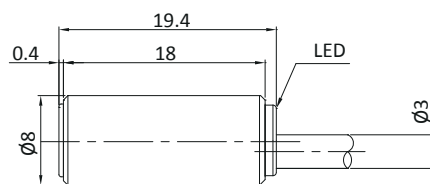
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KH08SS-OP6L	2 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KH08SS-ON6L	2 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KH08SS-CP6L	2 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KH08SS-CN6L	2 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Metal Barrel-KH08SS

01



### Description:

Stainless steel housing, smooth barrel, DC 2-wire output, IP67 protection class, LED indicator, super short size.

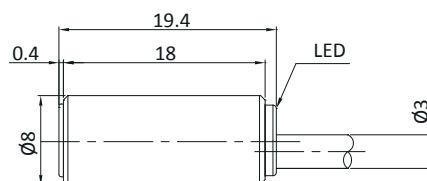
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KH08SS-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KH08SS-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

### Dimensions:

Fig. 1



## << Inductive Sensor

### Metal Barrel-KM08SS



#### Description:

Stainless steel housing, smooth barrel, DC 3-wire output, IP67 protection class, LED indicator, super short size.

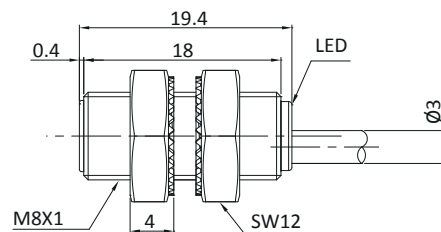
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM08SS-OP6L	2 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KM08SS-ON6L	2 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KM08SS-CP6L	2 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KM08SS-CN6L	2 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Metal Barrel-KM08SS

01



### Description:

Stainless steel housing, smooth barrel, DC 2-wire output, IP67 protection class, LED indicator, super short size.

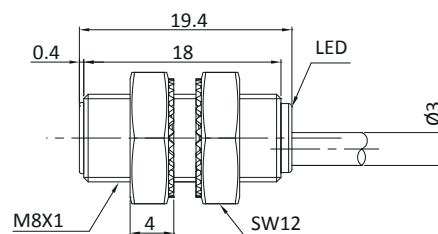
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM08SS-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-KM08SS-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

### Dimensions:

Fig. 1



## << Inductive Sensor

### Metal Barrel-M12SS



#### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, super short size.

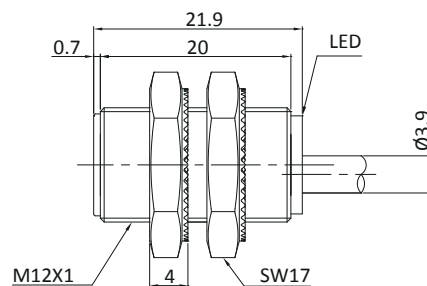
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12SS-OP6L	2 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12SS-ON6L	2 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12SS-CP6L	2 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12SS-CN6L	2 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1





## Metal Barrel-M12SS

01



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, super short size.

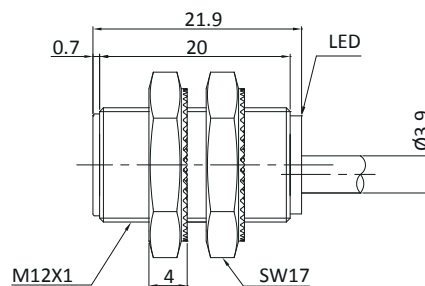
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12SS-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12SS-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

### Dimensions:

Fig. 1



# Inductive Sensor

## Metal Barrel-M08



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, 10mm shorter size M08S available.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OP6L	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M08-ON6L	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M08-CP6L	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M08-CN6L	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni3-M08-OP6L	3 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni3-M08-ON6L	3 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni3-M08-CP6L	3 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni3-M08-CN6L	3 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M08-OP6L-Q12	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-ON6L-Q12	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-CP6L-Q12	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-CN6L-Q12	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni3-M08-OP6L-Q12	3 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni3-M08-ON6L-Q12	3 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni3-M08-CP6L-Q12	3 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni3-M08-CN6L-Q12	3 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

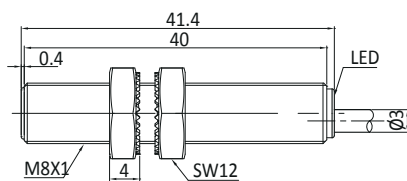


Fig. 2

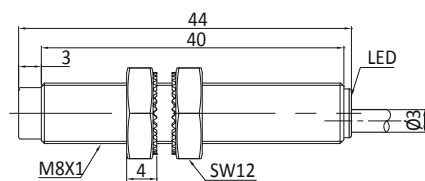


Fig. 3

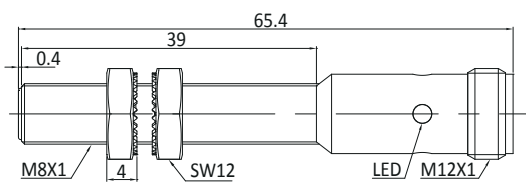
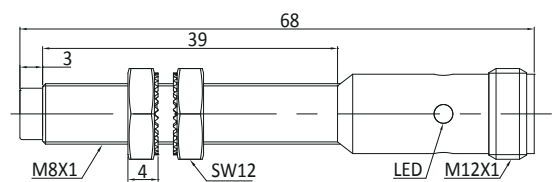


Fig. 4



## Metal Barrel-M08



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, 10mm shorter size M08S available.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OP6L-Q8	2 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Fi2-M08-ON6L-Q8	2 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Fi2-M08-CP6L-Q8	2 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Fi2-M08-CN6L-Q8	2 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Ni3-M08-OP6L-Q8	3 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni3-M08-ON6L-Q8	3 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni3-M08-CP6L-Q8	3 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni3-M08-CN6L-Q8	3 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2

### Dimensions:

Fig. 1

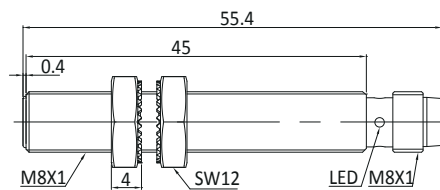
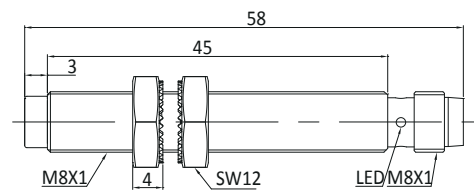


Fig. 2



## << Inductive Sensor

### Metal Barrel-M08



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output,  
IP67 protection class, LED indicator, 10mm shorter size M08S available.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OD6L-Q8	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Fi2-M08-CD6L-Q8	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M8 Connector	Fig. 1
Ni3-M08-OD6L-Q8	3 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni3-M08-CD6L-Q8	3 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M8 Connector	Fig. 2

#### Dimensions:

Fig. 1

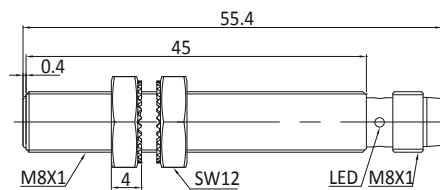
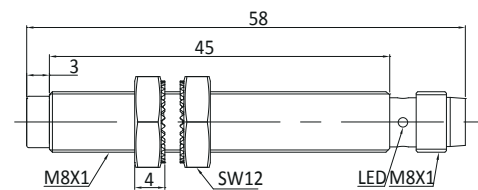


Fig. 2



## Metal Barrel-M08



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, 10mm shorter size M08S available.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M08-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni3-M08-OD6L	3 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni3-M08-CD6L	3 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M08-OD6L-Q12	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-CD6L-Q12	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni3-M08-OD6L-Q12	3 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni3-M08-CD6L-Q12	3 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

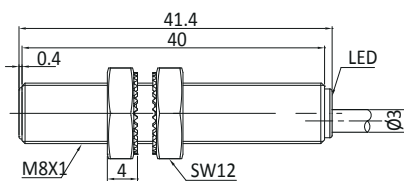


Fig. 2

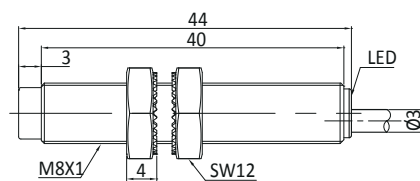


Fig. 3

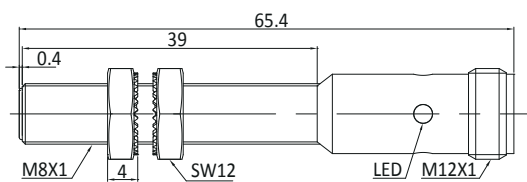
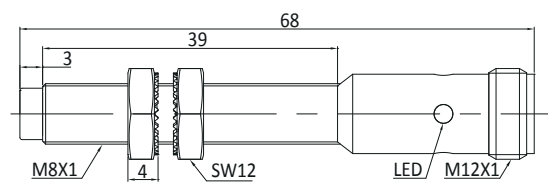


Fig. 4



# Inductive Sensor

## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OD6L	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CD6L	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-OD6L	5 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-CD6L	5 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12-OD6L-Q12	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-CD6L-Q12	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-OD6L-Q12	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-CD6L-Q12	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12-OD6L-Q12	5 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12-CD6L-Q12	5 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

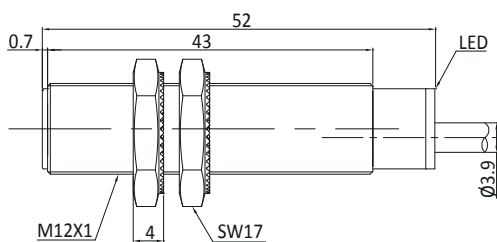


Fig. 2

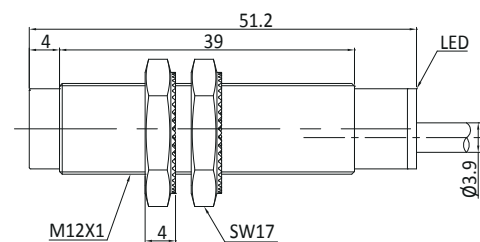


Fig. 3

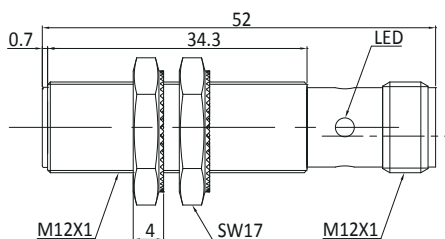
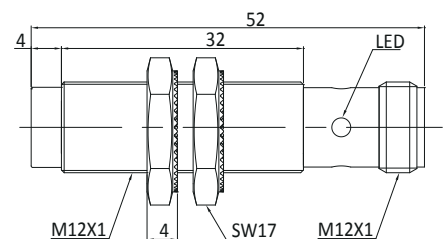


Fig. 4





## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OP6L	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-ON6L	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CP6L	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CN6L	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OP6L	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-ON6L	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CP6L	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CN6L	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-OP6L	5 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-ON6L	5 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-CP6L	5 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-CN6L	5 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

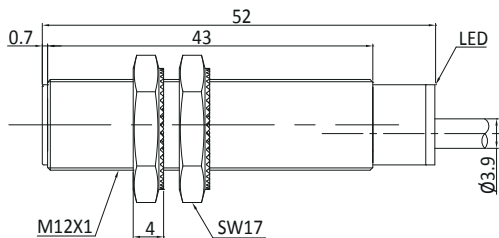
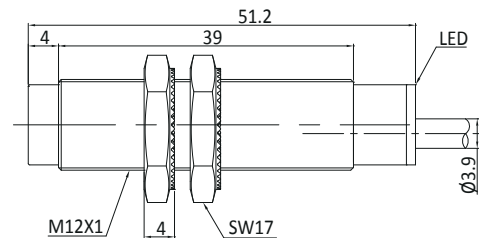


Fig. 2



# << Inductive Sensor

## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OP6L-Q12	2 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12-ON6L-Q12	2 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12-CP6L-Q12	2 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12-CN6L-Q12	2 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni4-M12-OP6L-Q12	4 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12-ON6L-Q12	4 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12-CP6L-Q12	4 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12-CN6L-Q12	4 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12-OP6L-Q12	5 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12-ON6L-Q12	5 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12-CP6L-Q12	5 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12-CN6L-Q12	5 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

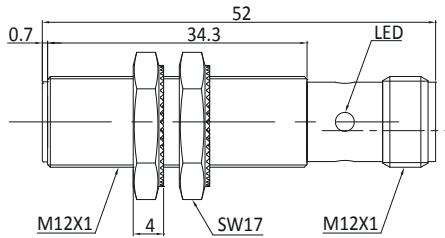
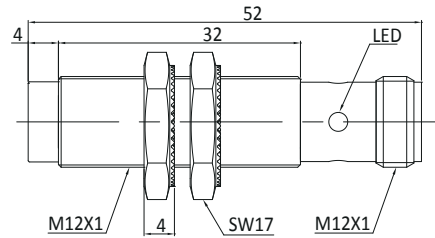


Fig. 2



## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-BP6L	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-BN6L	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-BP6L	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-BN6L	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-BP6L	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12-BN6L	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12-BP6L-Q12	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-BN6L-Q12	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-BP6L-Q12	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-BN6L-Q12	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12-BP6L-Q12	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12-BN6L-Q12	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

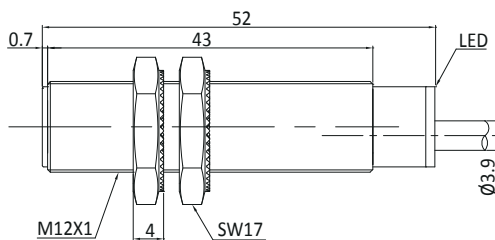


Fig. 2

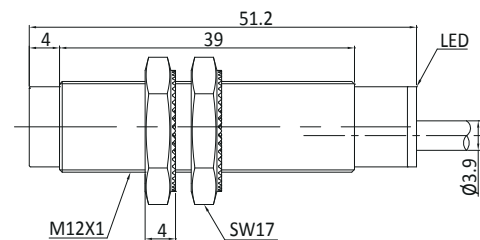


Fig. 3

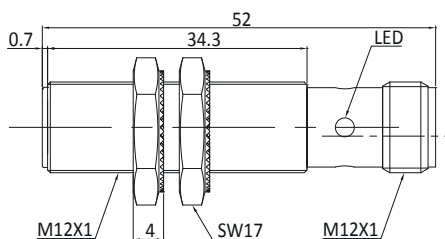
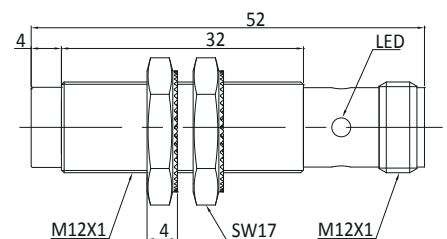


Fig. 4



# Inductive Sensor

## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OSA3L	2 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CSA3L	2 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OSA3L	4 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CSA3L	4 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12-OSA3L-Q12	2 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-CSA3L-Q12	2 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-OSA3L-Q12	4 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-CSA3L-Q12	4 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

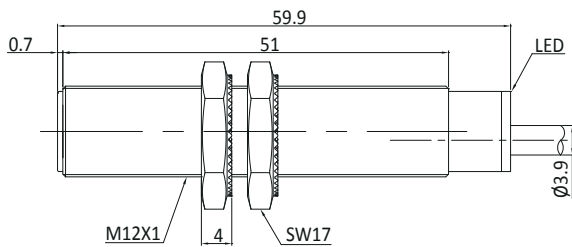


Fig. 2

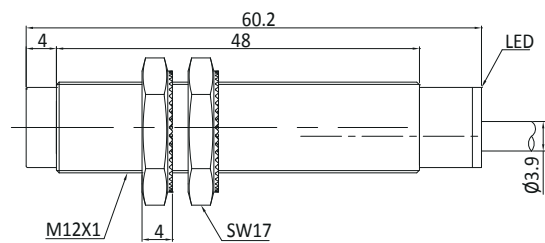


Fig. 3

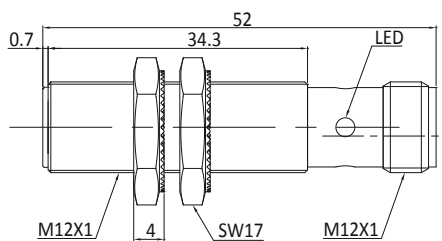
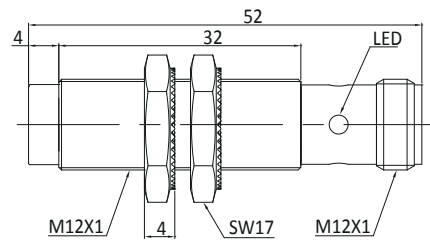


Fig. 4



## Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OA41L	2 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CA41L	2 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OA41L	4 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CA41L	4 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12-OA41L-Q12	2 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-CA41L-Q12	2 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-OA41L-Q12	4 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-CA41L-Q12	4 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

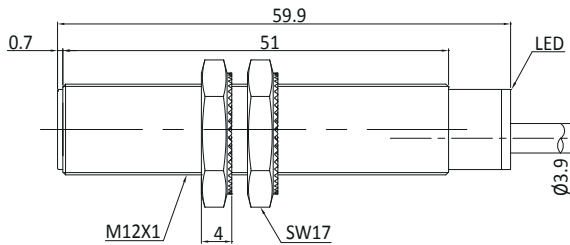


Fig. 2

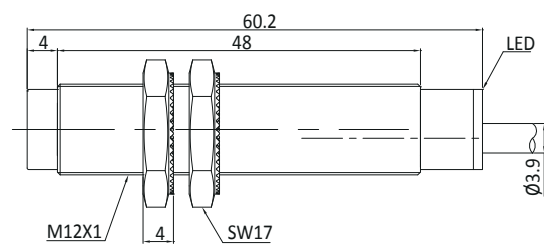


Fig. 3

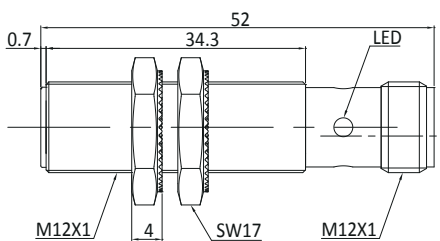
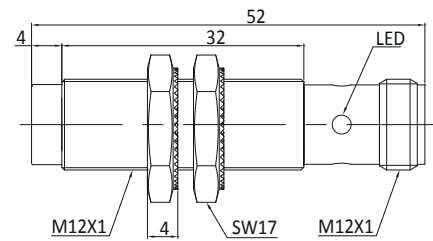


Fig. 4



## Inductive Sensor

### Metal Barrel-M12S (Short)



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12S-OD6L	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12S-CD6L	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12S-OD6L	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12S-CD6L	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-OD6L	5 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-CD6L	5 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12S-OD6L-Q12	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12S-CD6L-Q12	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12S-OD6L-Q12	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12S-CD6L-Q12	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12S-OD6L-Q12	5 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12S-CD6L-Q12	5 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

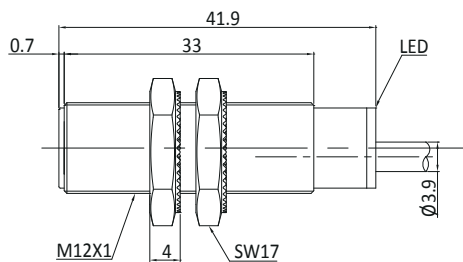


Fig. 2

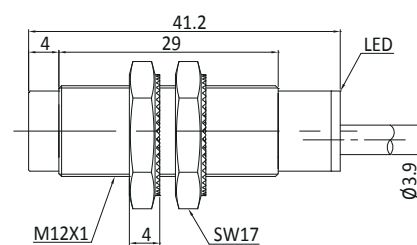


Fig. 3

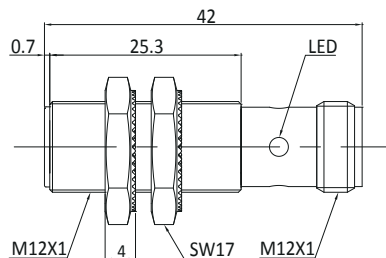
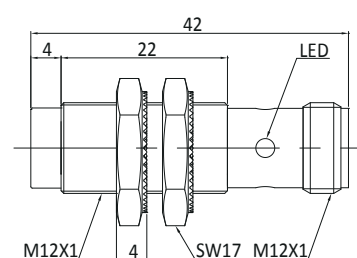


Fig. 4



## Metal Barrel-M12S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12S-OP6L	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12S-ON6L	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12S-CP6L	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12S-CN6L	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12S-OP6L	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12S-ON6L	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12S-CP6L	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12S-CN6L	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-OP6L	5 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-ON6L	5 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-CP6L	5 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-CN6L	5 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

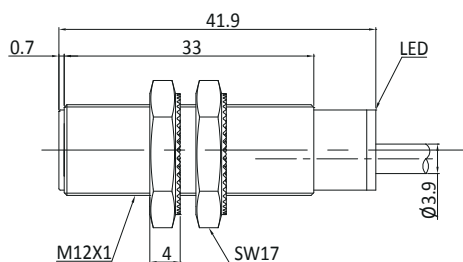
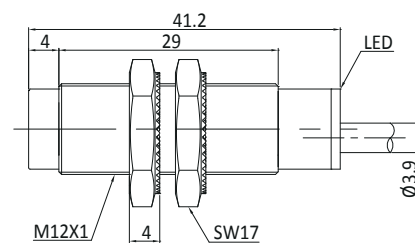


Fig. 2



## Inductive Sensor

### Metal Barrel-M12S (Short)



#### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, LED indicator, IP67 protection class, short size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12S-OP6L-Q12	2 mm	Flush	PNP NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12S-ON6L-Q12	2 mm	Flush	NPN NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12S-CP6L-Q12	2 mm	Flush	PNP NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12S-CN6L-Q12	2 mm	Flush	NPN NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni4-M12S-OP6L-Q12	4 mm	Non-flush	PNP NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12S-ON6L-Q12	4 mm	Non-flush	NPN NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12S-CP6L-Q12	4 mm	Non-flush	PNP NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12S-CN6L-Q12	4 mm	Non-flush	NPN NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12S-OP6L-Q12	5 mm	Non-flush	PNP NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12S-ON6L-Q12	5 mm	Non-flush	NPN NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12S-CP6L-Q12	5 mm	Non-flush	PNP NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12S-CN6L-Q12	5 mm	Non-flush	NPN NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

#### Dimensions:

Fig. 1

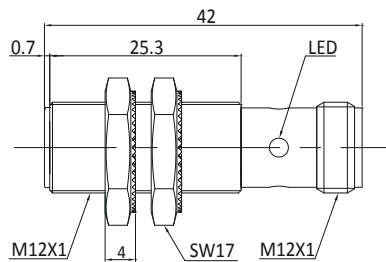
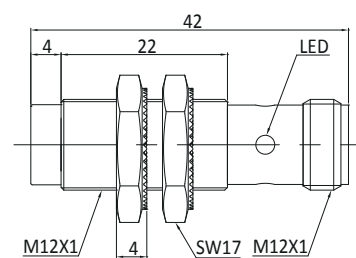


Fig. 2





## Metal Barrel-M12S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, yellow LED indicator, IP67 protection class, short size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12S-BP6L	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12S-BN6L	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12S-BP6L	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12S-BN6L	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-BP6L	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12S-BN6L	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12S-BP6L-Q12	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12S-BN6L-Q12	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12S-BP6L-Q12	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12S-BN6L-Q12	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12S-BP6L-Q12	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12S-BN6L-Q12	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

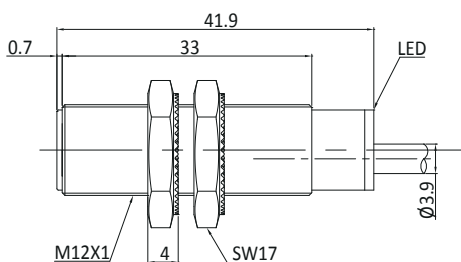


Fig. 2

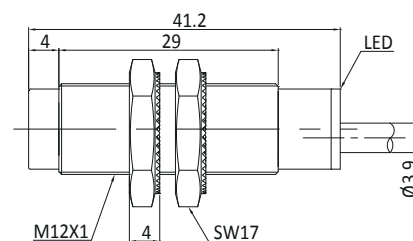


Fig. 3

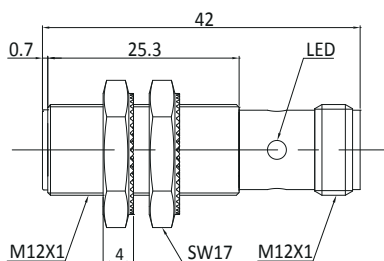
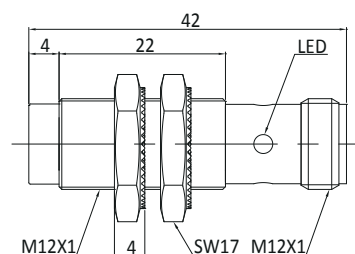


Fig. 4



## Inductive Sensor

### Metal Barrel-M12E (Long)



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12E-OD6L	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-CD6L	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12E-OD6L	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-CD6L	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-OD6L	5 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-CD6L	5 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12E-OD6L-Q12	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12E-CD6L-Q12	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12E-OD6L-Q12	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12E-CD6L-Q12	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-OD6L-Q12	5 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-CD6L-Q12	5 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

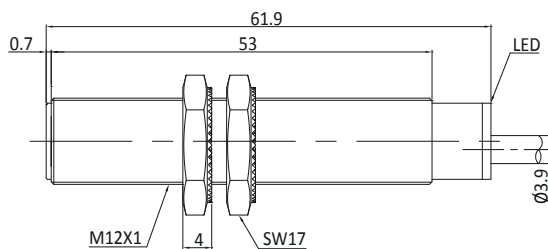


Fig. 2

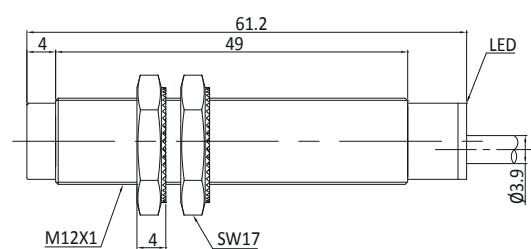


Fig. 3

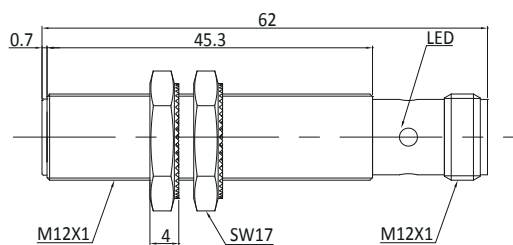
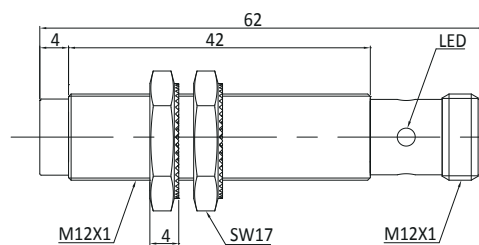


Fig. 4



## Metal Barrel-M12E (Long)



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12E-OP6L	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-ON6L	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-CP6L	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-CN6L	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12E-OP6L	5 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-ON6L	5 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-CP6L	2 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-CN6L	2 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-OP6L	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-ON6L	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-CP6L	5 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-CN6L	5 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

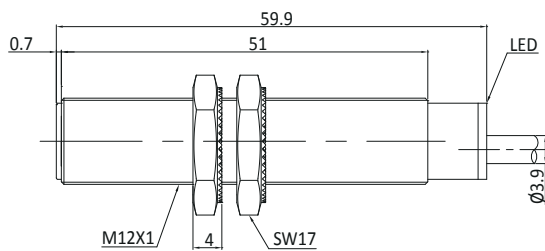
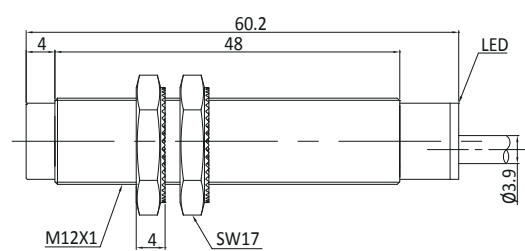


Fig. 2



## ◀◀ Inductive Sensor

### Metal Barrel-M12E (Long)



#### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12E-OP6L-Q12	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12E-ON6L-Q12	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12E-CP6L-Q12	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2-M12E-CN6L-Q12	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni4-M12E-OP6L-Q12	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12E-ON6L-Q12	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12E-CP6L-Q12	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni4-M12E-CN6L-Q12	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12E-OP6L-Q12	5 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12E-ON6L-Q12	5 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12E-CP6L-Q12	5 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni5-M12E-CN6L-Q12	5 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

#### Dimensions:

Fig. 1

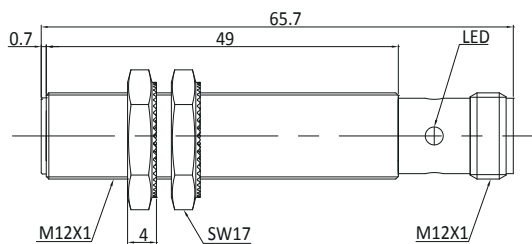
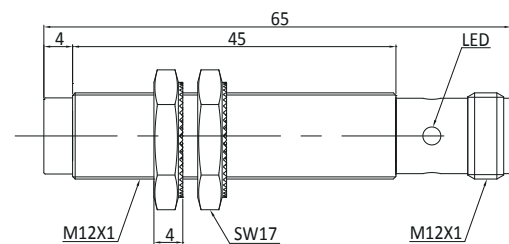


Fig. 2



## Metal Barrel-M12E (Long)



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12E-BP6L	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-BN6L	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12E-BP6L	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-BN6L	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-BP6L	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-BN6L	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12E-BP6L-Q12	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12E-BN6L-Q12	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12E-BP6L-Q12	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12E-BN6L-Q12	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-BP6L-Q12	5 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-BN6L-Q12	5 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

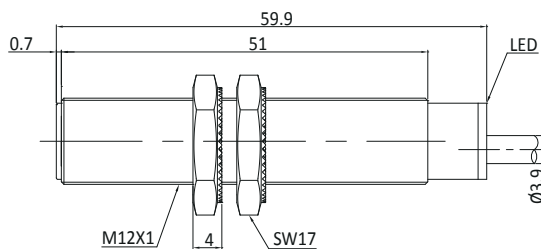


Fig. 2

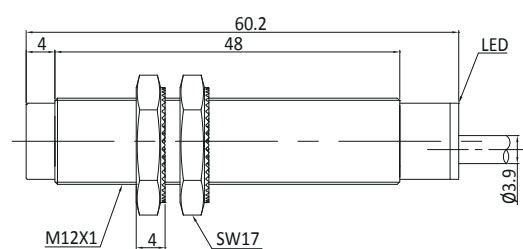


Fig. 3

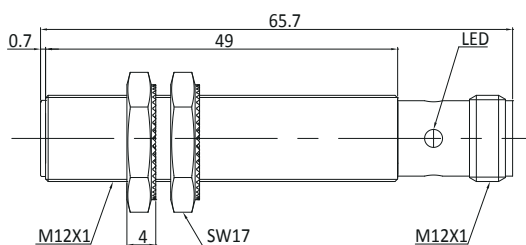
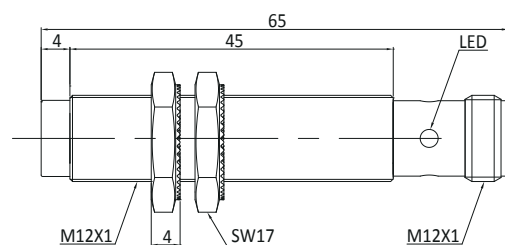


Fig. 4



## Inductive Sensor

### Metal Barrel-M12E (Long)



#### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12E-OSA3L	2 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-M12E-CSA3L	2 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12E-OSA3L	4 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-M12E-CSA3L	4 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-OSA3L	5 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni5-M12E-CSA3L	5 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12E-OSA3L-Q12	2 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12E-CSA3L-Q12	2 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12E-OSA3L-Q12	4 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12E-CSA3L-Q12	4 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-OSA3L-Q12	5 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni5-M12E-CSA3L-Q12	5 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

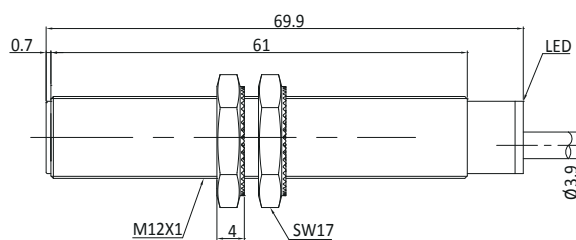


Fig. 2

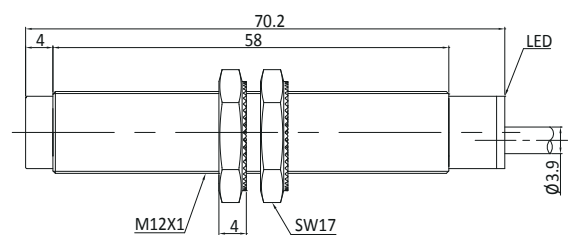


Fig. 3

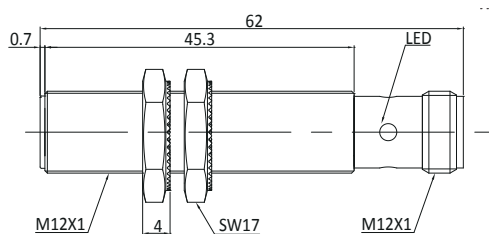
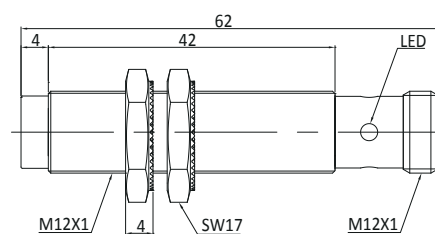


Fig. 4



## Metal Barrel-M12E (Long)



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI2-M12E-OA41L	2 mm	Flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI2-M12E-CA41L	2 mm	Flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI4-M12E-OA41L	4 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI4-M12E-CA41L	4 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI5-M12E-OA41L	5 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI5-M12E-CA41L	5 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI2-M12E-OA41L-Q12	2 mm	Flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI2-M12E-CA41L-Q12	2 mm	Flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI4-M12E-OA41L-Q12	4 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI4-M12E-CA41L-Q12	4 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI5-M12E-OA41L-Q12	5 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI5-M12E-CA41L-Q12	5 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

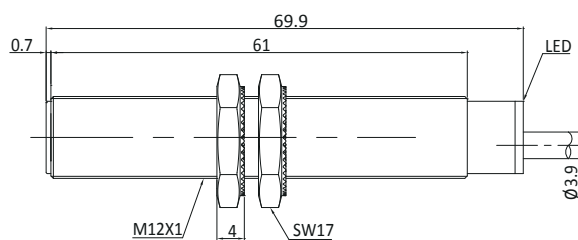


Fig. 2

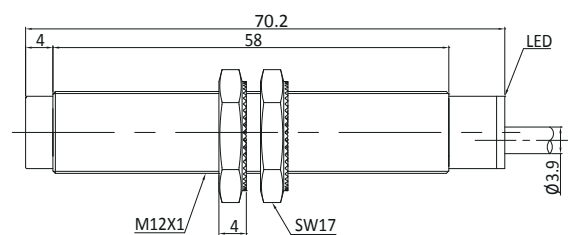


Fig. 3

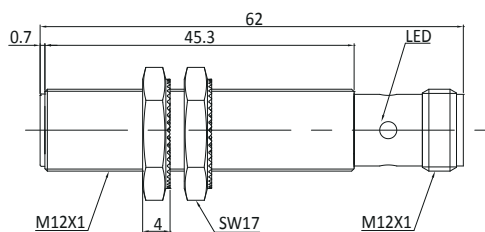
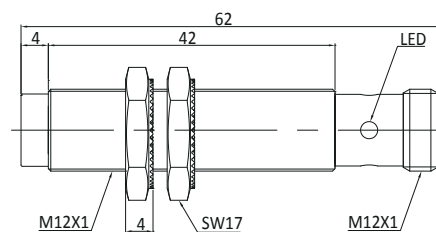


Fig. 4



# Inductive Sensor

## Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OD6L	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CD6L	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OD6L	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CD6L	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OD6L-Q12	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CD6L-Q12	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OD6L-Q12	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CD6L-Q12	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

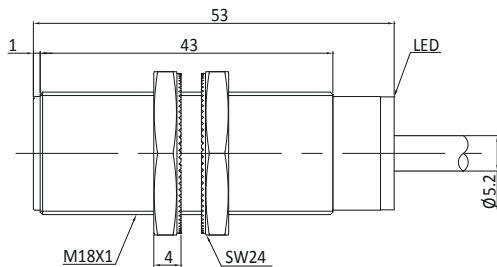


Fig. 2

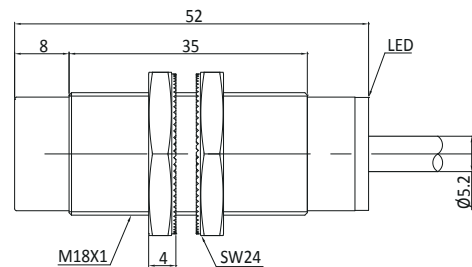


Fig. 3

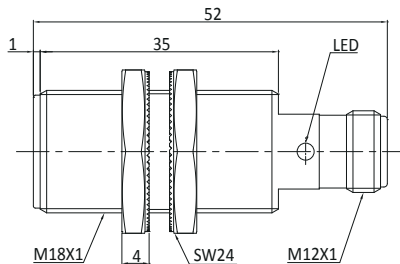
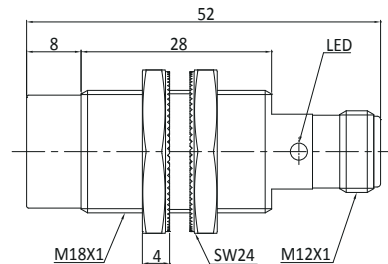


Fig. 4





## Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OP6L	5mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-ON6L	5mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CP6L	5mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CN6L	5mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OP6L	8mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-ON6L	8mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CP6L	8mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CN6L	8mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OP6L-Q12	5mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-ON6L-Q12	5mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CP6L-Q12	5mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CN6L-Q12	5mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OP6L-Q12	8mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-ON6L-Q12	8mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CP6L-Q12	8mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CN6L-Q12	8mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

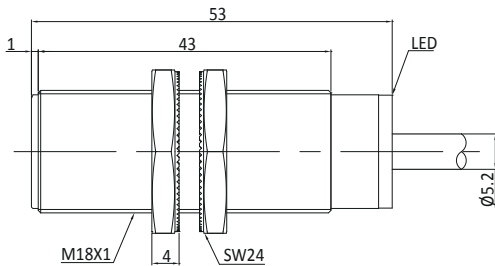


Fig. 2

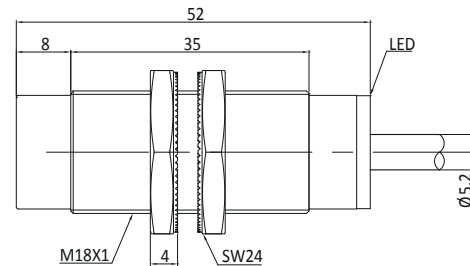


Fig. 3

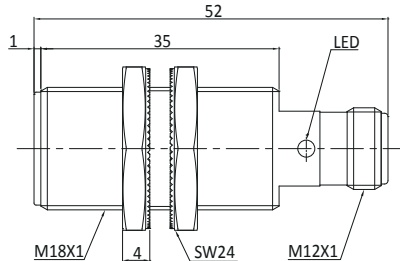
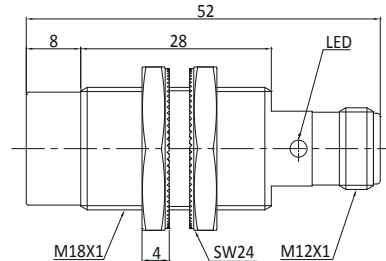


Fig. 4



# Inductive Sensor

## Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-BP6L	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-BN6L	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18-BP6L	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-BN6L	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18-BP6L-Q12	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-BN6L-Q12	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-BP6L-Q12	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-BN6L-Q12	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

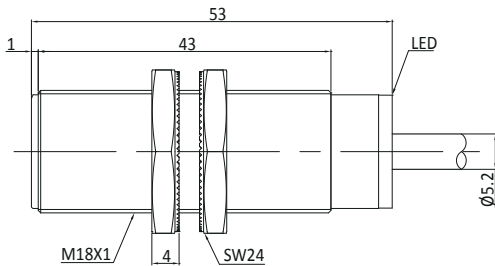


Fig. 2

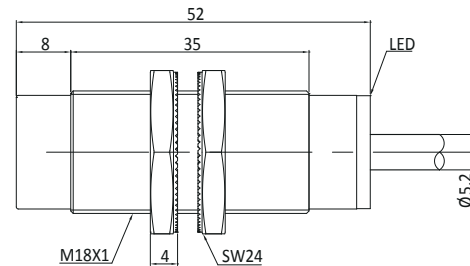


Fig. 3

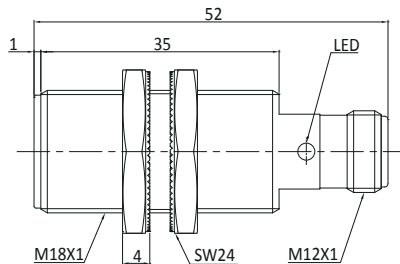
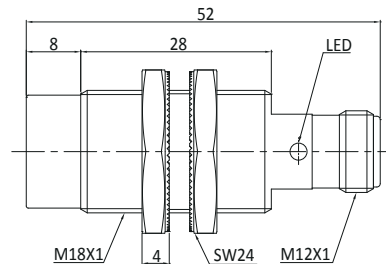


Fig. 4



## Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OSA3L	5 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CSA3L	5 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OSA3L	8 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CSA3L	8 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OSA3L-Q12	5 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CSA3L-Q12	5 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OSA3L-Q12	8 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CSA3L-Q12	8 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

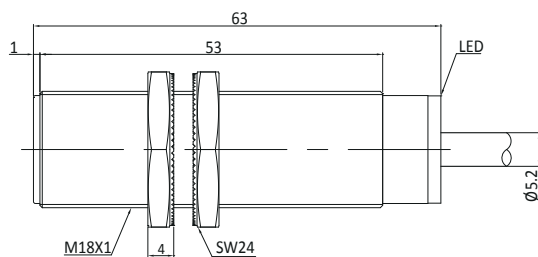


Fig. 2

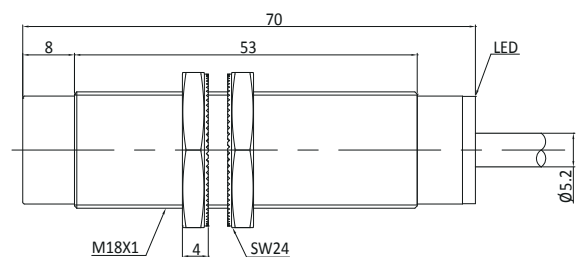


Fig. 3

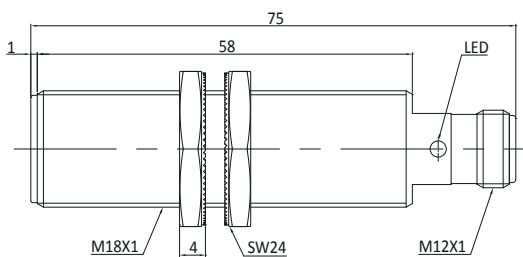
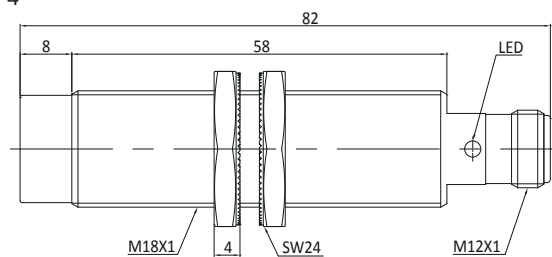


Fig. 4



# Inductive Sensor

## Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI5-M18-OA41L	5 mm	Flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI5-M18-CA41L	5 mm	Flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI8-M18-OA41L	8 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI8-M18-CA41L	8 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI5-M18-OA41L-Q12	5 mm	Flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI5-M18-CA41L-Q12	5 mm	Flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI8-M18-OA41L-Q12	8 mm	Non-flush	DC/AC NO	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI8-M18-CA41L-Q12	8 mm	Non-flush	DC/AC NC	20...250 VAC / DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

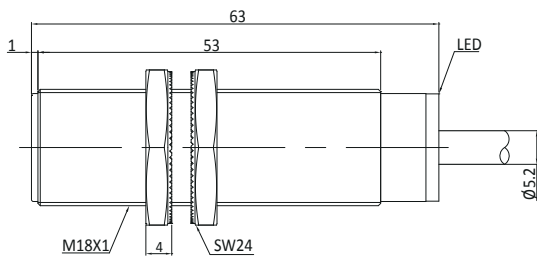


Fig. 2

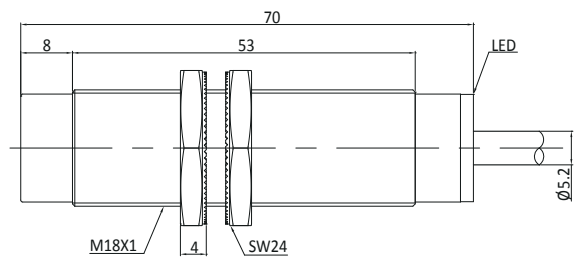


Fig. 3

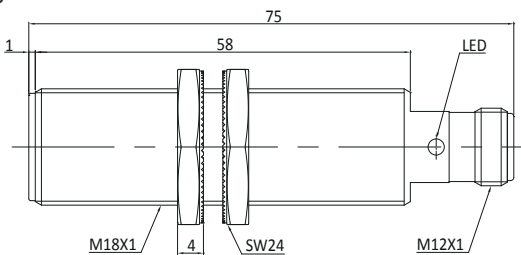
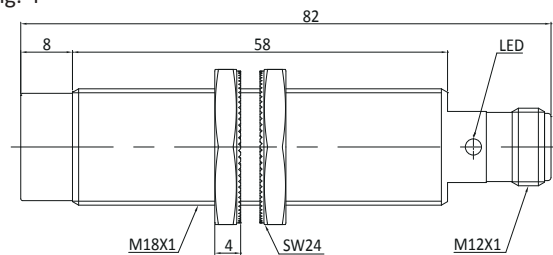


Fig. 4



## Metal Barrel-M18S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18S-OD6L	5 mm	Flush	DC NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18S-CD6L	5 mm	Flush	DC NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18S-OD6L	8 mm	Non-flush	DC NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18S-CD6L	8 mm	Non-flush	DC NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18S-OD6L-Q12	5 mm	Flush	DC NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18S-CD6L-Q12	5 mm	Flush	DC NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18S-OD6L-Q12	8 mm	Non-flush	DC NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18S-CD6L-Q12	8 mm	Non-flush	DC NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

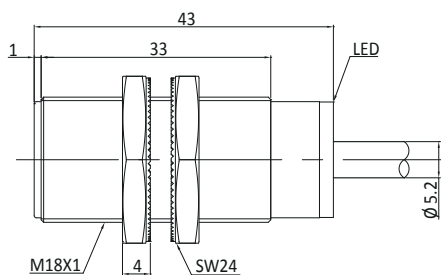


Fig. 2

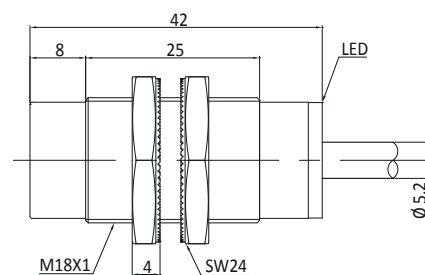


Fig. 3

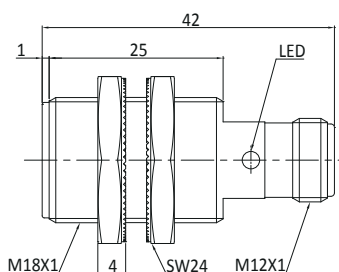
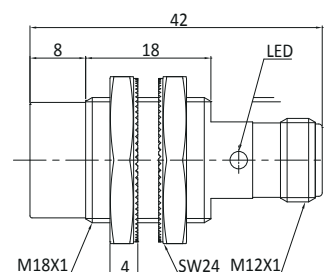


Fig. 4



## Inductive Sensor

### Metal Barrel-M18S (Short)



#### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18S-OP6L	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18S-ON6L	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18S-CP6L	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18S-CN6L	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18S-OP6L	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18S-ON6L	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18S-CP6L	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18S-CN6L	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18S-OP6L-Q12	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18S-ON6L-Q12	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18S-CP6L-Q12	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18S-CN6L-Q12	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18S-OP6L-Q12	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18S-ON6L-Q12	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18S-CP6L-Q12	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18S-CN6L-Q12	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

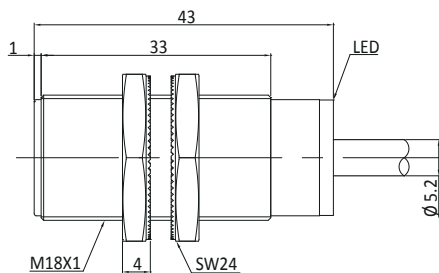


Fig. 2

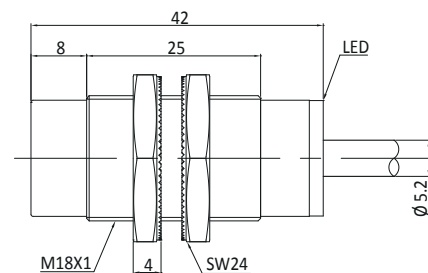


Fig. 3

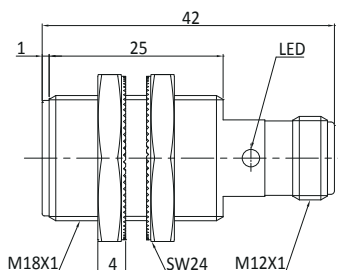
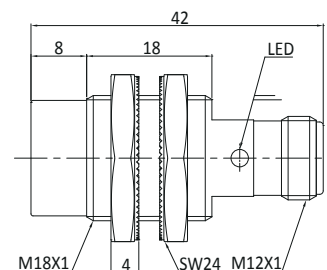


Fig. 4



## Metal Barrel-M18S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18S-BP6L	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18S-BN6L	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18S-BP6L	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18S-BN6L	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18S-BP6L-Q12	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18S-BN6L-Q12	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18S-BP6L-Q12	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18S-BN6L-Q12	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

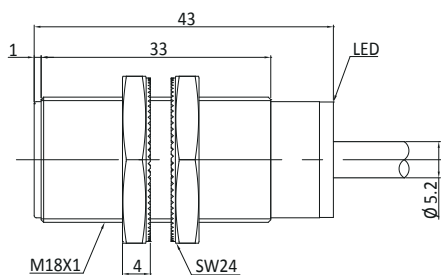


Fig. 2

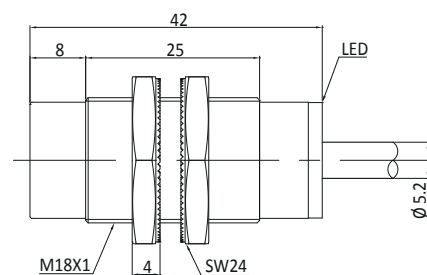


Fig. 3

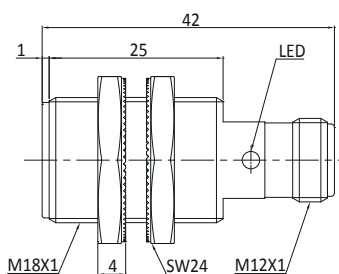
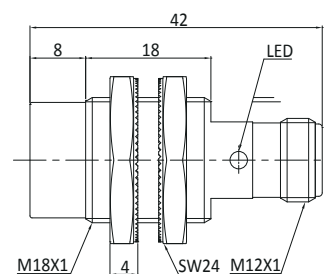


Fig. 4



## Inductive Sensor

### Metal Barrel-M18E (Extended)



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18E-OD6L	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-CD6L	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18E-OD6L	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-CD6L	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18E-OD6L-Q12	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-CD6L-Q12	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18E-OD6L-Q12	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-CD6L-Q12	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

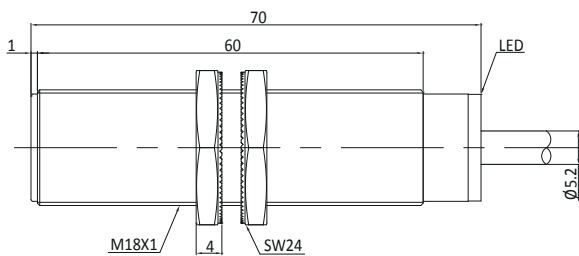


Fig. 2

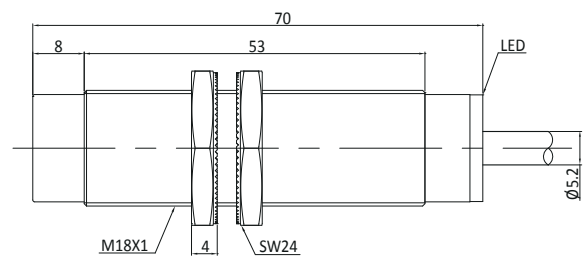


Fig. 3

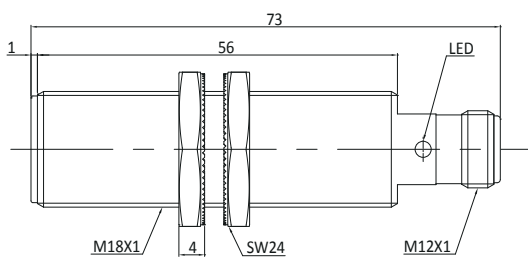
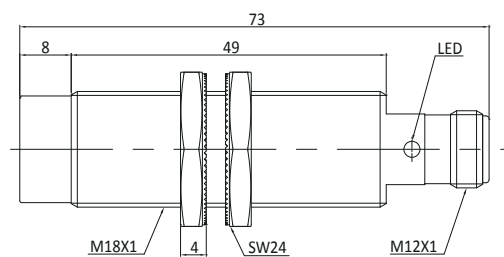


Fig. 4





## Metal Barrel-M18E (Extended)



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18E-OP6L	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-ON6L	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-CP6L	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-CN6L	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18E-OP6L	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-ON6L	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-CP6L	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-CN6L	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18E-OP6L-Q12	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-ON6L-Q12	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-CP6L-Q12	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-CN6L-Q12	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18E-OP6L-Q12	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-ON6L-Q12	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-CP6L-Q12	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-CN6L-Q12	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

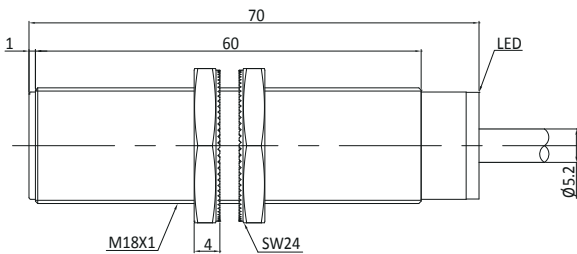


Fig. 2

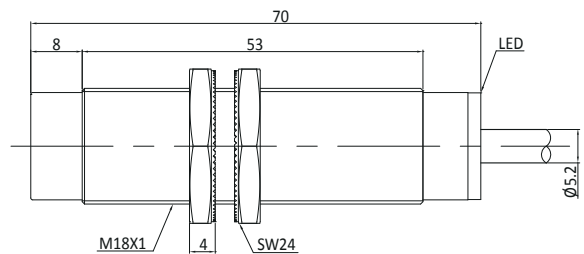


Fig. 3

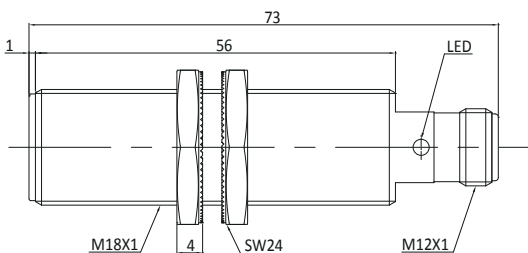
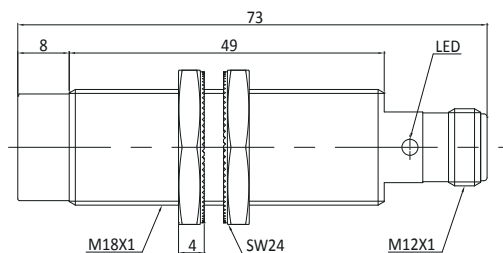


Fig. 4



# Inductive Sensor

## Metal Barrel-M18E (Extended)



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_e$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18E-BP6L	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-BN6L	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18E-BP6L	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-BN6L	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18E-BP6L-Q12	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-BN6L-Q12	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18E-BP6L-Q12	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-BN6L-Q12	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

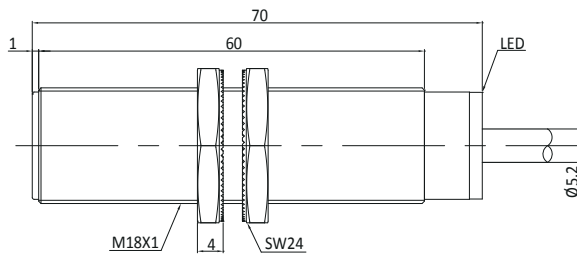


Fig. 2

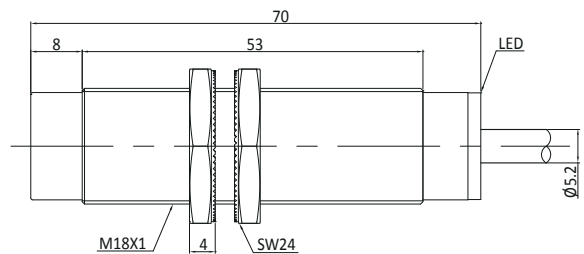


Fig. 3

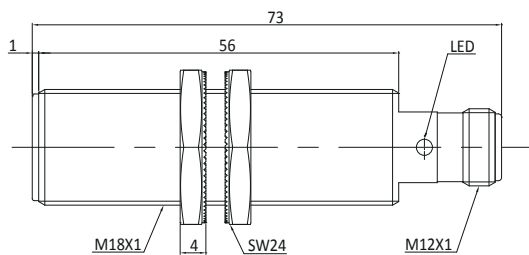
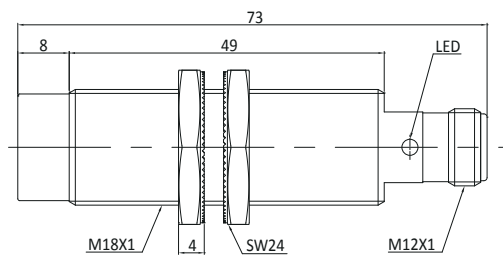


Fig. 4



## Metal Barrel-M18E (Extended)



### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18E-OSA3L	5 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-CSA3L	5 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18E-OSA3L	8 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-CSA3L	8 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18E-OSA3L-Q12	5 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-CSA3L-Q12	5 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18E-OSA3L-Q12	8 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-CSA3L-Q12	8 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

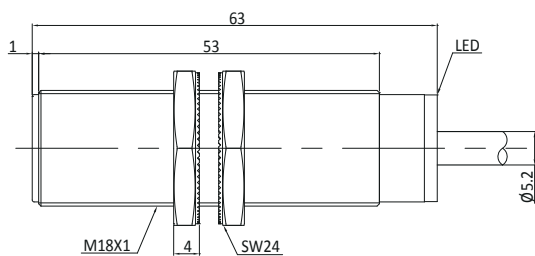


Fig. 2

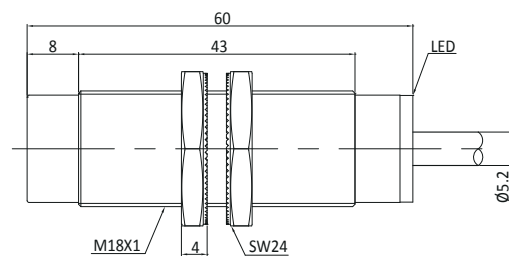


Fig. 3

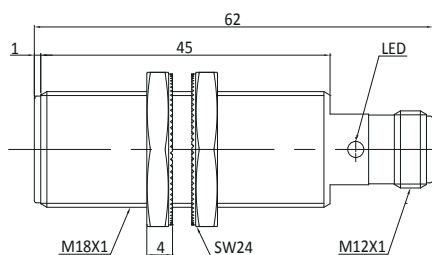
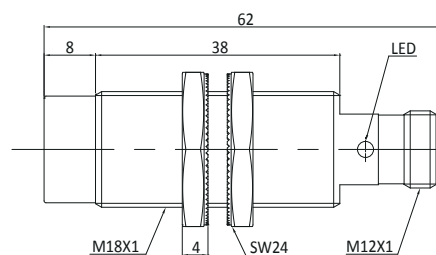


Fig. 4



# Inductive Sensor

## Metal Barrel-M18E (Extended)



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator, long size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>0</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18E-OA41L	5 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-M18E-CA41L	5 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18E-OA41L	8 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M18E-CA41L	8 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18E-OA41L-Q12	5 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18E-CA41L-Q12	5 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18E-OA41L-Q12	8 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18E-CA41L-Q12	8 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

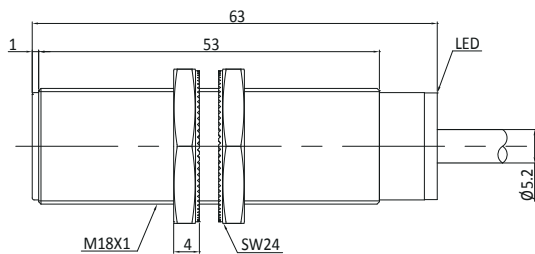


Fig. 2

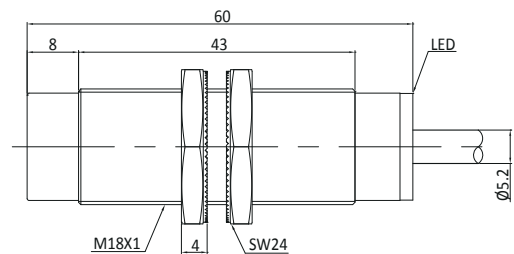


Fig. 3

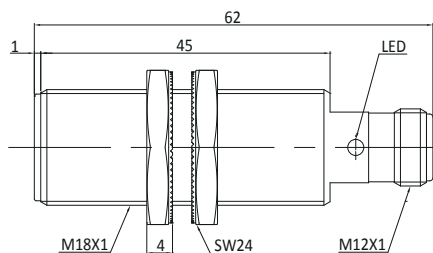
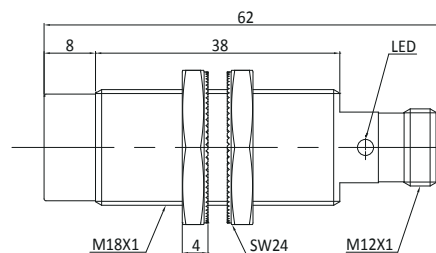


Fig. 4



## Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OD6L	10 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CD6L	10 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OD6L	15 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CD6L	15 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OD6L-Q12	10 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CD6L-Q12	10 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OD6L-Q12	15 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CD6L-Q12	15 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

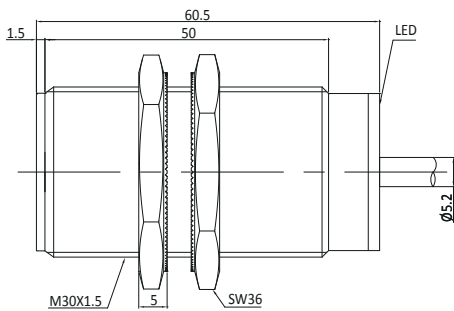


Fig. 2

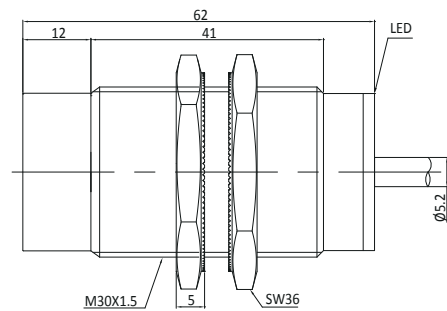


Fig. 3

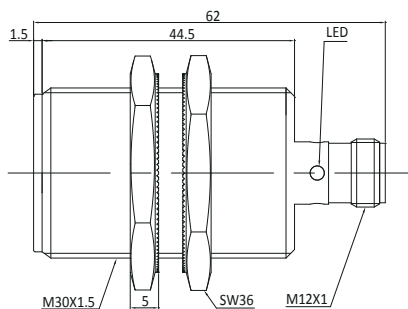
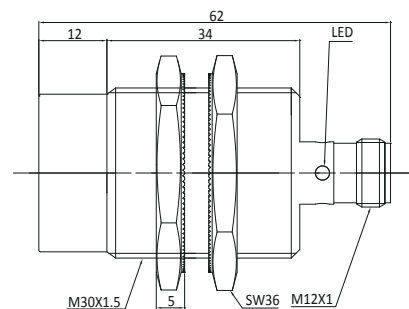


Fig. 4



# Inductive Sensor

## Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OP6L	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-ON6L	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CP6L	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CN6L	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OP6L	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-ON6L	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CP6L	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CN6L	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OP6L-Q12	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-ON6L-Q12	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CP6L-Q12	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CN6L-Q12	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OP6L-Q12	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-ON6L-Q12	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CP6L-Q12	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CN6L-Q12	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

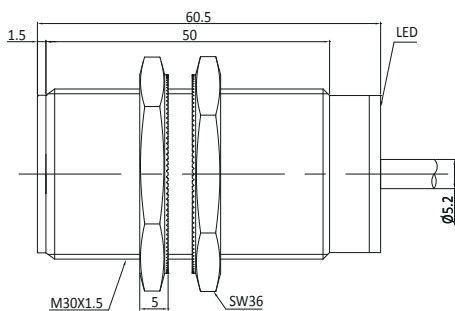


Fig. 2

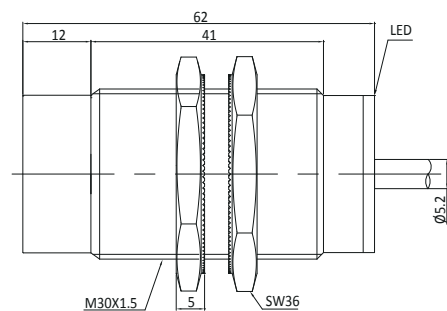


Fig. 3

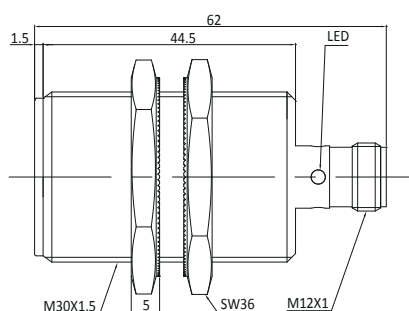
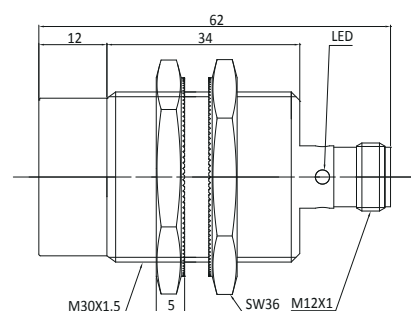


Fig. 4



## Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-BP6L	10 mm	Flush	PNP NO+NC	10...30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-BN6L	10 mm	Flush	NPN NO+NC	10...30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-BP6L	15 mm	Non-flush	PNP NO+NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-BN6L	15 mm	Non-flush	NPN NO+NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-BP6L-Q12	10 mm	Flush	PNP NO+NC	10...30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-BN6L-Q12	10 mm	Flush	NPN NO+NC	10...30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-BP6L-Q12	15 mm	Non-flush	PNP NO+NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-BN6L-Q12	15 mm	Non-flush	NPN NO+NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

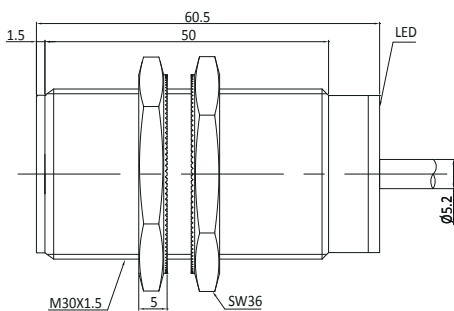


Fig. 2

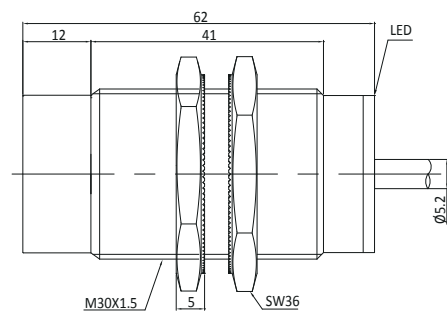


Fig. 3

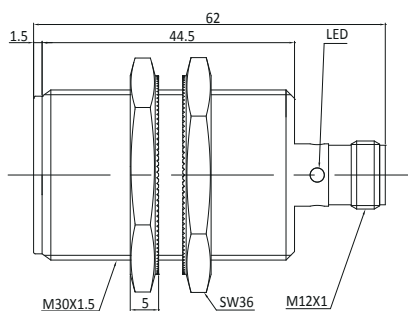
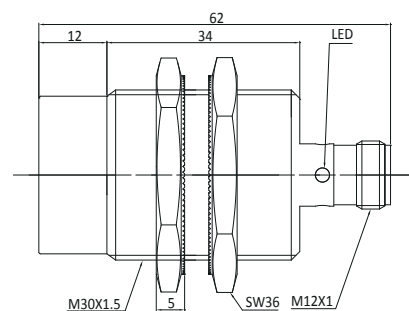


Fig. 4



# Inductive Sensor

## Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OSA3L	10 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CSA3L	10 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OSA3L	15 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CSA3L	15 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OSA3L-Q12	10 mm	Flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CSA3L-Q12	10 mm	Flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OSA3L-Q12	15 mm	Non-flush	AC NO	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CSA3L-Q12	15 mm	Non-flush	AC NC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

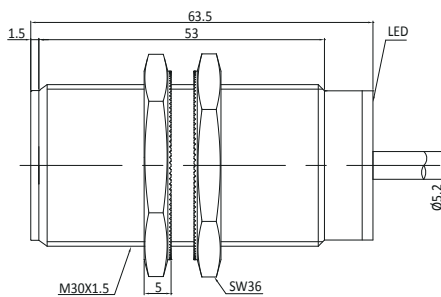


Fig. 2

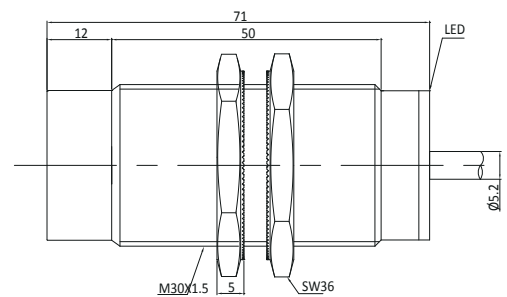


Fig. 3

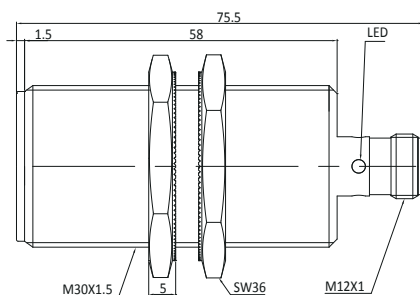
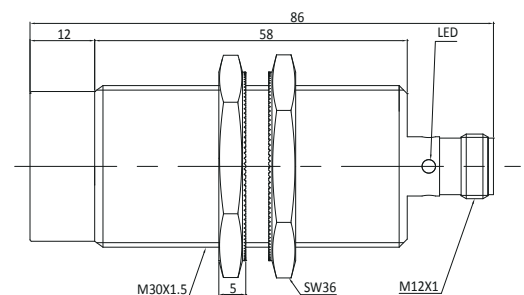


Fig. 4





## Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OA41L	10 mm	Flush	DC/AC NO	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CA41L	10 mm	Flush	DC/AC NC	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OA41L	15 mm	Non-flush	DC/AC NO	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CA41L	15 mm	Non-flush	DC/AC NC	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OA41L-Q12	10 mm	Flush	DC/AC NO	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CA41L-Q12	10 mm	Flush	DC/AC NC	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OA41L-Q12	15 mm	Non-flush	DC/AC NO	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CA41L-Q12	15 mm	Non-flush	DC/AC NC	20...250VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

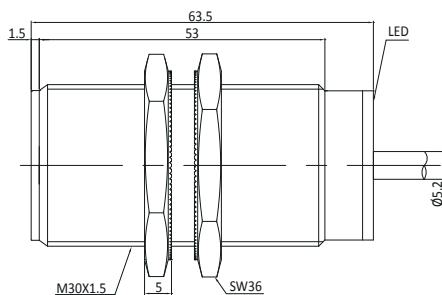


Fig. 2

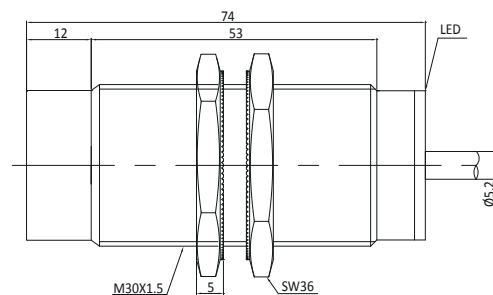


Fig. 3

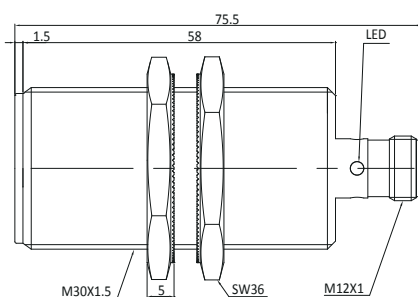
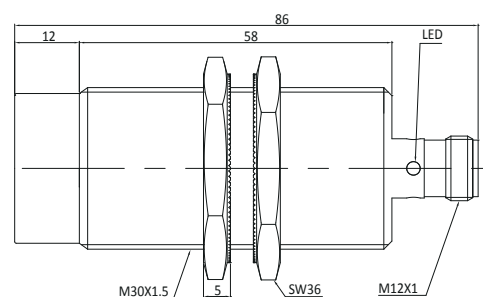


Fig. 4



# Inductive Sensor

## Metal Barrel-M30S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30S-OD6L	10 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-CD6L	10 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30S-OD6L	15 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-CD6L	15 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-OD6L-Q12	10 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-CD6L-Q12	10 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30S-OD6L-Q12	15 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-CD6L-Q12	15 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

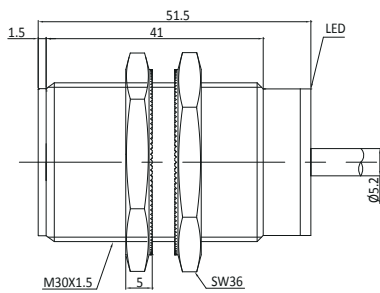


Fig. 2

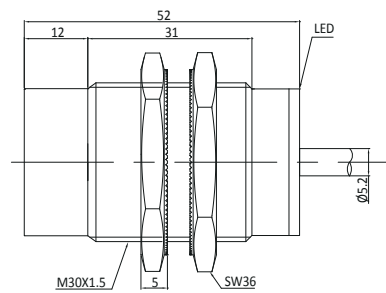


Fig. 3

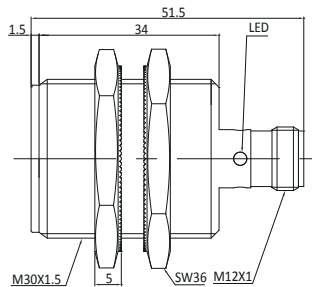
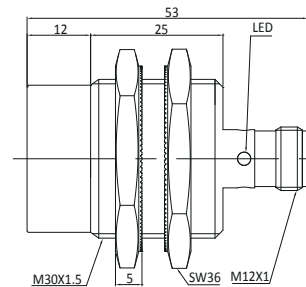


Fig. 4



## Metal Barrel-M30S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30S-OP6L	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-ON6L	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-CP6L	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-CN6L	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30S-OP6L	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-ON6L	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-CP6L	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-CN6L	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-OP6L-Q12	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-ON6L-Q12	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-CP6L-Q12	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-CN6L-Q12	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30S-OP6L-Q12	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-ON6L-Q12	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-CP6L-Q12	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-CN6L-Q12	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

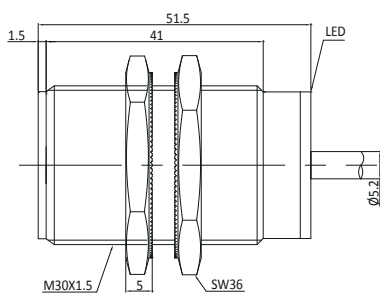


Fig. 2

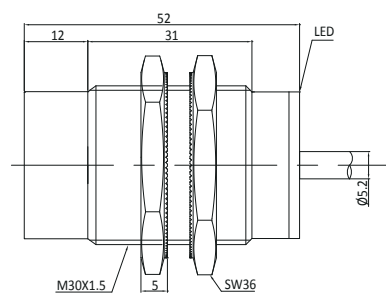


Fig. 3

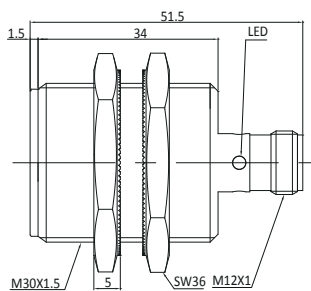
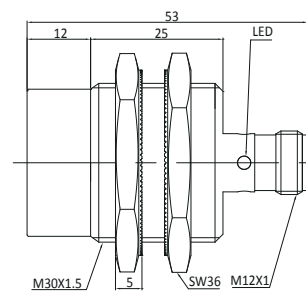


Fig. 4



# Inductive Sensor

## Metal Barrel-M30S (Short)



### Description:

Brass nickel-plated, threaded barrel, DC 4-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30S-BP6L	10 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-BN6L	10 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30S-BP6L	15 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-BN6L	15 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-BP6L-Q12	10 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-BN6L-Q12	10 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30S-BP6L-Q12	15 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-BN6L-Q12	15 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

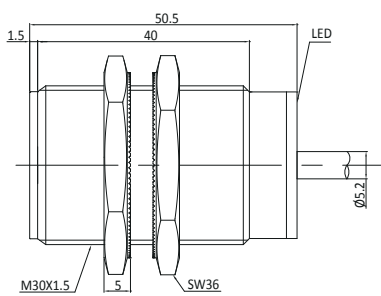


Fig. 2

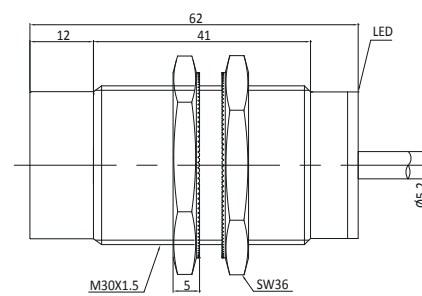


Fig. 3

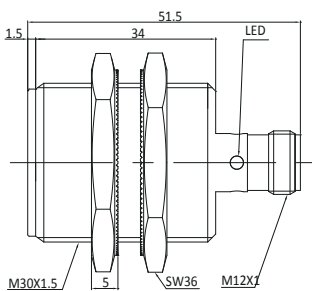
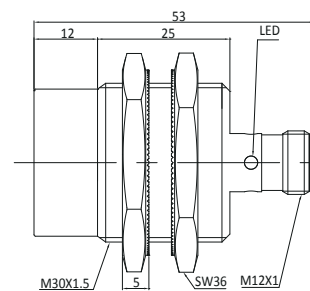


Fig. 4



## Metal Barrel-M30S (Short)



### Description:

Brass nickel-plated, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

02

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30S-OSA3L	10 mm	Flush	AC NO	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-CSA3L	10 mm	Flush	AC NC	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30S-OSA3L	15 mm	Non-flush	AC NO	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-CSA3L	15 mm	Non-flush	AC NC	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-OSA3L-Q12	10 mm	Flush	AC NO	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-CSA3L-Q12	10 mm	Flush	AC NC	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30S-OSA3L-Q12	15 mm	Non-flush	AC NO	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-CSA3L-Q12	15 mm	Non-flush	AC NC	20...250V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

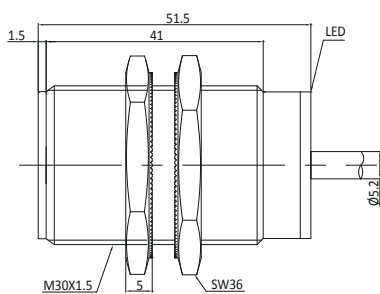


Fig. 2

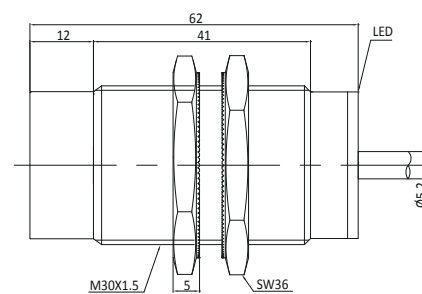


Fig. 3

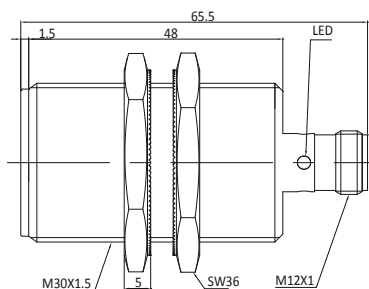
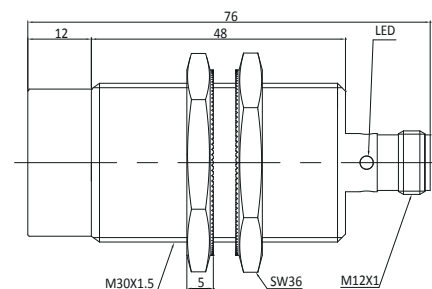


Fig. 4



## Inductive Sensor

### Metal Barrel-M30S (Short)



#### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, IP67 protection class, LED indicator, short size.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30S-OA41L	10 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-M30S-CA41L	10 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30S-OA41L	15 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni15-M30S-CA41L	15 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-OA41L-Q12	10 mm	Flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30S-CA41L-Q12	10 mm	Flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30S-OA41L-Q12	15 mm	Non-flush	DC/AC NO	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30S-CA41L-Q12	15 mm	Non-flush	DC/AC NC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

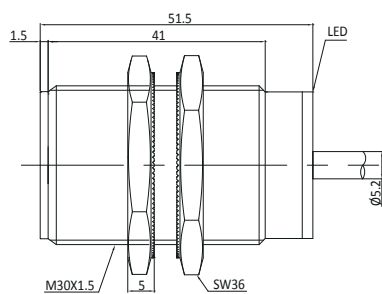


Fig. 2

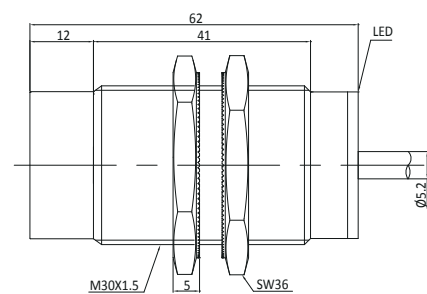


Fig. 3

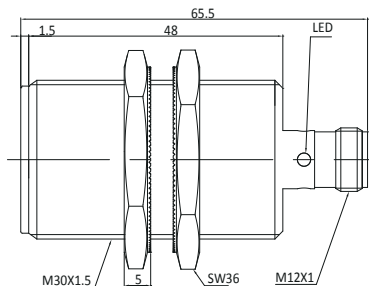
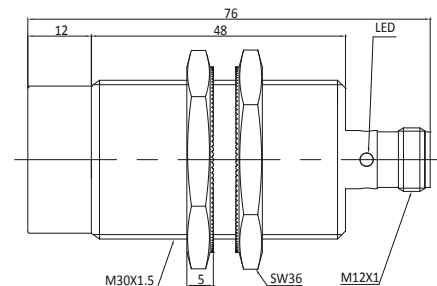


Fig. 4





# Inductive Sensor

## Long-Sensing Metal Barrel-M8



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni4-M08-OP6L	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-ON6L	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-CP6L	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-CN6L	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-OP6L-Q8	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-ON6L-Q8	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-CP6L-Q8	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-CN6L-Q8	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-OP6L-Q12	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M08-ON6L-Q12	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M08-CP6L-Q12	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M08-CN6L-Q12	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3

### Dimensions:

Fig. 1

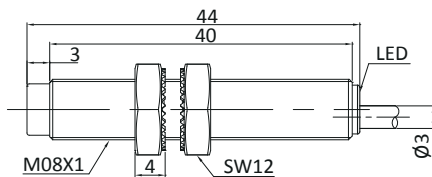


Fig. 2

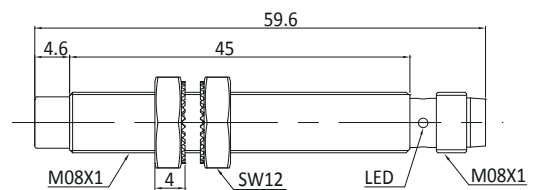
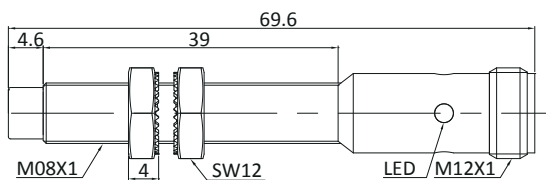


Fig. 3





## Long-Sensing Metal Barrel-M8



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni4-M08-OD6L	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	600 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-CD6L	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	600 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M08-OD6L-Q8	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-CD6L-Q8	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	750 Hz	-25 ... 70 °C	M8 Connector	Fig. 2
Ni4-M08-OD6L-Q12	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M08-CD6L-Q12	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	750 Hz	-25 ... 70 °C	M12 Connector	Fig. 3

### Dimensions:

Fig. 1

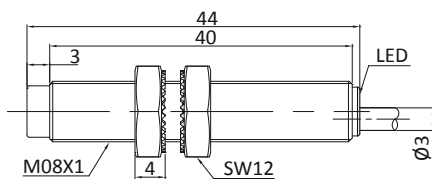


Fig. 2

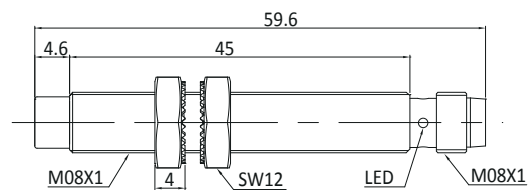
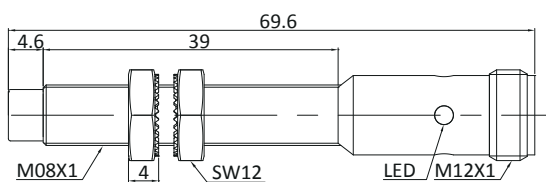


Fig. 3



# Inductive Sensor

## Long-Sensing Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-M12-OD6L	4 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	650 Hz	-25 ... 70 °C	2m cable	Fig.1
Fi4-M12-CD6L	4 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	650 Hz	-25 ... 70 °C	2m cable	Fig.1
Ni8-M12-OD6L	8 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig.2
Ni8-M12-CD6L	8 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig.2
Fi4-M12-OD6L-Q12	4 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Fi4-M12-CD6L-Q12	4 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Ni8-M12-OD6L-Q12	8 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig.4
Ni8-M12-CD6L-Q12	8 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig.4

### Dimensions:

Fig. 1

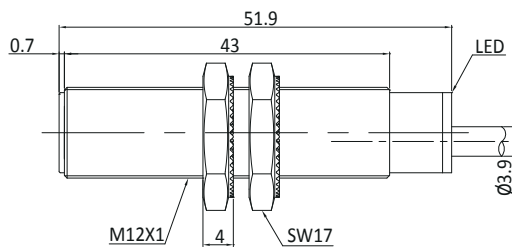


Fig. 2

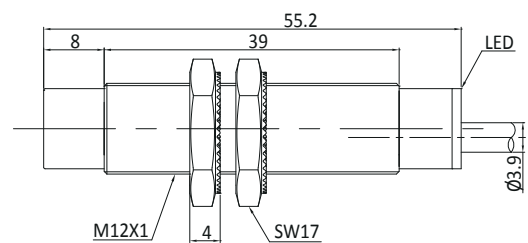


Fig. 3

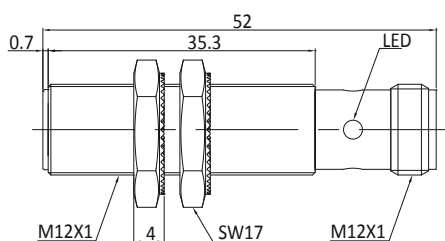
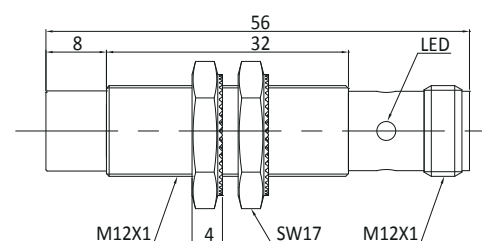


Fig. 4



## Long-Sensing Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-M12-OP6L	4 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-ON6L	4 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-CP6L	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-CN6L	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M12-OP6L	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-ON6L	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-CP6L	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-CN6L	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi4-M12-OP6L-Q12	4 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-ON6L-Q12	4 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-CP6L-Q12	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-CN6L-Q12	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M12-OP6L-Q12	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-ON6L-Q12	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-CP6L-Q12	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-CN6L-Q12	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

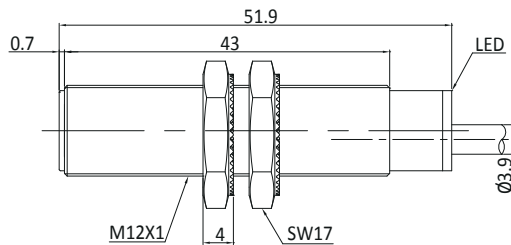


Fig. 2

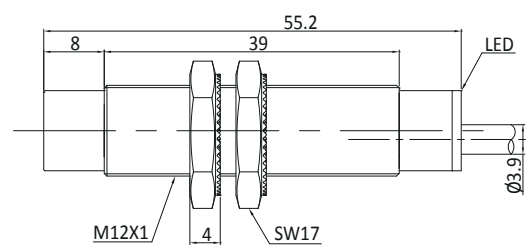


Fig. 3

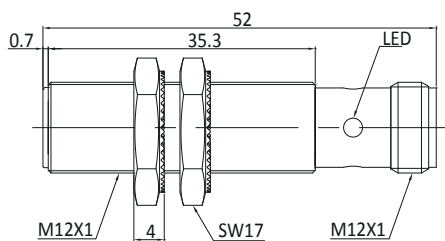
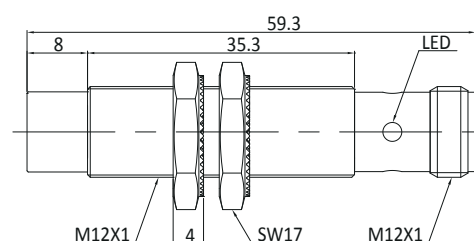


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 4-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-M12-BP6L	4 mm	Flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-BN6L	4 mm	Flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M12-BP6L	8 mm	Non-flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-BN6L	8 mm	Non-flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi4-M12-BP6L-Q12	4 mm	Flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-BN6L-Q12	4 mm	Flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M12-BP6L-Q12	8 mm	Non-flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-BN6L-Q12	8 mm	Non-flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

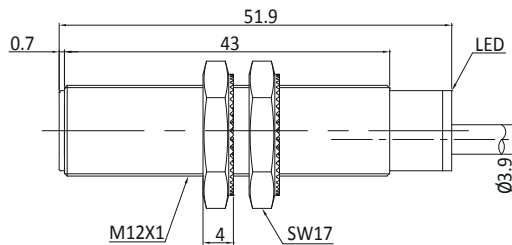


Fig. 2

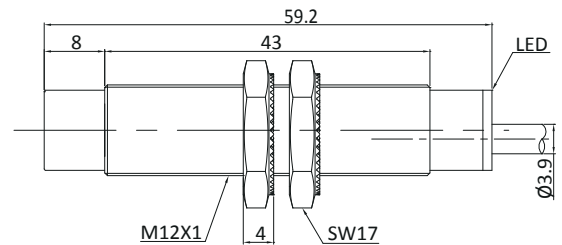


Fig. 3

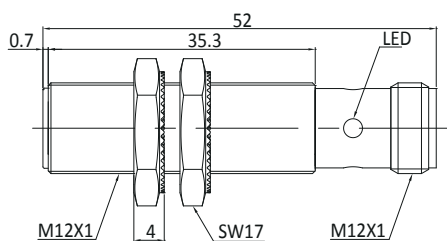
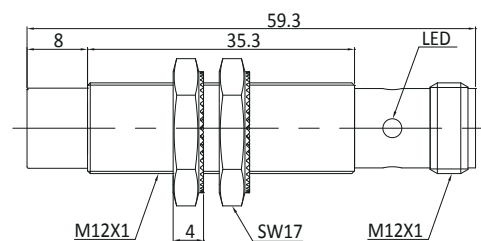


Fig. 4



## Long-Sensing Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

03

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-M12-OSA3L	4mm	Flush	NO AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-CSA3L	4mm	Flush	NC AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M12-OSA3L	8mm	Non-flush	NO AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-CSA3L	8mm	Non-flush	NC AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi4-M12-OSA3L-Q12	4mm	Flush	NO AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-CSA3L-Q12	4mm	Flush	NC AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M12-OSA3L-Q12	8mm	Non-flush	NO AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-CSA3L-Q12	8mm	Non-flush	NC AC	20 ... 250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

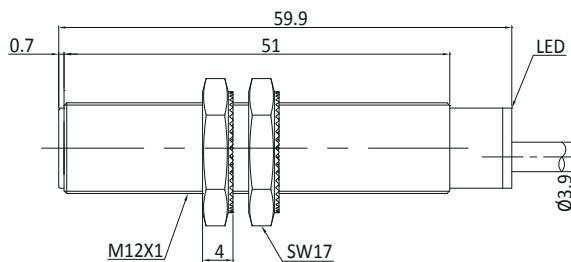


Fig. 2

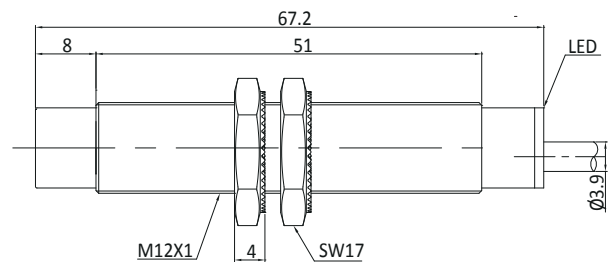


Fig. 3

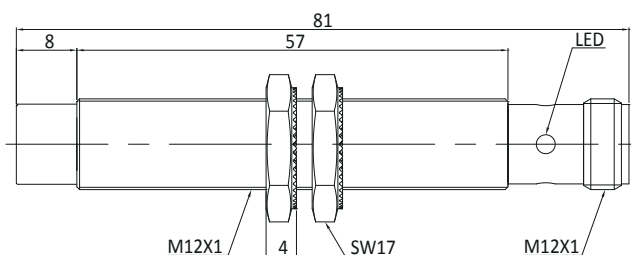
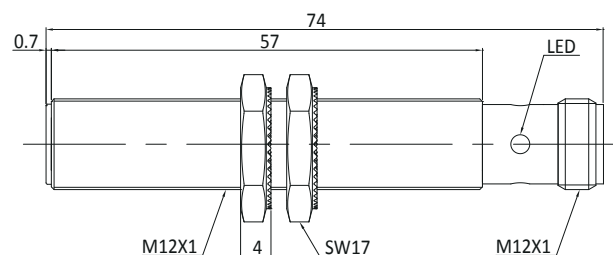


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC/DC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-M12-OA41L	4 mm	Flush	NO DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi4-M12-CA41L	4 mm	Flush	NC DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 650 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M12-OA41L	8 mm	Non-flush	NO DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni8-M12-CA41L	8 mm	Non-flush	NC DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi4-M12-OA41L-Q12	4 mm	Flush	NO DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi4-M12-CA41L-Q12	4 mm	Flush	NC DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 650 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M12-OA41L-Q12	8 mm	Non-flush	NO DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni8-M12-CA41L-Q12	8 mm	Non-flush	NC DC/AC	20...250 VAC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 / 500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

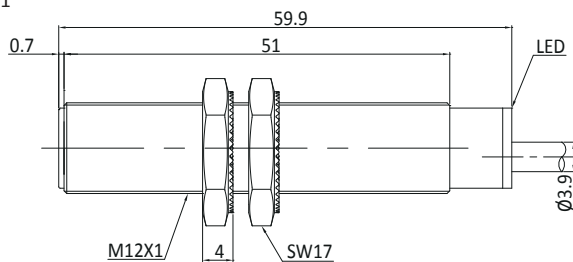


Fig. 2

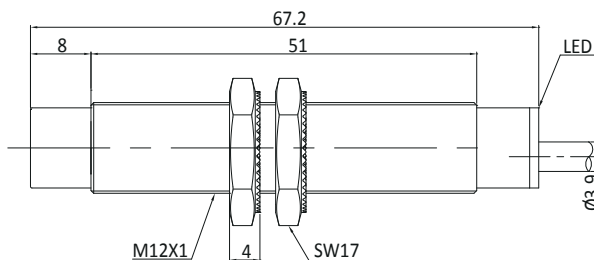


Fig. 3

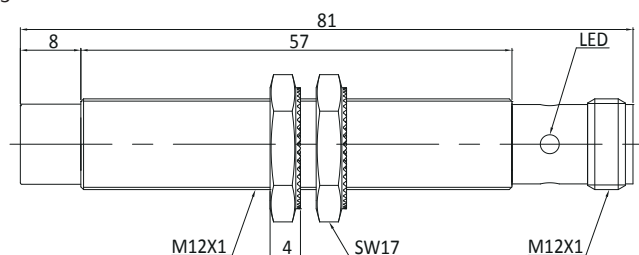
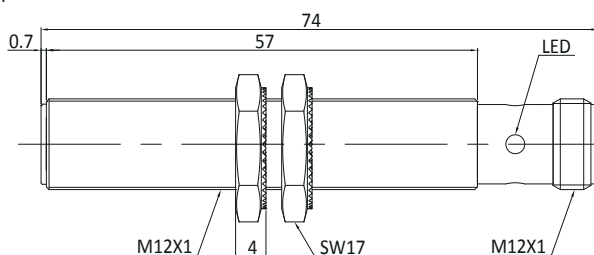


Fig. 4



## Long-Sensing Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

03

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-M18-OD6L	8 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-CD6L	8 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni12-M18-OD6L	12 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-CD6L	12 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi8-M18-OD6L-Q12	8 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-CD6L-Q12	8 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni12-M18-OD6L-Q12	12 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-CD6L-Q12	12 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

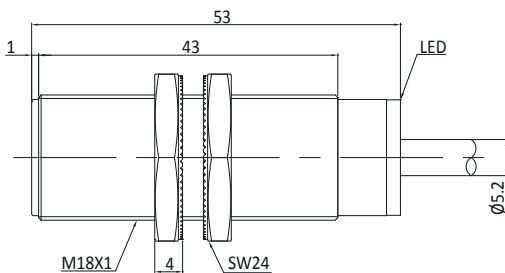


Fig. 2

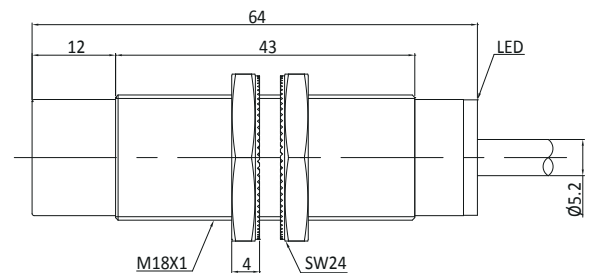


Fig. 3

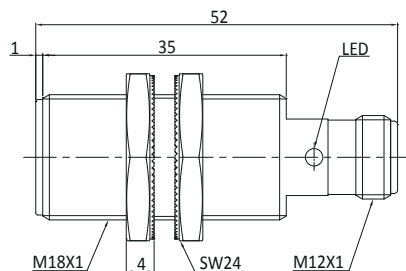
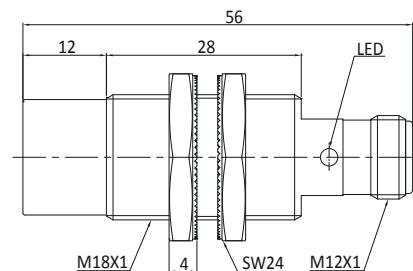


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-M18-OP6L	8 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-ON6L	8 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-CP6L	8 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-CN6L	8 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni12-M18-OP6L	12 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-ON6L	12 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-CP6L	12 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-CN6L	12 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi8-M18-OP6L-Q12	8 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-ON6L-Q12	8 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-CP6L-Q12	8 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-CN6L-Q12	8 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni12-M18-OP6L-Q12	12 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-ON6L-Q12	12 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-CP6L-Q12	12 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-CN6L-Q12	12 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

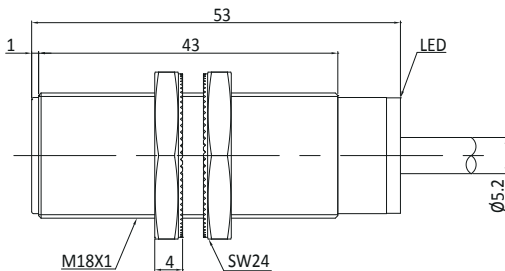


Fig. 2

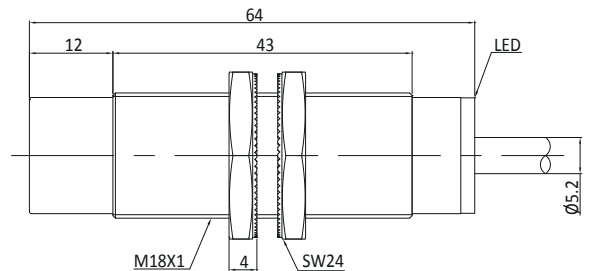


Fig. 3

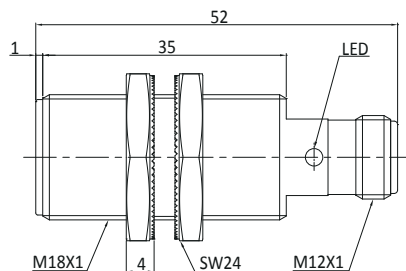
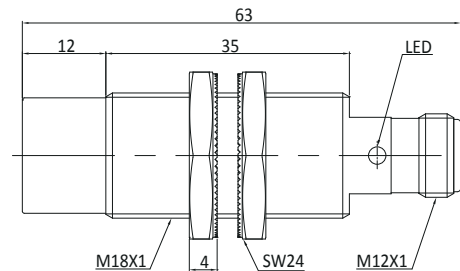


Fig. 4





## Long-Sensing Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

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### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-M18-BP6L	8 mm	Flush	NO+NC PNP	10...30 V DC	$\leq 200$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-BN6L	8 mm	Flush	NO+NC NPN	10...30 V DC	$\leq 200$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni12-M18-BP6L	12 mm	Non-flush	NO+NC PNP	10...30 V DC	$\leq 200$ mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-BN6L	12 mm	Non-flush	NO+NC NPN	10...30 V DC	$\leq 200$ mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi8-M18-BP6L-Q12	8 mm	Flush	NO+NC PNP	10...30 V DC	$\leq 200$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-BN6L-Q12	8 mm	Flush	NO+NC NPN	10...30 V DC	$\leq 200$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni12-M18-BP6L-Q12	12 mm	Non-flush	NO+NC PNP	10...30 V DC	$\leq 200$ mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-BN6L-Q12	12 mm	Non-flush	NO+NC NPN	10...30 V DC	$\leq 200$ mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

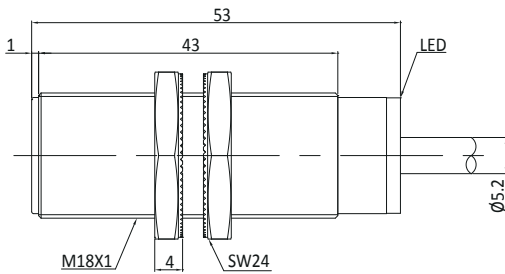


Fig. 2

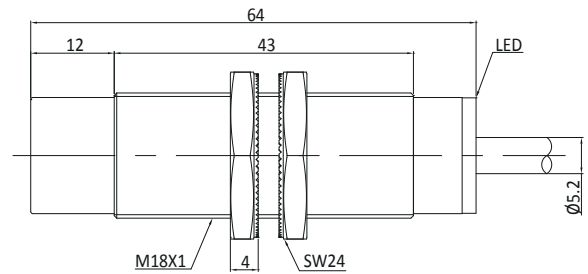


Fig. 3

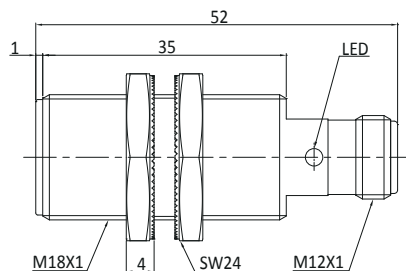
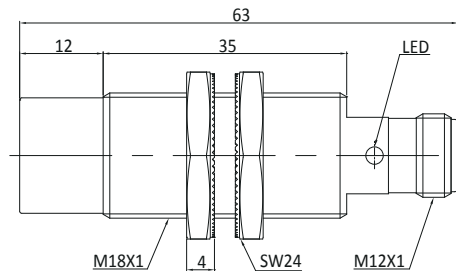


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-M18-OSA3L	8 mm	Flush	NO AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-CSA3L	8 mm	Flush	NC AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni12-M18-OSA3L	12 mm	Non-flush	NO AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-CSA3L	12 mm	Non-flush	NC AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi8-M18-OSA3L-Q12	8 mm	Flush	NO AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-CSA3L-Q12	8 mm	Flush	NC AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni12-M18-OSA3L-Q12	12 mm	Non-flush	NO AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-CSA3L-Q12	12 mm	Non-flush	NC AC	20...250 V AC	$\leq 200$ mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

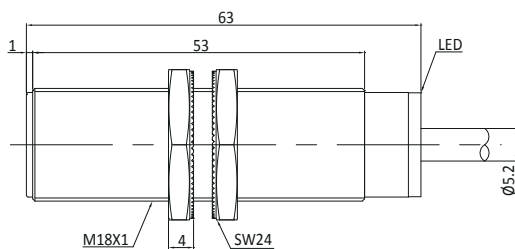


Fig. 2

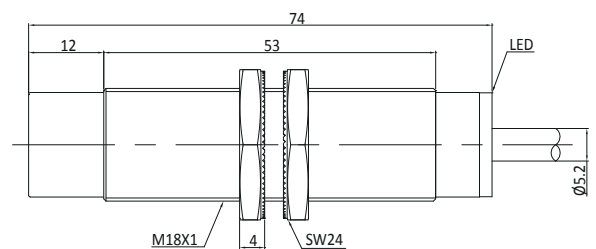


Fig. 3

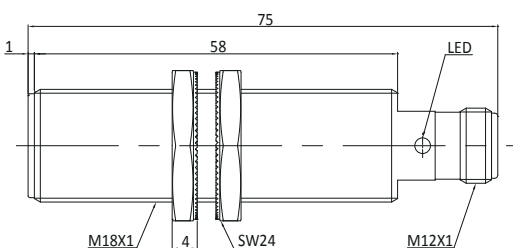
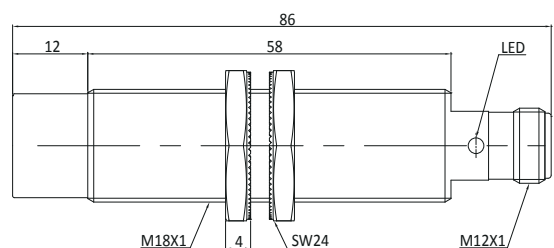


Fig. 4



## Long-Sensing Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

03

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-M18-OA41L	8 mm	Flush	NO DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi8-M18-CA41L	8 mm	Flush	NC DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni12-M18-OA41L	12 mm	Non-flush	NO DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni12-M18-CA41L	12 mm	Non-flush	NC DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 350 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi8-M18-OA41L-Q12	8 mm	Flush	NO DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi8-M18-CA41L-Q12	8 mm	Flush	NC DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 500 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni12-M18-OA41L-Q12	12 mm	Non-flush	NO DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni12-M18-CA41L-Q12	12 mm	Non-flush	NC DC/AC	20...250 VAC/DC	DC≤100mA/AC≤200mA	20 / 350 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

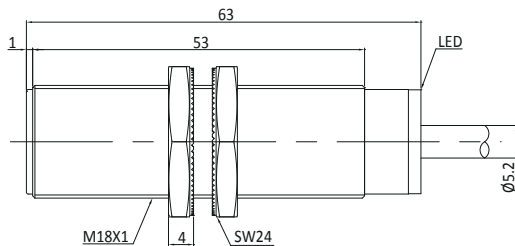


Fig. 2

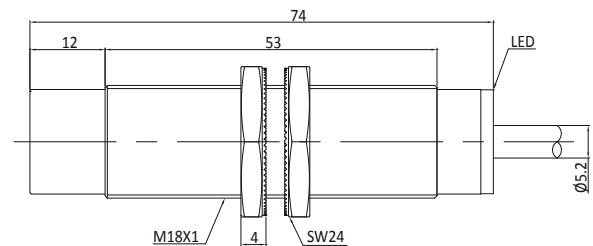


Fig. 3

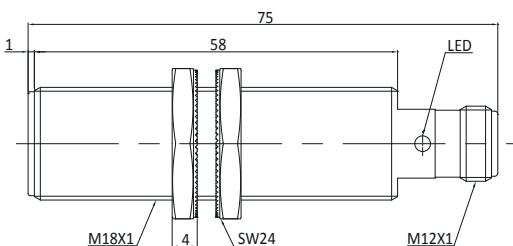
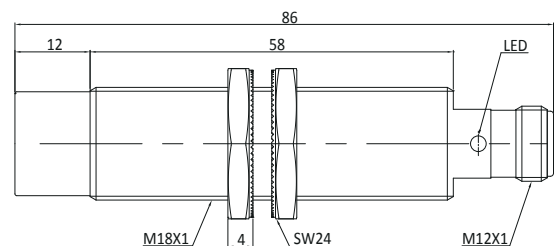


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-M30-OD6L	15 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi15-M30-CD6L	15 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni22-M30-OD6L	22 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni22-M30-CD6L	22 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi15-M30-OD6L-Q12	15 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi15-M30-CD6L-Q12	15 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni22-M30-OD6L-Q12	22 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni22-M30-CD6L-Q12	22 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

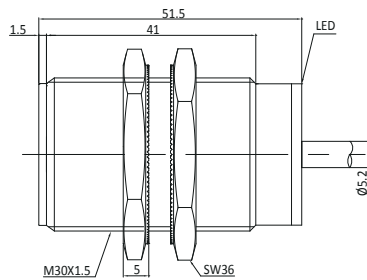


Fig. 2

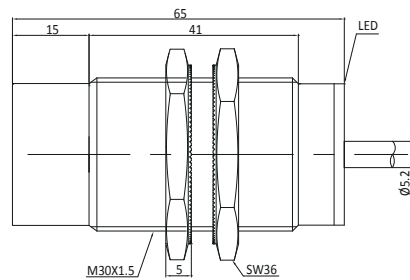


Fig. 3

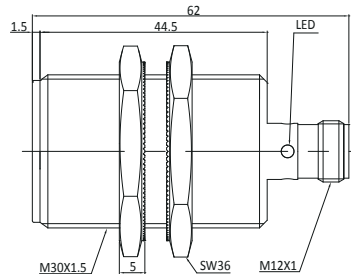
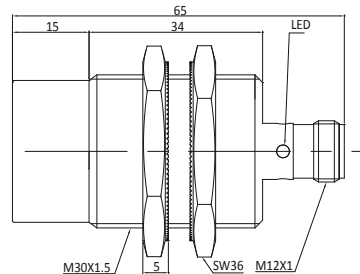


Fig. 4



## Long-Sensing Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

03

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-M30-OP6L	15 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Fi15-M30-ON6L	15 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Fi15-M30-CP6L	15 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Fi15-M30-CN6L	15 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Ni22-M30-OP6L	22 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Ni22-M30-ON6L	22 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Ni22-M30-CP6L	22 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Ni22-M30-CN6L	22 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Fi15-M30-OP6L-Q12	15 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Fi15-M30-ON6L-Q12	15 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Fi15-M30-CP6L-Q12	15 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Fi15-M30-CN6L-Q12	15 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Ni22-M30-OP6L-Q12	22 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4
Ni22-M30-ON6L-Q12	22 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4
Ni22-M30-CP6L-Q12	22 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4
Ni22-M30-CN6L-Q12	22 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4

### Dimensions:

Fig. 1

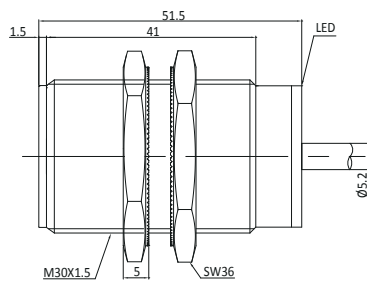


Fig. 2

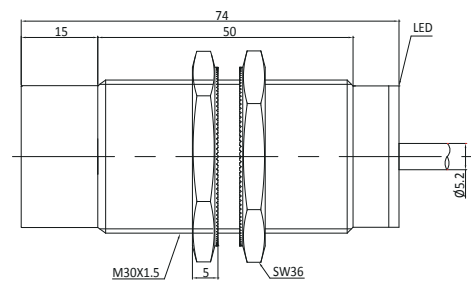


Fig. 3

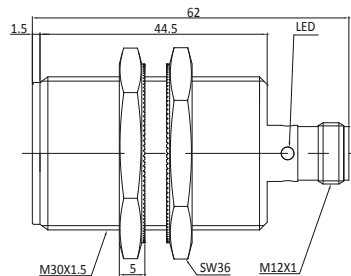
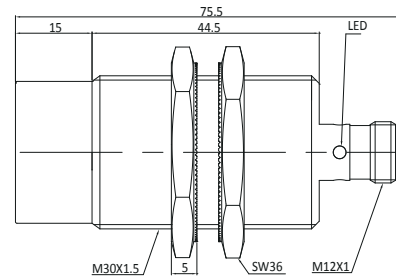


Fig. 4



# Inductive Sensor

## Long-Sensing Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 4-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-M30-BP6L	15 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Fi15-M30-BN6L	15 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	2m cable	Fig.1
Ni22-M30-BP6L	22 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Ni22-M30-BN6L	22 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig.2
Fi15-M30-BP6L-Q12	15 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Fi15-M30-BN6L-Q12	15 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	350 Hz	-25 ... 70 °C	M12 Connector	Fig.3
Ni22-M30-BP6L-Q12	22 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4
Ni22-M30-BN6L-Q12	22 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig.4

### Dimensions:

Fig. 1

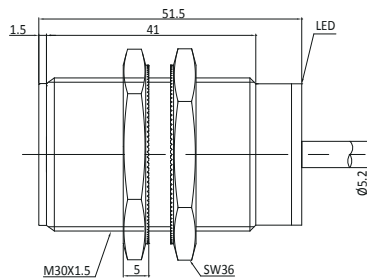


Fig. 2

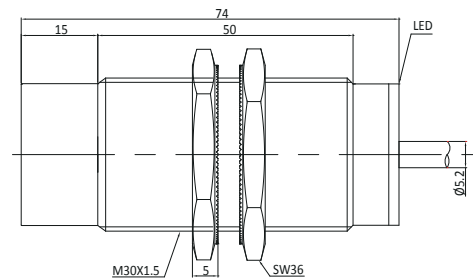


Fig. 3

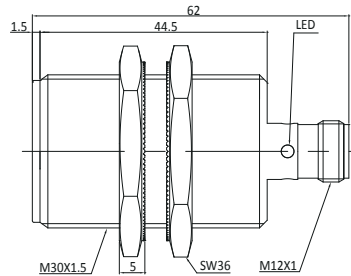
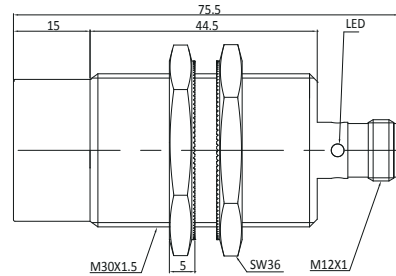


Fig. 4



## Long-Sensing Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

03

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-M30-OSA3L	15mm	Flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi15-M30-CSA3L	15mm	Flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni22-M30-OSA3L	22mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni22-M30-CSA3L	22mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi15-M30-OSA3L-Q12	15mm	Flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Fi15-M30-CSA3L-Q12	15mm	Flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
Ni22-M30-OSA3L-Q12	22mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni22-M30-CSA3L-Q12	22mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

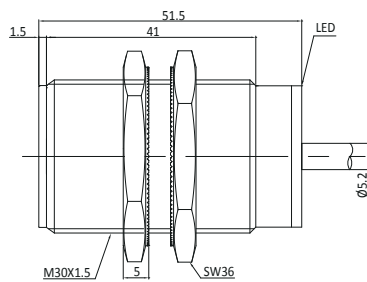


Fig. 2

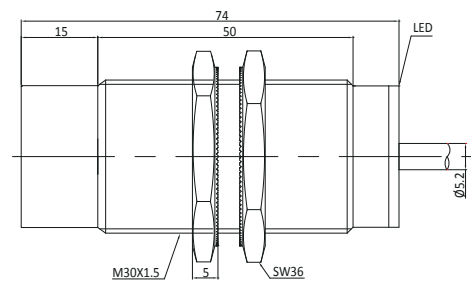


Fig. 3

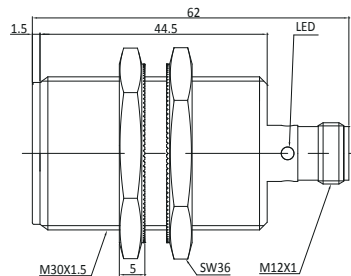
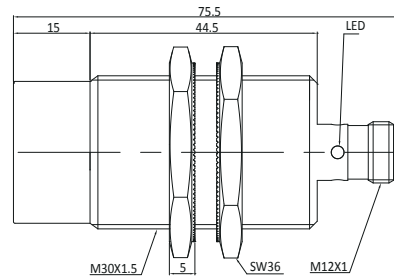


Fig. 4



## << Inductive Sensor

### Long-Sensing Metal Barrel-M30



#### Description:

Brass nickel-plated, threaded barrel, extended operating distance, AC/DC  
2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-M30-OA41L	15 mm	Flush	NO DC/AC	20...250 VAC / DC	DC≤100mA/AC≤200mA	20 / 350Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi15-M30-CA41L	15 mm	Flush	NC DC/AC	20...250 VAC / DC	DC≤100mA/AC≤200mA	20 / 350Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni22-M30-OA41L	22 mm	Non-flush	NO DC/AC	20...250 VAC / DC	DC≤100mA/AC≤200mA	20 / 200Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni22-M30-CA41L	22 mm	Non-flush	NC DC/AC	20...250 VAC / DC	DC≤100mA/AC≤200mA	20 / 200Hz	-25 ... 70 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

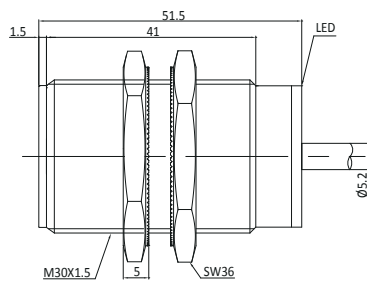
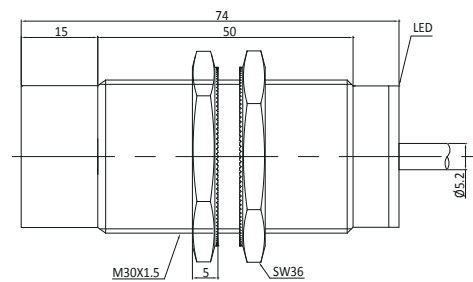


Fig. 2

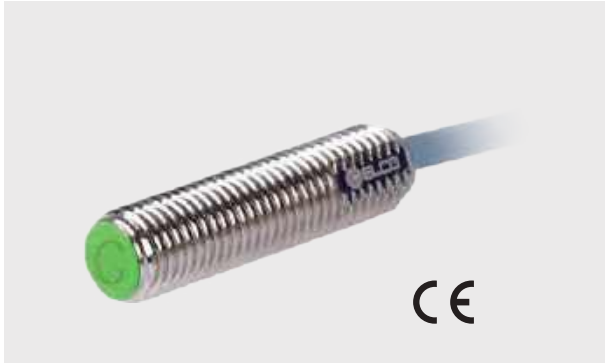






# << Inductive Sensor

## Metal Barrel-G-series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-G08-OD6L	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi2-G08-CD6L	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-30 ... 85 °C	2m cable	Fig. 1
Ni4-G08-OD6L	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni4-G08-CD6L	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

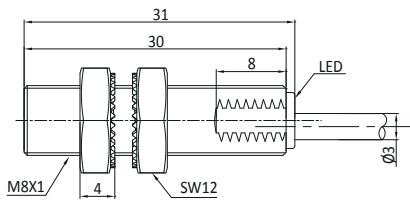
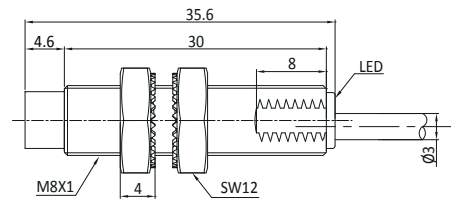


Fig. 2



## Metal Barrel-G-series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-G08-OD6L-Q8	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1200 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Fi2-G08-CD6L-Q8	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1200 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Ni4-G08-OD6L-Q8	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2
Ni4-G08-CD6L-Q8	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2

04

### Dimensions:

Fig. 1

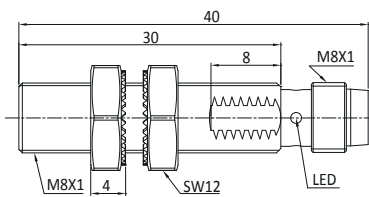
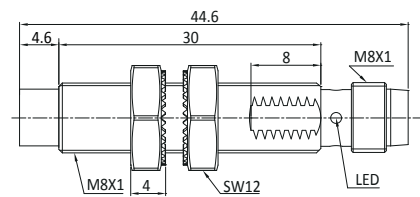
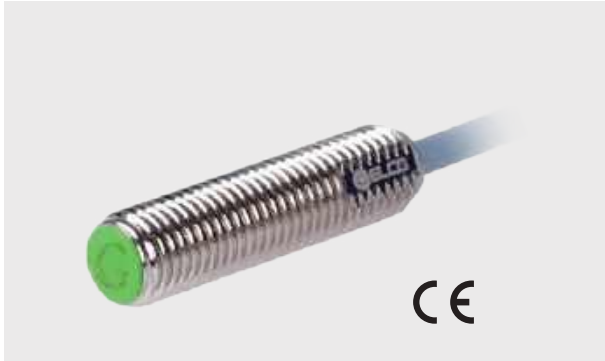


Fig. 2



# Inductive Sensor

## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-G08-OP6L	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi2-G08-CP6L	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi2-G08-ON6L	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi2-G08-CN6L	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	2m cable	Fig. 1
Ni4-G08-OP6L	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni4-G08-CP6L	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni4-G08-ON6L	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni4-G08-CN6L	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

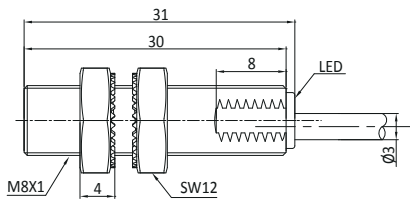
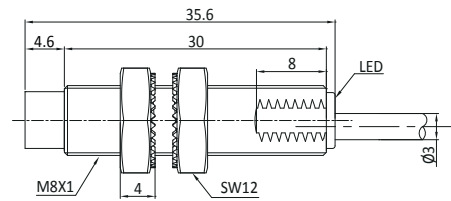


Fig. 2



## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-G08-OP6L-Q8	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Fi2-G08-CP6L-Q8	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Fi2-G08-ON6L-Q8	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Fi2-G08-CN6L-Q8	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1400 Hz	-30 ... 85 °C	M8 Connector	Fig. 1
Ni4-G08-OP6L-Q8	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2
Ni4-G08-CP6L-Q8	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2
Ni4-G08-ON6L-Q8	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2
Ni4-G08-CN6L-Q8	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	750 Hz	-30 ... 85 °C	M8 Connector	Fig. 2

04

### Dimensions:

Fig. 1

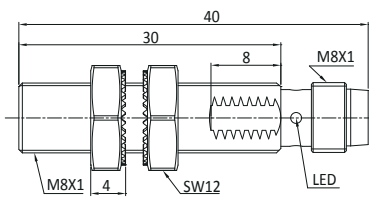
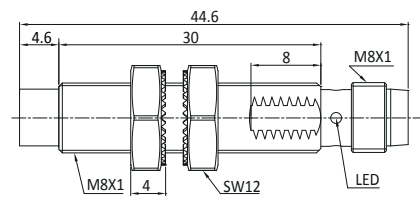


Fig. 2



# Inductive Sensor

## Metal Barrel-G-series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-G12-OD6L	4 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi4-G12-CD6L	4 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi4-G12-OA41L	4 mm	Flush	AC/DC NO	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/650 Hz	-30 ... 85 °C	2m cable	Fig. 2
Fi4-G12-CA41L	4 mm	Flush	AC/DC NC	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/650 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni6-G12-OD6L	6 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni6-G12-CD6L	6 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni8-G12-OD6L	8 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni8-G12-CD6L	8 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni6-G12-OA41L	6 mm	Non-flush	AC/DC NO	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/600 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni6-G12-CA41L	6 mm	Non-flush	AC/DC NC	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/600 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni8-G12-OA41L	8 mm	Non-flush	AC/DC NO	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni8-G12-CA41L	8 mm	Non-flush	AC/DC NC	20...250 VAC / DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	2m cable	Fig. 4

### Dimensions:

Fig. 1

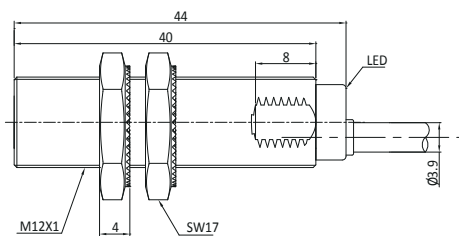


Fig. 2

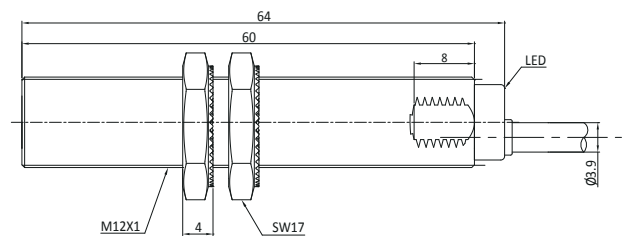


Fig. 3

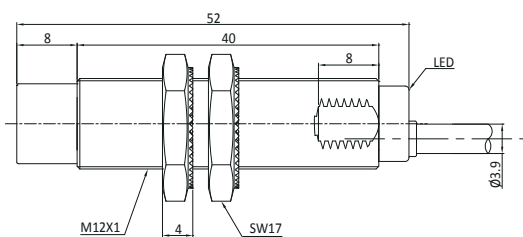
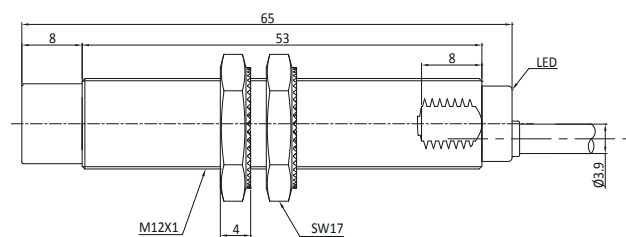


Fig. 4



## Metal Barrel-G-series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-G12-OD6L-Q12	4mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi4-G12-CD6L-Q12	4mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi4-G12-OA41L-Q12	4mm	Flush	AC/DC NO	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/650 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Fi4-G12-CA41L-Q12	4mm	Flush	AC/DC NC	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/650 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni6-G12-OD6L-Q12	6mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni6-G12-CD6L-Q12	6mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni8-G12-OD6L-Q12	8mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni8-G12-CD6L-Q12	8mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni6-G12-OA41L-Q12	6mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/600 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni6-G12-CA41L-Q12	6mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/600 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni8-G12-OA41L-Q12	8mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni8-G12-CA41L-Q12	8mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

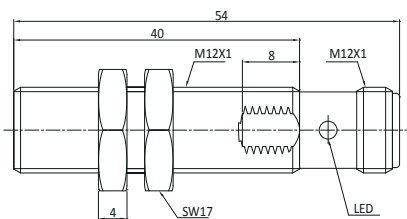


Fig. 2

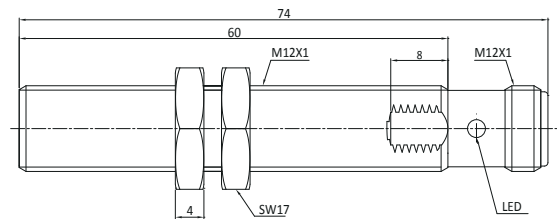


Fig. 3

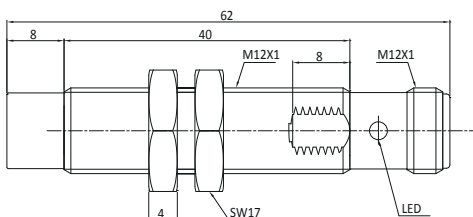
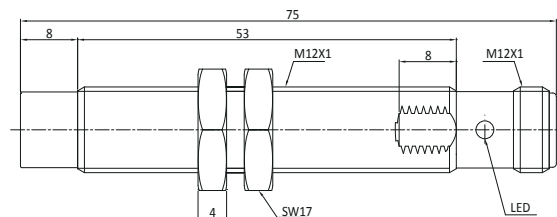


Fig. 4



# Inductive Sensor

## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-G12-OP6L	4 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi4-G12-CP6L	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi4-G12-ON6L	4 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi4-G12-CN6L	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	2m cable	Fig. 1
Ni6-G12-OP6L	6 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni6-G12-CP6L	6 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni6-G12-ON6L	6 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni6-G12-CN6L	6 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni8-G12-OP6L	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni8-G12-CP6L	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni8-G12-ON6L	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni8-G12-CN6L	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

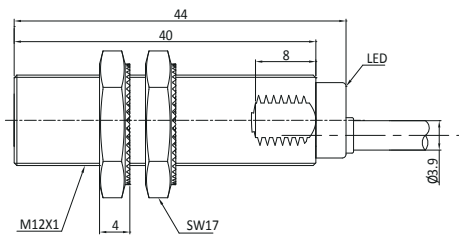
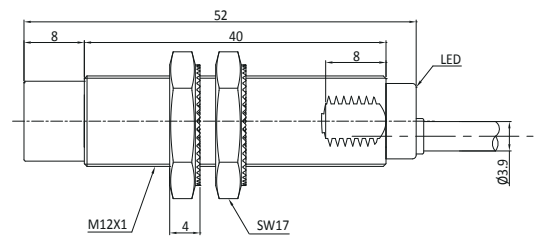


Fig. 2





## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>e</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-G12-OP6L-Q12	4 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi4-G12-CP6L-Q12	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi4-G12-ON6L-Q12	4 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi4-G12-CN6L-Q12	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	650 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Ni6-G12-OP6L-Q12	6 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni6-G12-CP6L-Q12	6 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni6-G12-ON6L-Q12	6 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni6-G12-CN6L-Q12	6 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	600 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni8-G12-OP6L-Q12	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni8-G12-CP6L-Q12	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni8-G12-ON6L-Q12	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni8-G12-CN6L-Q12	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

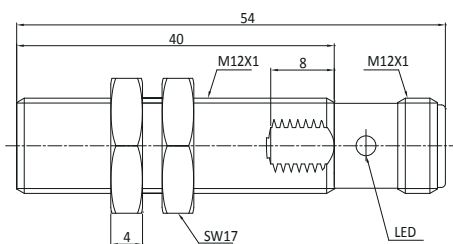
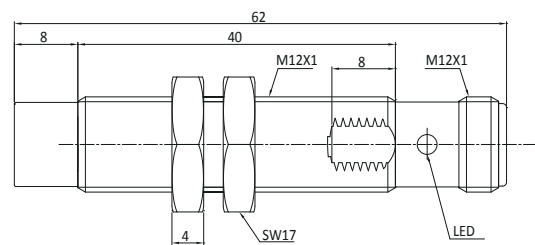


Fig. 2



# Inductive Sensor

## Metal Barrel-G-series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-G18-OD6L	8 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	2m cable	Fig.1
Fi8-G18-CD6L	8 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	500 Hz	-30 ... 85 °C	2m cable	Fig.1
Fi8-G18-OA41L	8 mm	Flush	AC/DC NO	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	2m cable	Fig.2
Fi8-G18-CA41L	8 mm	Flush	AC /DC NC	20...250 V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/500 Hz	-30 ... 85 °C	2m cable	Fig.2
Ni12-G18-OD6L	12 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	350 Hz	-30 ... 85 °C	2m cable	Fig.3
Ni12-G18-CD6L	12 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	350 Hz	-30 ... 85 °C	2m cable	Fig.3
Ni16-G18-OD6L	16 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	250 Hz	-30 ... 85 °C	2m cable	Fig.3
Ni16-G18-CD6L	16 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	250 Hz	-30 ... 85 °C	2m cable	Fig.3
Ni12-G18-OA41L	12 mm	Non-flush	AC/DC NO	20...250V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/350 Hz	-30 ... 85 °C	2m cable	Fig.4
Ni12-G18-CA41L	12 mm	Non-flush	AC /DC NC	20...250V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/350 Hz	-30 ... 85 °C	2m cable	Fig.4
Ni16-G18-OA41L	16 mm	Non-flush	AC/DC NO	20...250V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/250 Hz	-30 ... 85 °C	2m cable	Fig.4
Ni16-G18-CA41L	16 mm	Non-flush	AC /DC NC	20...250V AC/DC	DC $\leq 100$ mA / AC $\leq 200$ mA	20/250 Hz	-30 ... 85 °C	2m cable	Fig.4

### Dimensions:

Fig. 1

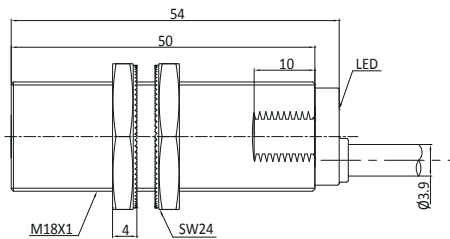


Fig. 2

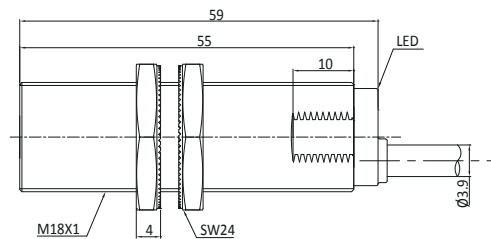


Fig. 3

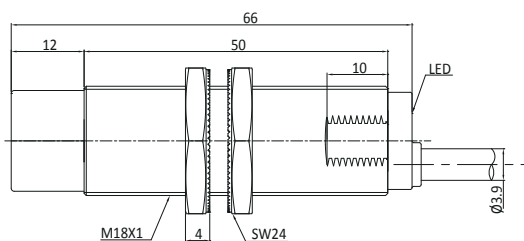
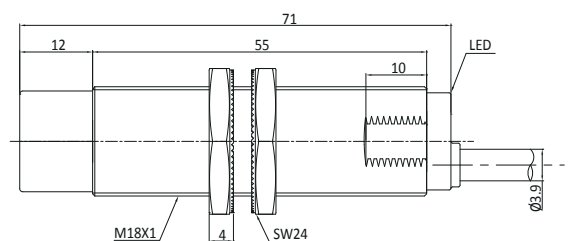


Fig. 4



## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-G18-OD6L-Q12	8 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi8-G18-CD6L-Q12	8 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi8-G18-OA41L-Q12	8 mm	Flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Fi8-G18-CA41L-Q12	8 mm	Flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/500 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni12-G18-OD6L-Q12	12 mm	Non-flush	DC NO	10...30 V DC	≤ 100mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni12-G18-CD6L-Q12	12 mm	Non-flush	DC NC	10...30 V DC	≤ 100mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni16-G18-OD6L-Q12	16 mm	Non-flush	DC NO	10...30 V DC	≤ 100mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni16-G18-CD6L-Q12	16 mm	Non-flush	DC NC	10...30 V DC	≤ 100mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni12-G18-OA41L-Q12	12 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/350 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni12-G18-CA41L-Q12	12 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/350 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni16-G18-OA41L-Q12	16 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/250 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni16-G18-CA41L-Q12	16 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/250 Hz	-30 ... 85 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

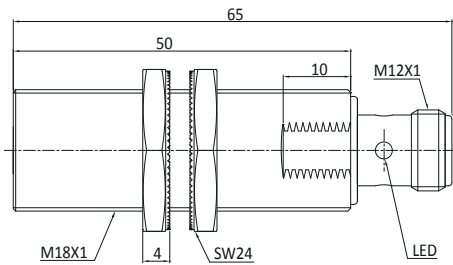


Fig. 2

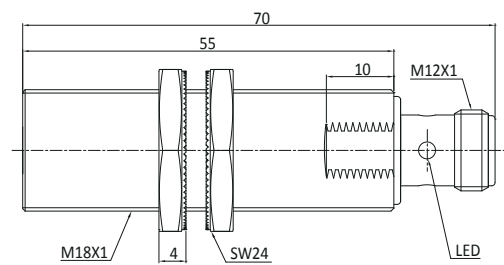


Fig. 3

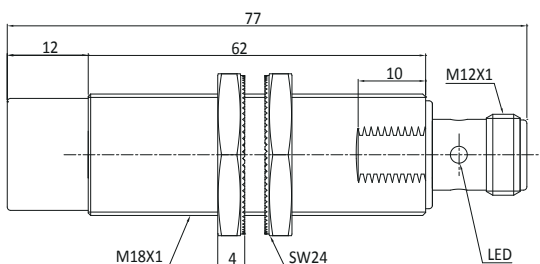
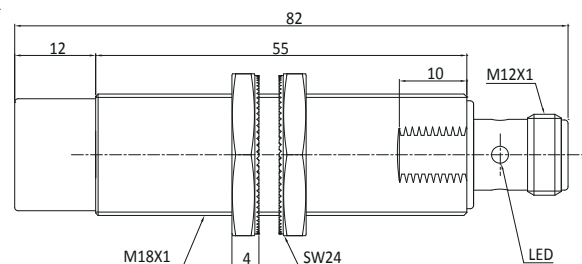


Fig. 4



# << Inductive Sensor

## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-G18-OP6L	8 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi8-G18-CP6L	8 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi8-G18-ON6L	8 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi8-G18-CN6L	8 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 85 °C	2m cable	Fig. 1
Ni12-G18-OP6L	12 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni12-G18-CP6L	12 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni12-G18-ON6L	12 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni12-G18-CN6L	12 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni16-G18-OP6L	16 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	250 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni16-G18-CP6L	16 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	250 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni16-G18-ON6L	16 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	250 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni16-G18-CN6L	16 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	250 Hz	-30 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

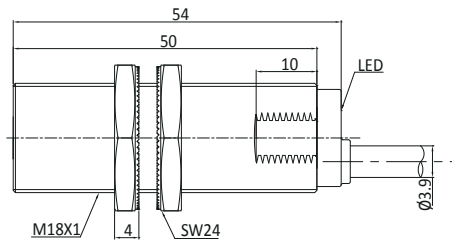
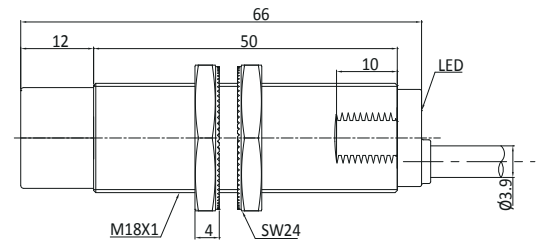


Fig. 2



## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-G18-OP6L-Q12	8 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig.1
Fi8-G18-CP6L-Q12	8 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig.1
Fi8-G18-ON6L-Q12	8 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig.1
Fi8-G18-CN6L-Q12	8 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	500 Hz	-30 ... 85 °C	M12 Connector	Fig.1
Ni12-G18-OP6L-Q12	12 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni12-G18-CP6L-Q12	12 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni12-G18-ON6L-Q12	12 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni12-G18-CN6L-Q12	12 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni16-G18-OP6L-Q12	16 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni16-G18-CP6L-Q12	16 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni16-G18-ON6L-Q12	16 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig.2
Ni16-G18-CN6L-Q12	16 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	250 Hz	-30 ... 85 °C	M12 Connector	Fig.2

### Dimensions:

Fig. 1

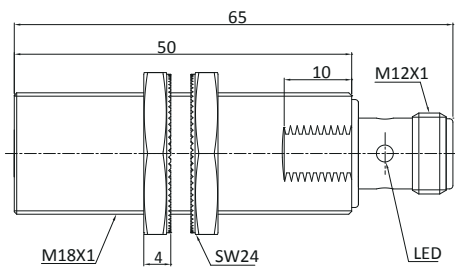
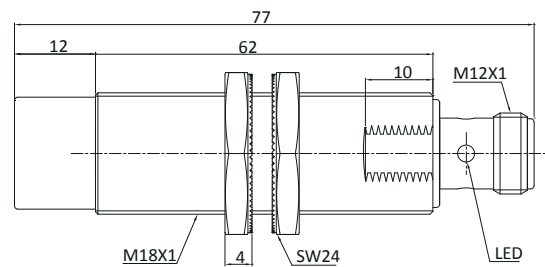


Fig. 2



# Inductive Sensor

## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-G30-OD6L	15 mm	Flush	DC NO	10...30 V DC	≤100mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi15-G30-CD6L	15 mm	Flush	DC NC	10...30 V DC	≤100mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi15-G30-OA41L	15 mm	Flush	AC/DC NO	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Fi15-G30-CA41L	15 mm	Flush	AC/DC NC	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/350 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni22-G30-OD6L	22 mm	Non-flush	DC NO	10...30 V DC	≤100mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni22-G30-CD6L	22 mm	Non-flush	DC NC	10...30 V DC	≤100mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni30-G30-OD6L	30 mm	Non-flush	DC NO	10...30 V DC	≤100mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni30-G30-CD6L	30 mm	Non-flush	DC NC	10...30 V DC	≤100mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 3
Ni22-G30-OA41L	22 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/200 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni22-G30-CA41L	22 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/200 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni30-G30-OA41L	30 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/75 Hz	-30 ... 85 °C	2m cable	Fig. 4
Ni30-G30-CA41L	30 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC≤100mA/AC≤200mA	20/75 Hz	-30 ... 85 °C	2m cable	Fig. 4

### Dimensions:

Fig. 1

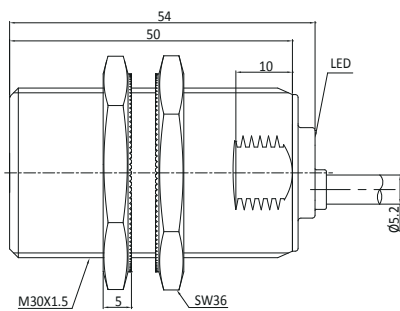


Fig. 2

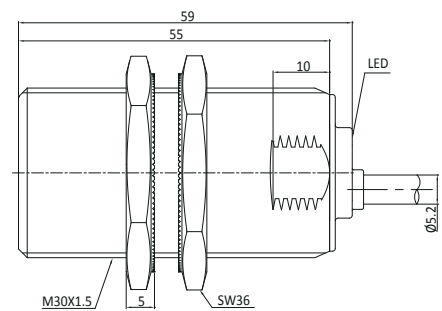


Fig. 3

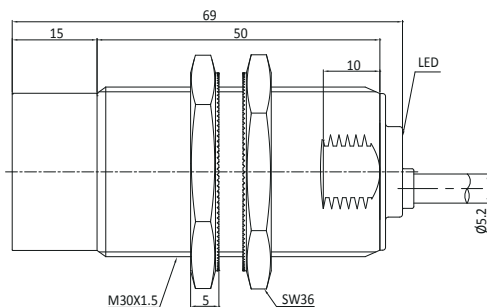
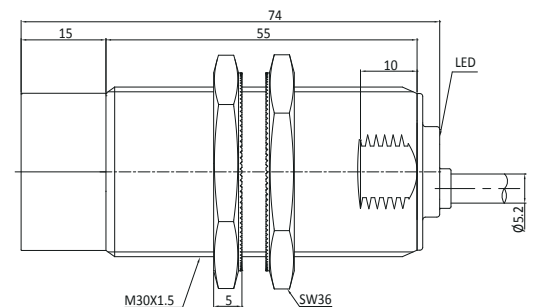


Fig. 4



## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 2-wire output, AC/DC 2-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-G30-OD6L-Q12	15 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi15-G30-CD6L-Q12	15 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi15-G30-OA41L-Q12	15 mm	Flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/350 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Fi15-G30-CA41L-Q12	15 mm	Flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/350 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni22-G30-OD6L-Q12	22 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni22-G30-CD6L-Q12	22 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni30-G30-OD6L-Q12	30 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni30-G30-CD6L-Q12	30 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 3
Ni22-G30-OA41L-Q12	22 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/200 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni22-G30-CA41L-Q12	22 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/200 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni30-G30-OA41L-Q12	30 mm	Non-flush	AC/DC NO	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/75 Hz	-30 ... 85 °C	M12 Connector	Fig. 4
Ni30-G30-CA41L-Q12	30 mm	Non-flush	AC/DC NC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20/75 Hz	-30 ... 85 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

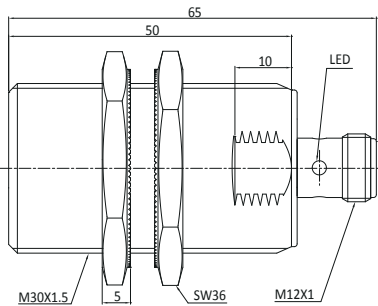


Fig. 2

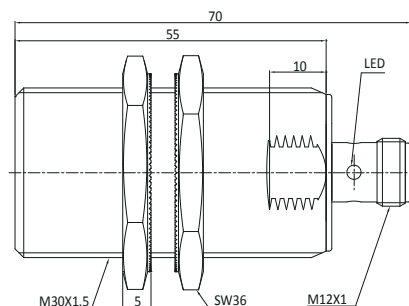


Fig. 3

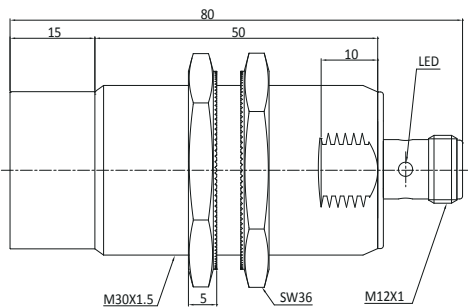
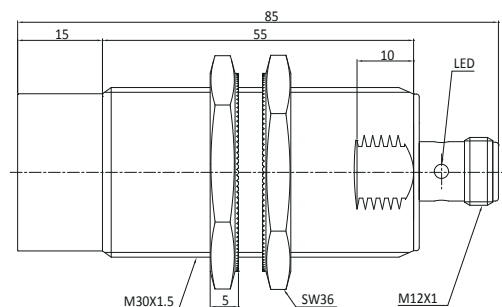


Fig. 4



# << Inductive Sensor

## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-G30-OP6L	15mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi15-G30-CP6L	15mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi15-G30-ON6L	15mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Fi15-G30-CN6L	15mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	2m cable	Fig. 1
Ni22-G30-OP6L	22mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni22-G30-CP6L	22mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni22-G30-ON6L	22mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni22-G30-CN6L	22mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni30-G30-OP6L	30mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni30-G30-CP6L	30mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni30-G30-ON6L	30mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 2
Ni30-G30-CN6L	30mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

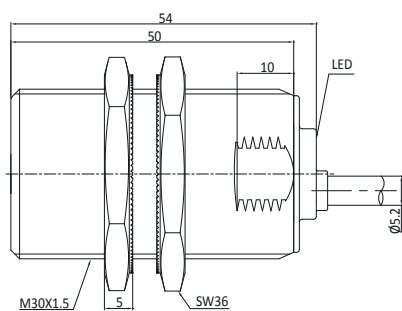
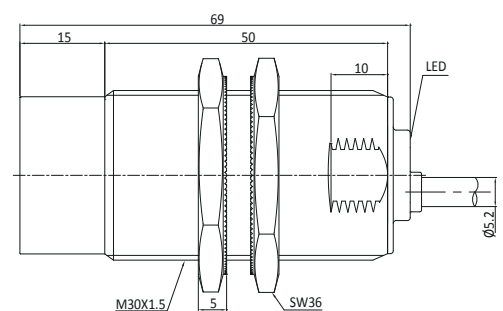


Fig. 2





## Metal Barrel-G series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-G30-OP6L-Q12	15mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi15-G30-CP6L-Q12	15mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi15-G30-ON6L-Q12	15mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Fi15-G30-CN6L-Q12	15mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-30 ... 85 °C	M12 Connector	Fig. 1
Ni22-G30-OP6L-Q12	22mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni22-G30-CP6L-Q12	22mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni22-G30-ON6L-Q12	22mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni22-G30-CN6L-Q12	22mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni30-G30-OP6L-Q12	30mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni30-G30-CP6L-Q12	30mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni30-G30-ON6L-Q12	30mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 2
Ni30-G30-CN6L-Q12	30mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	75 Hz	-30 ... 85 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

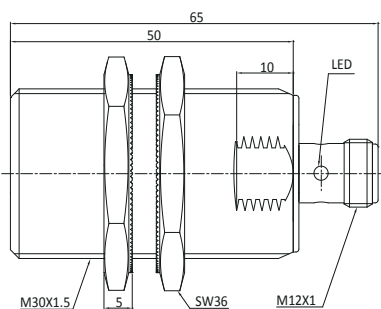
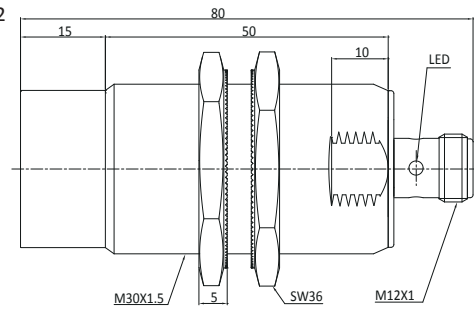


Fig. 2



## << Inductive Sensor

### Metal Barrel-G3 series



#### Description:

Stainless steel housing, threaded barrel, extended operating distance, DC 3-wire output, IP68 protection class, LED indicator.

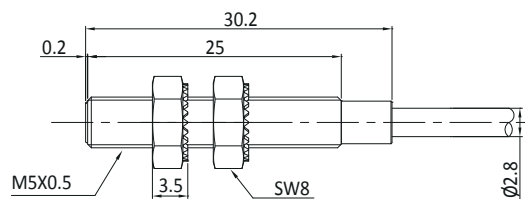
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-G05-OP6L	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5-G05-CP6L	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5-G05-ON6L	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5-G05-CN6L	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Metal Barrel-G3 series



### Description:

Stainless steel housing, threaded barrel, extended operating distance, DC 3-wire output, IP68 protection class, LED indicator, M8 connector.

See the wiring diagram on page 241-243 for your reference.

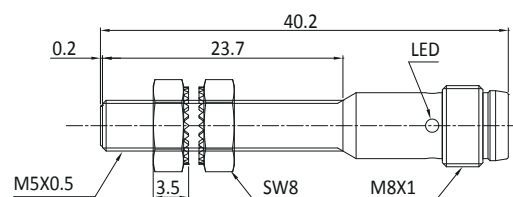
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-G05-OP6L-Q8	1.5 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	M8 Connector	Fig. 1
Fi1.5-G05-CP6L-Q8	1.5 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	M8 Connector	Fig. 1
Fi1.5-G05-ON6L-Q8	1.5 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	M8 Connector	Fig. 1
Fi1.5-G05-CN6L-Q8	1.5 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...70 °C	M8 Connector	Fig. 1

04

### Dimensions:

Fig. 1



## << Inductive Sensor

### Metal Barrel-G3 series



#### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC 3-wire output, IP68 protection class, LED indicator.

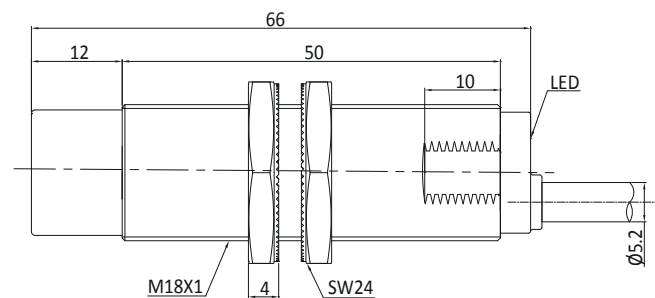
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni20-G18-OP6L	20 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	200 Hz	-25...70 °C	2m cable	Fig. 1
Ni20-G18-CP6L	20 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25...70 °C	2m cable	Fig. 1
Ni20-G18-ON6L	20 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	200 Hz	-25...70 °C	2m cable	Fig. 1
Ni20-G18-CN6L	20 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	200 Hz	-25...70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Metal Barrel-G3 series



### Description:

Brass nickel-plated, threaded barrel, extended operating distance, DC  
3-wire output, IP68 protection class, LED indicator, M12 connector.

See the wiring diagram on page 241-243 for your reference.

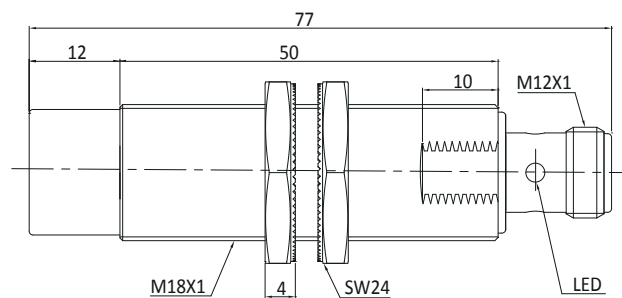
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni20-G18-OP6L-Q12	20 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25...70 °C	M12 Connector	Fig.1
Ni20-G18-CP6L-Q12	20 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25...70 °C	M12 Connector	Fig.1
Ni20-G18-ON6L-Q12	20 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25...70 °C	M12 Connector	Fig.1
Ni20-G18-CN6L-Q12	20 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25...70 °C	M12 Connector	Fig.1

04

### Dimensions:

Fig. 1



# Inductive Sensor

## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-ZG12-OP6L	4 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	650 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi4-ZG12-CP6L	4 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	650 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi4-ZG12-ON6L	4 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	650 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi4-ZG12-CN6L	4 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	650 Hz	-40 ... 85 °C	2m cable	Fig. 1
Ni6-ZG12-OP6L	6 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	600 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni6-ZG12-CP6L	6 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	600 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni6-ZG12-ON6L	6 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	600 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni6-ZG12-CN6L	6 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	600 Hz	-40 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

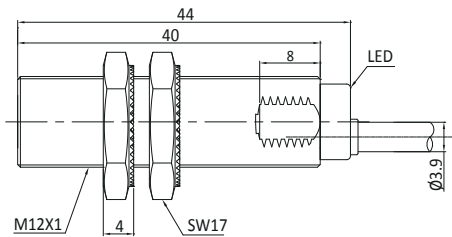
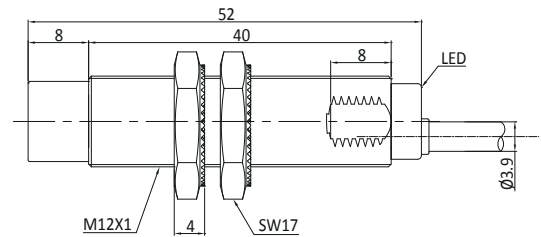


Fig. 2



## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi4-ZG12-OP6L-Q12	4 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	650 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi4-ZG12-CP6L-Q12	4 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	650 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi4-ZG12-ON6L-Q12	4 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	650 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi4-ZG12-CN6L-Q12	4 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	650 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Ni6-ZG12-OP6L-Q12	6 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	600 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni6-ZG12-CP6L-Q12	6 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	600 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni6-ZG12-ON6L-Q12	6 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	600 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni6-ZG12-CN6L-Q12	6 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	600 Hz	-40 ... 85 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

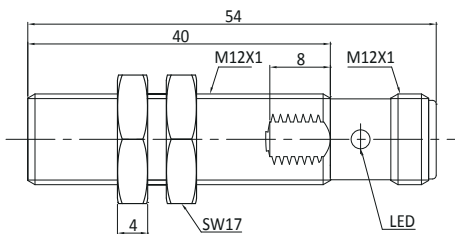
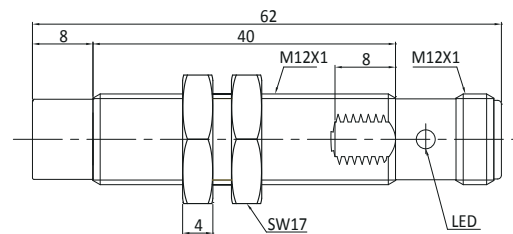


Fig. 2



# Inductive Sensor

## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-ZG18-OP6L	8 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi8-ZG18-CP6L	8 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi8-ZG18-ON6L	8 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi8-ZG18-CN6L	8 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-40 ... 85 °C	2m cable	Fig. 1
Ni12-ZG18-OP6L	12 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni12-ZG18-CP6L	12 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni12-ZG18-ON6L	12 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni12-ZG18-CN6L	12 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

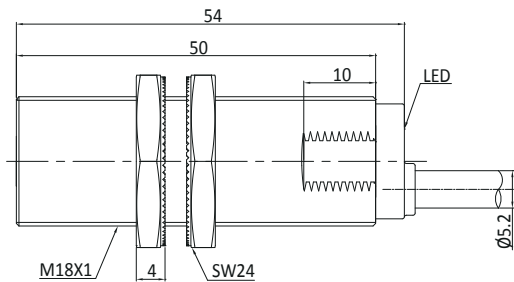
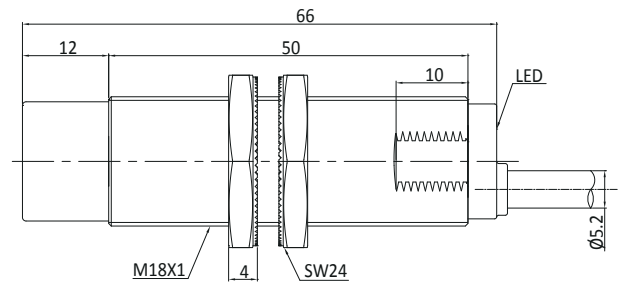


Fig. 2





## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi8-ZG18-OP6L-Q12	8 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	500 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi8-ZG18-CP6L-Q12	8 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	500 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi8-ZG18-ON6L-Q12	8 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	500 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi8-ZG18-CN6L-Q12	8 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	500 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Ni12-ZG18-OP6L-Q12	12 mm	Non-flush	PNP NO	10...30 V DC	$\leq 200$ mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni12-ZG18-CP6L-Q12	12 mm	Non-flush	PNP NC	10...30 V DC	$\leq 200$ mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni12-ZG18-ON6L-Q12	12 mm	Non-flush	NPN NO	10...30 V DC	$\leq 200$ mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni12-ZG18-CN6L-Q12	12 mm	Non-flush	NPN NC	10...30 V DC	$\leq 200$ mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 2

04

### Dimensions:

Fig. 1

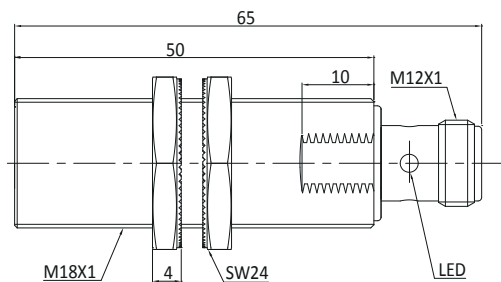
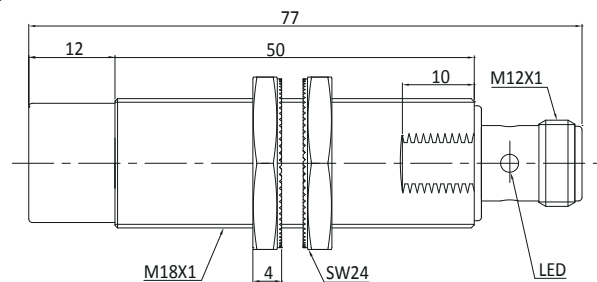


Fig. 2



# << Inductive Sensor

## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-ZG30-OP6L	15 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi15-ZG30-CP6L	15 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi15-ZG30-ON6L	15 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 1
Fi15-ZG30-CN6L	15 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	2m cable	Fig. 1
Ni22-ZG30-OP6L	22 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni22-ZG30-CP6L	22 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni22-ZG30-ON6L	22 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	2m cable	Fig. 2
Ni22-ZG30-CN6L	22 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

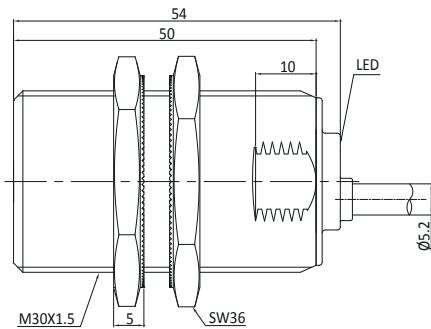
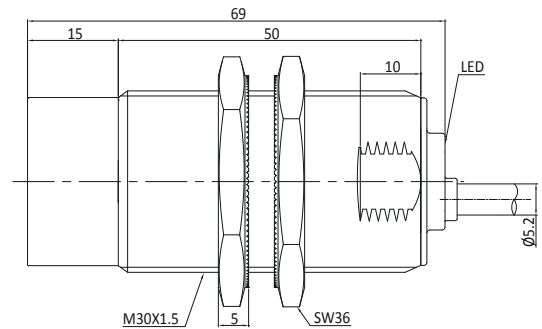


Fig. 2



## Metal Barrel-ZG series



### Description:

Stainless steel housing, Wide voltage, Max. 60V, Anti vibration and shock design, IP68 protection class, PUR cable, Non-release gaskets are standard.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-ZG30-OP6L-Q12	15 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi15-GZ30-CP6L-Q12	15 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi15-ZG30-ON6L-Q12	15 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Fi15-ZG30-CN6L-Q12	15 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	350 Hz	-40 ... 85 °C	M12 Connector	Fig. 1
Ni22-ZG30-OP6L-Q12	22 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni22-ZG30-CP6L-Q12	22 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni22-ZG30-ON6L-Q12	22 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	M12 Connector	Fig. 2
Ni22-ZG30-CN6L-Q12	22 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-40 ... 85 °C	M12 Connector	Fig. 2

04

### Dimensions:

Fig. 1

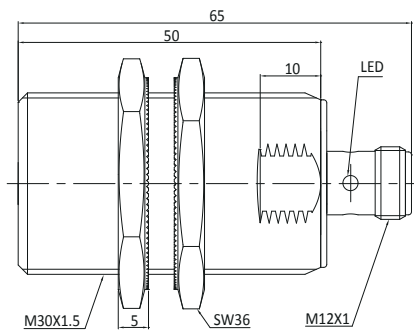
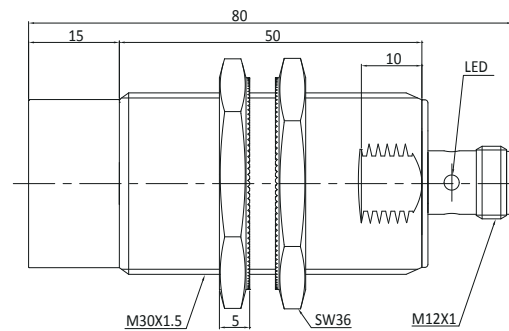


Fig. 2



# << Inductive Sensor

## Plastic Rectangular-Q08



### Description:

Plastic housing, compact rectangular, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni2.5-Q08-OD6L	2.5 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08-CD6L	2.5 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08B-OD6L	2.5 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2.5-Q08B-CD6L	2.5 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

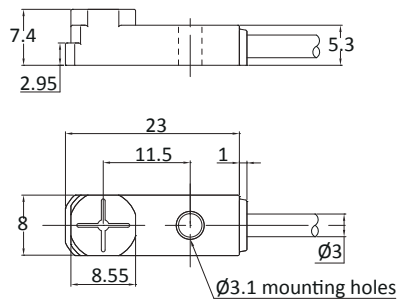
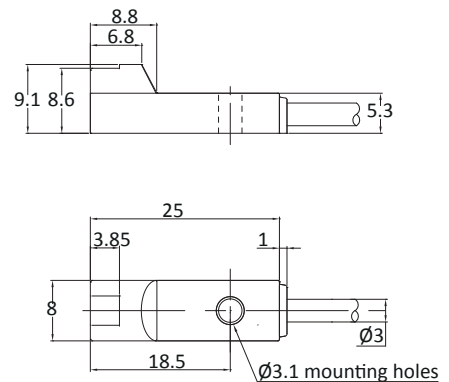


Fig. 2



## Plastic Rectangular-Q08



### Description:

Plastic housing, compact rectangular, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni2.5-Q08-OP6L	2.5 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08-ON6L	2.5 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08-CP6L	2.5 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08-CN6L	2.5 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2.5-Q08B-OP6L	2.5 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2.5-Q08B-ON6L	2.5 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2.5-Q08B-CP6L	2.5 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni2.5-Q08B-CN6L	2.5 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 2

05

### Dimensions:

Fig. 1

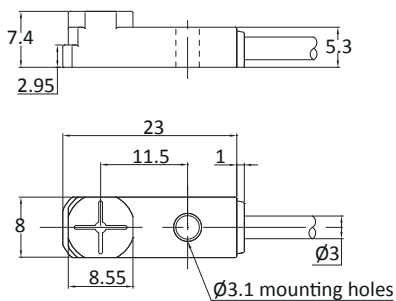
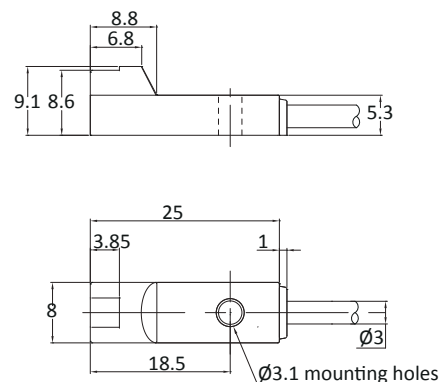


Fig. 2



# Inductive Sensor

## Rectangular-MQ08



### Description:

Brass nickel-plated, compact rectangular, DC 2-wire output, IP67 protection class, LED indicator.

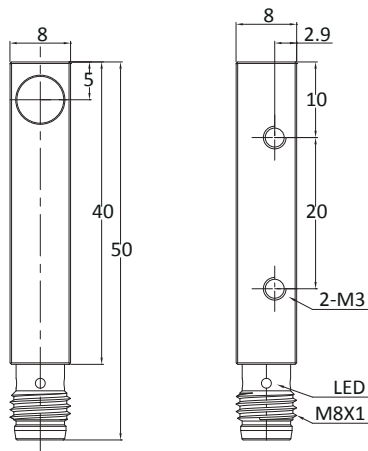
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F11.5-MQ08-OD6L-Q8	1.5 mm	Flush	ON DC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1
F11.5-MQ08-CD6L-Q8	1.5 mm	Flush	CN DC	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1
F11.5-MQ08-OP6L-Q8	1.5 mm	Flush	ON PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1
F11.5-MQ08-CP6L-Q8	1.5 mm	Flush	CN PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1
F11.5-MQ08-ON6L-Q8	1.5 mm	Flush	ON NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1
F11.5-MQ08-CN6L-Q8	1.5 mm	Flush	CN NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M08 Connector	Fig. 1

### Dimensions:

Fig. 1



## Plastic Rectangular-Q12



### Description:

Plastic housing, compact rectangular, DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni4-Q12-OD6L	4 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12-CD6L	4 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12B-OD6L	4 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-Q12B-CD6L	4 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2

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### Dimensions:

Fig. 1

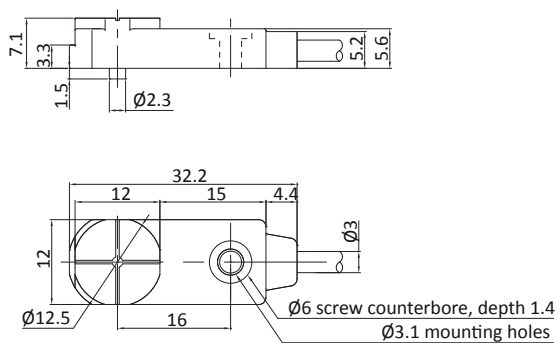
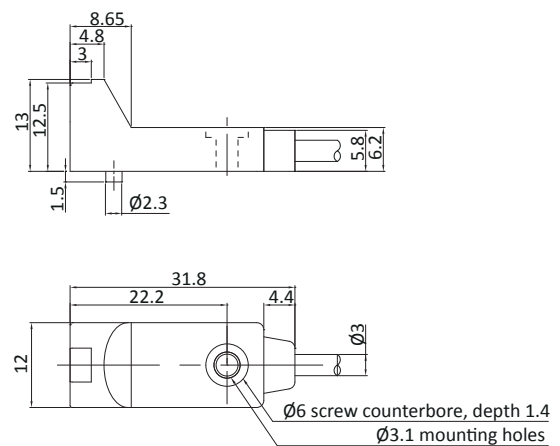


Fig.2



# Inductive Sensor

## Plastic Rectangular-Q12



### Description:

Plastic housing, compact rectangular, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Ni4-Q12-OP6L	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12-ON6L	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12-CP6L	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12-CN6L	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni4-Q12B-OP6L	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-Q12B-ON6L	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-Q12B-CP6L	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Ni4-Q12B-CN6L	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

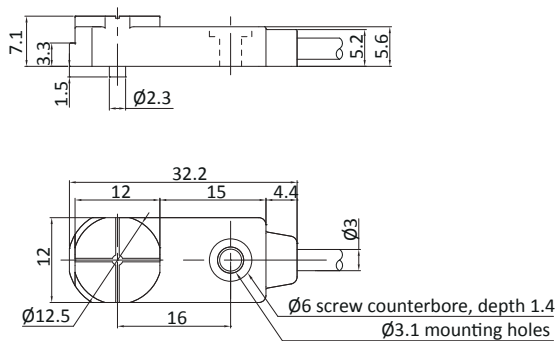
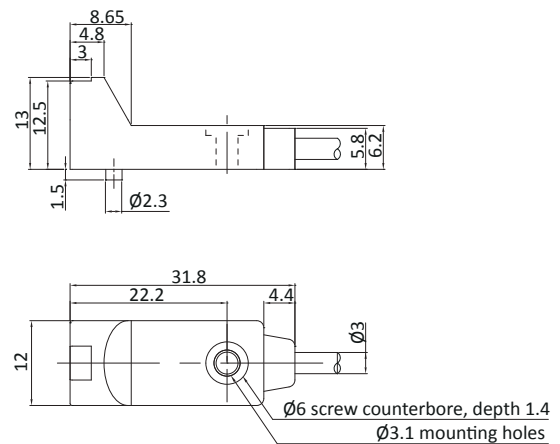


Fig. 2





## Plastic Rectangular-Q18C



### Description:

Plastic housing, standard square, DC 3-wire output, IP67 protection class, upper end detection, LED indicator.

See the wiring diagram on page 241-243 for your reference.

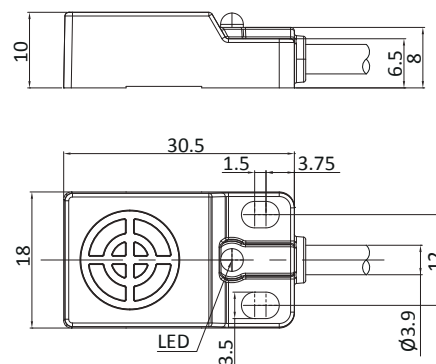
### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig.
Fi5-Q18C-OP6L	5 mm	Flush	PNP NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18C-CP6L	5 mm	Flush	NPN NO	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18C-ON6L	5 mm	Flush	PNP NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18C-CN6L	5 mm	Flush	NPN NC	10...30 V DC	$\leq 200$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1

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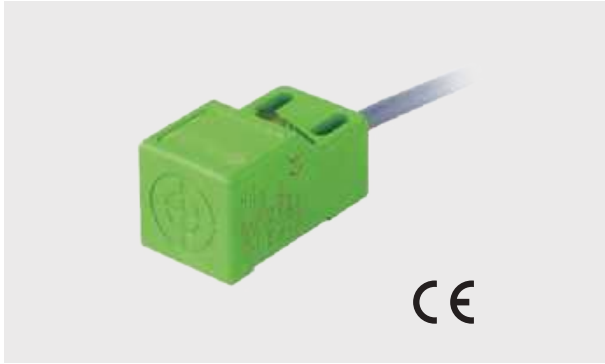
### Dimensions:

Fig. 1



## ◀◀ Inductive Sensor

### Plastic Rectangular-Q18



#### Description:

Plastic housing, miniature rectangular 18x18mm, DC 2-wire output, AC 2-wire output, AC/DC 2-wire output, IP67 protection class, LED indicator.

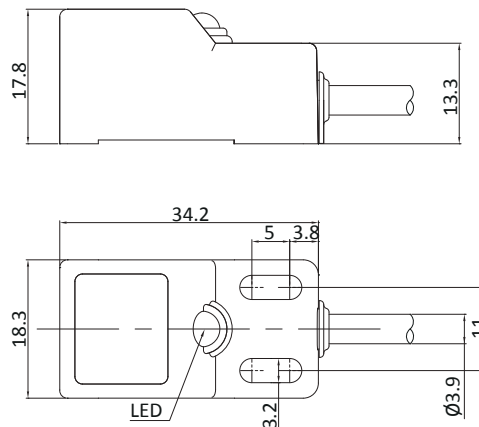
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-Q18-OD6L	5 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-CD6L	5 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-OSA3L	5 mm	Flush	NO AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-CSA3L	5 mm	Flush	NC AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-OD6L	8 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-CD6L	8 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-OSA3L	8 mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-CSA3L	8 mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-OA41L	5 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-CA41L	5 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-OA41L	8 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-CA41L	8 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Plastic Rectangular-Q18



### Description:

Plastic housing, miniature rectangular 18x18mm, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

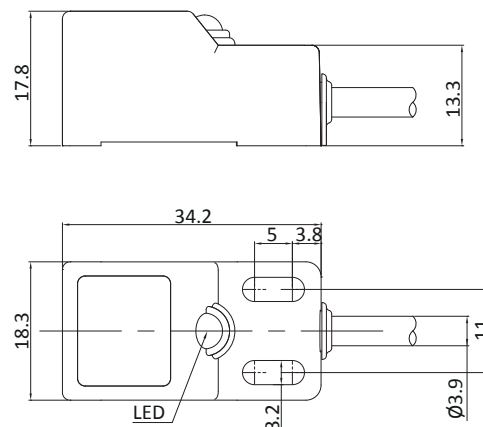
### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-Q18-OP6L	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-ON6L	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-CP6L	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-Q18-CN6L	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-OP6L	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-ON6L	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-CP6L	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-Q18-CN6L	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1

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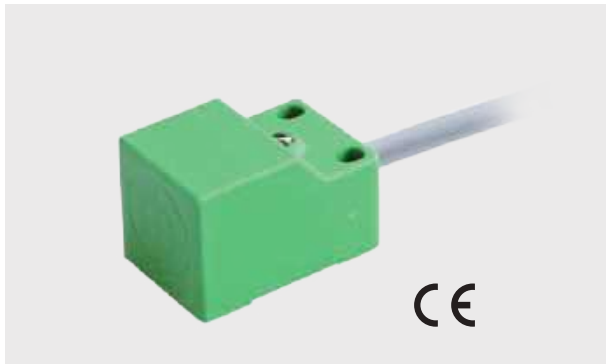
### Dimensions:

Fig. 1



## ◀◀ Inductive Sensor

### Plastic Rectangular-Q25



#### Description:

Plastic housing, miniature rectangular 25x25mm, DC 2-wire output, AC 2-wire output, AC/DC 2-wire output, IP67 protection class, LED indicator.

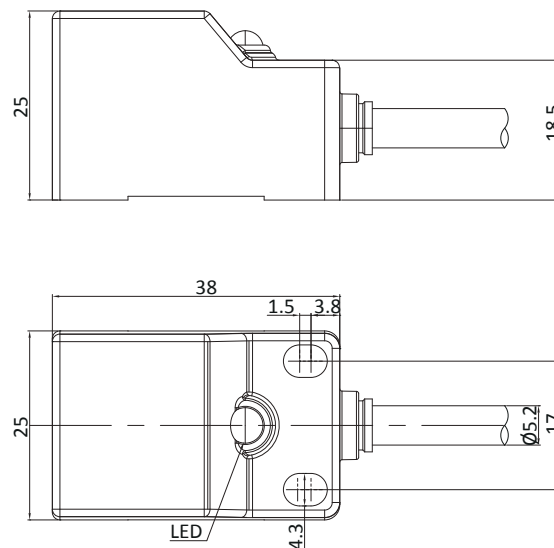
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

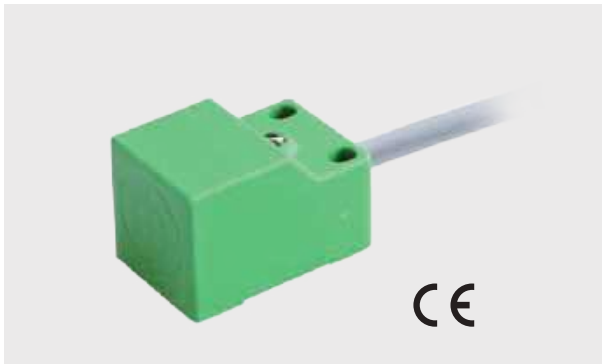
Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi7-Q25-OD6L	7 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-CD6L	7 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-OSA3L	7 mm	Flush	NO AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-CSA3L	7 mm	Flush	NC AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-OD6L	10 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-CD6L	10 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-OSA3L	10 mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-CSA3L	10 mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-OA41L	7 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-CA41L	7 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-OA41L	10 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-CA41L	10 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	300 Hz	-25 ... 70 °C	2m cable	Fig. 1

#### Dimensions:

Fig. 1



## Plastic Rectangular-Q25



### Description:

Plastic housing, miniature rectangular 25x25mm, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

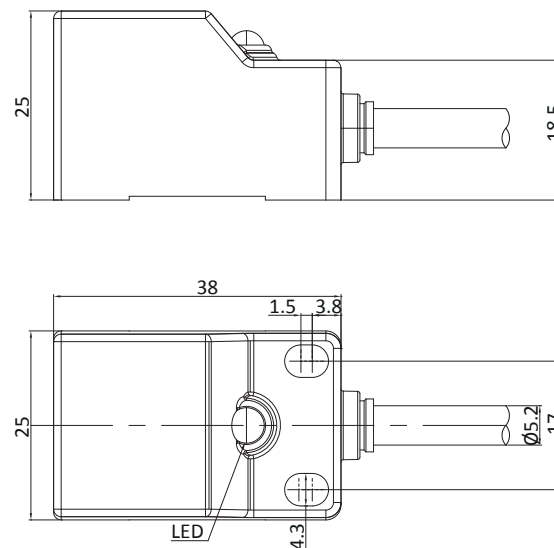
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi7-Q25-OP6L	7 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-ON6L	7 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-CP6L	7 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi7-Q25-CN6L	7 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-OP6L	10 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-ON6L	10 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-CP6L	10 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni10-Q25-CN6L	10 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	700 Hz	-25 ... 70 °C	2m cable	Fig. 1

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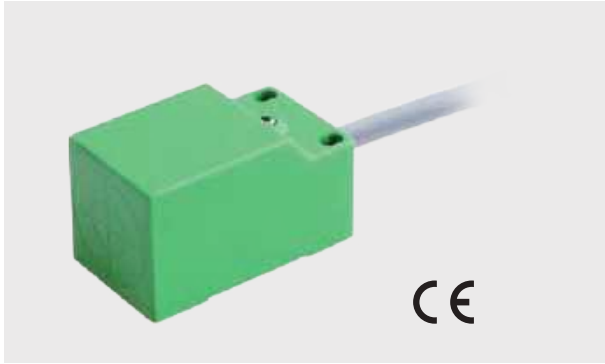
### Dimensions:

Fig. 1



# Inductive Sensor

## Plastic Rectangular-Q30



### Description:

Plastic housing, miniature rectangular 30x30mm, DC 2-wire output, AC 2-wire output, AC/DC 2-wire output, IP67 protection class, LED indicator.

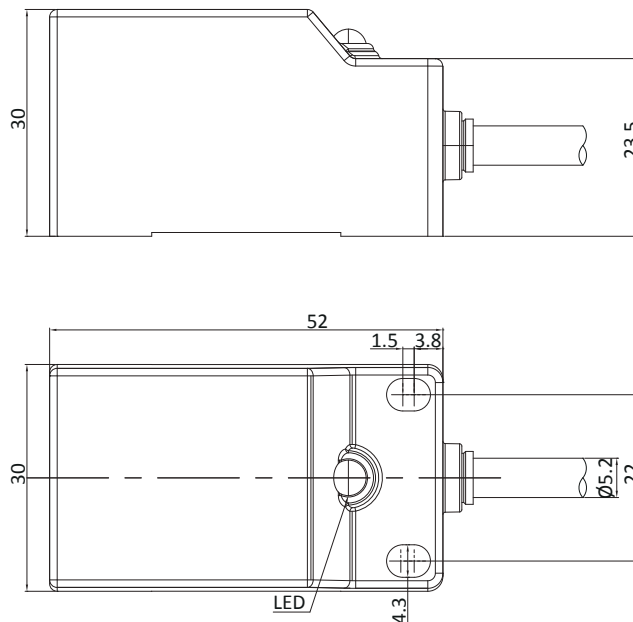
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

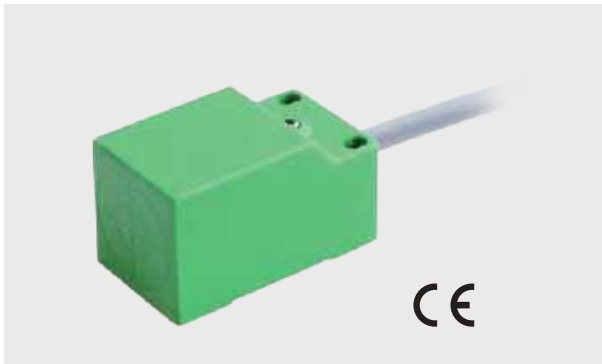
Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-Q30-OD6L	10 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-CD6L	10 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-OSA3L	10 mm	Flush	NO AC	20...250 V AC	≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-CSA3L	10 mm	Flush	NC AC	20...250 V AC	≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-OD6L	15 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-CD6L	15 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-OSA3L	15 mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-CSA3L	15 mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-OA41L	10 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-CA41L	10 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-OA41L	15 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-CA41L	15 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	2m cable	Fig. 1

### Dimensions:

Fig. 1



## Plastic Rectangular-Q30



### Description:

Plastic housing, miniature rectangular 30x30mm, DC 2-wire output, AC 2-wire output, AC/DC 2-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

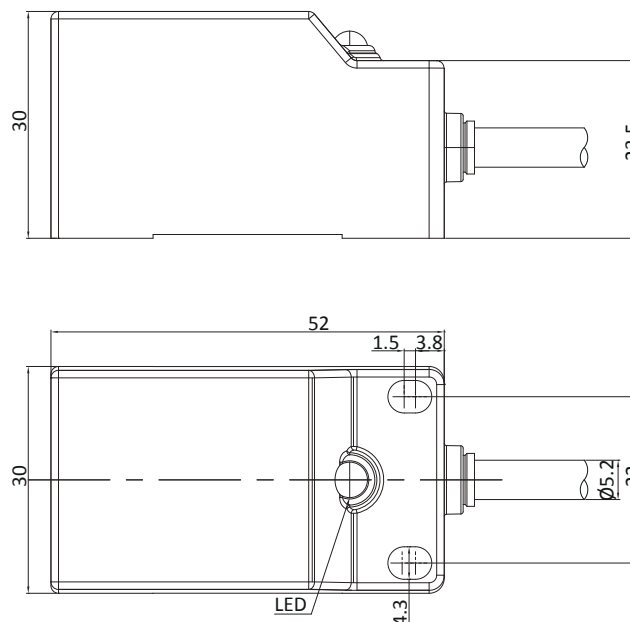
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-Q30-OP6L	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-ON6L	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-CP6L	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10-Q30-CN6L	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-OP6L	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-ON6L	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-CP6L	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni15-Q30-CN6L	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 1

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### Dimensions:

Fig. 1



## ◀◀ Inductive Sensor

### Plastic Rectangular-W40



#### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, DC 2-wire output, wide voltage range, IP67 protection class, power and action LED indicator.

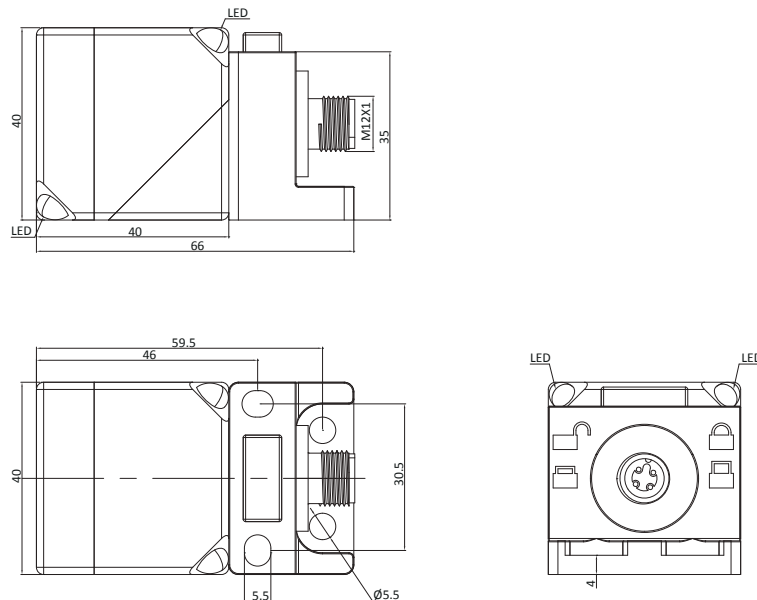
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi20-W40-OD6L-Q12	20 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OD6L-Q12	30 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CD6L-Q12	20 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CD6L-Q12	30 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-OD9L-Q12	20 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OD9L-Q12	30 mm	Non-flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CD9L-Q12	20 mm	Flush	NC DC	10...60 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CD9L-Q12	30 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

#### Dimensions:

Fig. 1





## Plastic Rectangular-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, DC 3/4-wire output, IP67 protection class, LED power and action indicator.

See the wiring diagram on page 241-243 for your reference.

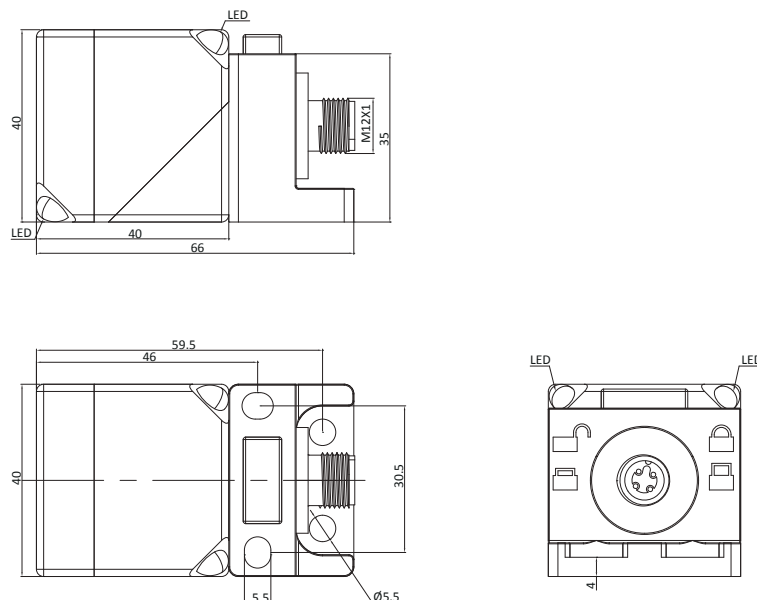
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi20-W40-ON6L-Q12	20 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CN6L-Q12	20 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-BN6L-Q12	20 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-OP6L-Q12	20 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CP6L-Q12	20 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-BP6L-Q12	20 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-ON6L-Q12	30 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CN6L-Q12	30 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-BN6L-Q12	30 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OP6L-Q12	30 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CP6L-Q12	30 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-BP6L-Q12	30 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

05

### Dimensions:

Fig. 1



## ◀◀ Inductive Sensor

### Plastic Rectangular-W40



#### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, AC/DC 2-wire output, IP67 protection class, power and action LED indicator.

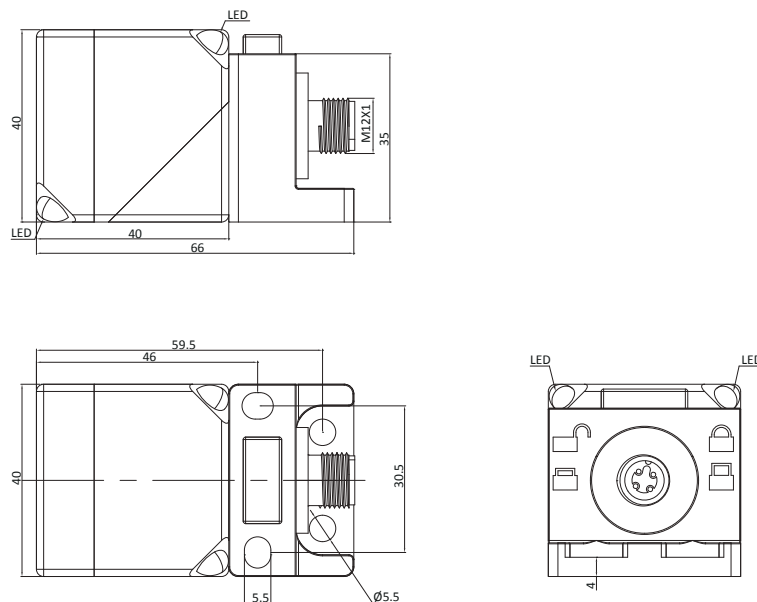
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi20-W40-OA41L-Q12	20 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CA41L-Q12	20 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OA41L-Q12	30 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CA41L-Q12	30 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

#### Dimensions:

Fig. 1



## Plastic Rectangular-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, long - sensing distance, DC 2-wire output, wide voltage range, IP67 protection class, LED power and action indicator.

See the wiring diagram on page 241-243 for your reference.

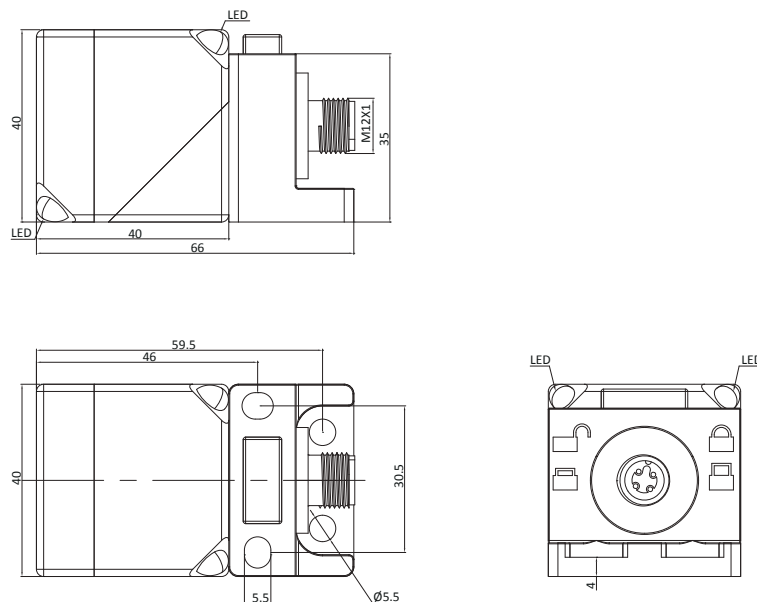
### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-W40-OD6L-Q12	25 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-CD6L-Q12	25 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-OD9L-Q12	25 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-CD9L-Q12	25 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-OD6L-Q12	40 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-CD6L-Q12	40 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-OD9L-Q12	40 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-CD9L-Q12	40 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

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### Dimensions:

Fig. 1



# Inductive Sensor

## Plastic Rectangular-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, long - sensing distance, DC 3/4-wire output, IP67 protection class, LED power and action indicator.

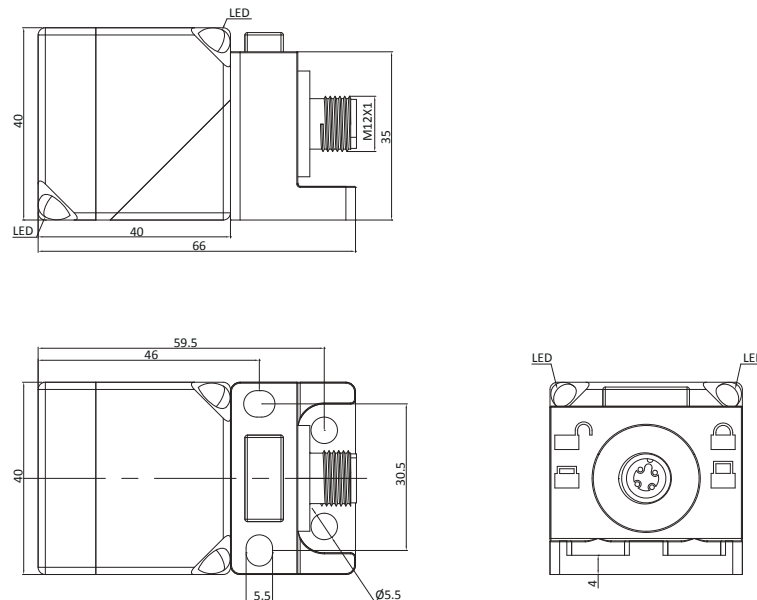
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-W40-ON6L-Q12	25 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-CN6L-Q12	25 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-BN6L-Q12	25 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-OP6L-Q12	25 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-CP6L-Q12	25 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-BP6L-Q12	25 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-ON6L-Q12	40 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-CN6L-Q12	40 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-BN6L-Q12	40 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-OP6L-Q12	40 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-CP6L-Q12	40 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-BP6L-Q12	40 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



## Plastic Rectangular-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, long - sensing distance, AC/DC 2-wire output, IP67 protection class, LED power and action indicator.

See the wiring diagram on page 241-243 for your reference.

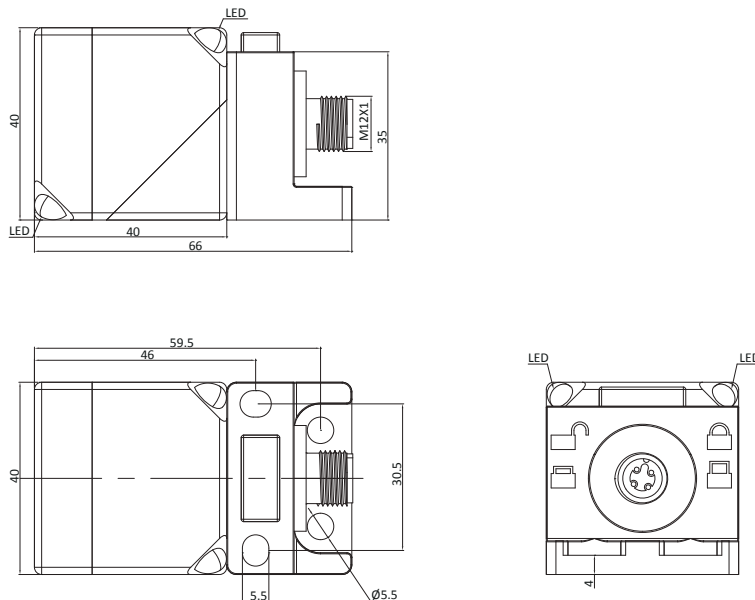
### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-W40-OA41L-Q12	25 mm	Flush	NO DC/AC	20...250 V AC/DC	DC $\leq$ 100 mA / AC $\leq$ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi25-W40-CA41L-Q12	25 mm	Flush	NC DC/AC	20...250 V AC/DC	DC $\leq$ 100 mA / AC $\leq$ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-OA41L-Q12	40 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC $\leq$ 100 mA / AC $\leq$ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-W40-CA41L-Q12	40 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC $\leq$ 100 mA / AC $\leq$ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

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### Dimensions:

Fig. 1



## Inductive Sensor

### Plastic Rectangular-WL40



#### Description:

Plastic housing, rectangular 40x40x118mm, DC 2-wire output, wide voltage range, IP67 protection class, power and action LED indicator.

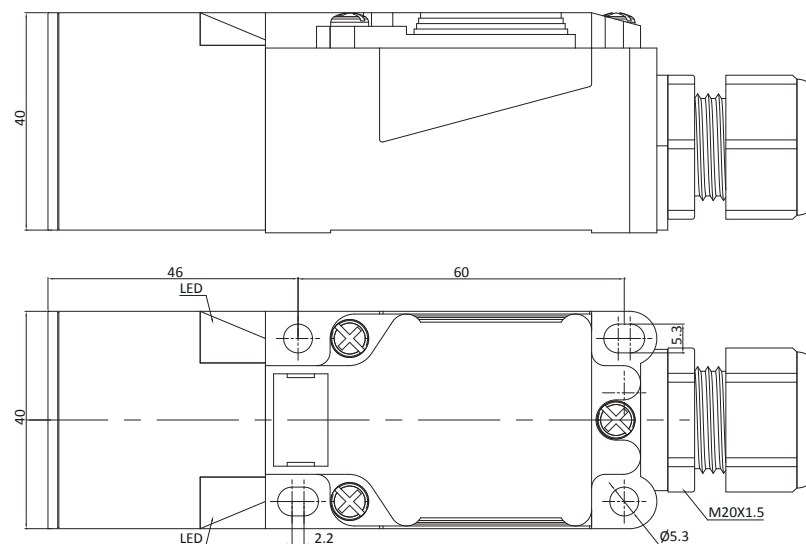
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

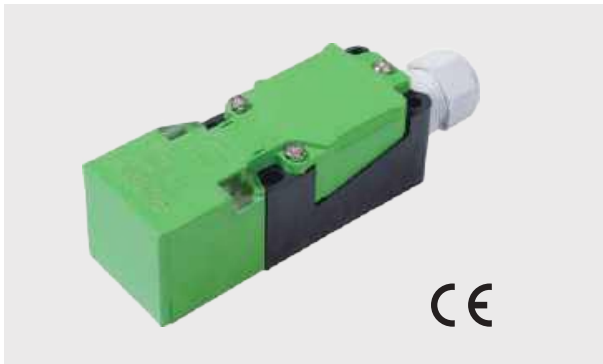
Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-OD6L-Q	15 mm	Flush	NO DC	10...30 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OD6L-Q	20 mm	Non-flush	NO DC	10...30 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CD6L-Q	15 mm	Flush	NC DC	10...30 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CD6L-Q	20 mm	Non-flush	NC DC	10...30 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-OD9L-Q	15 mm	Flush	NO DC	10...60 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OD9L-Q	20 mm	Non-flush	NO DC	10...60 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CD9L-Q	15 mm	Flush	NC DC	10...60 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CD9L-Q	20 mm	Non-flush	NC DC	10...60 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1

#### Dimensions:

Fig. 1



## Plastic Rectangular-WL40



### Description:

Plastic housing, rectangular 40x40x118mm, DC 3/4-wire output, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

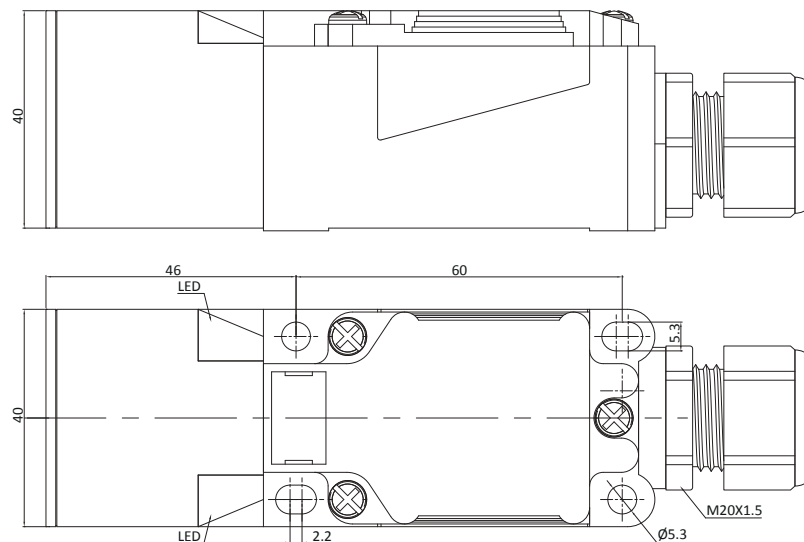
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-ON6L-Q	15 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CN6L-Q	15 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-BN6L-Q	15 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-OP6L-Q	15 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CP6L-Q	15 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-BP6L-Q	15 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-ON6L-Q	20 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CN6L-Q	20 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-BN6L-Q	20 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OP6L-Q	20 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CP6L-Q	20 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-BP6L-Q	20 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1

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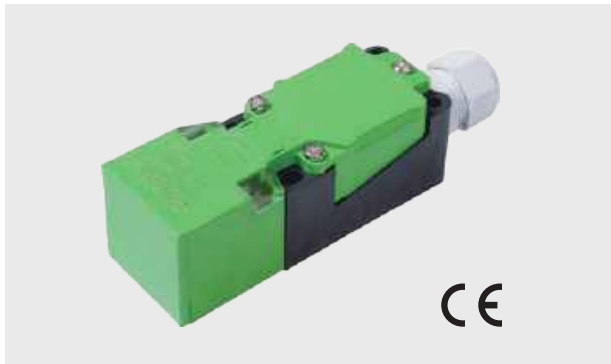
### Dimensions:

Fig. 1



## Inductive Sensor

### Plastic Rectangular-WL40



#### Description:

Plastic housing, rectangular 40x40x118mm, DC 3/4-wire output, IP67 protection class, power and action LED indicator.

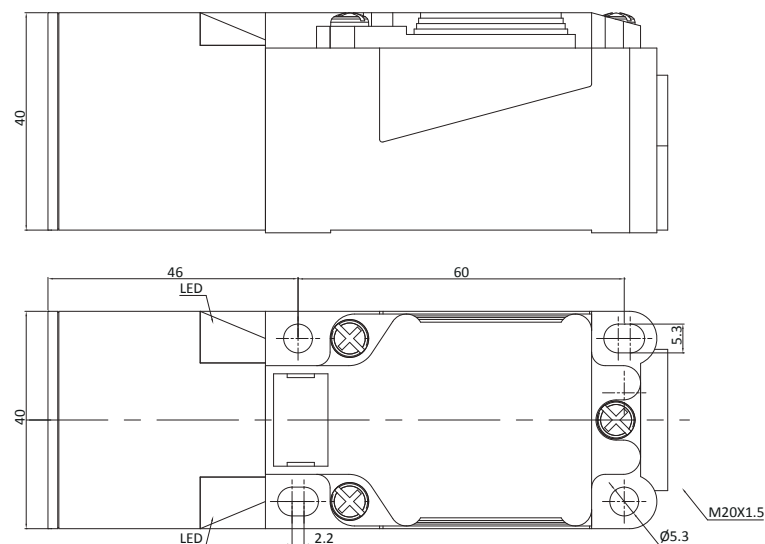
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-OA41L-Q	15 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CA41L-Q	15 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OA41L-Q	20 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CA41L-Q	20 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-VA41L-Q	15 mm	Flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-VA41L-Q	20 mm	Non-flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1

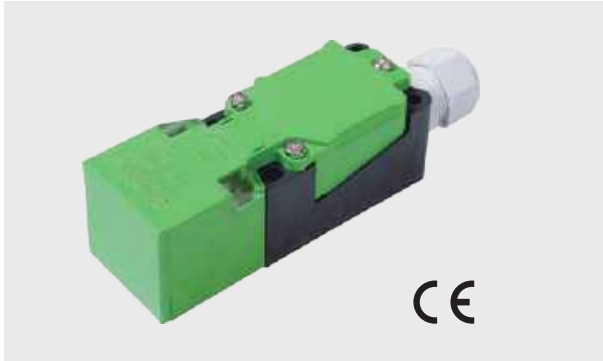
#### Dimensions:

Fig. 1





## Plastic Rectangular-WL40



### Description:

Plastic housing, rectangular 40x40x118mm, long - sensing distance, DC 2-wire output, wide voltage range, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

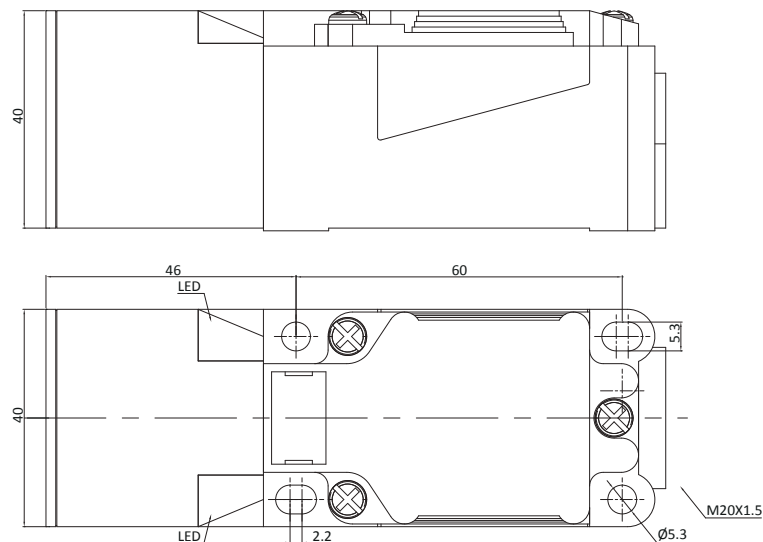
### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-WL40-OD6L-Q	25 mm	Flush	NO DC	10...30 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni40-WL40-OD6L-Q	40 mm	Non-flush	NO DC	10...30 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi25-WL40-CD6L-Q	25 mm	Flush	NC DC	10...30 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni40-WL40-CD6L-Q	40 mm	Non-flush	NC DC	10...30 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi25-WL40-OD9L-Q	25 mm	Flush	NO DC	10...60 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni40-WL40-OD9L-Q	40 mm	Non-flush	NO DC	10...60 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi25-WL40-CD9L-Q	25 mm	Flush	NC DC	10...60 V DC	$\leq 100$ mA	100 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni40-WL40-CD9L-Q	40 mm	Non-flush	NC DC	10...60 V DC	$\leq 100$ mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1

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### Dimensions:

Fig. 1



## Inductive Sensor

### Plastic Rectangular-WL40



#### Description:

Plastic housing, rectangular 40x40x118mm, long - sensing distance, DC 3/4-wire output, IP67 protection class, power and action LED indicator.

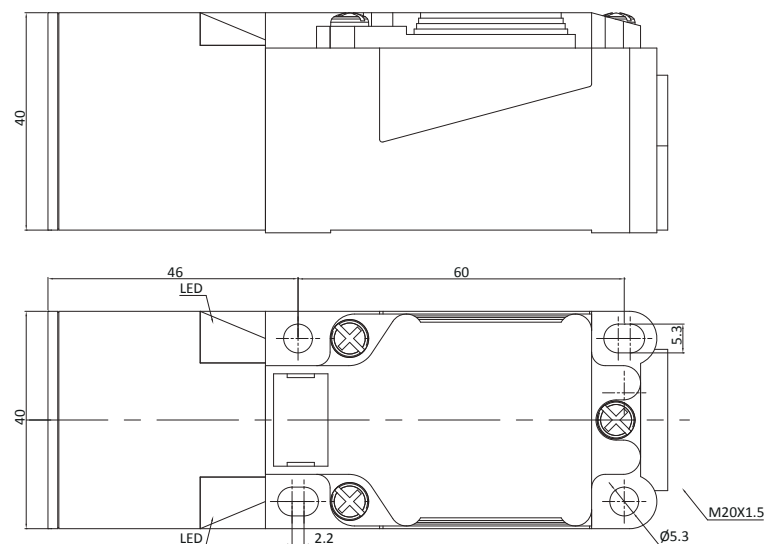
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

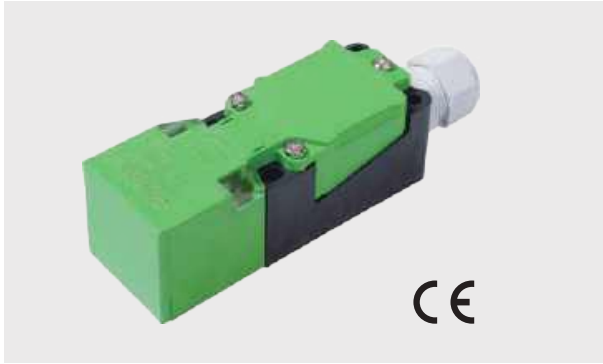
Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-WL40-ON6L-Q	25 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-CN6L-Q	25 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-BN6L-Q	25 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-OP6L-Q	25 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-CP6L-Q	25 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-BP6L-Q	25 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	100 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-ON6L-Q	40 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-CN6L-Q	40 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-BN6L-Q	40 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-OP6L-Q	40 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-CP6L-Q	40 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-BP6L-Q	40 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1

#### Dimensions:

Fig. 1



## Plastic Rectangular-WL40



### Description:

Plastic housing, rectangular 40x40x118mm, long - sensing distance, AC/DC 2-wire output, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

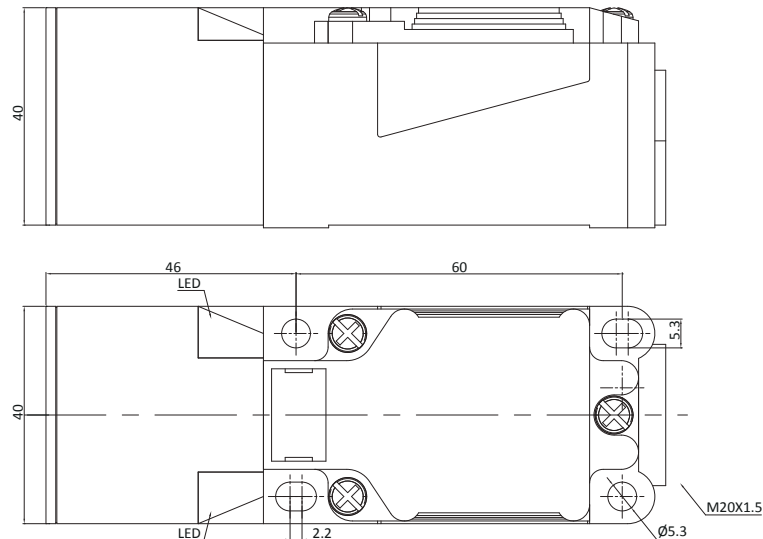
### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>0</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi25-WL40-OA41L-Q	25 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-CA41L-Q	25 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-OA41L-Q	40 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-CA41L-Q	40 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi25-WL40-VA41L-Q	25 mm	Flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni40-WL40-VA41L-Q	40 mm	Non-flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1

05

### Dimensions:

Fig. 1



# Inductive Sensor

## Plastic Rectangular-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 2-wire output, wide voltage range, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OD6L-Q	40 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-OD6L-Q	50 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-CD6L-Q	40 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-CD6L-Q	50 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-OD6L-Q12	40 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-OD6L-Q12	50 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-CD6L-Q12	40 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-CD6L-Q12	50 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-OD9L-Q	40 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-OD9L-Q	50 mm	Non-flush	NO DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-CD9L-Q	40 mm	Flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-CD9L-Q	50 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-OD9L-Q12	40 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-OD9L-Q12	50 mm	Non-flush	NO DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-CD9L-Q12	40 mm	Flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-CD9L-Q12	50 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig.2

### Dimensions:

Fig. 1

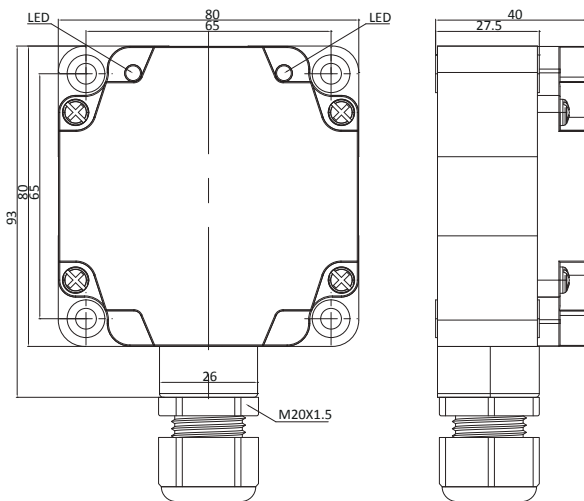
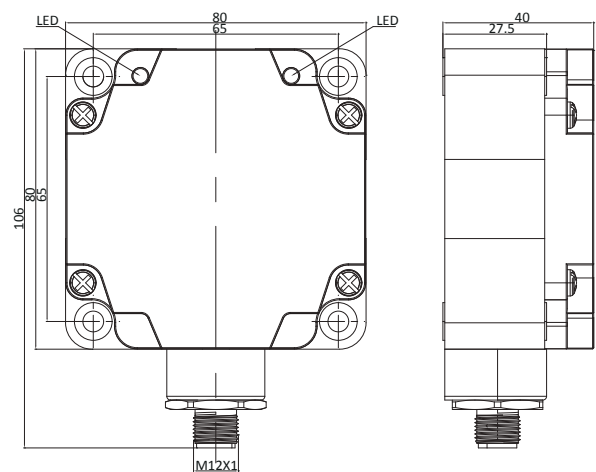


Fig. 2



## Plastic Rectangular-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 3/4-wire output, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

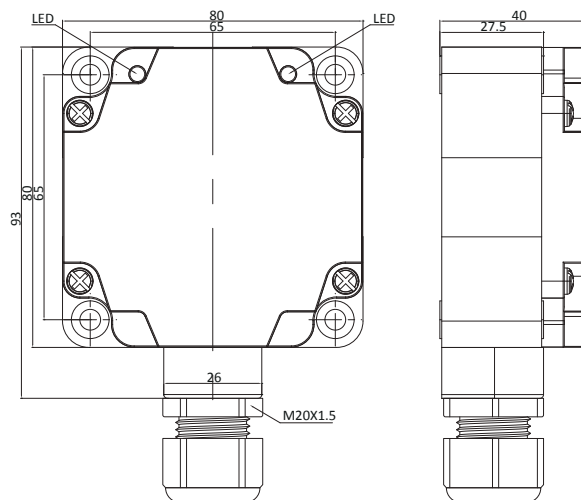
### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-ON6L-Q	40 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CN6L-Q	40 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi40-W80-BN6L-Q	40 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi40-W80-OP6L-Q	40 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CP6L-Q	40 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi40-W80-BP6L-Q	40 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-ON6L-Q	50 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CN6L-Q	50 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-BN6L-Q	50 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-OP6L-Q	50 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CP6L-Q	50 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni50-W80-BP6L-Q	50 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1

05

### Dimensions:

Fig. 1



# Inductive Sensor

## Plastic Rectangular-W80



### Description:

Plastic housing, rectangular 80x80mm, AC/DC 2-wire output, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OA41L-Q	40 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-CA41L-Q	40 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig.1
Fi40-W80-VA41L-Q	40 mm	Flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-OA41L-Q	50 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig.1
Ni50-W80-CA41L-Q	50 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-VA41L-Q	50 mm	Non-flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-OA41L-Q12	40 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-CA41L-Q12	40 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Fi40-W80-VA41L-Q12	40 mm	Flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-OA41L-Q12	50 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-CA41L-Q12	50 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2
Ni50-W80-VA41L-Q12	50 mm	Non-flush	NO+NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig.2

### Dimensions:

Fig. 1

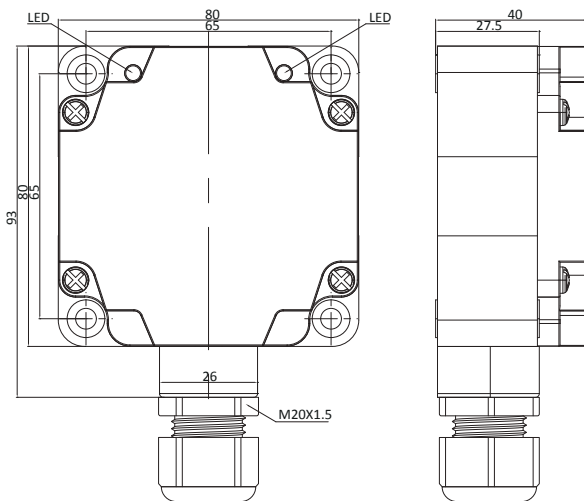
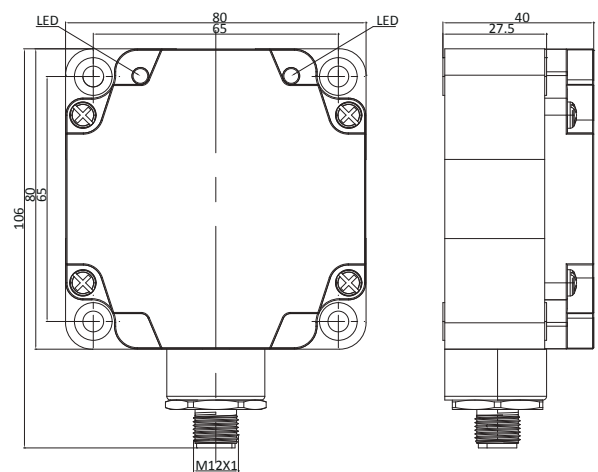


Fig. 2



## Plastic Rectangular-W80



### Description:

Plastic housing, rectangular 80x80mm, long - sensing distance, DC  
2-wire output, wide voltage range, IP67 protection class, power and  
action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi50-W80-OD6L-Q	50 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OD6L-Q	70 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CD6L-Q	50 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CD6L-Q	70 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OD6L-Q12	50 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-OD6L-Q12	70 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-CD6L-Q12	50 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-CD6L-Q12	70 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-OD9L-Q	50 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OD9L-Q	70 mm	Non-flush	NO DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CD9L-Q	50 mm	Flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CD9L-Q	70 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OD9L-Q12	50 mm	Flush	NO DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-OD9L-Q12	70 mm	Non-flush	NO DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-CD9L-Q12	50 mm	Flush	NC DC	10...60 V DC	≤ 100 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-CD9L-Q12	70 mm	Non-flush	NC DC	10...60 V DC	≤ 100 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

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### Dimensions:

Fig. 1

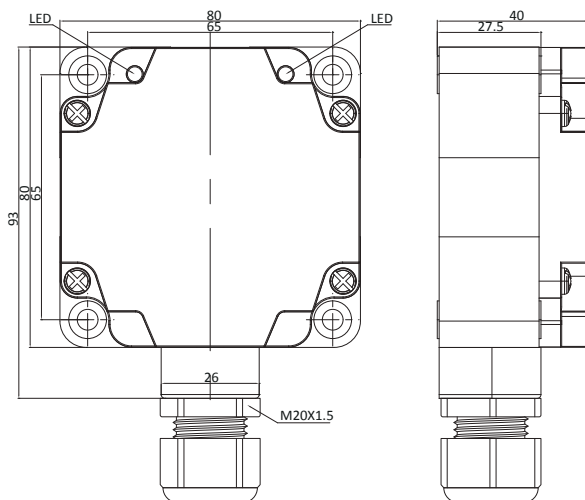
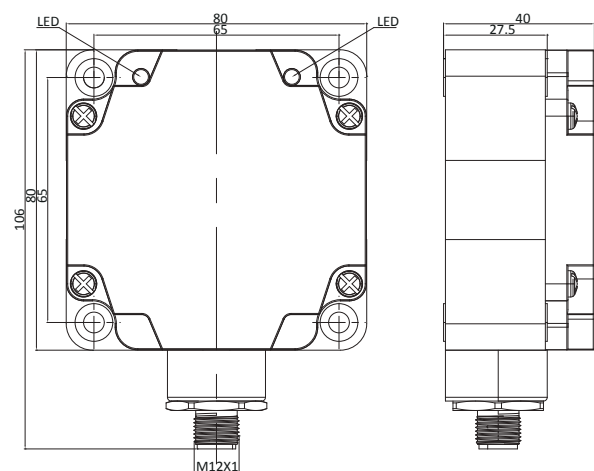


Fig. 2



## Inductive Sensor

### Plastic Rectangular-W80



#### Description:

Plastic housing, rectangular 80x80mm, DC 3/4-wire output, IP67 protection class, power and action LED indicator.

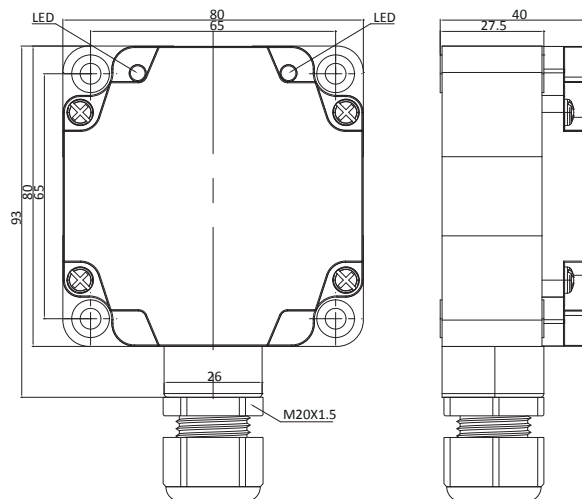
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi50-W80-ON6L-Q12	50 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CN6L-Q12	50 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-BN6L-Q12	50 mm	Flush	NO+NC NPN	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-OP6L-Q12	50 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CP6L-Q12	50 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-BP6L-Q12	50 mm	Flush	NO+NC PNP	10...30 V DC	≤ 200 mA	50 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-ON6L-Q12	70 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CN6L-Q12	70 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-BN6L-Q12	70 mm	Non-flush	NO+NC NPN	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-OP6L-Q12	70 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CP6L-Q12	70 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-BP6L-Q12	70 mm	Non-flush	NO+NC PNP	10...30 V DC	≤ 200 mA	30 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

#### Dimensions:

Fig. 1





## Plastic Rectangular-W80



### Description:

Plastic housing, rectangular 80x80mm, long - sensing distance, AC/DC  
2-wire output, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi50-W80-OA41L-Q	50 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CA41L-Q	50 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-VA41L-Q	50 mm	Flush	NO+/NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OA41L-Q	70 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CA41L-Q	70 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Ni70-W80-VA41L-Q	70 mm	Non-flush	NO+/NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OA41L-Q12	50 mm	Flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-CA41L-Q12	50 mm	Flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-VA41L-Q12	50 mm	Flush	NO+/NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-OA41L-Q12	70 mm	Non-flush	NO DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-CA41L-Q12	70 mm	Non-flush	NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-VA41L-Q12	70 mm	Non-flush	NO/NC DC/AC	20...250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	20 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

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### Dimensions:

Fig. 1

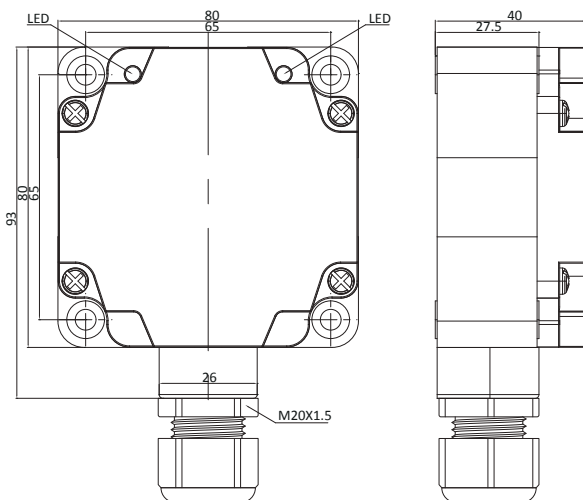
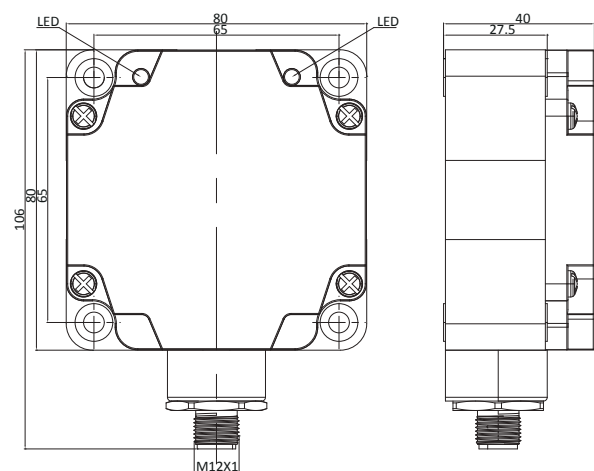


Fig. 2



## << Inductive Sensor

### All-Metal Inductive Sensor-M08



#### Description:

Integrated stainless steel housing, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F11-AM08-OD6L	1 mm	Flush	NO DC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
F11-AM08-CD6L	1 mm	Flush	NC DC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI2-AM08-OD6L	2 mm	Non-flush	NO DC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI2-AM08-CD6L	2 mm	Non-flush	NC DC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

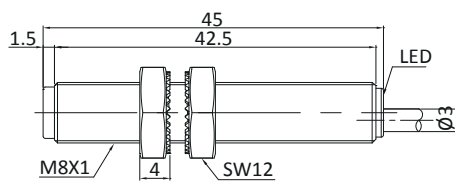
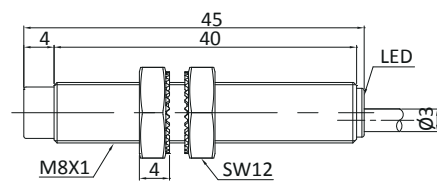


Fig. 2



## All-Metal Inductive Sensor-M08



### Description:

Integrated stainless steel housing, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI1-AM08-ON6L	1 mm	Flush	NO NPN	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI1-AM08-CN6L	1 mm	Flush	NC NPN	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI1-AM08-OP6L	1 mm	Flush	NO PNP	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI1-AM08-CP6L	1 mm	Flush	NC PNP	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI2-AM08-ON6L	2 mm	Non-flush	NO NPN	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI2-AM08-CN6L	2 mm	Non-flush	NC NPN	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI2-AM08-OP6L	2 mm	Non-flush	NO PNP	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI2-AM08-CP6L	2 mm	Non-flush	NC PNP	10...30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2

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### Dimensions:

Fig. 1

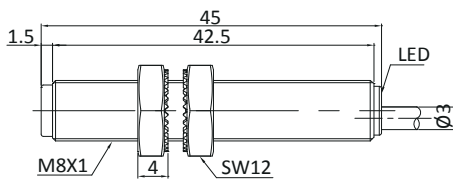
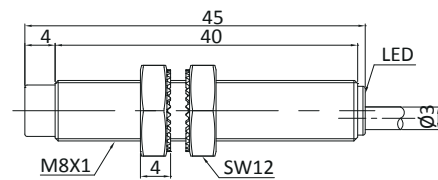


Fig. 2



# Inductive Sensor

## All-Metal Inductive Sensor-M12



### Description:

Integrated stainless steel housing, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI2-AM12-ON6L	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI2-AM12-CN6L	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI2-AM12-OP6L	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI2-AM12-CP6L	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI4-AM12-ON6L	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI4-AM12-CN6L	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI4-AM12-OP6L	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI4-AM12-CP6L	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI2-AM12-ON6L-Q12	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI2-AM12-CN6L-Q12	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI2-AM12-OP6L-Q12	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI2-AM12-CP6L-Q12	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI4-AM12-ON6L-Q12	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI4-AM12-CN6L-Q12	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI4-AM12-OP6L-Q12	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI4-AM12-CP6L-Q12	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

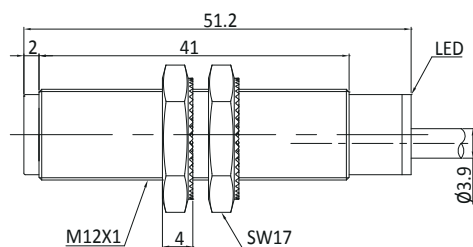


Fig. 2

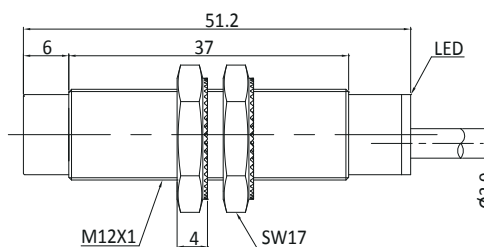


Fig. 3

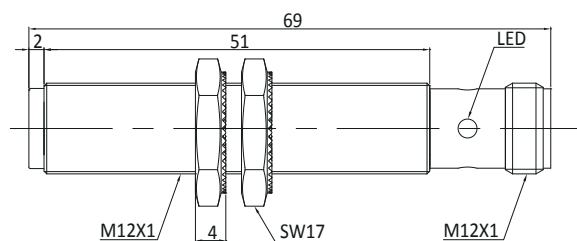
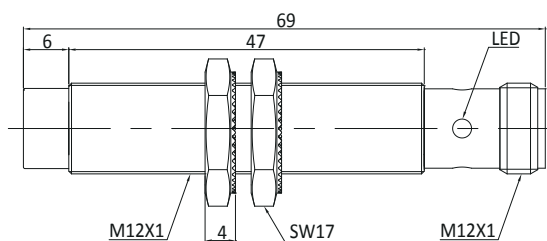


Fig. 4



## All-Metal Inductive Sensor-M12



### Description:

Integrated stainless steel housing, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI2-AM12-OD6L	2 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI2-AM12-CD6L	2 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI4-AM12-OD6L	4 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI4-AM12-CD6L	4 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI2-AM12-OD6L-Q12	2 mm	Flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI2-AM12-CD6L-Q12	2 mm	Flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI4-AM12-OD6L-Q12	4 mm	Non-flush	NO DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI4-AM12-CD6L-Q12	4 mm	Non-flush	NC DC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

06

### Dimensions:

Fig. 1

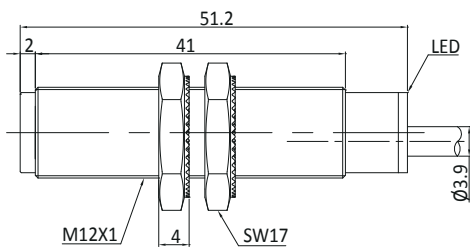


Fig. 2

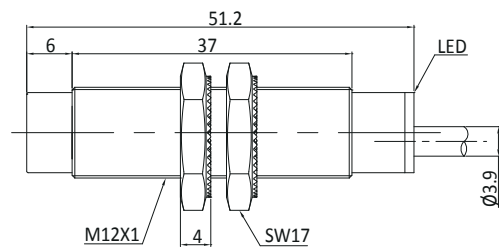


Fig. 3

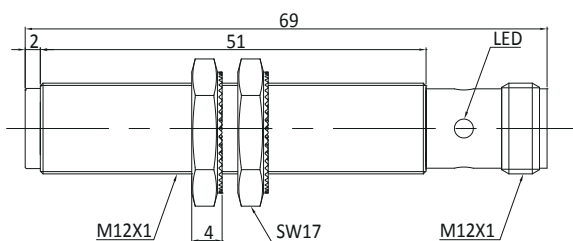
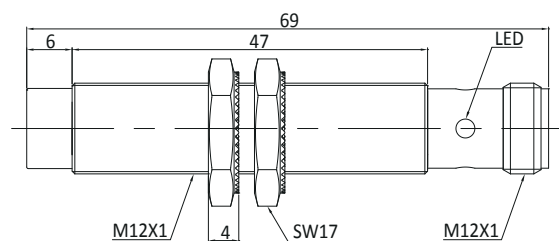


Fig. 4



# ◀◀ Inductive Sensor

## All-Metal Inductive Sensor-M12



### Description:

Integrated stainless steel housing, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F12-AM12-OSA3L	2 mm	Flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
F12-AM12-CSA3L	2 mm	Flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
N14-AM12-OSA3L	4 mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
N14-AM12-CSA3L	4 mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
F12-AM12-OSA3L-Q12	2 mm	Flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
F12-AM12-CSA3L-Q12	2 mm	Flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
N14-AM12-OSA3L-Q12	4 mm	Non-flush	NO AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
N14-AM12-CSA3L-Q12	4 mm	Non-flush	NC AC	20...250 V AC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

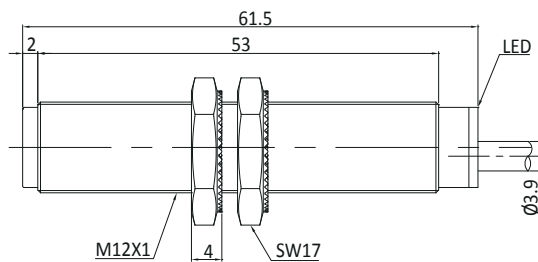


Fig. 2

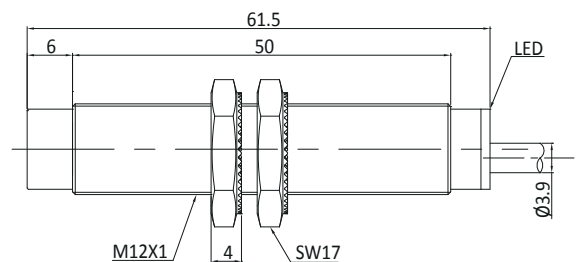


Fig. 3

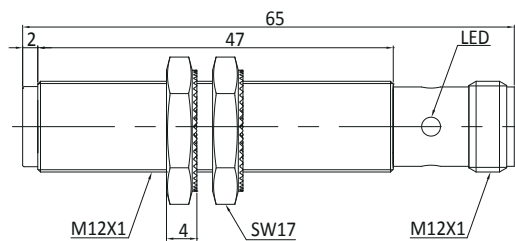
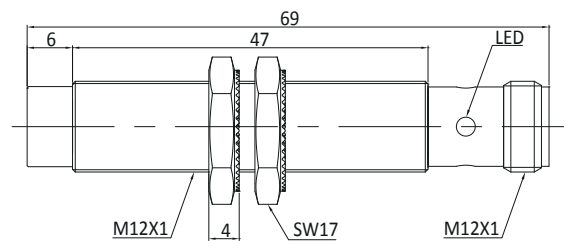


Fig. 4



## All-Metal Inductive Sensor-M18



### Description:

Integrated stainless steel housing, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI5-AM18-OD6L	5 mm	Flush	NO DC	10...30 VDC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI5-AM18-CD6L	5 mm	Flush	NC DC	10...30 VDC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI8-AM18-OD6L	8 mm	Non-flush	NO DC	10...30 VDC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI8-AM18-CD6L	8 mm	Non-flush	NC DC	10...30 VDC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI5-AM18-OD6L-Q12	5 mm	Flush	NO DC	10...30 VDC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI5-AM18-CD6L-Q12	5 mm	Flush	NC DC	10...30 VDC	$\leq 100$ mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI8-AM18-OD6L-Q12	8 mm	Non-flush	NO DC	10...30 VDC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI8-AM18-CD6L-Q12	8 mm	Non-flush	NC DC	10...30 VDC	$\leq 100$ mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

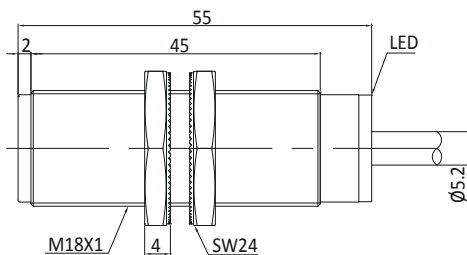


Fig. 2

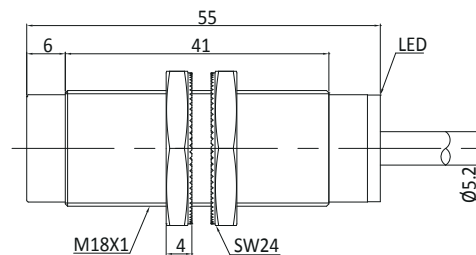


Fig. 3

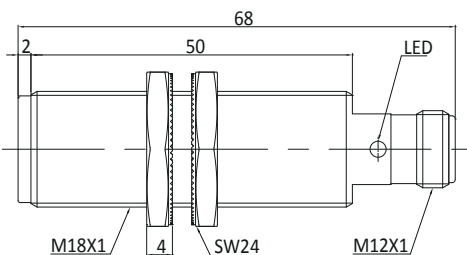
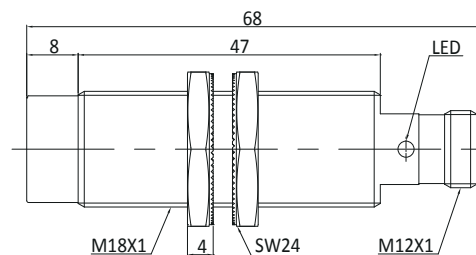


Fig. 4



# Inductive Sensor

## All-Metal Inductive Sensor-M18



### Description:

Integrated stainless steel housing, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F15-AM18-ON6L	5 mm	Flush	NO NPN	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
F15-AM18-CN6L	5 mm	Flush	NC NPN	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
F15-AM18-OP6L	5 mm	Flush	NO PNP	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
F15-AM18-CP6L	5 mm	Flush	NC PNP	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
N18-AM18-ON6L	8 mm	Non-flush	NO NPN	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
N18-AM18-CN6L	8 mm	Non-flush	NC NPN	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
N18-AM18-OP6L	8 mm	Non-flush	NO PNP	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
N18-AM18-CP6L	8 mm	Non-flush	NC PNP	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
F15-AM18-ON6L-Q12	5 mm	Flush	NO NPN	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
F15-AM18-CN6L-Q12	5 mm	Flush	NC NPN	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
F15-AM18-OP6L-Q12	5 mm	Flush	NO PNP	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
F15-AM18-CP6L-Q12	5 mm	Flush	NC PNP	10...30 VDC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
N18-AM18-ON6L-Q12	8 mm	Non-flush	NO NPN	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
N18-AM18-CN6L-Q12	8 mm	Non-flush	NC NPN	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
N18-AM18-OP6L-Q12	8 mm	Non-flush	NO PNP	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
N18-AM18-CP6L-Q12	8 mm	Non-flush	NC PNP	10...30 VDC	≤ 200 mA	500 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

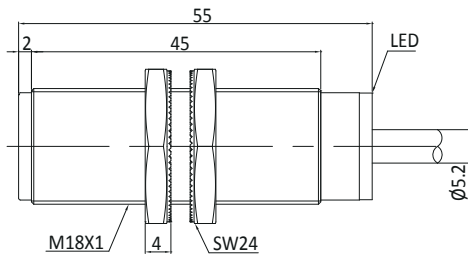


Fig. 2

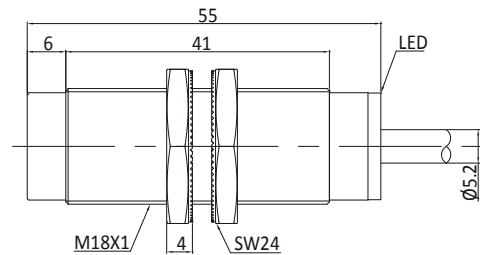


Fig. 3

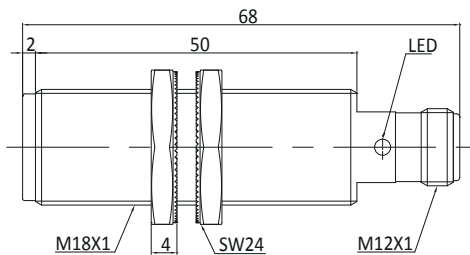
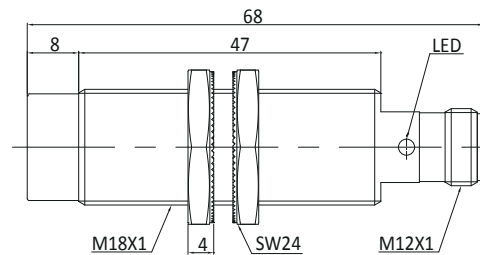


Fig. 4





## All-Metal Inductive Sensor-M18



### Description:

Integrated stainless steel housing, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F15-AM18-OSA3L	5 mm	Flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
F15-AM18-CSA3L	5 mm	Flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
N18-AM18-OSA3L	8 mm	Non-flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
N18-AM18-CSA3L	8 mm	Non-flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
F15-AM18-OSA3L-Q12	5 mm	Flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
F15-AM18-CSA3L-Q12	5 mm	Flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
N18-AM18-OSA3L-Q12	8 mm	Non-flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
N18-AM18-CSA3L-Q12	8 mm	Non-flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

06

### Dimensions:

Fig. 1

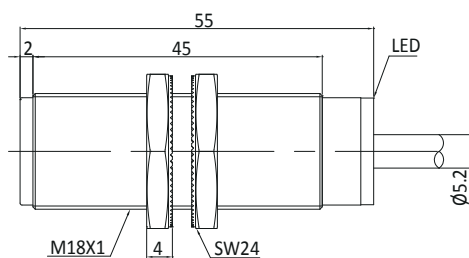


Fig. 2

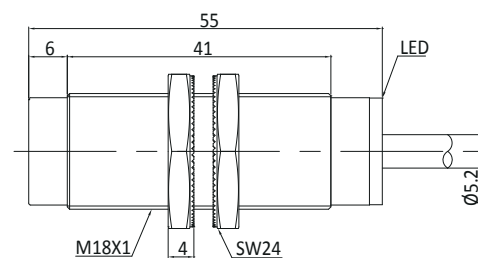


Fig. 3

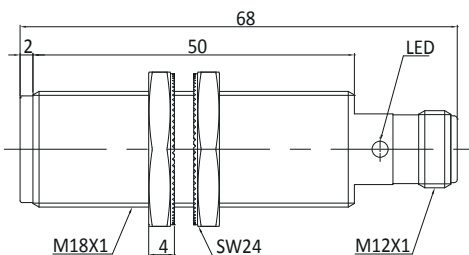
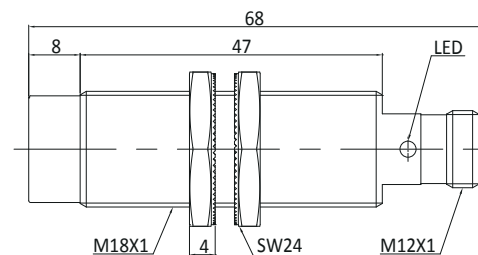


Fig. 4



# ◀◀ Inductive Sensor

## All-Metal Inductive Sensor-M30



### Description:

Integrated stainless steel housing, threaded barrel, DC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI10-AM30-OD6L	10 mm	Flush	NO DC	10...30 VDC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI10-AM30-CD6L	10 mm	Flush	NC DC	10...30 VDC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI15-AM30-OD6L	15 mm	Non-flush	NO DC	10...30 VDC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI15-AM30-CD6L	15 mm	Non-flush	NC DC	10...30 VDC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI10-AM30-OD6L-Q12	10 mm	Flush	NO DC	10...30 VDC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI10-AM30-CD6L-Q12	10 mm	Flush	NC DC	10...30 VDC	$\leq 100$ mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI15-AM30-OD6L-Q12	15 mm	Non-flush	NO DC	10...30 VDC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI15-AM30-CD6L-Q12	15 mm	Non-flush	NC DC	10...30 VDC	$\leq 100$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

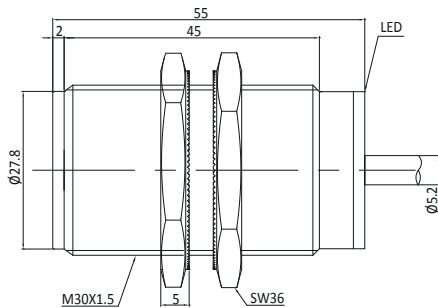


Fig. 2

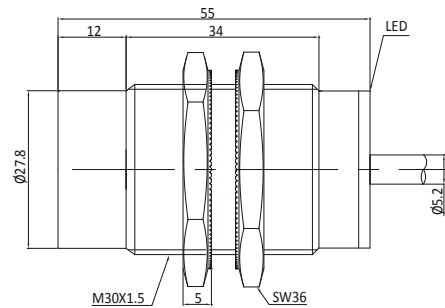


Fig. 3

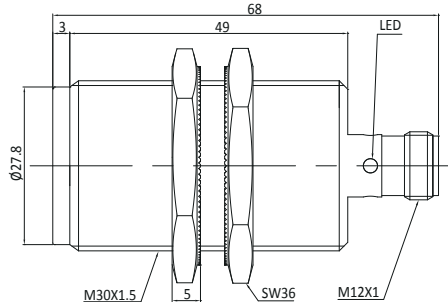
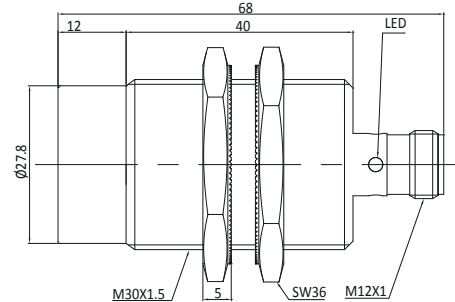


Fig. 4



## All-Metal Inductive Sensor-M30



### Description:

Integrated stainless steel housing, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI10-AM30-ON6L	10 mm	Flush	NO NPN	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI10-AM30-CN6L	10 mm	Flush	NC NPN	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI10-AM30-OP6L	10 mm	Flush	NO PNP	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI10-AM30-CP6L	10 mm	Flush	NC PNP	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI15-AM30-ON6L	15 mm	Flush	NO NPN	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI15-AM30-CN6L	15 mm	Flush	NC NPN	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI15-AM30-OP6L	15 mm	Flush	NO PNP	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI15-AM30-CP6L	15 mm	Flush	NC PNP	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI10-AM30-ON6L-Q12	10 mm	Non-flush	NO NPN	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI10-AM30-CN6L-Q12	10 mm	Non-flush	NC NPN	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI10-AM30-OP6L-Q12	10 mm	Non-flush	NO PNP	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI10-AM30-CP6L-Q12	10 mm	Non-flush	NC PNP	10...30 VDC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI15-AM30-ON6L-Q12	15 mm	Non-flush	NO NPN	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI15-AM30-CN6L-Q12	15 mm	Non-flush	NC NPN	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI15-AM30-OP6L-Q12	15 mm	Non-flush	NO PNP	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI15-AM30-CP6L-Q12	15 mm	Non-flush	NC PNP	10...30 VDC	≤ 200 mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

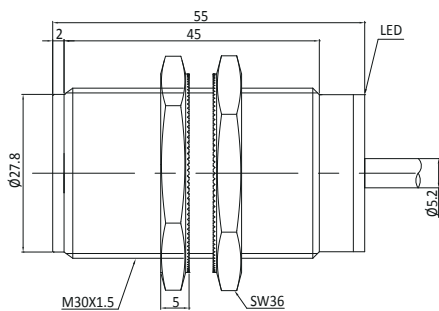


Fig. 2

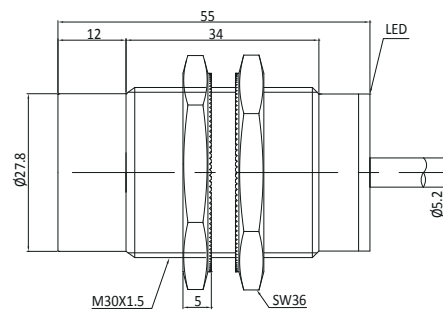


Fig. 3

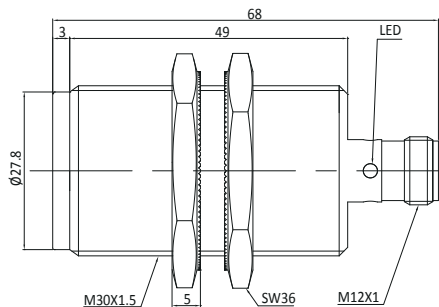
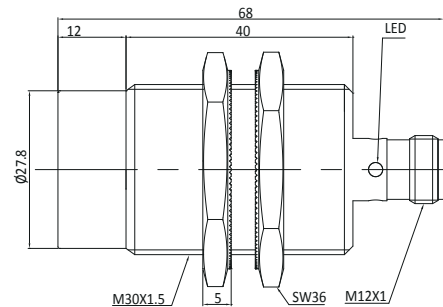


Fig. 4



# ◀◀ Inductive Sensor

## All-Metal Inductive Sensor-M30



### Description:

Integrated stainless steel housing, threaded barrel, AC 2-wire output, IP67 protection class, LED indicator, PUR cable.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI10-AM30-OSA3L	10 mm	Flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
FI10-AM30-CSA3L	10 mm	Flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 1
NI15-AM30-OSA3L	15 mm	Non-flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
NI15-AM30-CSA3L	15 mm	Non-flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	2m cable	Fig. 2
FI10-AM30-OSA3L-Q12	10 mm	Flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
FI10-AM30-CSA3L-Q12	10 mm	Flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 3
NI15-AM30-OSA3L-Q12	15 mm	Non-flush	NO AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
NI15-AM30-CSA3L-Q12	15 mm	Non-flush	NC AC	20...250 VAC	≤ 200 mA	40 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

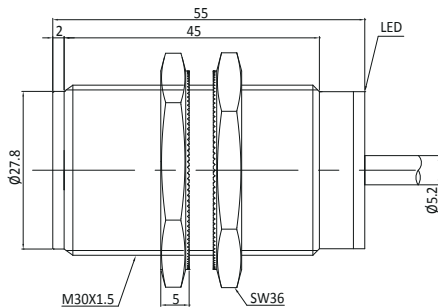


Fig. 2

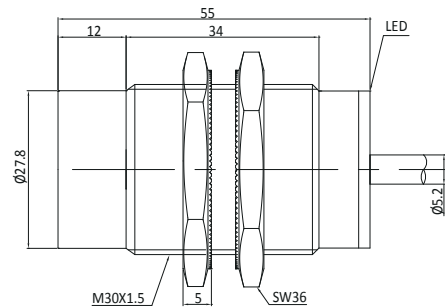


Fig. 3

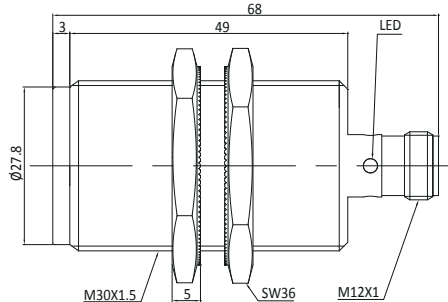
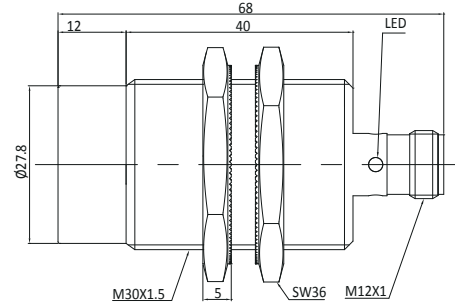
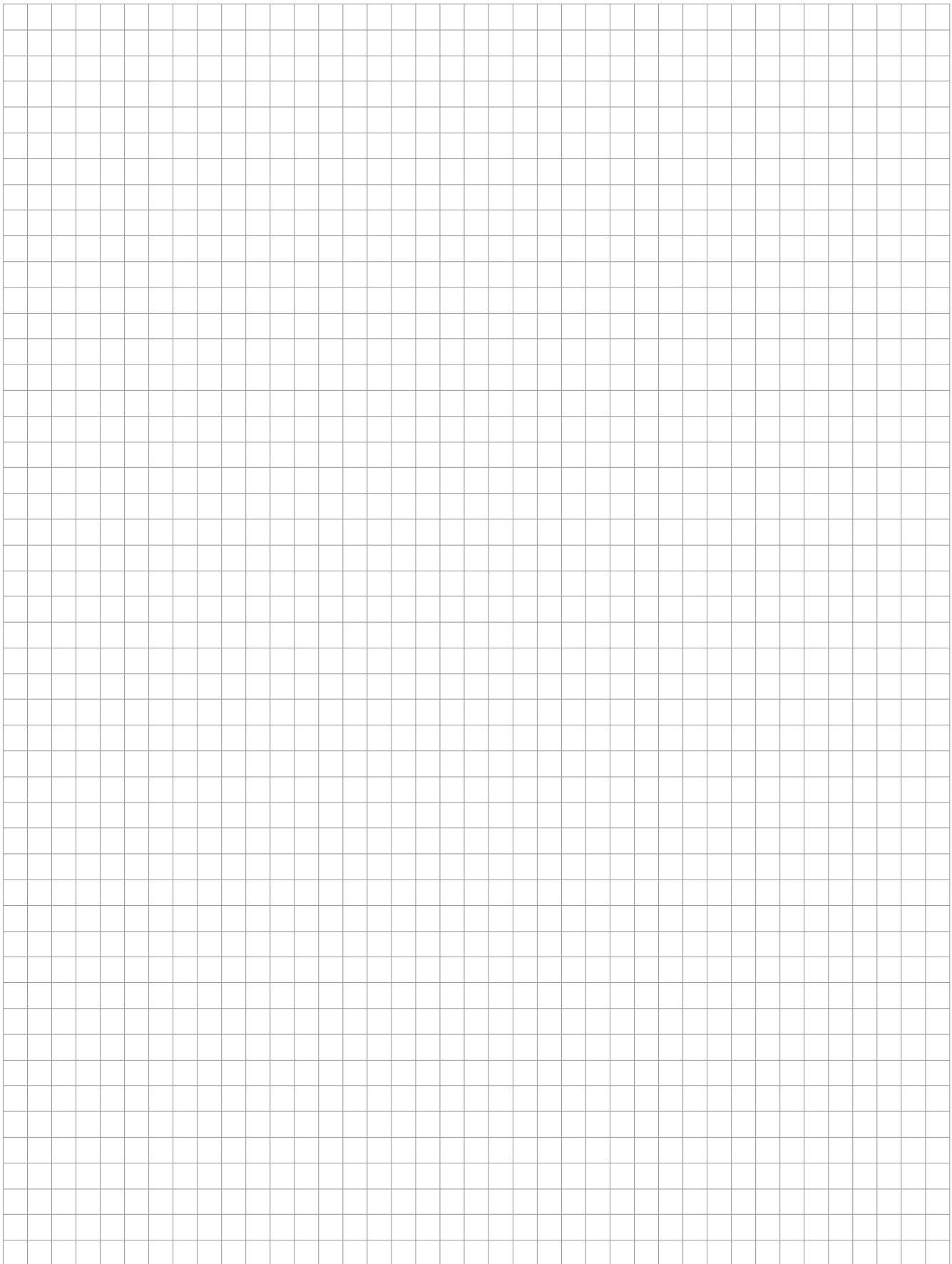


Fig. 4





# Inductive Sensor

High Pressure Resistant



## Description:

Stainless steel housing, threaded barrel, DC 3-wire output, IP68 protection class, pressure range max. 500 bar, LED indicator.

See the wiring diagram on page 241-243 for your reference.

## Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5D-KM12-OP6	1.5 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5D-KM12-ON6	1.5 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5D-KM12-CP6	1.5 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5D-KM12-CN6	1.5 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	2m cable	Fig. 1
Fi1.5D-KM12-OP6-Q12	1.5 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi1.5D-KM12-ON6-Q12	1.5 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi1.5D-KM12-CP6-Q12	1.5 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi1.5D-KM12-CN6-Q12	1.5 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25...70 °C	M12 Connector	Fig. 2

## Dimensions:

Fig. 1

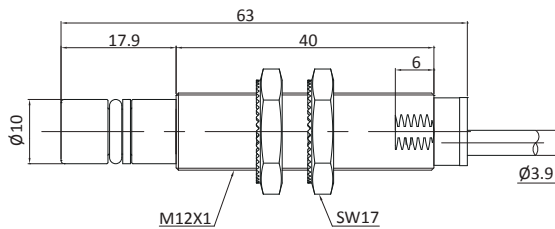
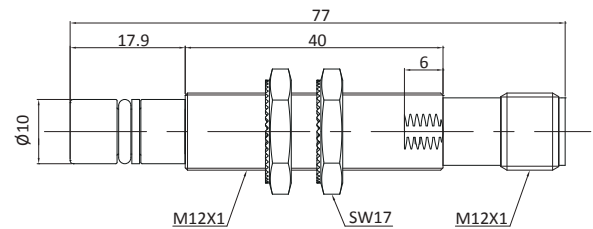


Fig. 2



## High Pressure Resistant



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, IP68 protection class, pressure range max. 500 bar, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi3D-KM18-OP6	3 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	2m cable	Fig. 1
Fi3D-KM18-ON6	3 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	2m cable	Fig. 1
Fi3D-KM18-CP6	3 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	2m cable	Fig. 1
Fi3D-KM18-CN6	3 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	2m cable	Fig. 1
Fi3D-KM18-OP6-Q12	3 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi3D-KM18-ON6-Q12	3 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi3D-KM18-CP6-Q12	3 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	M12 Connector	Fig. 2
Fi3D-KM18-CN6-Q12	3 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-25...70 °C	M12 Connector	Fig. 2

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### Dimensions:

Fig. 1

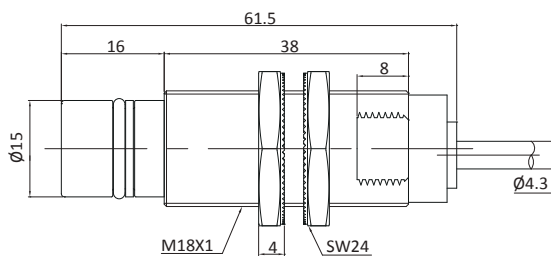
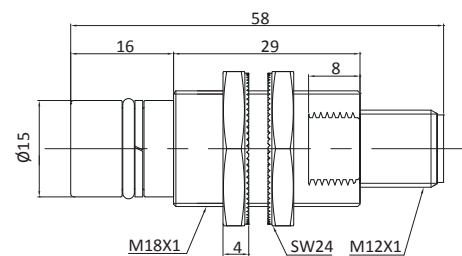


Fig. 2



## Inductive Sensor

High Pressure Resistant



### Description:

Steel housing, threaded barrel, DC 3-wire output, IP68 protection class, pressure range max. 500 bar, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2D-KM14H1-OP6-Q12	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-KM14H1-ON6-Q12	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-KM14H1-CP6-Q12	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-KM14H1-CN6-Q12	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-KM14H2-OP6-Q12	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-KM14H2-ON6-Q12	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-KM14H2-CP6-Q12	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-KM14H2-CN6-Q12	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

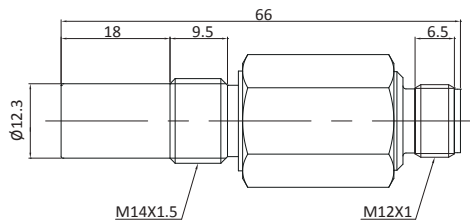
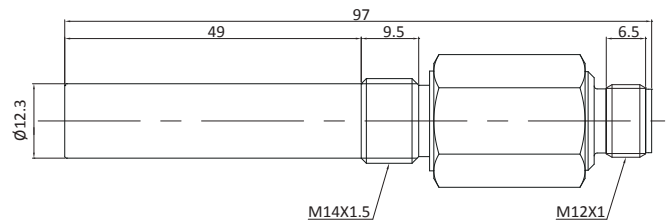


Fig. 2





## High Pressure Resistant



### Description:

Integrated stainless steel housing, threaded barrel, DC 3-wire output, IP68 protection class, pressure range max. 500 bar, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2D-AM14H1-OP6-Q12	2 mm	Flush	NO PNP	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-AM14H1-ON6-Q12	2 mm	Flush	NO NPN	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-AM14H1-CP6-Q12	2 mm	Flush	NC PNP	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-AM14H1-CN6-Q12	2 mm	Flush	NC NPN	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Fi2D-AM14H2-OP6-Q12	2 mm	Flush	NO PNP	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-AM14H2-ON6-Q12	2 mm	Flush	NO NPN	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-AM14H2-CP6-Q12	2 mm	Flush	NC PNP	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2D-AM14H2-CN6-Q12	2 mm	Flush	NC NPN	10...30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

07

### Dimensions:

Fig. 1

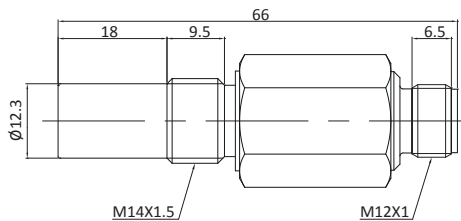
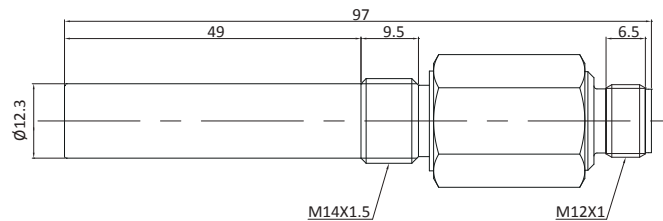


Fig. 2



# Inductive Sensor

## NAMUR



### Description:

Metal housing, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1.5-KM08S-NE	1.5 mm	Flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni2-KM08S-NE	2 mm	Non-flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	800 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12S-NE	2 mm	Flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Ni4-M12S-NE	4 mm	Non-flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	800 Hz	-25 ... 70 °C	2m cable	Fig. 4

### Dimensions:

Fig. 1

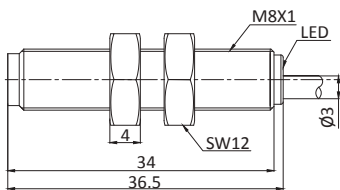


Fig. 2

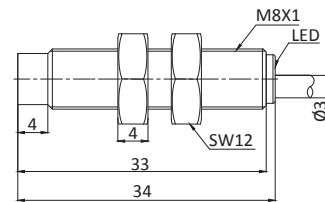


Fig. 3

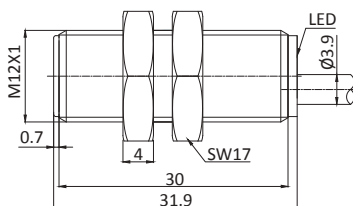
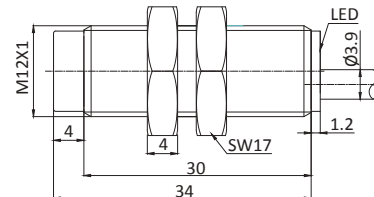


Fig. 4



# NAMUR



## Description:

Brass nickel-plated, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

## Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18S-NE	5 mm	Flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18S-NE	8 mm	Non-flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	500 Hz	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30S-NE	10 mm	Flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Ni15-M30S-NE	15 mm	Non-flush	NAMUR	7.7...9 VDC	≥ 2.2 mA (Not trigger) ≤ 1 mA (Trigger)	200 Hz	-25 ... 70 °C	2m cable	Fig. 4

## Dimensions:

Fig. 1

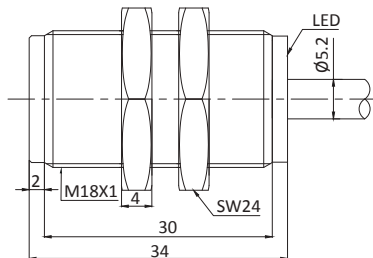


Fig. 2

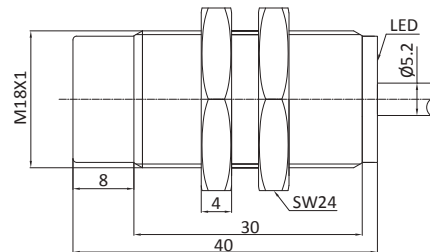


Fig. 3

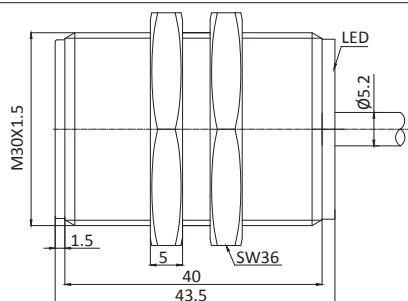
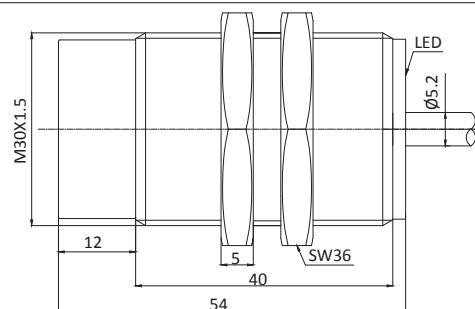


Fig. 4



# << Inductive Sensor

## NAMUR



### Description:

Stainless steel housing, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi1-KM05-NE	1 mm	Flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA (Not trigger) $\leq 1$ mA (Trigger)	1500 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni1.5-KH6.5S-NE	1.5 mm	Flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA (Not trigger) $\leq 1$ mA (Trigger)	1000 Hz	-25 ... 70 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

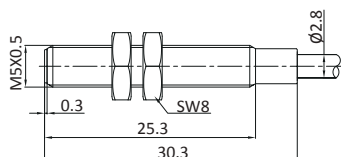
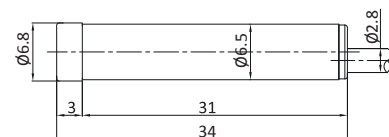


Fig. 2



# NAMUR



## Description:

Plastic housing, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

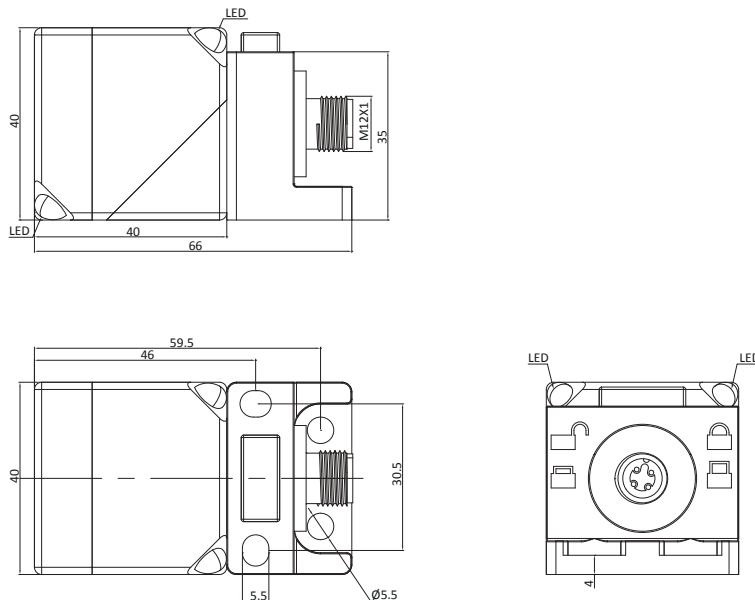
See the wiring diagram on page 241-243 for your reference.

## Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi20-C40-NE-Q12	20 mm	Flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA ( Not trigger) $\leq 1$ mA (Trigger)	150 Hz	-25 ... 70 °C	M12 Connector	Fig. 1
Ni40-C40-NE-Q12	40 mm	Non-flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA ( Not trigger) $\leq 1$ mA (Trigger)	150 Hz	-25 ... 70 °C	M12 Connector	Fig. 1

## Dimensions:

Fig. 1



## << Inductive Sensor

NAMUR



### Description:

Plastic housing, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

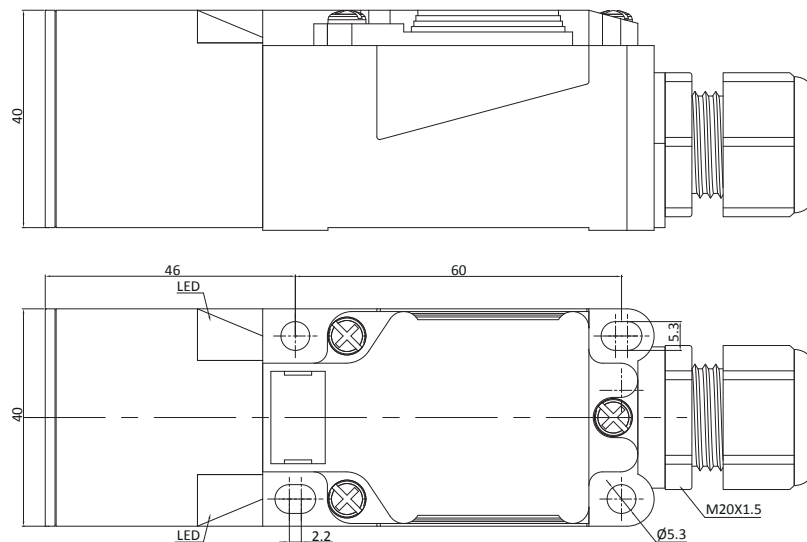
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI15-CL40-NE	15 mm	Flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA (Not trigger) $\leq 1$ mA (Trigger)	250 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni20-CL40-NE	20 mm	Non-flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA (Not trigger) $\leq 1$ mA (Trigger)	250 Hz	-25 ... 70 °C	2m cable	Fig. 1

### Dimensions:

Fig. 1



# NAMUR



## Description:

Plastic housing, standard operating voltage for explosion-proof applications, configured safety barrier (recommended ELCO ECXI series), IP67 protection class, LED indicator.

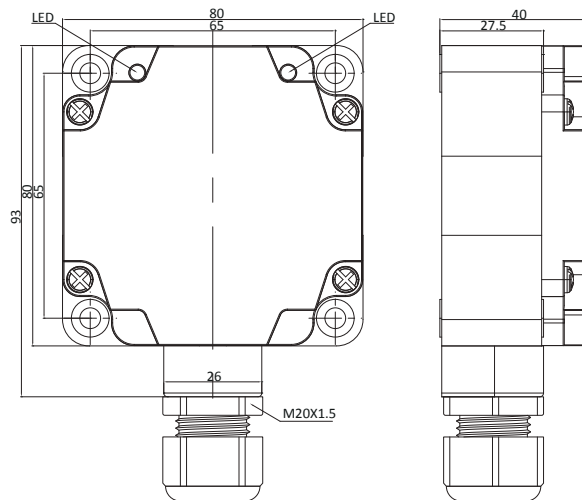
See the wiring diagram on page 241-243 for your reference.

## Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-C80-NE	40 mm	Flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA ( Not trigger) $\leq 1$ mA (Trigger)	80 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni50-C80-NE	50 mm	Non-flush	NAMUR	7.7...9 VDC	$\geq 2.2$ mA ( Not trigger) $\leq 1$ mA (Trigger)	100 Hz	-25 ... 70 °C	2m cable	Fig. 1

## Dimensions:

Fig. 1



# Inductive Sensor

## Wide Temperature Range - M12



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range -30...100 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2H-M12-OP6L	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi2H-M12-ON6L	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi2H-M12-CP6L	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi2H-M12-CN6L	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	2m cable	Fig. 1
Ni4H-M12-OP6L	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni4H-M12-ON6L	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni4H-M12-CP6L	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni4H-M12-CN6L	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 2
Fi2H-M12-OP6L-Q12	2 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi2H-M12-ON6L-Q12	2 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi2H-M12-CP6L-Q12	2 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi2H-M12-CN6L-Q12	2 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	1000 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Ni4H-M12-OP6L-Q12	4 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni4H-M12-ON6L-Q12	4 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni4H-M12-CP6L-Q12	4 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni4H-M12-CN6L-Q12	4 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

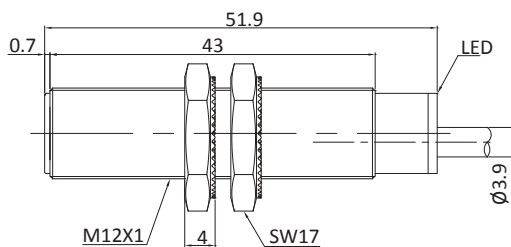


Fig. 2

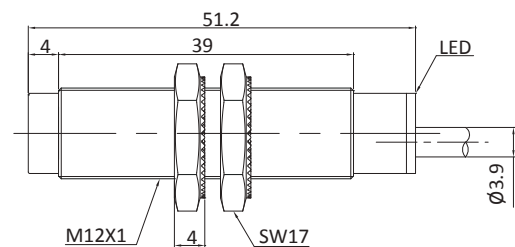


Fig. 3

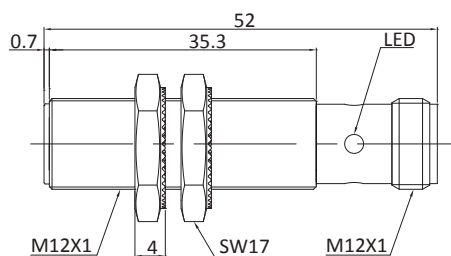
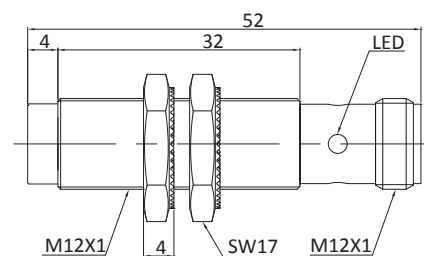


Fig. 4





## Wide Temperature Range - M18



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range -30...100 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5H-M18-OP6L	5 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi5H-M18-ON6L	5 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi5H-M18-CP6L	5 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi5H-M18-CN6L	5 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	2m cable	Fig. 1
Ni8H-M18-OP6L	8 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni8H-M18-ON6L	8 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni8H-M18-CP6L	8 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni8H-M18-CN6L	8 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	2m cable	Fig. 2
Fi5H-M18-OP6L-Q12	5 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi5H-M18-ON6L-Q12	5 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi5H-M18-CP6L-Q12	5 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi5H-M18-CN6L-Q12	5 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	800 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Ni8H-M18-OP6L-Q12	8 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni8H-M18-ON6L-Q12	8 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni8H-M18-CP6L-Q12	8 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni8H-M18-CN6L-Q12	8 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	500 Hz	-30 ... 100 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

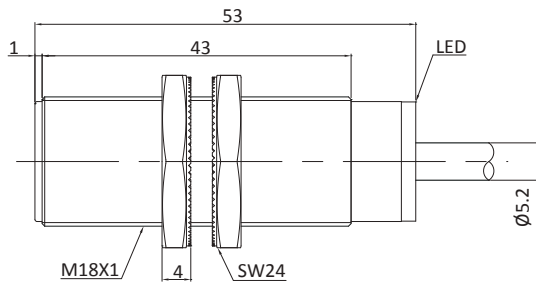


Fig. 2

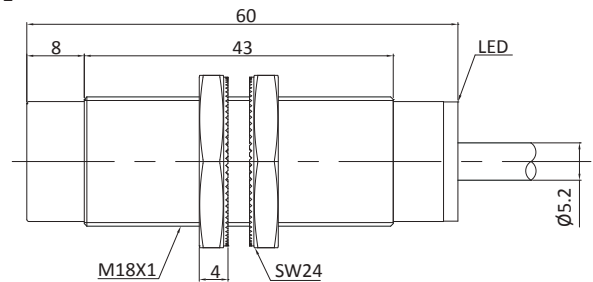


Fig. 3

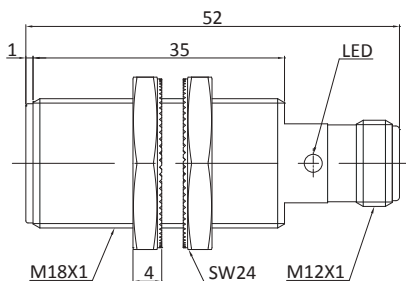
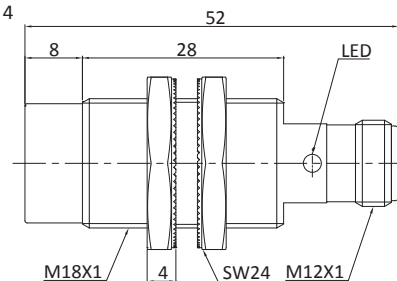


Fig. 4



# Inductive Sensor

## Wide Temperature Range - M30



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range -30...100 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10H-M30-OP6L	10 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi10H-M30-ON6L	10 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi10H-M30-CP6L	10 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	2m cable	Fig. 1
Fi10H-M30-CN6L	10 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	2m cable	Fig. 1
Ni15H-M30-OP6L	15 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni15H-M30-ON6L	15 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni15H-M30-CP6L	15 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	2m cable	Fig. 2
Ni15H-M30-CN6L	15 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	2m cable	Fig. 2
Fi10H-M30-OP6L-Q12	10 mm	Flush	NO PNP	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi10H-M30-ON6L-Q12	10 mm	Flush	NO NPN	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi10H-M30-CP6L-Q12	10 mm	Flush	NC PNP	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Fi10H-M30-CN6L-Q12	10 mm	Flush	NC NPN	10...30 V DC	≤ 200 mA	400 Hz	-30 ... 100 °C	M12 Connector	Fig. 3
Ni15H-M30-OP6L-Q12	15 mm	Non-flush	NO PNP	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni15H-M30-ON6L-Q12	15 mm	Non-flush	NO NPN	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni15H-M30-CP6L-Q12	15 mm	Non-flush	NC PNP	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	M12 Connector	Fig. 4
Ni15H-M30-CN6L-Q12	15 mm	Non-flush	NC NPN	10...30 V DC	≤ 200 mA	200 Hz	-30 ... 100 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

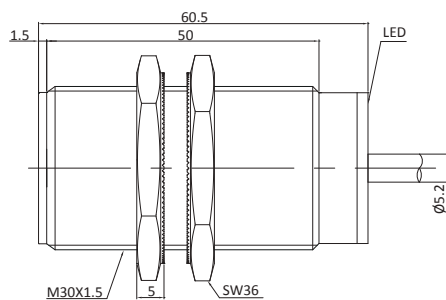


Fig. 2

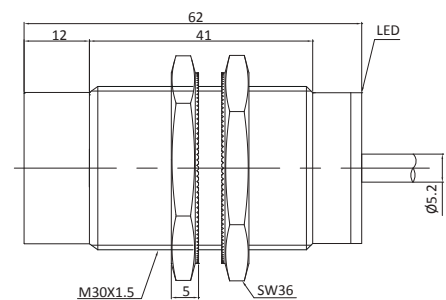


Fig. 3

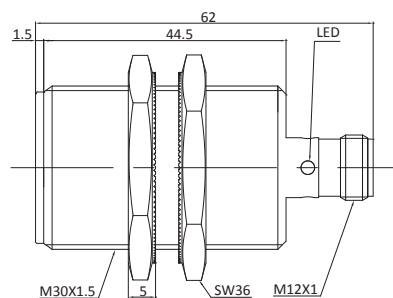
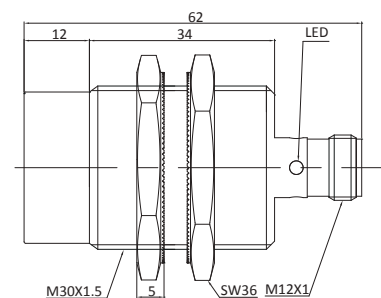
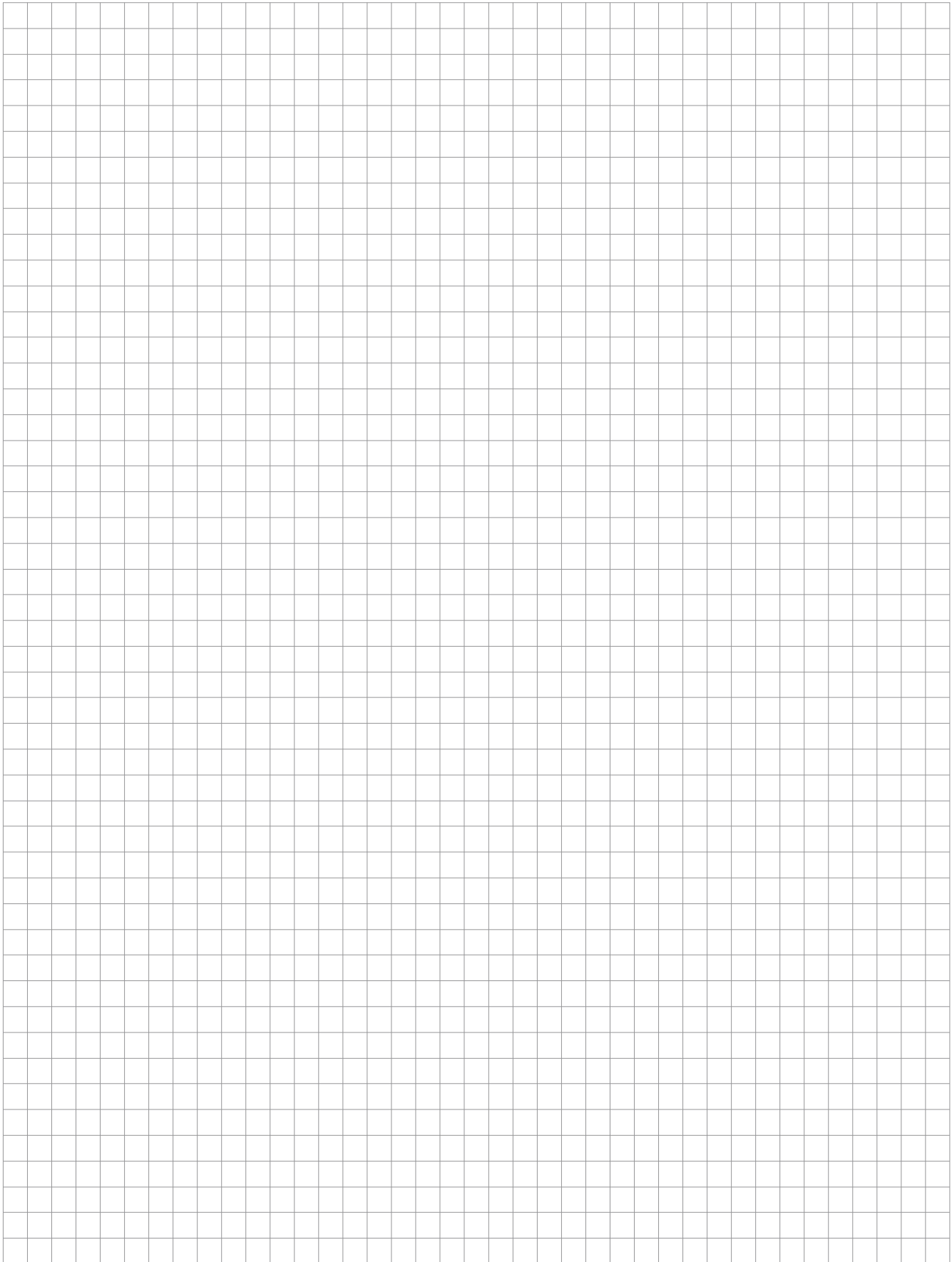


Fig. 4





## << Inductive Sensor

### Temperature Extension - High Temperature - M08



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OD6L/T120	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M08-CD6L/T120	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-M08-OD6L/T120	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M08-CD6L/T120	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

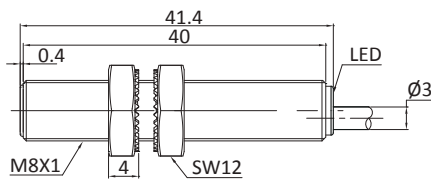
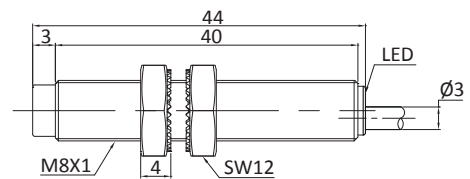


Fig. 2



## Temperature Extension - High Temperature - M08



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OP6L/T120	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M08-ON6L/T120	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M08-CP6L/T120	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M08-CN6L/T120	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-M08-OP6L/T120	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M08-ON6L/T120	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M08-CP6L/T120	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M08-CN6L/T120	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

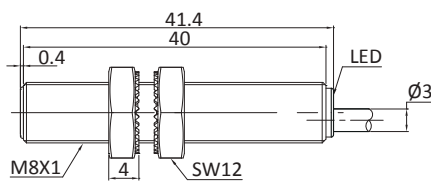
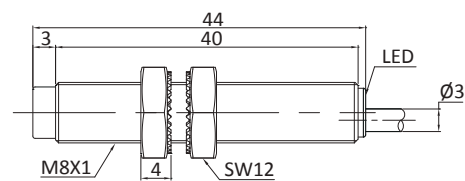


Fig. 2



## << Inductive Sensor

### Temperature Extension - High Temperature - KM08



#### Description:

Stainless steel housing, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F12-KM08-OD6L/T120	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
F12-KM08-CD6L/T120	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
NI4-KM08-OD6L/T120	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
NI4-KM08-CD6L/T120	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

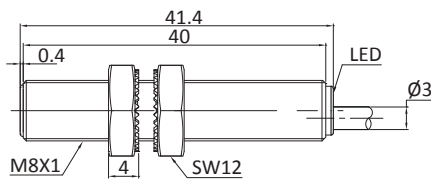
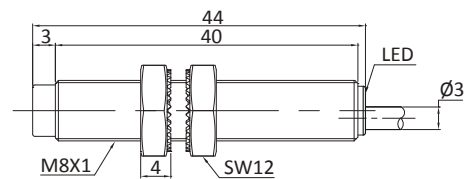


Fig. 2



## Temperature Extension - High Temperature - KM08



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
FI2-KM08-OP6L/T120	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
FI2-KM08-ON6L/T120	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
FI2-KM08-CP6L/T120	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
FI2-KM08-CN6L/T120	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
NI4-KM08-OP6L/T120	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
NI4-KM08-ON6L/T120	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
NI4-KM08-CP6L/T120	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
NI4-KM08-CN6L/T120	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

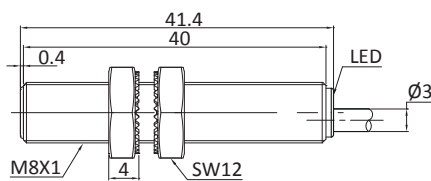
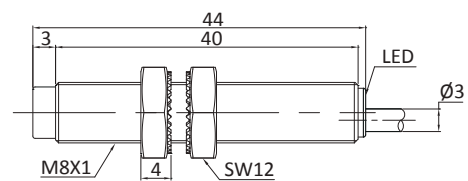


Fig. 2



## Inductive Sensor

### Temperature Extension - High Temperature - M12



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OD6L/T120	2 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	1000 Hz	-25...120 °C	2m cable	Fig.1
Fi2-M12-CD6L/T120	2 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	1000 Hz	-25...120 °C	2m cable	Fig.1
Ni4-M12-OD6L/T120	4 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	800 Hz	-25...120 °C	2m cable	Fig.2
Ni4-M12-CD6L/T120	4 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	800 Hz	-25...120 °C	2m cable	Fig.2

#### Dimensions:

Fig. 1

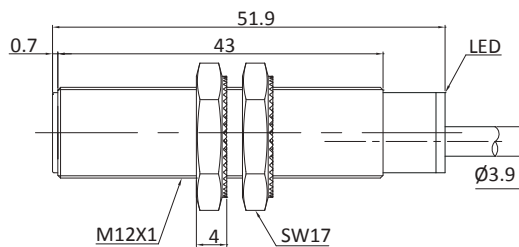
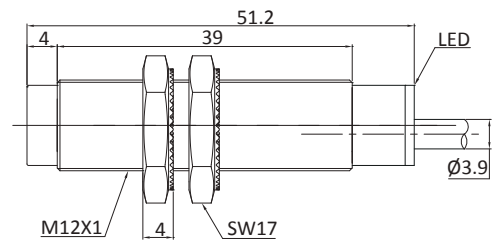


Fig. 2





## Temperature Extension - High Temperature - M12



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OP6L/T120	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M12-ON6L/T120	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M12-CP6L/T120	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M12-CN6L/T120	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-M12-OP6L/T120	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M12-ON6L/T120	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M12-CP6L/T120	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M12-CN6L/T120	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

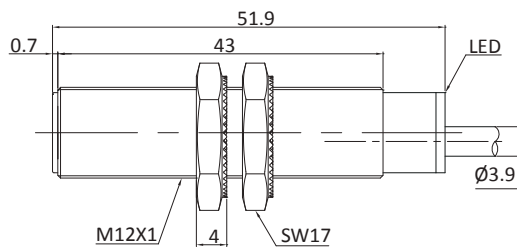
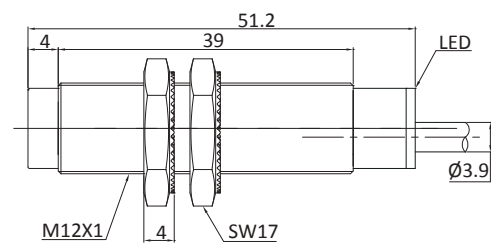


Fig. 2



## << Inductive Sensor

### Temperature Extension - High Temperature - M12



#### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OA41L/T120	2mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-M12-CA41L/T120	2mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-M12-OA41L/T120	4mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-M12-CA41L/T120	4mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

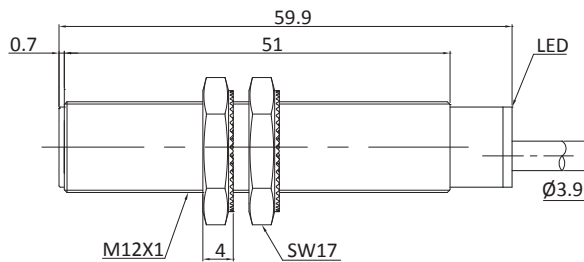
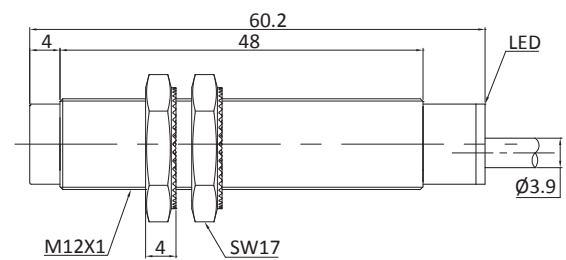


Fig. 2



## Temperature Extension - High Temperature - KM12



### Description:

Stainless steel housing, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM12-OD6L/T120	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...120 °C	2m cable	Fig.1
Fi2-KM12-CD6L/T120	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...120 °C	2m cable	Fig.1
Ni4-KM12-OD6L/T120	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25...120 °C	2m cable	Fig.2
Ni4-KM12-CD6L/T120	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25...120 °C	2m cable	Fig.2
Fi2-KM12-OD6L-Q12/T120	2 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	1000 Hz	-25...120 °C	M12 Connector	Fig.3
Fi2-KM12-CD6L-Q12/T120	2 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	1000 Hz	-25...120 °C	M12 Connector	Fig.3
Ni4-KM12-OD6L-Q12/T120	4 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25...120 °C	M12 Connector	Fig.4
Ni4-KM12-CD6L-Q12/T120	4 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25...120 °C	M12 Connector	Fig.4

### Dimensions:

Fig. 1

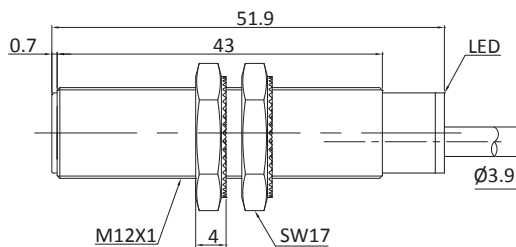


Fig. 2

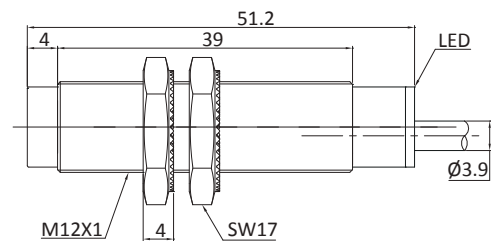


Fig. 3

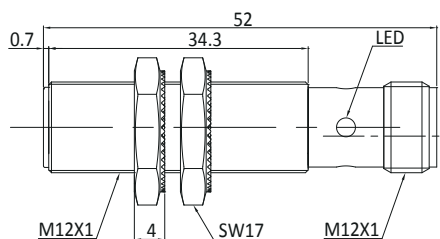
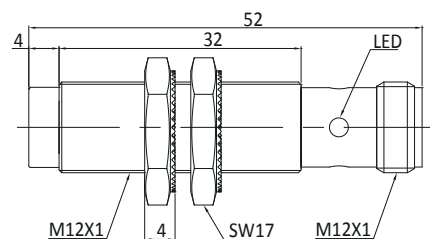


Fig. 4



# Inductive Sensor

## Temperature Extension - High Temperature - KM12



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM12-OP6L/T120	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-KM12-ON6L/T120	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-KM12-CP6L/T120	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-KM12-CN6L/T120	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-KM12-OP6L/T120	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-KM12-ON6L/T120	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-KM12-CP6L/T120	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-KM12-CN6L/T120	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi2-KM12-OP6L-Q12/T120	2 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi2-KM12-ON6L-Q12/T120	2 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi2-KM12-CP6L-Q12/T120	2 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi2-KM12-CN6L-Q12/T120	2 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni4-KM12-OP6L-Q12/T120	4 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni4-KM12-ON6L-Q12/T120	4 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni4-KM12-CP6L-Q12/T120	4 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni4-KM12-CN6L-Q12/T120	4 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

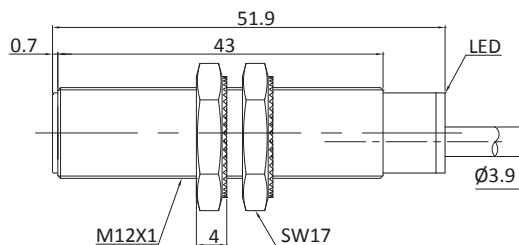


Fig. 2

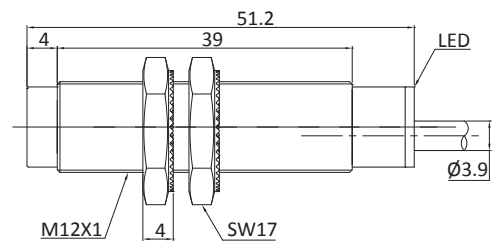


Fig. 3

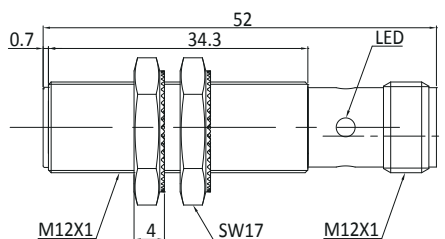
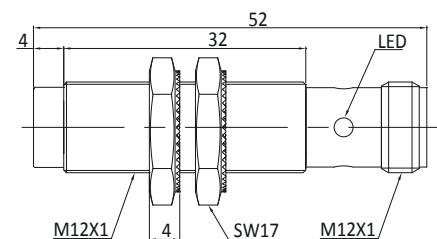


Fig. 4



## Temperature Extension - High Temperature - KM12



### Description:

Stainless steel housing, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM12-OA41L/T120	2mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-KM12-CA41L/T120	2mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-KM12-OA41L/T120	4mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-KM12-CA41L/T120	4mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi2-KM12-OA41L-Q12/T120	2mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Fi2-KM12-CA41L-Q12/T120	2mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Ni4-KM12-OA41L-Q12/T120	4mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 2
Ni4-KM12-CA41L-Q12/T120	4mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

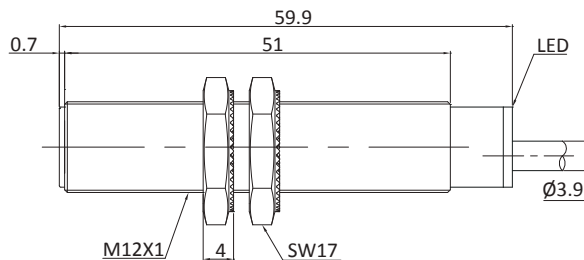


Fig. 2

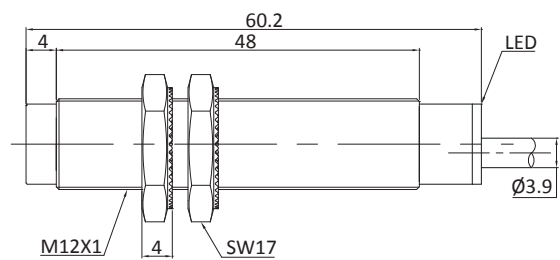


Fig. 3

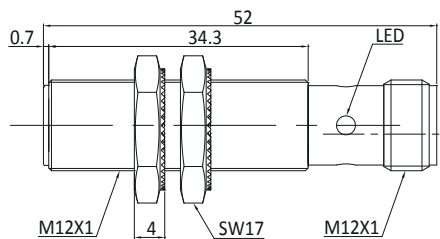
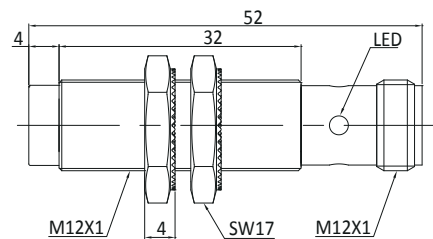


Fig. 4



# Inductive Sensor

## Temperature Extension - High Temperature - KM12



### Description:

Stainless steel housing, threaded barrel, DC 4-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-KM12-BP6L/T120	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi2-KM12-BN6L/T120	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni4-KM12-BP6L/T120	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni4-KM12-BN6L/T120	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi2-KM12-BP6L-Q12/T120	2 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi2-KM12-BN6L-Q12/T120	2 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	1000 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni4-KM12-BP6L-Q12/T120	4 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni4-KM12-BN6L-Q12/T120	4 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

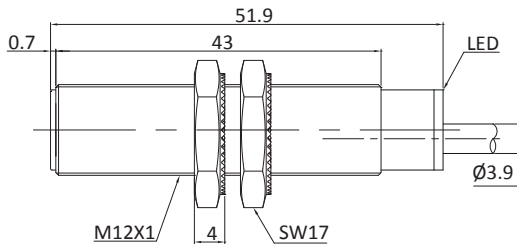


Fig. 2

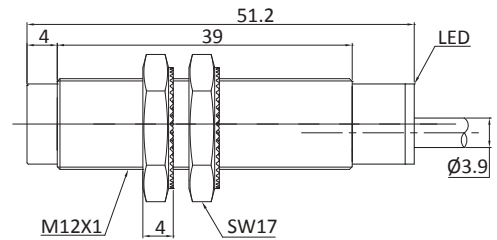


Fig. 3

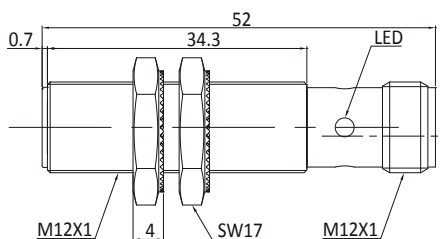
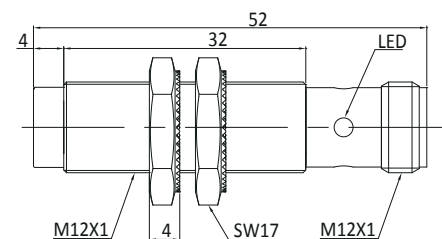


Fig. 4



## Temperature Extension - High Temperature - M18



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OD6L/T120	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-M18-CD6L/T120	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-M18-OD6L/T120	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-M18-CD6L/T120	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

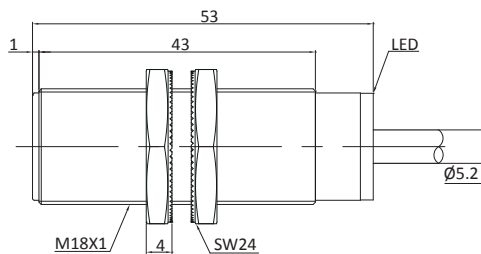
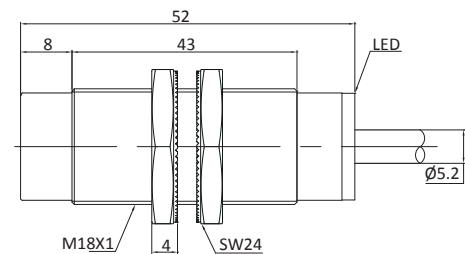


Fig. 2



## ◀◀ Inductive Sensor

### Temperature Extension - High Temperature - M18



#### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OP6L/T120	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-M18-ON6L/T120	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-M18-CP6L/T120	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-M18-CN6L/T120	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-M18-OP6L/T120	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-M18-ON6L/T120	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-M18-CP6L/T120	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-M18-CN6L/T120	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

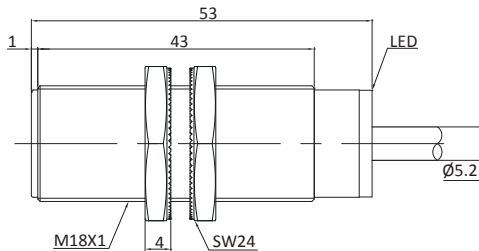
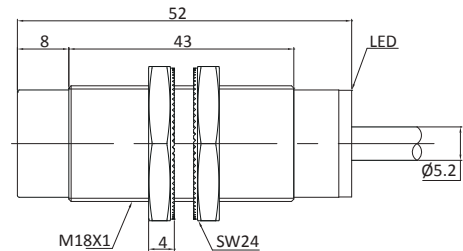


Fig. 2





## Temperature Extension - High Temperature - M18



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OA41L/T120	5 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-M18-OA41L/T120	5 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-M18-OA41L/T120	8 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-M18-CA41L/T120	8 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

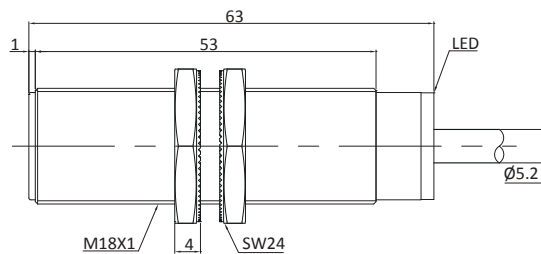
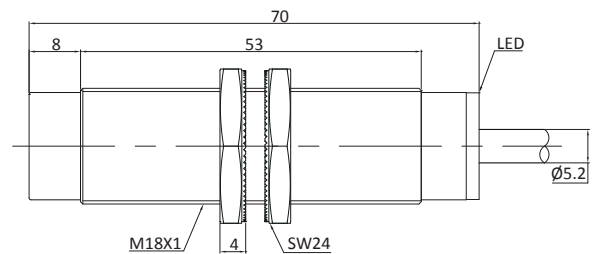


Fig. 2



# Inductive Sensor

## Temperature Extension - High Temperature - KM18



### Description:

Stainless steel housing, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-KM18-OD6L/T120	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-CD6L/T120	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-KM18-OD6L/T120	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-CD6L/T120	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi5-KM18-OD6L-Q12/T120	5 mm	Flush	DC NO	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi5-KM18-CD6L-Q12/T120	5 mm	Flush	DC NC	10...30 V DC	≤ 100 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni8-KM18-OD6L-Q12/T120	8 mm	Non-flush	DC NO	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni8-KM18-CD6L-Q12/T120	8 mm	Non-flush	DC NC	10...30 V DC	≤ 100 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

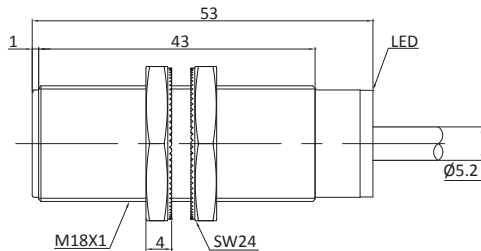


Fig. 2

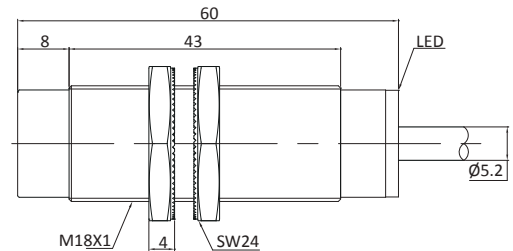


Fig. 3

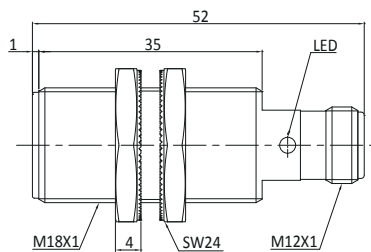
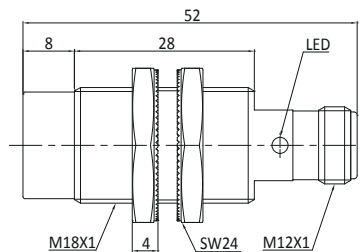


Fig. 4



## Temperature Extension - High Temperature - KM18



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-KM18-OP6L/T120	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-ON6L/T120	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-CP6L/T120	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-CN6L/T120	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-KM18-OP6L/T120	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-ON6L/T120	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-CP6L/T120	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-CN6L/T120	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi5-KM18-OP6L-Q12/T120	5 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Fi5-KM18-ON6L-Q12/T120	5 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Fi5-KM18-CP6L-Q12/T120	5 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Fi5-KM18-CN6L-Q12/T120	5 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 1
Ni8-KM18-OP6L-Q12/T120	8 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 2
Ni8-KM18-ON6L-Q12/T120	8 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 2
Ni8-KM18-CP6L-Q12/T120	8 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 2
Ni8-KM18-CN6L-Q12/T120	8 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

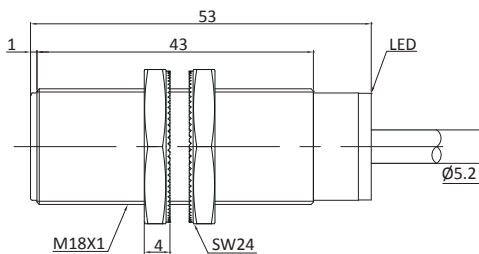


Fig. 2

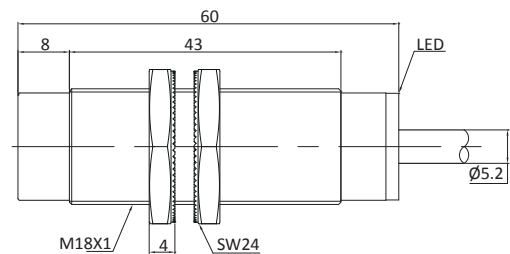


Fig. 3

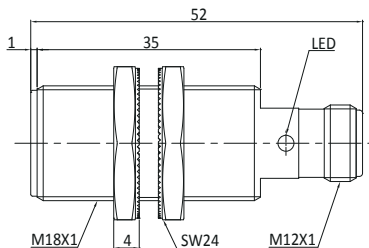
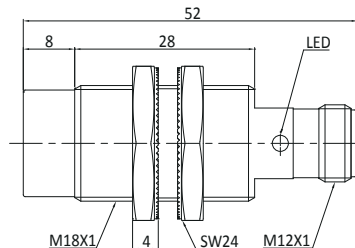


Fig. 4



## ◀ Inductive Sensor

### Temperature Extension - High Temperature - KM18



#### Description:

Stainless steel housing, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-KM18-OA41L/T120	5 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-CA41L/T120	5 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-KM18-OA41L/T120	8 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-CA41L/T120	8 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi5-KM18-OA41L-Q12/T120	5 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi5-KM18-CA41L-Q12/T120	5 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni8-KM18-OA41L-Q12/T120	8 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni8-KM18-CA41L-Q12/T120	8 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

#### Dimensions:

Fig. 1

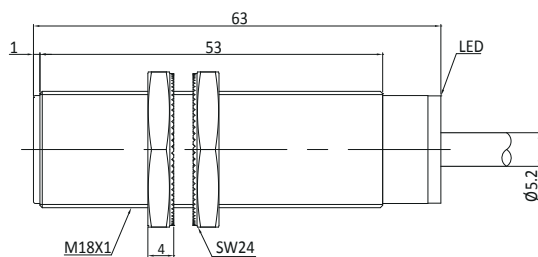


Fig. 2

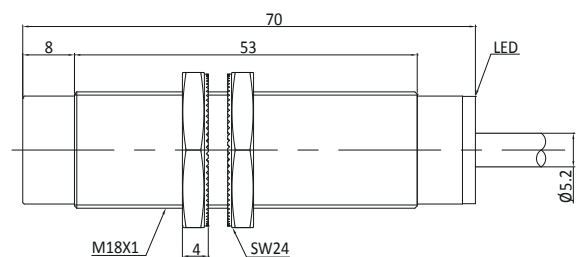


Fig. 3

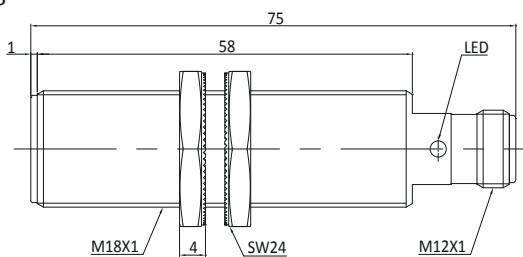
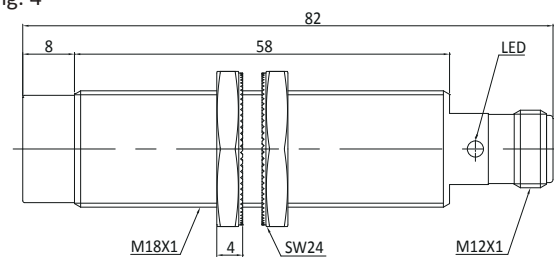


Fig. 4



## Temperature Extension - High Temperature - KM18



### Description:

Stainless steel housing, threaded barrel, DC 4-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-KM18-BP6L/T120	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi5-KM18-BN6L/T120	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni8-KM18-BP6L/T120	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni8-KM18-BN6L/T120	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi5-KM18-BP6L-Q12/T120	5 mm	Flush	PNP NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi5-KM18-BN6L-Q12/T120	5 mm	Flush	NPN NO+NC	10...30 V DC	≤ 200 mA	800 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni8-KM18-BP6L-Q12/T120	8 mm	Non-flush	PNP NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni8-KM18-BN6L-Q12/T120	8 mm	Non-flush	NPN NO+NC	10...30 V DC	≤ 200 mA	500 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

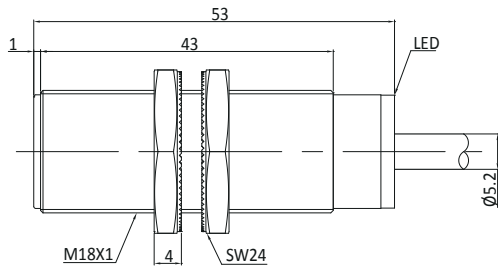


Fig. 2

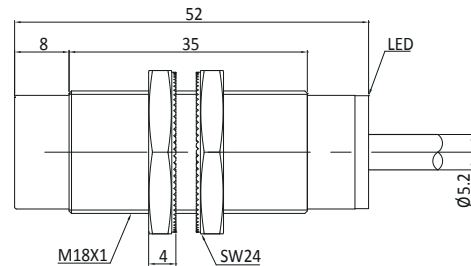


Fig. 3

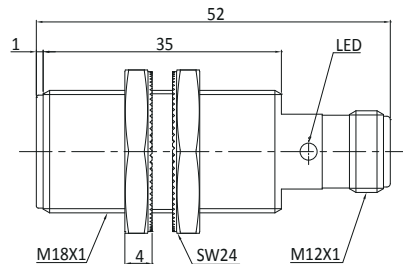
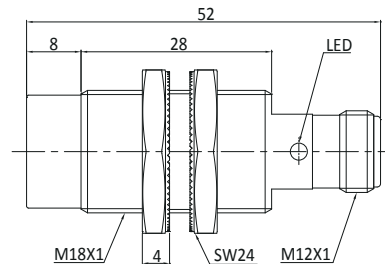


Fig. 4



## << Inductive Sensor

### Temperature Extension - High Temperature - M30



#### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OD6L/T120	10 mm	Flush	DC NO	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-M30-CD6L/T120	10 mm	Flush	DC NC	10...30 V DC	$\leq 100$ mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-M30-OD6L/T120	15 mm	Non-flush	DC NO	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-M30-CD6L/T120	15 mm	Non-flush	DC NC	10...30 V DC	$\leq 100$ mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

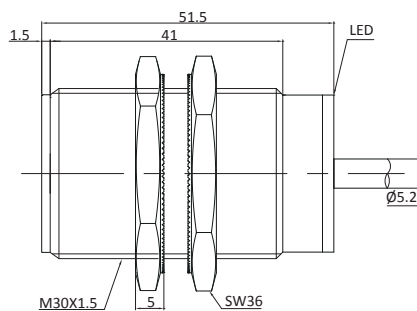
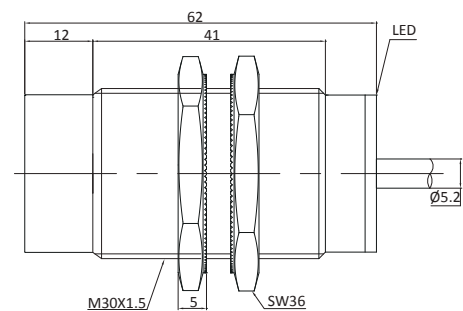


Fig. 2



## Temperature Extension - High Temperature - M30



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OP6L/T120	10 mm	Flush	PNP NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-M30-ON6L/T120	10 mm	Flush	NPN NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-M30-CP6L/T120	10 mm	Flush	PNP NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-M30-CN6L/T120	10 mm	Flush	NPN NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-M30-OP6L/T120	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-M30-ON6L/T120	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-M30-CP6L/T120	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-M30-CN6L/T120	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2

### Dimensions:

Fig. 1

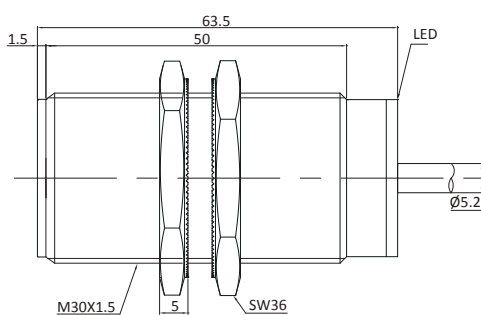
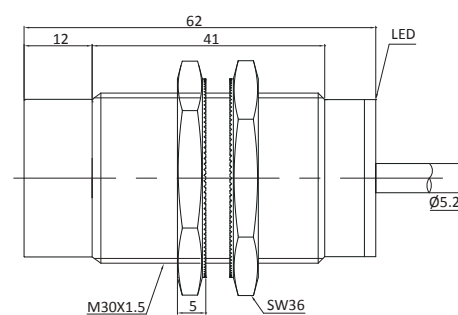


Fig. 2



## << Inductive Sensor

### Temperature Extension - High Temperature - M30



#### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OA41L/T120	10 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-M30-CA41L/T120	10 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-M30-OA41L/T120	15 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-M30-CA41L/T120	15 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2

#### Dimensions:

Fig. 1

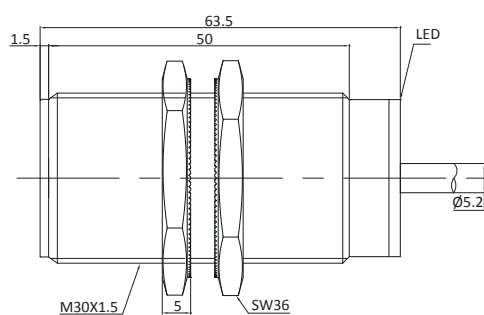
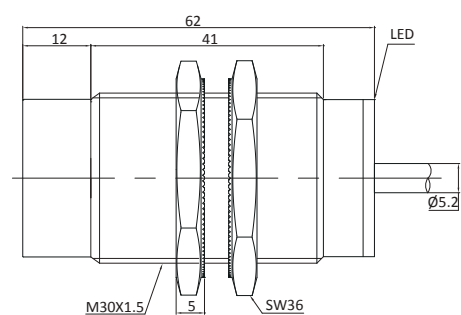


Fig. 2





## Temperature Extension - High Temperature - KM30



### Description:

Stainless steel housing, threaded barrel, DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-KM30-OD6L/T120	10 mm	Flush	DC NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-CD6L/T120	10 mm	Flush	DC NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-KM30-OD6L/T120	15 mm	Non-flush	DC NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-CD6L/T120	15 mm	Non-flush	DC NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi10-KM30-OD6L-Q12/T120	10 mm	Flush	DC NO	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-CD6L-Q12/T120	10 mm	Flush	DC NC	10...30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni15-KM30-OD6L-Q12/T120	15 mm	Non-flush	DC NO	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-CD6L-Q12/T120	15 mm	Non-flush	DC NC	10...30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

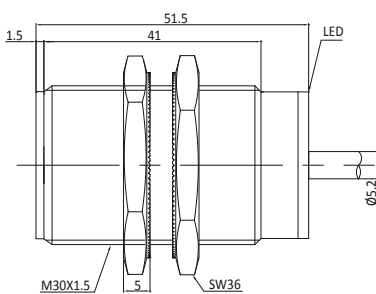


Fig. 2

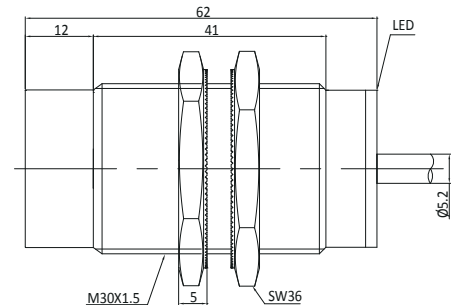


Fig. 3

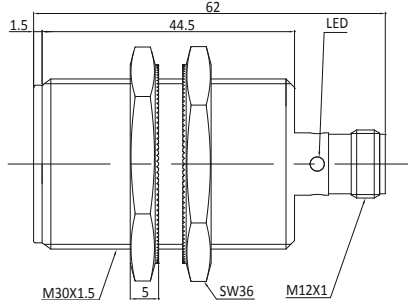
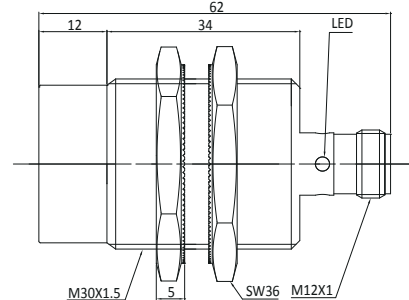


Fig. 4



# Inductive Sensor

## Temperature Extension - High Temperature - KM30



### Description:

Stainless steel housing, threaded barrel, DC 3-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-KM30-OP6L/T120	10 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-ON6L/T120	10 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-CP6L/T120	10 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-CN6L/T120	10 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-KM30-OP6L/T120	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-ON6L/T120	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-CP6L/T120	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-CN6L/T120	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi10-KM30-OP6L-Q12/T120	10 mm	Flush	PNP NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-ON6L-Q12/T120	10 mm	Flush	NPN NO	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-CP6L-Q12/T120	10 mm	Flush	PNP NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-CN6L-Q12/T120	10 mm	Flush	NPN NC	10...30 V DC	≤ 100 mA	400 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni15-KM30-OP6L-Q12/T120	15 mm	Non-flush	PNP NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-ON6L-Q12/T120	15 mm	Non-flush	NPN NO	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-CP6L-Q12/T120	15 mm	Non-flush	PNP NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-CN6L-Q12/T120	15 mm	Non-flush	NPN NC	10...30 V DC	≤ 100 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

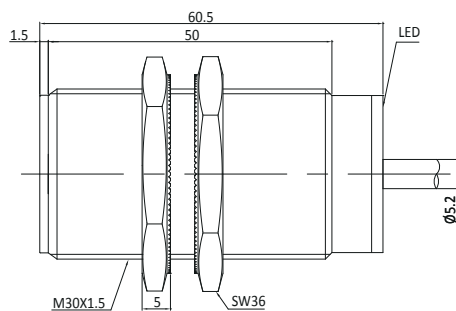


Fig. 2

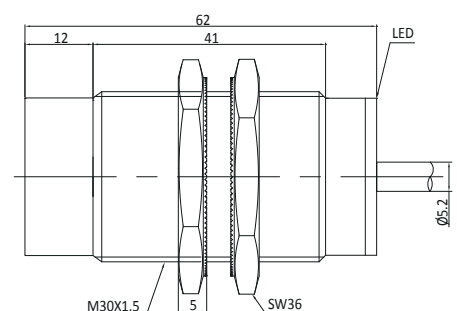


Fig. 3

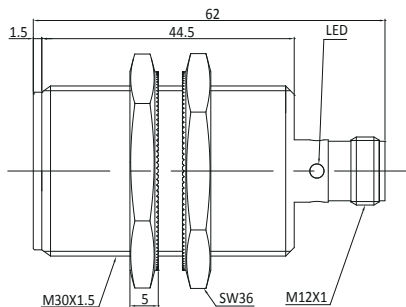
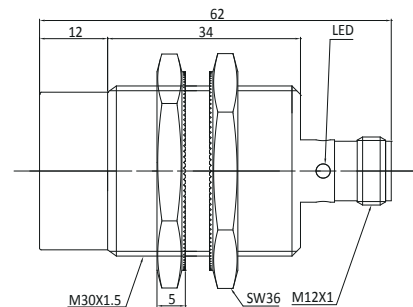


Fig. 4



## Temperature Extension - High Temperature - KM30



### Description:

Stainless steel housing, threaded barrel, AC/DC 2-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-KM30-OA41L/T120	10 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-CA41L/T120	10 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-KM30-OA41L/T120	15 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-CA41L/T120	15 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi10-KM30-OA41L-Q12/T120	10 mm	Flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-CA41L-Q12/T120	10 mm	Flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni15-KM30-OA41L-Q12/T120	15 mm	Non-flush	DC/AC NO	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-CA41L-Q12/T120	15 mm	Non-flush	DC/AC NC	20...250 V AC/DC	≤ 200 mA	40 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

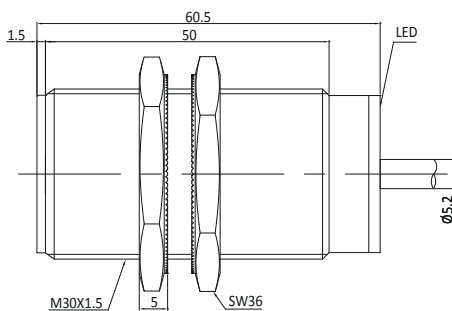


Fig. 2

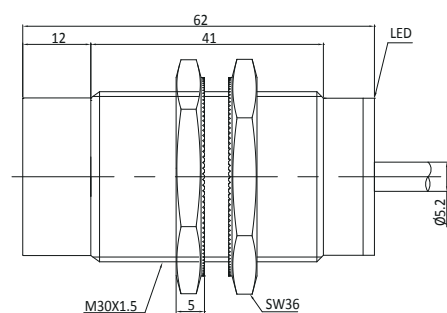


Fig. 3

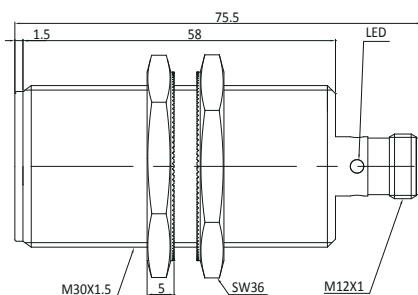
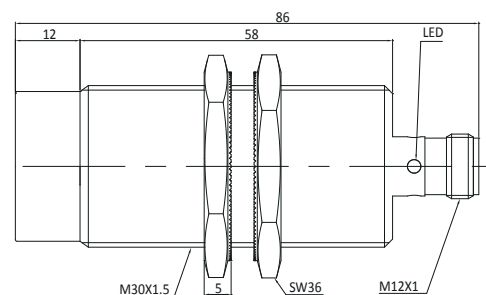


Fig. 4



# Inductive Sensor

## Temperature Extension - High Temperature - KM30



### Description:

Stainless steel housing, threaded barrel, DC 4-wire output, temperature range up to 120 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-KM30-BP6L/T120	10 mm	Flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Fi10-KM30-BN6L/T120	10 mm	Flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 1
Ni15-KM30-BP6L/T120	15 mm	Non-flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 2
Ni15-KM30-BN6L/T120	15 mm	Non-flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 120 °C	2m cable	Fig. 2
Fi10-KM30-BP6L-Q12/T120	10 mm	Flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Fi10-KM30-BN6L-Q12/T120	10 mm	Flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 3
Ni15-KM30-BP6L-Q12/T120	15 mm	Non-flush	NO+NC PNP	10 ... 30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4
Ni15-KM30-BN6L-Q12/T120	15 mm	Non-flush	NO+NC NPN	10 ... 30 V DC	≤ 200 mA	200 Hz	-25 ... 120 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

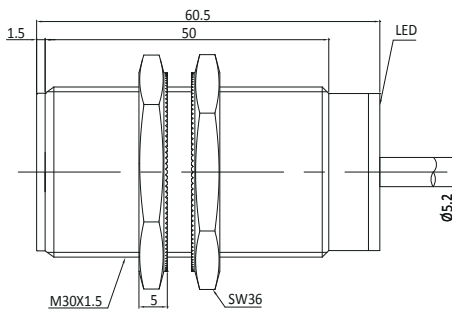


Fig. 2

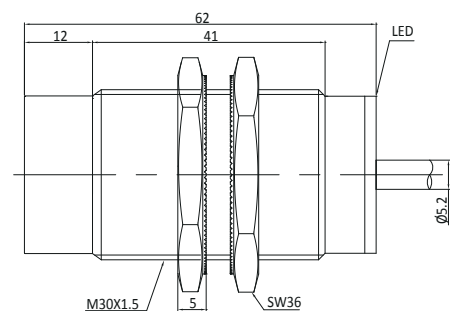


Fig. 3

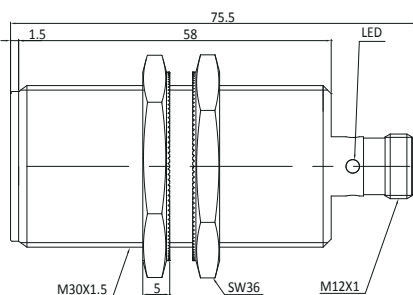
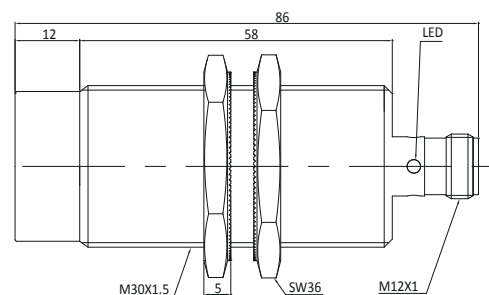
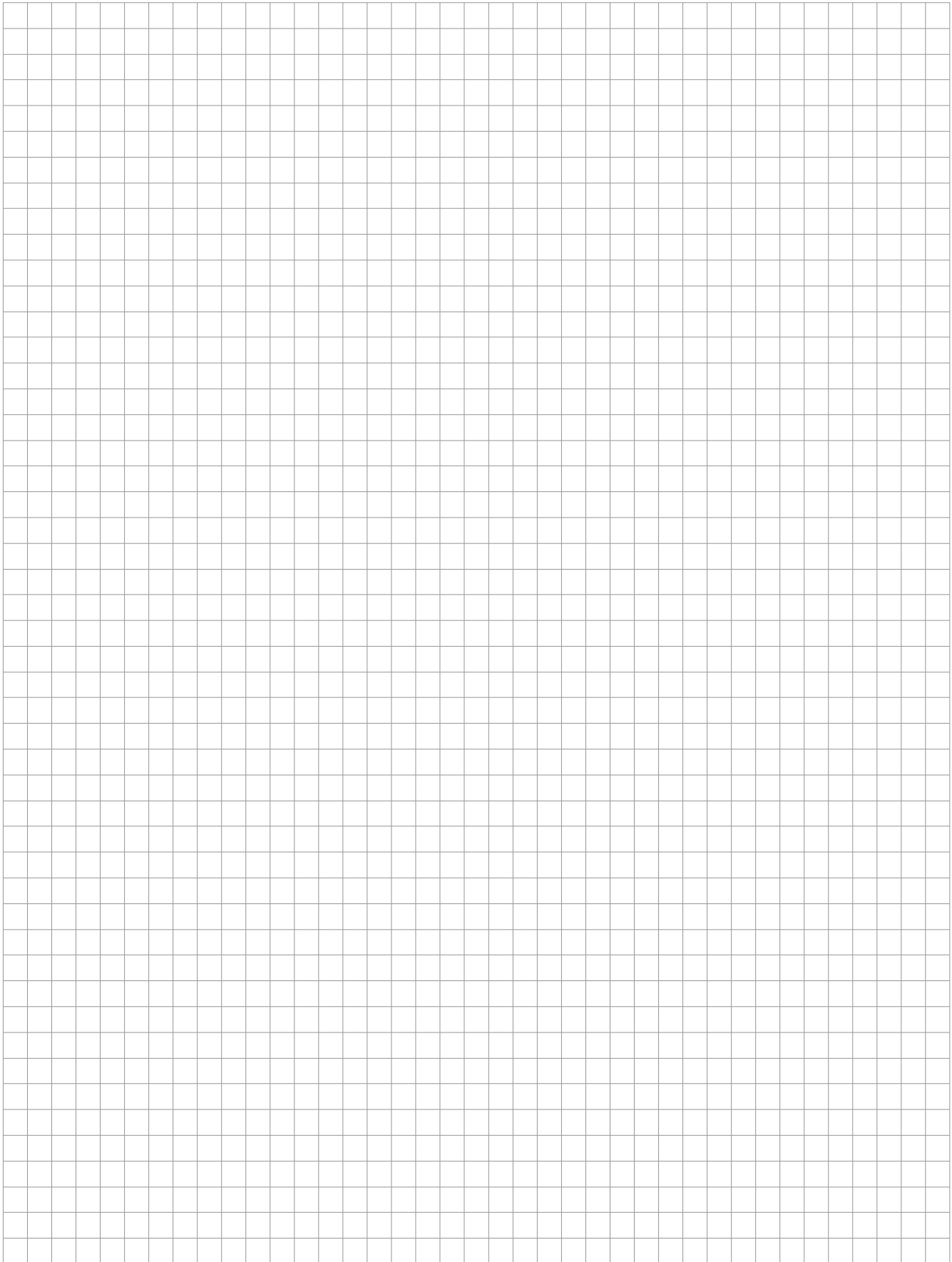


Fig. 4





# Inductive Sensor

## Temperature Extension-Low Temperature-M08



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OD6L/TB40	2 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Fi2-M08-CD6L/TB40	2 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Ni4-M08-OD6L/TB40	4 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Ni4-M08-CD6L/TB40	4 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Fi2-M08-OD6L-Q12/TB40	2 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Fi2-M08-CD6L-Q12/TB40	2 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Ni4-M08-OD6L-Q12/TB40	4 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4
Ni4-M08-CD6L-Q12/TB40	4 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

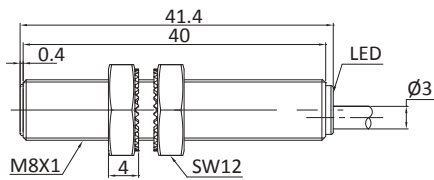


Fig. 2

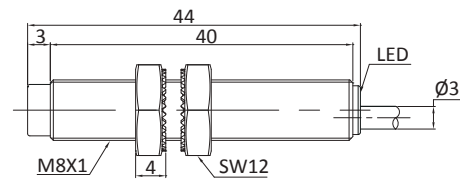


Fig. 3

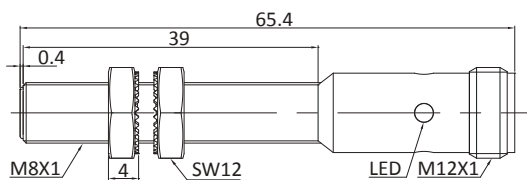
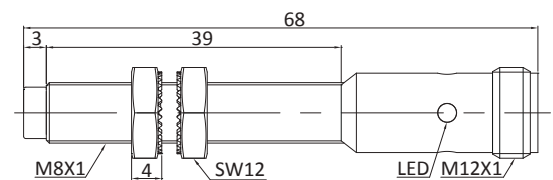


Fig. 4



## Temperature Extension-Low Temperature-M08



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M08-OP6L/TB40	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi2-M08-ON6L/TB40	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi2-M08-CP6L/TB40	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi2-M08-CN6L/TB40	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni4-M08-OP6L/TB40	4 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni4-M08-ON6L/TB40	4 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni4-M08-CP6L/TB40	4 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni4-M08-CN6L/TB40	4 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi2-M08-OP6L-Q12/TB40	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-ON6L-Q12/TB40	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-CP6L-Q12/TB40	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi2-M08-CN6L-Q12/TB40	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni4-M08-OP6L-Q12/TB40	4 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni4-M08-ON6L-Q12/TB40	4 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni4-M08-CP6L-Q12/TB40	4 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni4-M08-CN6L-Q12/TB40	4 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

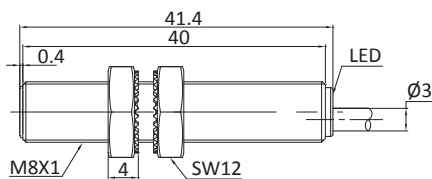


Fig. 2

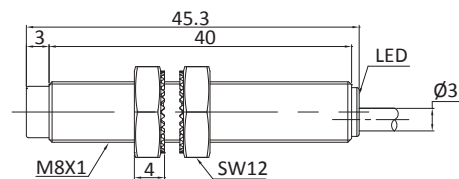


Fig. 3

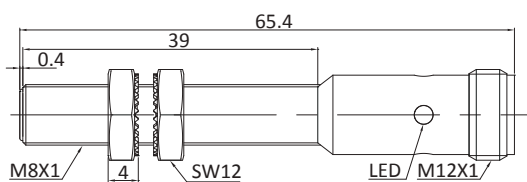
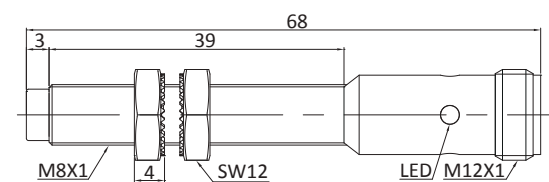


Fig. 4



# Inductive Sensor

## Temperature Extension-Low Temperature-M12



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OD6L/TB40	2 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CD6L/TB40	2 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OD6L/TB40	4 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CD6L/TB40	4 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi2-M12-OD6L-Q12/TB40	2 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-CD6L-Q12/TB40	2 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	1000 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-OD6L-Q12/TB40	4 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-CD6L-Q12/TB40	4 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

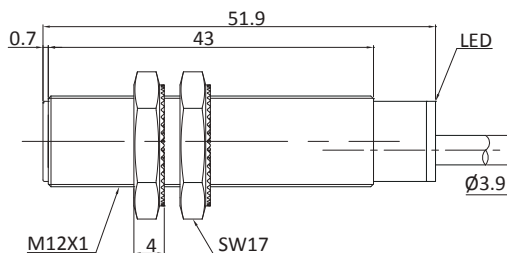


Fig. 2

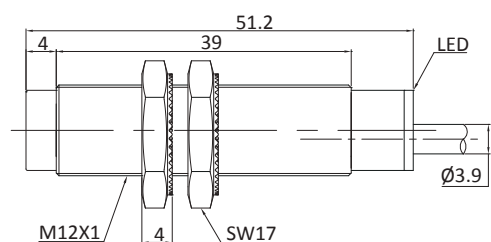


Fig. 3

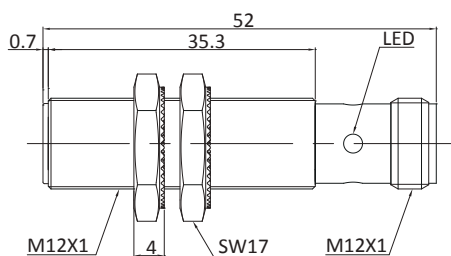
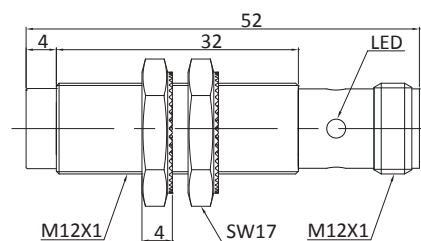


Fig. 4





# Temperature Extension-Low Temperature-M12



## Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

## Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OP6L/TB40	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Fi2-M12-ON6L/TB40	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Fi2-M12-CP6L/TB40	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Fi2-M12-CN6L/TB40	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	2m cable	Fig. 1
Ni4-M12-OP6L/TB40	4 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Ni4-M12-ON6L/TB40	4 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Ni4-M12-CP6L/TB40	4 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Ni4-M12-CN6L/TB40	4 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	2m cable	Fig. 2
Fi2-M12-OP6L-Q12/TB40	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Fi2-M12-ON6L-Q12/TB40	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Fi2-M12-CP6L-Q12/TB40	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Fi2-M12-CN6L-Q12/TB40	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-40...70 °C	M12 Connector	Fig. 3
Ni4-M12-OP6L-Q12/TB40	4 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4
Ni4-M12-ON6L-Q12/TB40	4 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4
Ni4-M12-CP6L-Q12/TB40	4 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4
Ni4-M12-CN6L-Q12/TB40	4 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40...70 °C	M12 Connector	Fig. 4

## Dimensions:

Fig. 1

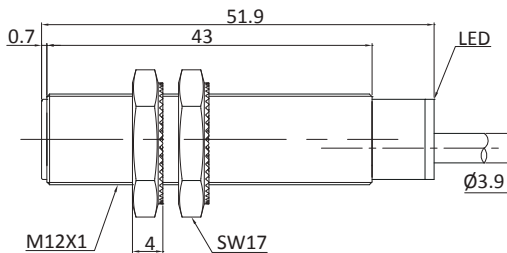


Fig. 2

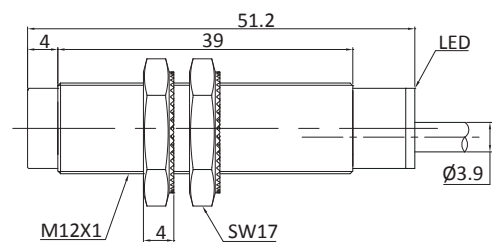


Fig. 3

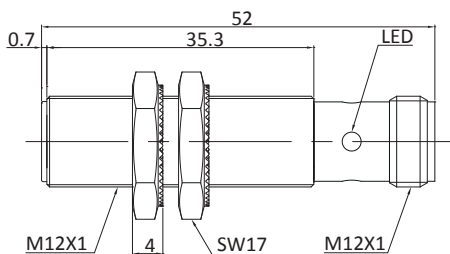
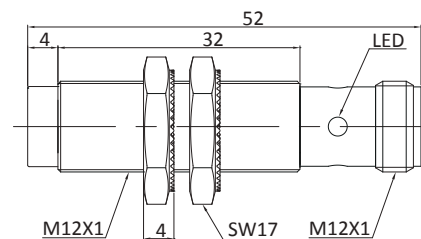


Fig. 4



# Inductive Sensor

## Temperature Extension-Low Temperature-M12



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-M12-OA41L/TB40	2 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi2-M12-CA41L/TB40	2 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni4-M12-OA41L/TB40	4 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni4-M12-CA41L/TB40	4 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi2-M12-OA41L-Q12/TB40	2 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi2-M12-CA41L-Q12/TB40	2 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-OA41L-Q12/TB40	4 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni4-M12-CA41L-Q12/TB40	4 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

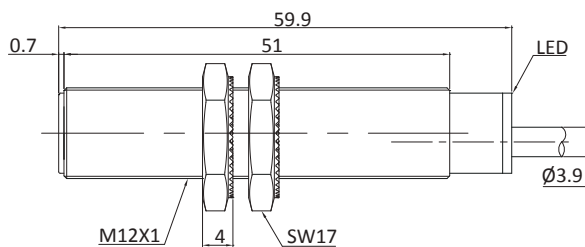


Fig. 2

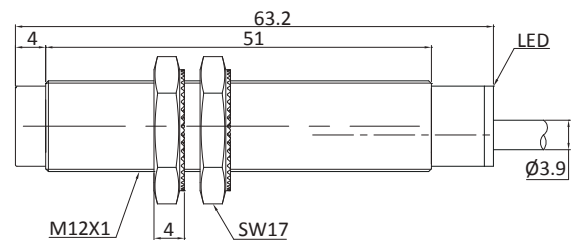


Fig. 3

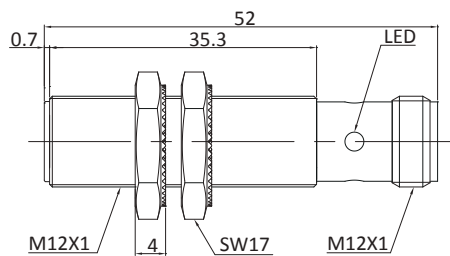
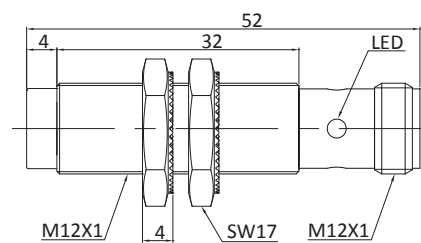


Fig. 4



## Temperature Extension-Low Temperature-M18



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>b</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OD6L/TB40	5 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CD6L/TB40	5 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OD6L/TB40	8 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CD6L/TB40	8 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OD6L-Q12/TB40	5 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CD6L-Q12/TB40	5 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OD6L-Q12/TB40	8 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CD6L-Q12/TB40	8 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

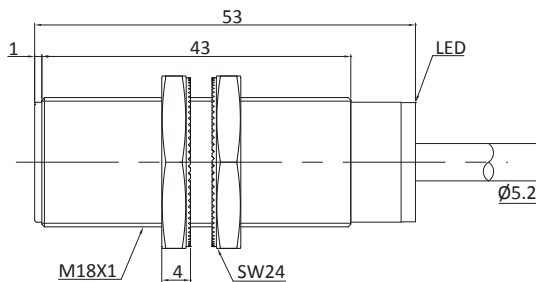


Fig. 2

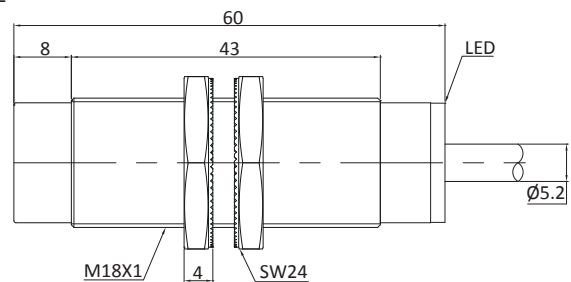


Fig. 3

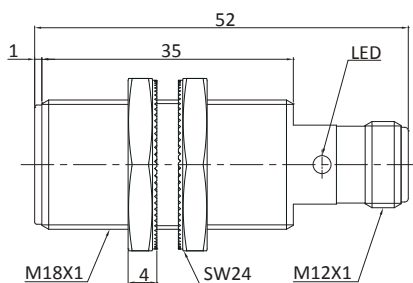
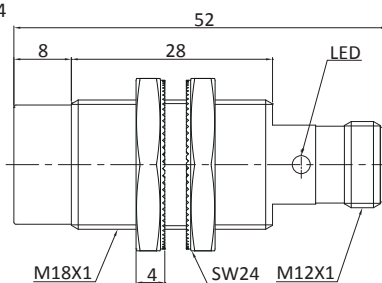


Fig. 4



# Inductive Sensor

## Temperature Extension-Low Temperature-M18



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OP6L/TB40	5 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi5-M18-ON6L/TB40	5 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CP6L/TB40	5 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CN6L/TB40	5 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OP6L/TB40	8 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni8-M18-ON6L/TB40	8 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CP6L/TB40	8 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CN6L/TB40	8 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OP6L-Q12/TB40	5 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-ON6L-Q12/TB40	5 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CP6L-Q12/TB40	5 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CN6L-Q12/TB40	5 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OP6L-Q12/TB40	8 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-ON6L-Q12/TB40	8 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CP6L-Q12/TB40	8 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CN6L-Q12/TB40	8 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	500 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

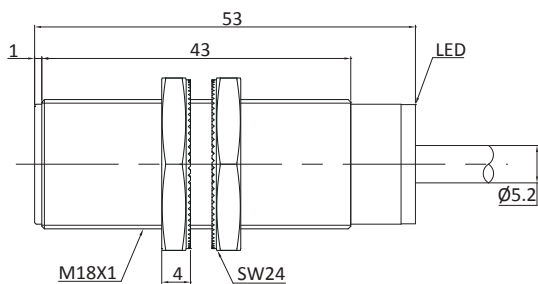


Fig. 2

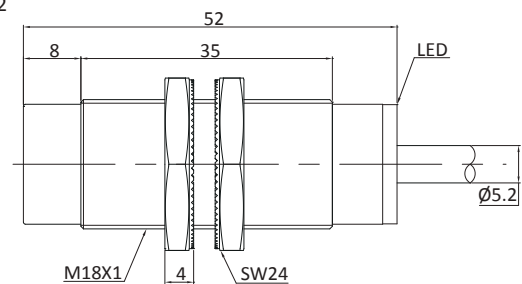


Fig. 3

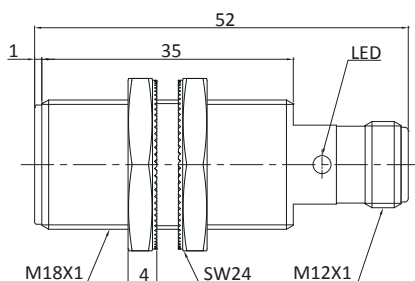
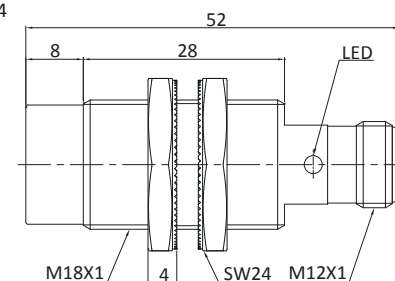


Fig. 4



## Temperature Extension-Low Temperature-M18



### Description:

Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-M18-OA41L/TB40	5 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi5-M18-CA41L/TB40	5 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni8-M18-OA41L/TB40	8 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni8-M18-CA41L/TB40	8 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi5-M18-OA41L-Q12/TB40	5 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi5-M18-CA41L-Q12/TB40	5 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-OA41L-Q12/TB40	8 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni8-M18-CA41L-Q12/TB40	8 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC ≤ 100 mA / AC ≤ 200 mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

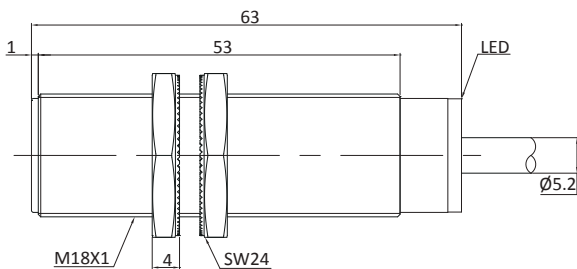


Fig. 2

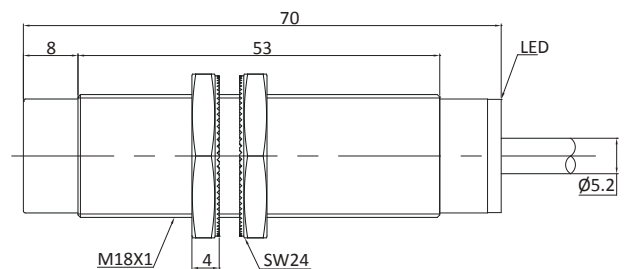


Fig. 3

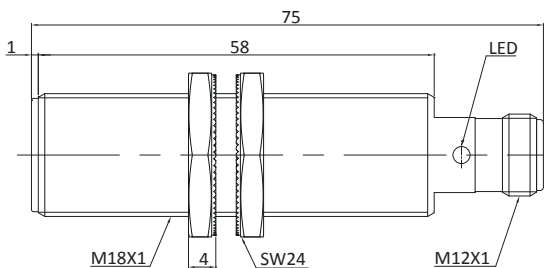
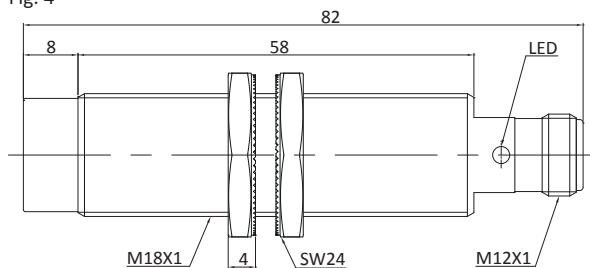


Fig. 4



# Inductive Sensor

## Temperature Extension-Low Temperature-M30



### Description:

Brass nickel-plated, threaded barrel, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OD6L/TB40	10 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	400 Hz	-40 ... 70 °C	2m cable	Fig.1
Fi10-M30-CD6L/TB40	10 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	400 Hz	-40 ... 70 °C	2m cable	Fig.1
Ni15-M30-OD6L/TB40	15 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	200 Hz	-40 ... 70 °C	2m cable	Fig.2
Ni15-M30-CD6L/TB40	15 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	200 Hz	-40 ... 70 °C	2m cable	Fig.2
Fi10-M30-OD6L-Q12/TB40	10 mm	Flush	DC NO	10 ... 30 V DC	≤ 100 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig.3
Fi10-M30-CD6L-Q12/TB40	10 mm	Flush	DC NC	10 ... 30 V DC	≤ 100 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig.3
Ni15-M30-OD6L-Q12/TB40	15 mm	Non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig.4
Ni15-M30-CD6L-Q12/TB40	15 mm	Non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig.4

### Dimensions:

Fig. 1

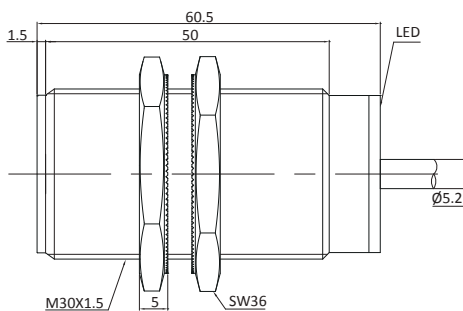


Fig. 2

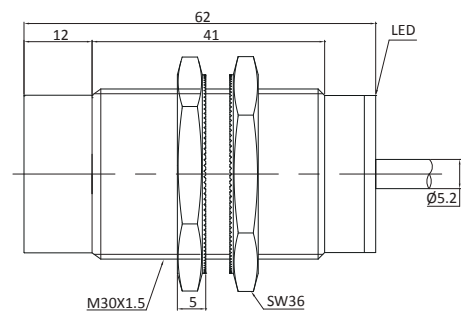


Fig. 3

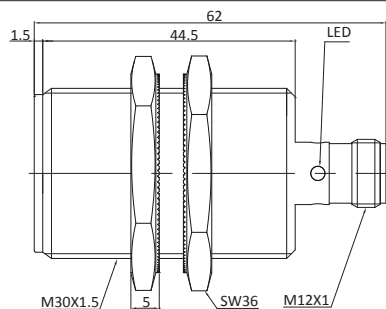
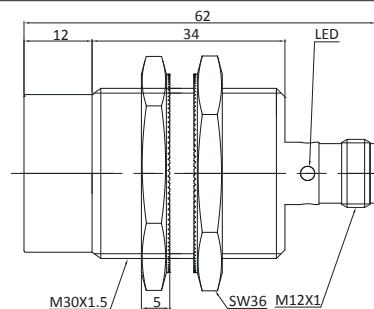


Fig. 4



## Temperature Extension-Low Temperature-M30



### Description:

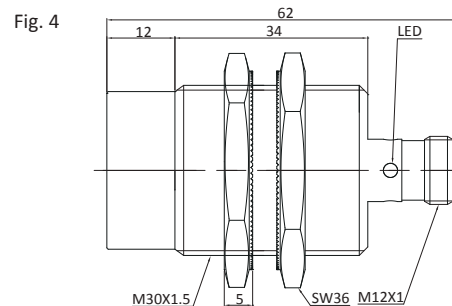
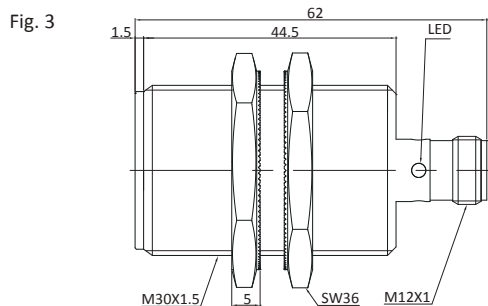
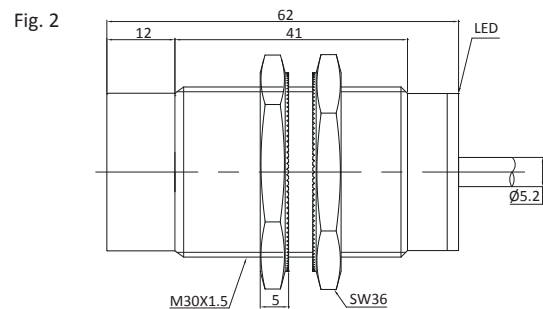
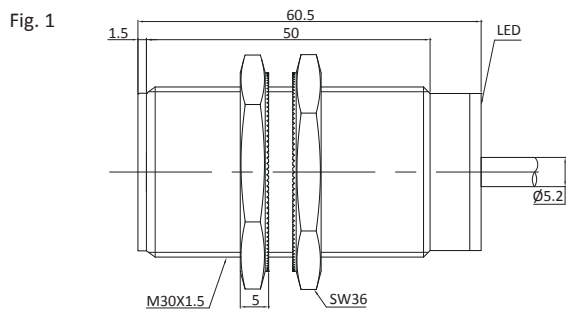
Brass nickel-plated, threaded barrel, DC 3-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OP6L/TB40	10 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi10-M30-ON6L/TB40	10 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CP6L/TB40	10 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CN6L/TB40	10 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OP6L/TB40	15 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni15-M30-ON6L/TB40	15 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CP6L/TB40	15 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CN6L/TB40	15 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OP6L-Q12/TB40	10 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-ON6L-Q12/TB40	10 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CP6L-Q12/TB40	10 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CN6L-Q12/TB40	10 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OP6L-Q12/TB40	15 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-ON6L-Q12/TB40	15 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CP6L-Q12/TB40	15 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CN6L-Q12/TB40	15 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	200 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:



# Inductive Sensor

## Temperature Extension-Low Temperature-M30



### Description:

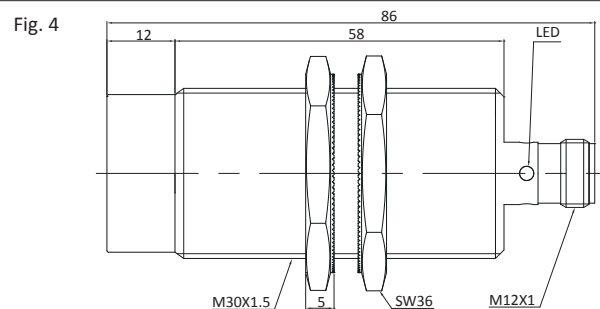
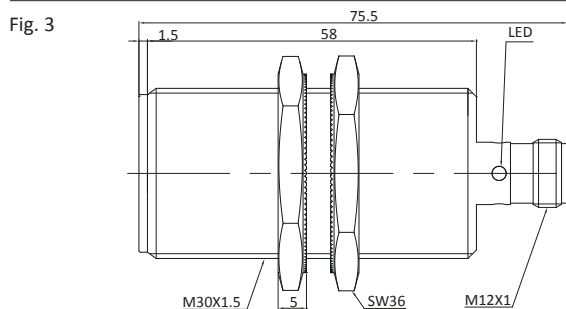
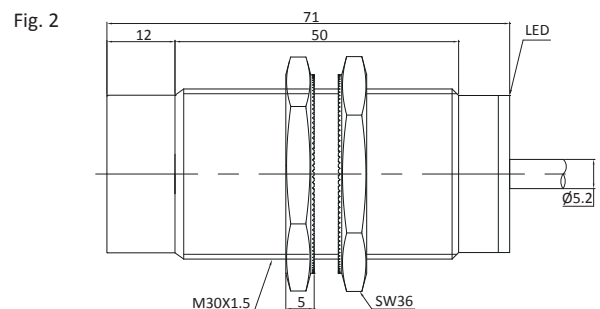
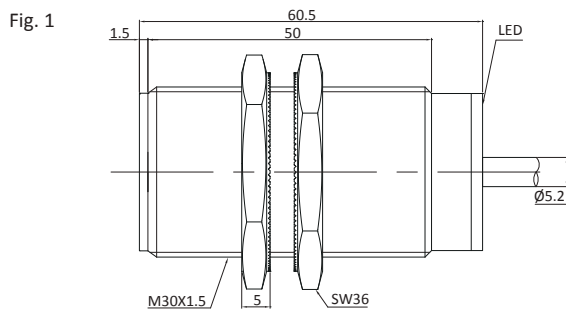
Brass nickel-plated, threaded barrel, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10-M30-OA41L/TB40	10 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Fi10-M30-CA41L/TB40	10 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 1
Ni15-M30-OA41L/TB40	15 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Ni15-M30-CA41L/TB40	15 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	2m cable	Fig. 2
Fi10-M30-OA41L-Q12/TB40	10 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Fi10-M30-CA41L-Q12/TB40	10 mm	Flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-OA41L-Q12/TB40	15 mm	Non-flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4
Ni15-M30-CA41L-Q12/TB40	15 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	40 Hz	-40 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:





## Temperature Extension-Low Temperature-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

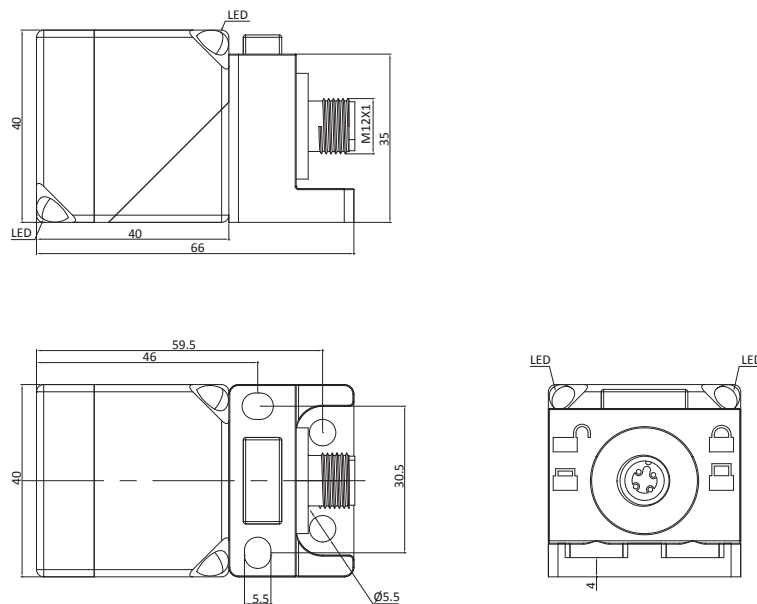
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig.
Fi20-W40-OD6L-Q12/TB40	20 mm	Flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CD6L-Q12/TB40	20 mm	Flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-OD9L-Q12/TB40	20 mm	Flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CD9L-Q12/TB40	20 mm	Flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OD6L-Q12/TB40	30 mm	Non-flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CD6L-Q12/TB40	30 mm	Non-flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OD9L-Q12/TB40	30 mm	Non-flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CD9L-Q12/TB40	30 mm	Non-flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



# Inductive Sensor

## Temperature Extension-Low Temperature-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, DC 3/4-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

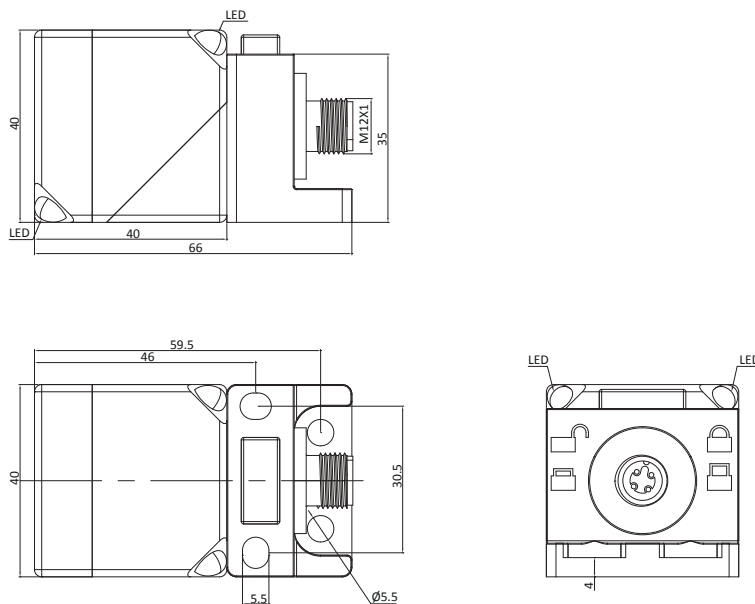
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_g$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi20-W40-OP6L-Q12/TB40	20 mm	Flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-ON6L-Q12/TB40	20 mm	Flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CP6L-Q12/TB40	20 mm	Flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-CN6L-Q12/TB40	20 mm	Flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-BP6L-Q12/TB40	20 mm	Flush	PNP NO+NC	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi20-W40-BN6L-Q12/TB40	20 mm	Flush	NPN NO+NC	10 ... 30 V DC	$\leq 200$ mA	100 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-OP6L-Q12/TB40	30 mm	Non-flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-ON6L-Q12/TB40	30 mm	Non-flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CP6L-Q12/TB40	30 mm	Non-flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-CN6L-Q12/TB40	30 mm	Non-flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-BP6L-Q12/TB40	30 mm	Non-flush	PNP NO+NC	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni30-W40-BN6L-Q12/TB40	30 mm	Non-flush	NPN NO+NC	10 ... 30 V DC	$\leq 200$ mA	150 Hz	-40 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



## Temperature Extension-Low Temperature-W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

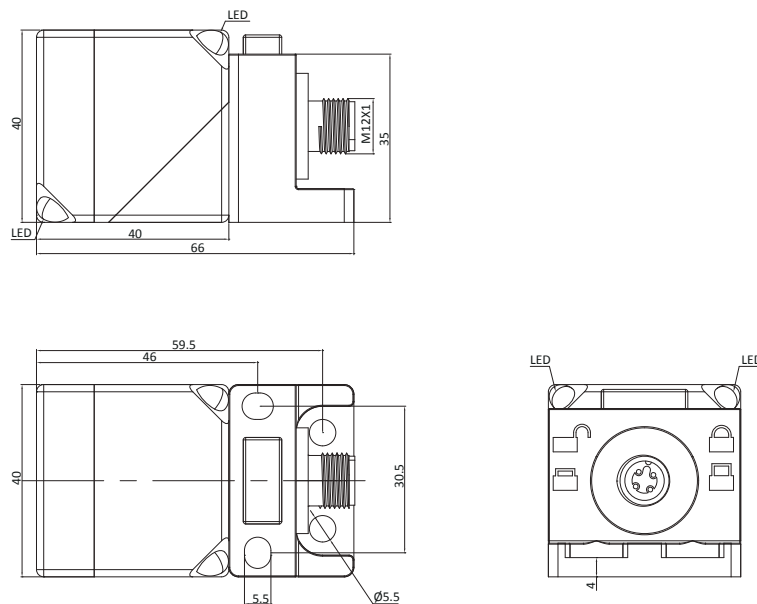
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
F120-W40-OA41L-Q12/TB40	20 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
F120-W40-CA41L-Q12/TB40	20 mm	Flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
N130-W40-OA41L-Q12/TB40	30 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
N130-W40-CA41L-Q12/TB40	30 mm	Non-flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



## Inductive Sensor

### Temperature Extension-Low Temperature-WL40



#### Description:

Plastic housing, rectangular 40x40x118mm, variable orientation of active face, DC 2-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

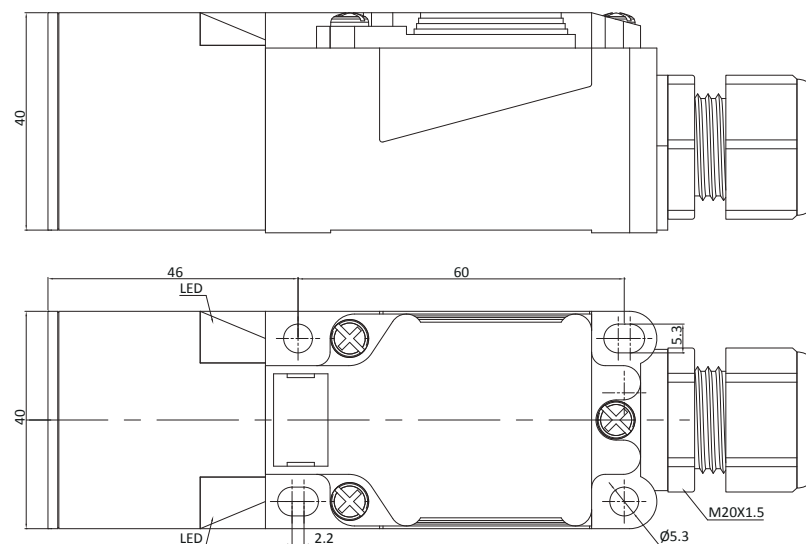
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-OD6L-Q/TB40	15 mm	flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CD6L-Q/TB40	15 mm	flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OD6L-Q/TB40	20 mm	non-flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CD6L-Q/TB40	20 mm	non-flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-OD9L-Q/TB40	15 mm	flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CD9L-Q/TB40	15 mm	flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OD9L-Q/TB40	20 mm	non-flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CD9L-Q/TB40	20 mm	non-flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1

#### Dimensions:

Fig. 1



## Temperature Extension-Low Temperature-WL40



### Description:

Plastic housing, rectangular 40x40x118mmmm, variable orientation of active face, DC 3/4-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

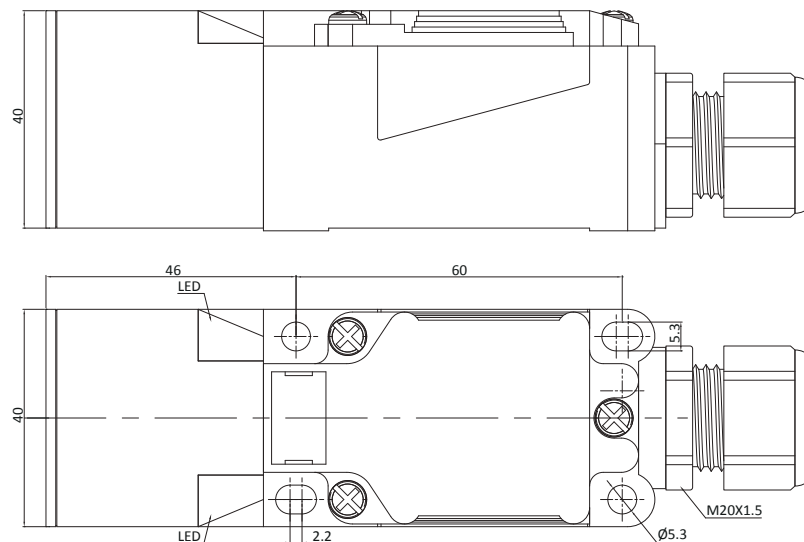
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-OP6L-Q/TB40	15 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-ON6L-Q/TB40	15 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CP6L-Q/TB40	15 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CN6L-Q/TB40	15 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-BP6L-Q/TB40	15 mm	Flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-BN6L-Q/TB40	15 mm	Flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	100 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OP6L-Q/TB40	20 mm	Non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-ON6L-Q/TB40	20 mm	Non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CP6L-Q/TB40	20 mm	Non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CN6L-Q/TB40	20 mm	Non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-BP6L-Q/TB40	20 mm	Non-flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-BN6L-Q/TB40	20 mm	Non-flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1

### Dimensions:

Fig. 1



## ◀◀ Inductive Sensor

### Temperature Extension-Low Temperature-WL40



#### Description:

Plastic housing, rectangular 40x40x118mm, variable orientation of active face, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

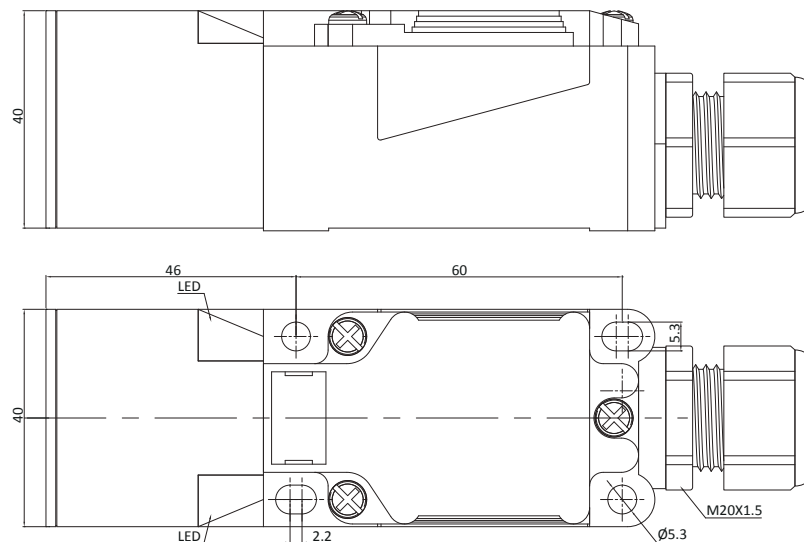
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi15-WL40-OA41L-Q/TB40	15 mm	flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-CA41L-Q/TB40	15 mm	flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-OA41L-Q/TB40	20 mm	non-flush	DC/AC NO	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-CA41L-Q/TB40	20 mm	non-flush	DC/AC NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi15-WL40-VA41L-Q/TB40	15 mm	flush	DC/AC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni20-WL40-VA41L-Q/TB40	20 mm	non-flush	DC/AC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1

#### Dimensions:

Fig. 1



## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 2-wire output, wide voltage range, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

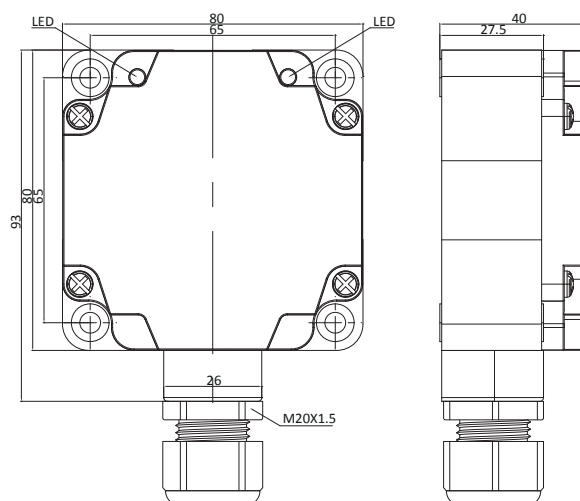
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OD6L-Q/TB40	40 mm	flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CD6L-Q/TB40	40 mm	flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-OD6L-Q/TB40	50 mm	non-flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CD6L-Q/TB40	50 mm	non-flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OD6L-Q/TB40	50 mm	flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CD6L-Q/TB40	50 mm	flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OD6L-Q/TB40	70 mm	non-flush	DC NO	10 ... 30 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CD6L-Q/TB40	70 mm	non-flush	DC NC	10 ... 30 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-OD9L-Q/TB40	40 mm	flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CD9L-Q/TB40	40 mm	flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-OD9L-Q/TB40	50 mm	non-flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CD9L-Q/TB40	50 mm	non-flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OD9L-Q/TB40	50 mm	flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CD9L-Q/TB40	50 mm	flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OD9L-Q/TB40	70 mm	non-flush	DC NO	10 ... 60 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CD9L-Q/TB40	70 mm	non-flush	DC NC	10 ... 60 V DC	$\leq 100$ mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1

### Dimensions:

Fig. 1



# Inductive Sensor

## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 2-wire output, wide voltage range, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

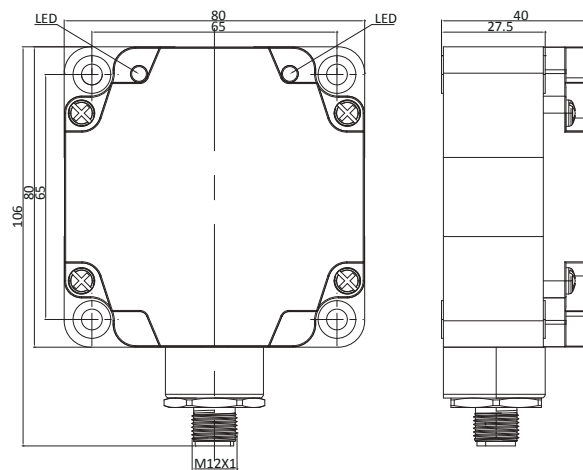
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OD6L-Q12/TB40	40 mm	flush	DC NO	10 ... 30 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-CD6L-Q12/TB40	40 mm	flush	DC NC	10 ... 30 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-OD6L-Q12/TB40	50 mm	non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-CD6L-Q12/TB40	50 mm	non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-OD6L-Q12/TB40	50 mm	flush	DC NO	10 ... 30 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CD6L-Q12/TB40	50 mm	flush	DC NC	10 ... 30 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-OD6L-Q12/TB40	70 mm	non-flush	DC NO	10 ... 30 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CD6L-Q12/TB40	70 mm	non-flush	DC NC	10 ... 30 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-OD9L-Q12/TB40	40 mm	flush	DC NO	10 ... 60 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-CD9L-Q12/TB40	40 mm	flush	DC NC	10 ... 60 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-OD9L-Q12/TB40	50 mm	non-flush	DC NO	10 ... 60 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-CD9L-Q12/TB40	50 mm	non-flush	DC NC	10 ... 60 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-OD9L-Q12/TB40	50 mm	flush	DC NO	10 ... 60 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CD9L-Q12/TB40	50 mm	flush	DC NC	10 ... 60 V DC	≤ 100 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-OD9L-Q12/TB40	70 mm	non-flush	DC NO	10 ... 60 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CD9L-Q12/TB40	70 mm	non-flush	DC NC	10 ... 60 V DC	≤ 100 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1





## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, AC/DC 2-wire output, temperature range down to -40 °C, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OA41L-Q/TB40	40 mm	flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CA41L-Q/TB40	40 mm	flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OA41L-Q/TB40	50 mm	flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CA41L-Q/TB40	50 mm	flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-OA41L-Q/TB40	50 mm	non-flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CA41L-Q/TB40	50 mm	non-flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OA41L-Q/TB40	70 mm	non-flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CA41L-Q/TB40	70 mm	non-flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-OA41L-Q12/TB40	40 mm	flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi40-W80-CA41L-Q12/TB40	40 mm	flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-OA41L-Q12/TB40	50 mm	flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-CA41L-Q12/TB40	50 mm	flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni50-W80-OA41L-Q12/TB40	50 mm	non-flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni50-W80-CA41L-Q12/TB40	50 mm	non-flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-OA41L-Q12/TB40	70 mm	non-flush	AC/DC NO	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-CA41L-Q12/TB40	70 mm	non-flush	AC/DC NC	20 ... 250 V AC/DC	DC≤100mA/AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

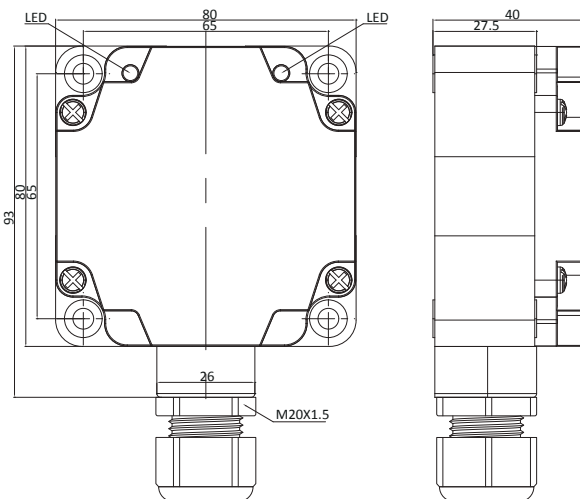
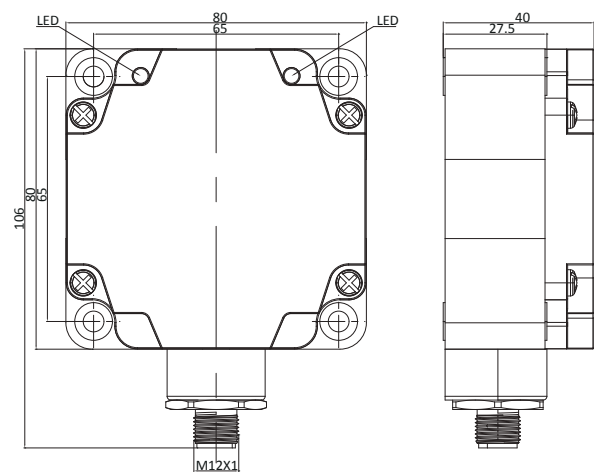


Fig. 2



# Inductive Sensor

## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, AC/DC 2-wire output, temperature range down to -40°C, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-VA41L-Q/TB40	40 mm	flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-VA41L-Q/TB40	50 mm	non-flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-VA41L-Q/TB40	50 mm	flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-VA41L-Q/TB40	70 mm	non-flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-VA41L-Q12/TB40	40 mm	flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni50-W80-VA41L-Q12/TB40	50 mm	non-flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-VA41L-Q12/TB40	50 mm	flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-VA41L-Q12/TB40	70 mm	non-flush	AC/DC NO+NC	20 ... 250 V AC/DC	DC≤100mA / AC≤200mA	20 Hz	-40 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

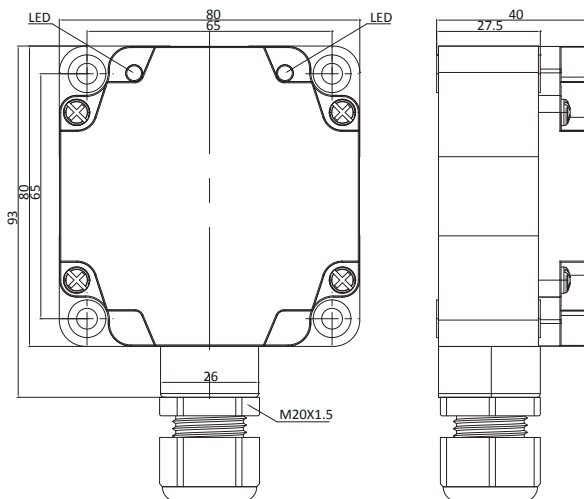
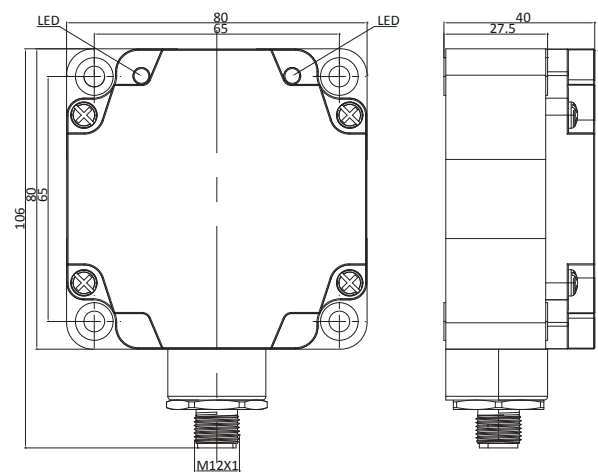


Fig. 2



## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 3-wire output, temperature range down to -40°C, IP67 protection class, power and action LED indicator.

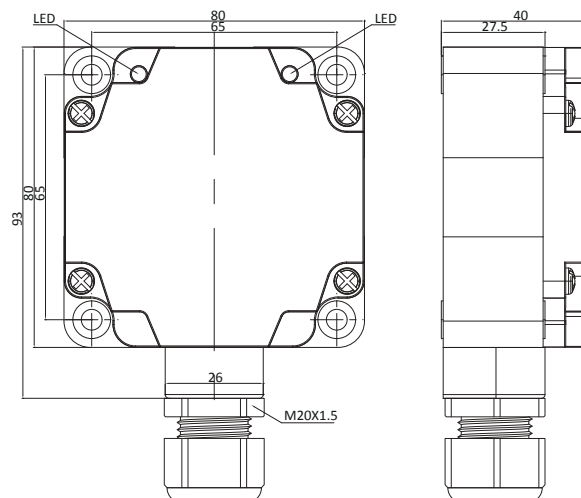
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance S <sub>n</sub>	Mounting	Output	Voltage Range U <sub>B</sub>	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OP6L-Q/TB40	40 mm	flush	PNP NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-ON6L-Q/TB40	40 mm	flush	NPN NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CP6L-Q/TB40	50 mm	flush	PNP NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-CN6L-Q/TB40	50 mm	flush	NPN NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-OP6L-Q/TB40	50 mm	non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-ON6L-Q/TB40	50 mm	non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CP6L-Q/TB40	70 mm	non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-CN6L-Q/TB40	70 mm	non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-OP6L-Q/TB40	40 mm	flush	PNP NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-ON6L-Q/TB40	40 mm	flush	NPN NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CP6L-Q/TB40	50 mm	flush	PNP NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-CN6L-Q/TB40	50 mm	flush	NPN NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-OP6L-Q/TB40	50 mm	non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-ON6L-Q/TB40	50 mm	non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CP6L-Q/TB40	70 mm	non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-CN6L-Q/TB40	70 mm	non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1

### Dimensions:

Fig. 1



# Inductive Sensor

## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 3-wire output, temperature range down to -40°C, IP67 protection class, power and action LED indicator.

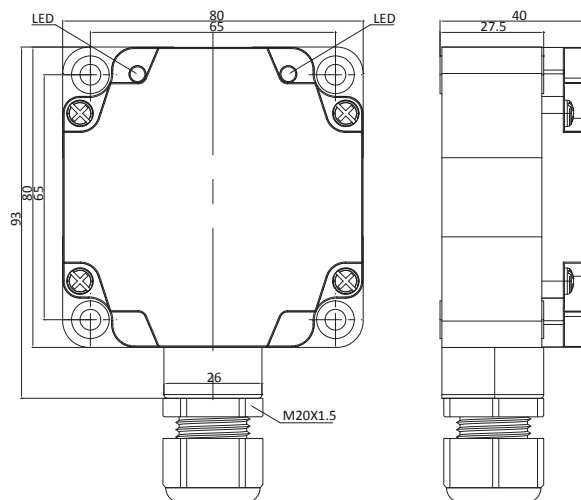
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-OP6L-Q12/TB40	40 mm	flush	PNP NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-ON6L-Q12/TB40	40 mm	flush	NPN NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-CP6L-Q12/TB40	50 mm	flush	PNP NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi40-W80-CN6L-Q12/TB40	50 mm	flush	NPN NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-OP6L-Q12/TB40	50 mm	non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-ON6L-Q12/TB40	50 mm	non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-CP6L-Q12/TB40	70 mm	non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni50-W80-CN6L-Q12/TB40	70 mm	non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-OP6L-Q12/TB40	40 mm	flush	PNP NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-ON6L-Q12/TB40	40 mm	flush	NPN NO	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CP6L-Q12/TB40	50 mm	flush	PNP NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Fi50-W80-CN6L-Q12/TB40	50 mm	flush	NPN NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-OP6L-Q12/TB40	50 mm	non-flush	PNP NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-ON6L-Q12/TB40	50 mm	non-flush	NPN NO	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CP6L-Q12/TB40	70 mm	non-flush	PNP NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1
Ni70-W80-CN6L-Q12/TB40	70 mm	non-flush	NPN NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



## Temperature Extension-Low Temperature-W80



### Description:

Plastic housing, rectangular 80x80mm, DC 4-wire output, temperature range down to -40°C, IP67 protection class, power and action LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi40-W80-BP6L-Q/TB40	40 mm	flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-BN6L-Q/TB40	40 mm	flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-BP6L-Q/TB40	50 mm	flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi50-W80-BN6L-Q/TB40	50 mm	flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-BP6L-Q/TB40	50 mm	non-flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni50-W80-BN6L-Q/TB40	50 mm	non-flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-BP6L-Q/TB40	70 mm	non-flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Ni70-W80-BN6L-Q/TB40	70 mm	non-flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	Terminal	Fig. 1
Fi40-W80-BP6L-Q12/TB40	40 mm	flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi40-W80-BN6L-Q12/TB40	40 mm	flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-BP6L-Q12/TB40	50 mm	flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Fi50-W80-BN6L-Q12/TB40	50 mm	flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	50 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni50-W80-BP6L-Q12/TB40	50 mm	non-flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni50-W80-BN6L-Q12/TB40	50 mm	non-flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-BP6L-Q12/TB40	70 mm	non-flush	PNP NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 2
Ni70-W80-BN6L-Q12/TB40	70 mm	non-flush	NPN NO+NC	10 ... 30 V DC	≤ 200 mA	30 Hz	-40 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

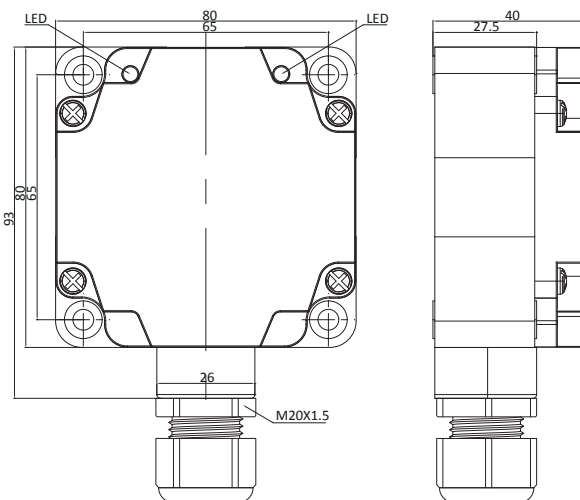
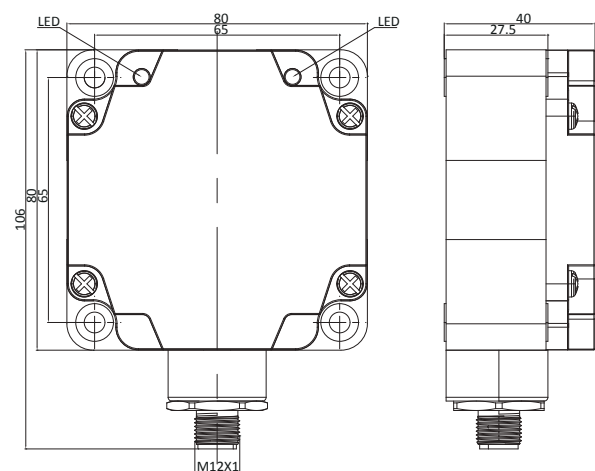


Fig. 2



# Inductive Sensor

## Magnetic Field Immune Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2A-M12-OP6L	2 mm	Flush	PNP NO	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-M12-ON6L	2 mm	Flush	PNP NC	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-M12-CP6L	2 mm	Flush	NPN NO	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-M12-CN6L	2 mm	Flush	NPN NC	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-M12-OP6L-Q12	2 mm	Flush	PNP NO	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-M12-ON6L-Q12	2 mm	Flush	PNP NC	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-M12-CP6L-Q12	2 mm	Flush	NPN NO	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-M12-CN6L-Q12	2 mm	Flush	NPN NC	10 ... 30 V DC	≤200mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

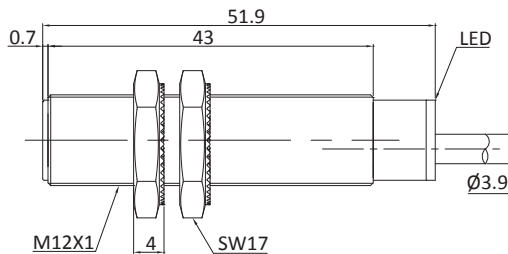
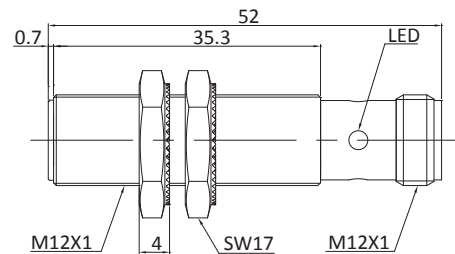


Fig. 2



## Magnetic Field Immune Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5A-M18-OP6L	5 mm	Flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-M18-ON6L	5 mm	Flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-M18-CP6L	5 mm	Flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-M18-CN6L	5 mm	Flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-M18-OP6L-Q12	5 mm	Flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-M18-ON6L-Q12	5 mm	Flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-M18-CP6L-Q12	5 mm	Flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-M18-CN6L-Q12	5 mm	Flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2

### Dimensions:

Fig. 1

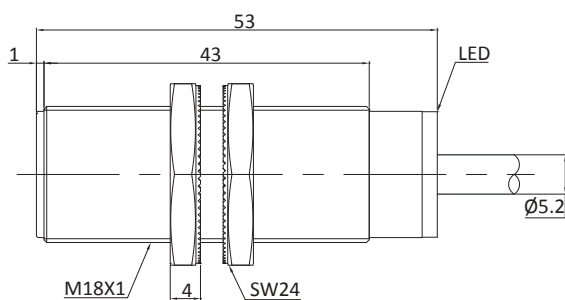
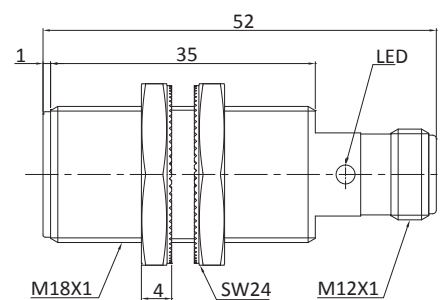


Fig. 2



# Inductive Sensor

## Magnetic Field Immune Metal Barrel-M30



### Description:

Brass nickel-plated, threaded barrel, DC 3-wire output, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi10A-M30-OP6L	10 mm	flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10A-M30-ON6L	10 mm	flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10A-M30-CP6L	10 mm	flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi10A-M30-CN6L	10 mm	flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 1
Ni22A-M30-OP6L	22 mm	non-flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni22A-M30-ON6L	22 mm	non-flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni22A-M30-CP6L	22 mm	non-flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Ni22A-M30-CN6L	22 mm	non-flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi10A-M30-OP6L-Q12	10 mm	flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-M30-ON6L-Q12	10 mm	flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-M30-CP6L-Q12	10 mm	flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-M30-CN6L-Q12	10 mm	flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Ni22A-M30-OP6L-Q12	22 mm	non-flush	PNP NO	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni22A-M30-ON6L-Q12	22 mm	non-flush	NPN NO	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni22A-M30-CP6L-Q12	22 mm	non-flush	PNP NC	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Ni22A-M30-CN6L-Q12	22 mm	non-flush	NPN NC	10 ... 30 V DC	$\leq 200$ mA	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

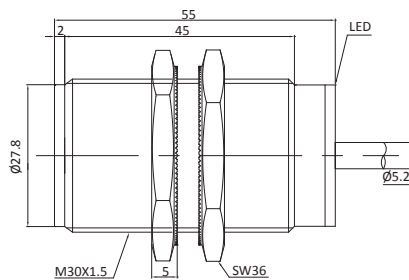


Fig. 2

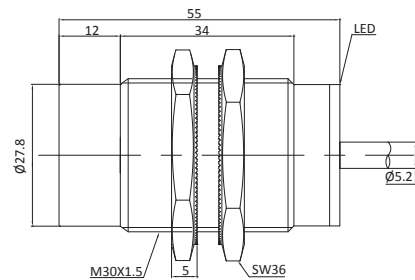


Fig. 3

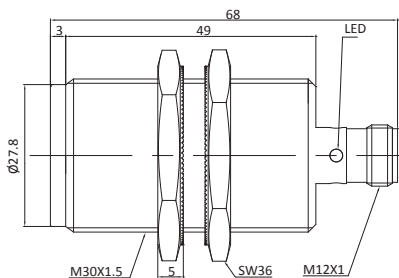
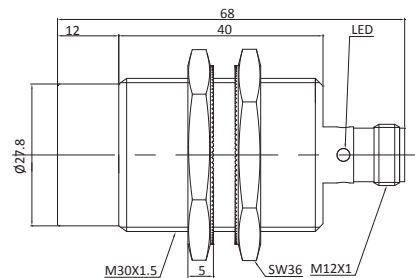


Fig. 4







## ◀◀ Inductive Sensor

PTFE-Coated



### Description:

Brass PTFE-coated, threaded barrel, DC 3-wire output, acid and alkali resistant, resistant against welding sparks, anti-interference, anti interference optimization, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2A-TM08-OP6L	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-TM08-ON6L	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-TM08-CP6L	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-TM08-CN6L	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2A-TM08-OP6L-Q12	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-TM08-ON6L-Q12	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-TM08-CP6L-Q12	2mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2A-TM08-CN6L-Q12	2mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi3A-TM12-OP6L	3mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3A-TM12-ON6L	3mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3A-TM12-CP6L	3mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3A-TM12-CN6L	3mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3A-TM12-OP6L-Q12	3mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3A-TM12-ON6L-Q12	3mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3A-TM12-CP6L-Q12	3mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3A-TM12-CN6L-Q12	3mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4A-TM12-OP6L	4mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4A-TM12-ON6L	4mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4A-TM12-CP6L	4mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4A-TM12-CN6L	4mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4A-TM12-OP6L-Q12	4mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4A-TM12-ON6L-Q12	4mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4A-TM12-CP6L-Q12	4mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4A-TM12-CN6L-Q12	4mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

PTFE-Coated

Dimensions:

Fig. 1

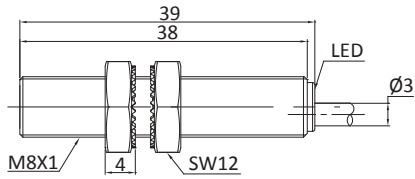


Fig. 2

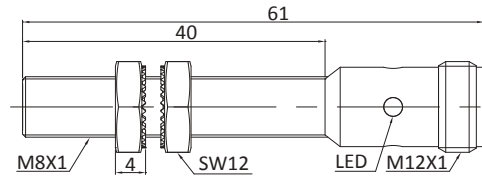


Fig. 3

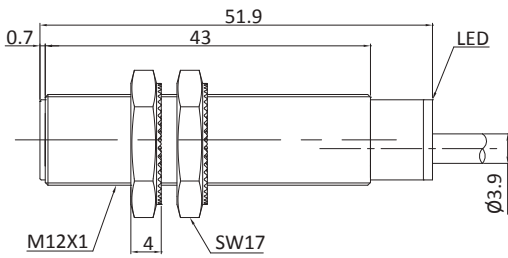
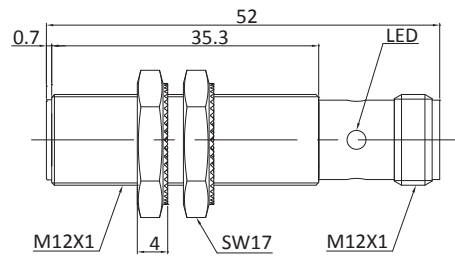


Fig. 4



## ◀◀ Inductive Sensor

PTFE-Coated



### Description:

Brass PTFE-coated, threaded barrel, DC 3-wire output, acid and alkali resistant, resistant against welding sparks, anti-interference, anti interference optimization, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_B$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5A-TM18-OP6L	5 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-TM18-ON6L	5 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-TM18-CP6L	5 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-TM18-CN6L	5 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5A-TM18-OP6L-Q12	5 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-TM18-ON6L-Q12	5 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-TM18-CP6L-Q12	5 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5A-TM18-CN6L-Q12	5 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi8A-TM30-OP6L	8 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8A-TM30-ON6L	8 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8A-TM30-CP6L	8 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8A-TM30-CN6L	8 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8A-TM30-OP6L-Q12	8 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8A-TM30-ON6L-Q12	8 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8A-TM30-CP6L-Q12	8 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8A-TM30-CN6L-Q12	8 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10A-TM30-OP6L	10 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-TM30-ON6L	10 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-TM30-CP6L	10 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-TM30-CN6L	10 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10A-TM30-OP6L-Q12	10 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10A-TM30-ON6L-Q12	10 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10A-TM30-CP6L-Q12	10 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10A-TM30-CN6L-Q12	10 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

PTFE-Coated

Dimensions:

Fig. 1

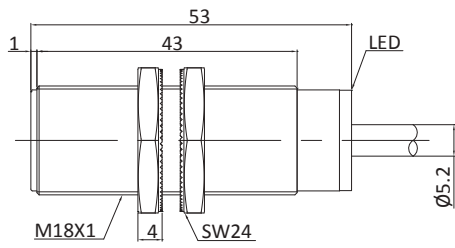


Fig. 2

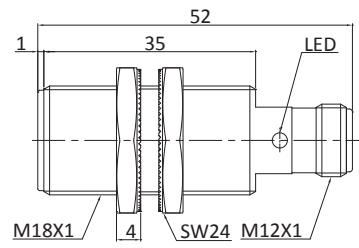


Fig. 3

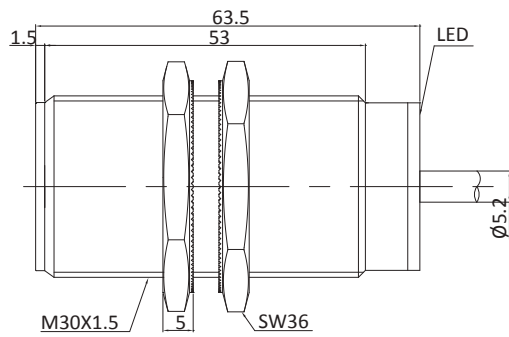
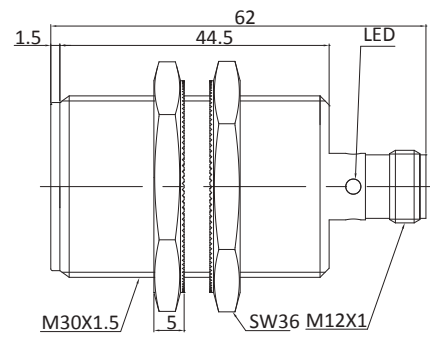


Fig. 4



## ◀◀ Inductive Sensor

PTFE-Coated



### Description:

Brass PTFE-coated, threaded barrel, DC 3-wire output, acid and alkali resistant, resistant against welding sparks, anti-interference, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi2-TM08-OP6L	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-TM08-ON6L	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-TM08-CP6L	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-TM08-CN6L	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi2-TM08-OP6L-Q12	2 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2-TM08-ON6L-Q12	2 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2-TM08-CP6L-Q12	2 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi2-TM08-CN6L-Q12	2 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi3-TM12-OP6L	3 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3-TM12-ON6L	3 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3-TM12-CP6L	3 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3-TM12-CN6L	3 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi3-TM12-OP6L-Q12	3 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3-TM12-ON6L-Q12	3 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3-TM12-CP6L-Q12	3 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi3-TM12-CN6L-Q12	3 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4-TM12-OP6L	4 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4-TM12-ON6L	4 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4-TM12-CP6L	4 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4-TM12-CN6L	4 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi4-TM12-OP6L-Q12	4 mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4-TM12-ON6L-Q12	4 mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4-TM12-CP6L-Q12	4 mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi4-TM12-CN6L-Q12	4 mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	1000 Hz	-25 ... 70 °C	M12 Connector	Fig. 4

PTFE-Coated

Dimensions:

Fig. 1

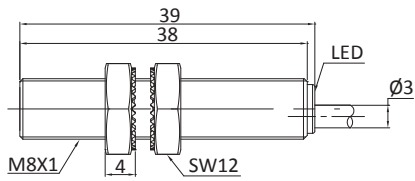


Fig. 2

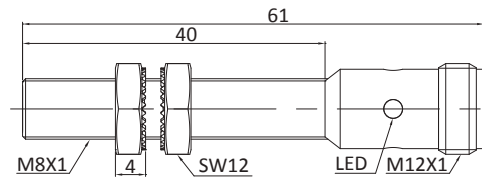


Fig. 3

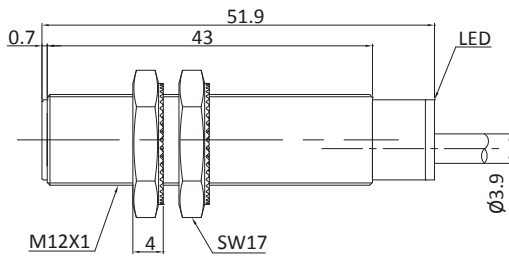
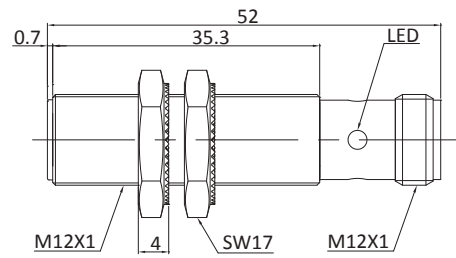


Fig. 4



## ◀◀ Inductive Sensor

PTFE-Coated



### Description:

Brass PTFE-coated, threaded barrel, DC 3-wire output, acid and alkali resistant, resistant against welding sparks, anti-interference, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
Fi5-TM18-OP6L	5mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-TM18-ON6L	5mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-TM18-CP6L	5mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-TM18-CN6L	5mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	2m cable	Fig. 1
Fi5-TM18-OP6L-Q12	5mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5-TM18-ON6L-Q12	5mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5-TM18-CP6L-Q12	5mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi5-TM18-CN6L-Q12	5mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	800 Hz	-25 ... 70 °C	M12 Connector	Fig. 2
Fi8-TM30-OP6L	8mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8-TM30-ON6L	8mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8-TM30-CP6L	8mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8-TM30-CN6L	8mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi8-TM30-OP6L-Q12	8mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8-TM30-ON6L-Q12	8mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8-TM30-CP6L-Q12	8mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi8-TM30-CN6L-Q12	8mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10-TM30-OP6L	10mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10-TM30-ON6L	10mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10-TM30-CP6L	10mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10-TM30-CN6L	10mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	2m cable	Fig. 3
Fi10-TM30-OP6L-Q12	10mm	Flush	PNP NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10-TM30-ON6L-Q12	10mm	Flush	NPN NO	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10-TM30-CP6L-Q12	10mm	Flush	PNP NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4
Fi10-TM30-CN6L-Q12	10mm	Flush	NPN NC	10 ... 30 V DC	≤ 200 mA	400 Hz	-25 ... 70 °C	M12 Connector	Fig. 4



PTFE-Coated

Dimensions:

Fig. 1

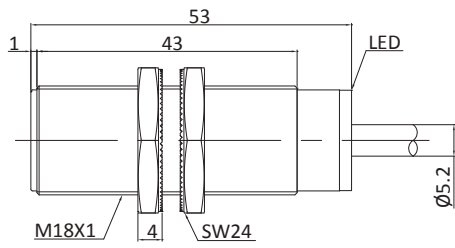


Fig. 2

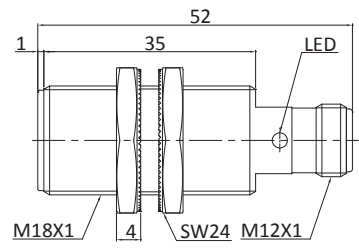


Fig. 3

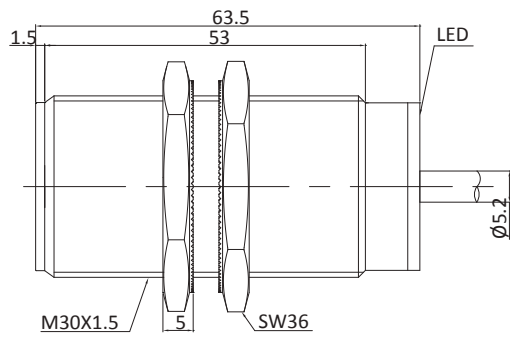
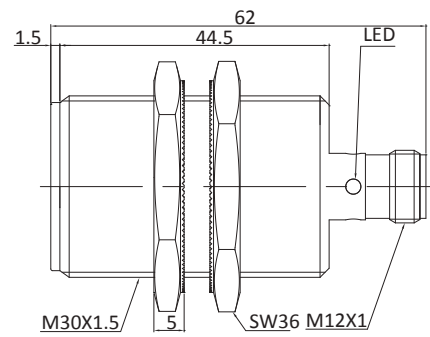


Fig. 4



# Inductive Sensor

## Analog Output Metal Barrel-M12



### Description:

Brass nickel-plated, threaded barrel, current or voltage output or both, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output Type	Voltage Range $U_B$	Switching Frequency	Output	Linearity Error	Ambient Temperature	Connection	Fig
Fi2-M12-LIU	0.4-2 mm	Flush	Voltage/Current	15...30 V DC	1000 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 1
Ni4-M12-LIU	0.8-4 mm	Non-flush	Voltage/Current	15...30 V DC	800 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 2
Fi2-M12-LIU-Q12	0.4-2 mm	Flush	Voltage/Current	15...30 V DC	1000 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 3
Ni4-M12-LIU-Q12	0.8-4 mm	Non-flush	Voltage/Current	15...30 V DC	800 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

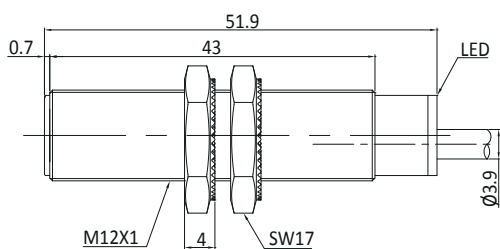


Fig. 2

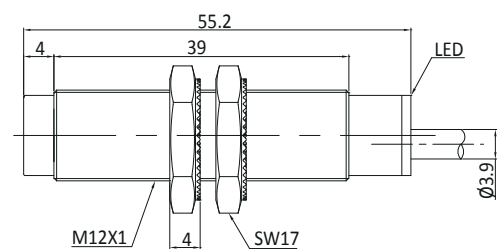


Fig. 3

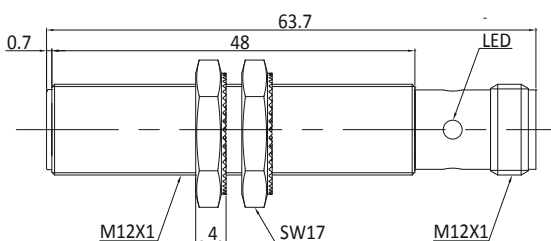
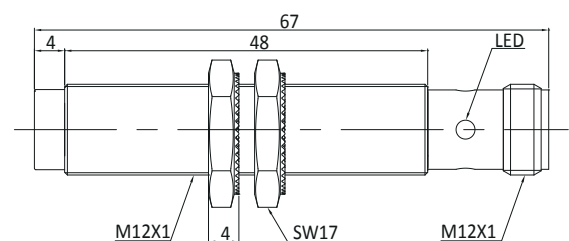


Fig. 4



## Analog Output Metal Barrel-M18



### Description:

Brass nickel-plated, threaded barrel, current or voltage output or both, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output Type	Voltage Range U <sub>B</sub>	Switching Frequency	Output	Linearity Error	Ambient Temperature	Connection	Fig
Fi5-M18-LIU	1-5 mm	Flush	Voltage / Current	15...30 VDC	800 HZ	0 ... 10 VDC / 0 ... 20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 1
Ni8-M18-LIU	1.6-8 mm	Non-flush	Voltage / Current	15...30 VDC	500 HZ	0 ... 10 VDC / 0 ... 20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 2
Fi5-M18-LIU-Q12	1-5 mm	Flush	Voltage / Current	15...30 VDC	800 HZ	0 ... 10 VDC / 0 ... 20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 3
Ni8-M18-LIU-Q12	1.6-8 mm	Non-flush	Voltage / Current	15...30 VDC	500 HZ	0 ... 10 VDC / 0 ... 20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:

Fig. 1

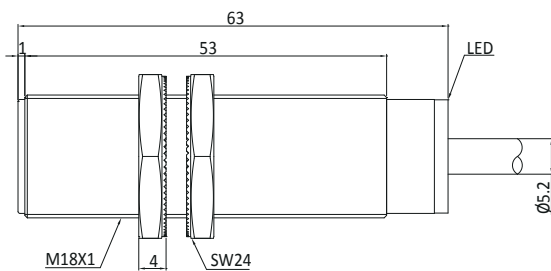


Fig. 2

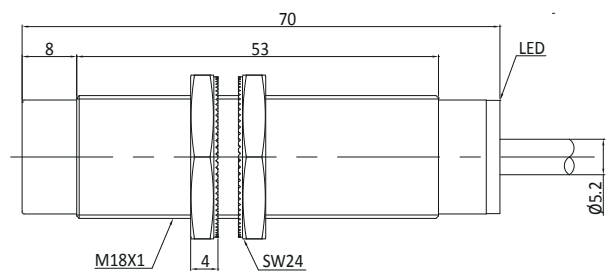


Fig. 3

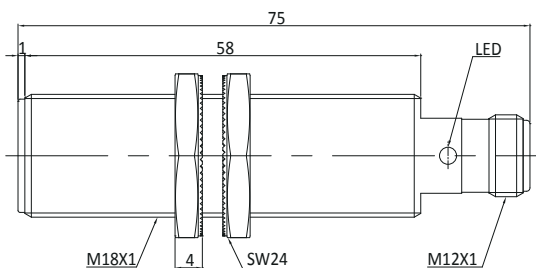
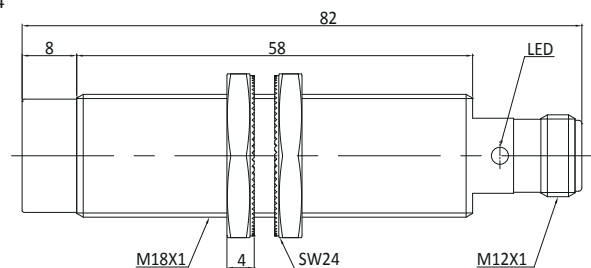


Fig. 4



# << Inductive Sensor

## Analog Output Metal Barrel-M30



### Description:

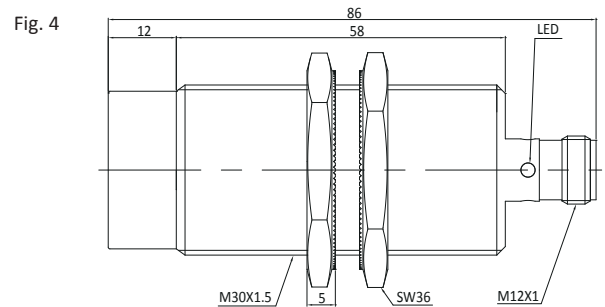
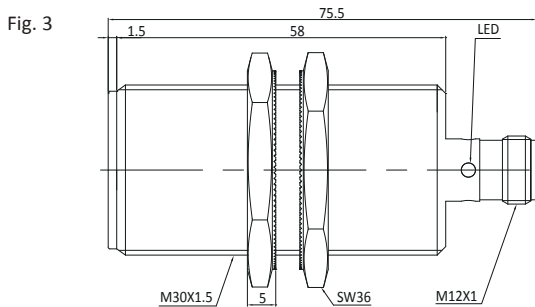
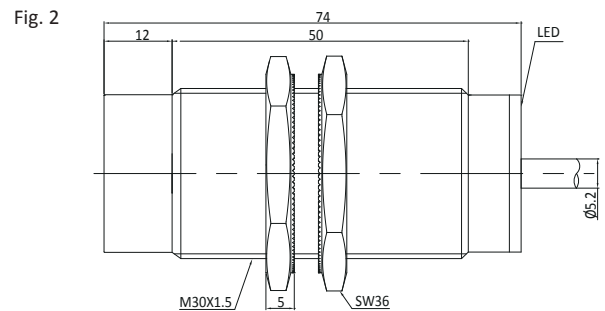
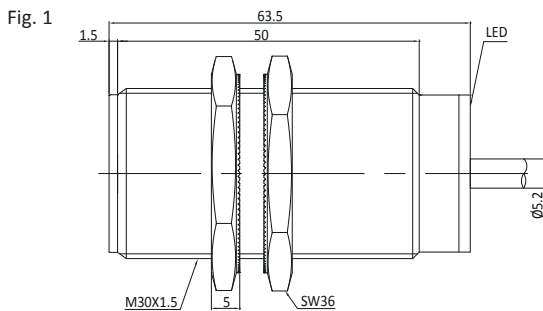
Brass nickel-plated, threaded barrel, current or voltage output or both, IP67 protection class, LED indicator.

See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output Type	Voltage Range $U_B$	Switching Frequency	Output	Linearity Error	Ambient Temperature	Connection	Fig
Fi10-M30-LIU	2-10 mm	Flush	Voltage / Current	15...30 V DC	400 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 1
Ni15-M30-LIU	3-15 mm	Non-flush	Voltage / Current	15...30 V DC	200 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	2m cable	Fig. 2
Fi10-M30-LIU-Q12	2-10 mm	Flush	Voltage / Current	15...30 V DC	400 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 3
Ni15-M30-LIU-Q12	3-15 mm	Non-flush	Voltage / Current	15...30 V DC	200 HZ	0...10 VDC / 0...20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 4

### Dimensions:



## Analog Output -W40



### Description:

Plastic housing, rectangular 40x40mm, variable orientation of active face, current or voltage output or both, IP67 protection class, LED indicator.

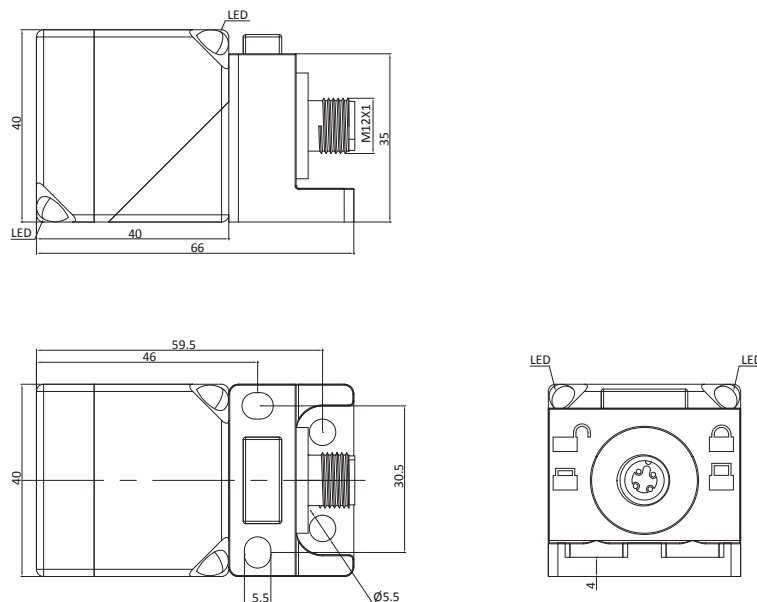
See the wiring diagram on page 241-243 for your reference.

### Technical Data:

Type	Rated Operating Distance Sn	Mounting	Output Type	Voltage Range $U_B$	Switching Frequency	Output	Linearity Error	Ambient Temperature	Connection	Fig
Ni25-W40-LIU-Q12	5-25 mm	Non-flush	Analog	Voltage / Current	15 ... 30 VDC	0 ... 10 VDC / 0 ... 20 mA	≤ 3%	-25 ... 70 °C	M12 Connector	Fig. 1

### Dimensions:

Fig. 1



## << Inductive Sensor

### Inductive Power Clamp Sensor - Plastic Rectangular



#### Description:

Plastic housing, rectangular 40x40mm, DC 3-wire output, IP67 protection class, LED indicator, optional sensor head.

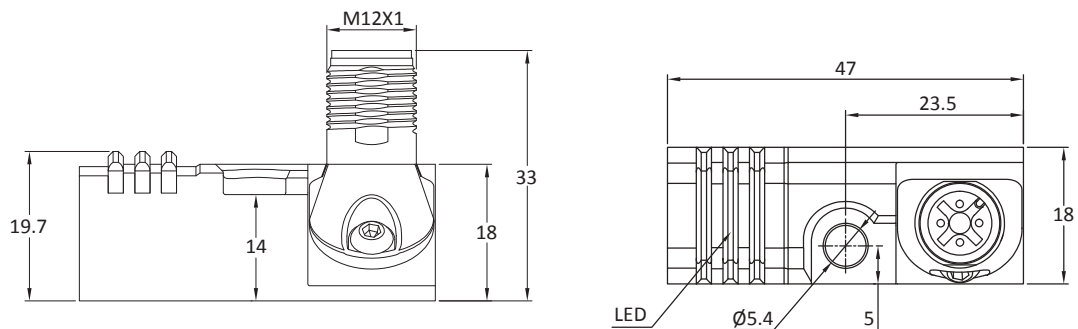
See the wiring diagram on page 241-243 for your reference.

#### Technical Data:

Type	Rated Operating Distance $S_n$	Mounting	Output	Voltage Range $U_b$	Rated Current	Switching Frequency	Ambient Temperature	Connection	Fig
NI2-QV2R1R2-OP6L-Q12	2 mm	Non-flush	PNP NO	10 ... 30 V DC	$\leq 150\text{mA}$	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 1/2/3
NI2-QV2C1-OP6L-Q12	2 mm	Non-flush	PNP NO	10 ... 30 V DC	$\leq 150\text{mA}$	200 Hz	-25 ... 70 °C	M12 Connector	Fig. 1/4

#### Dimensions:

Fig. 1  
Processor



# Inductive Power Clamp Sensor - Plastic Rectangular

## Dimensions:

Fig. 2  
Sensor head R1

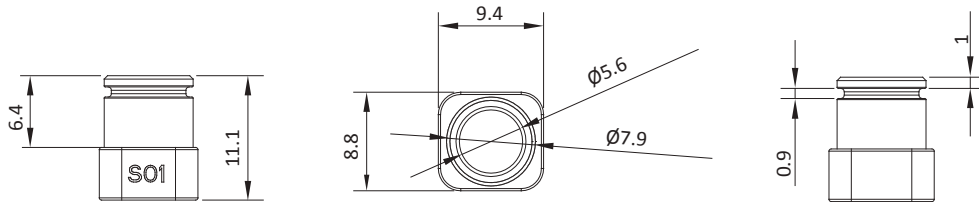


Fig. 3  
Sensor head R2

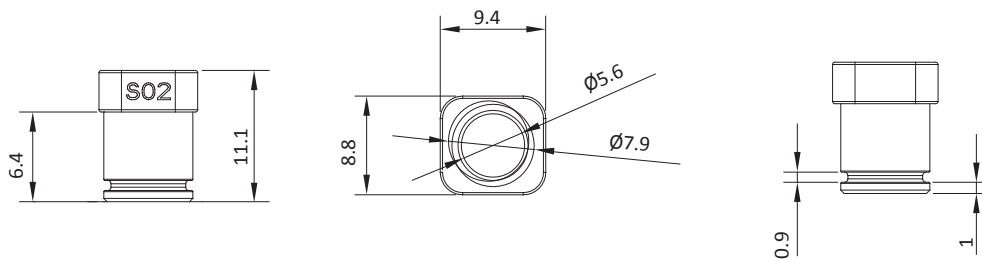
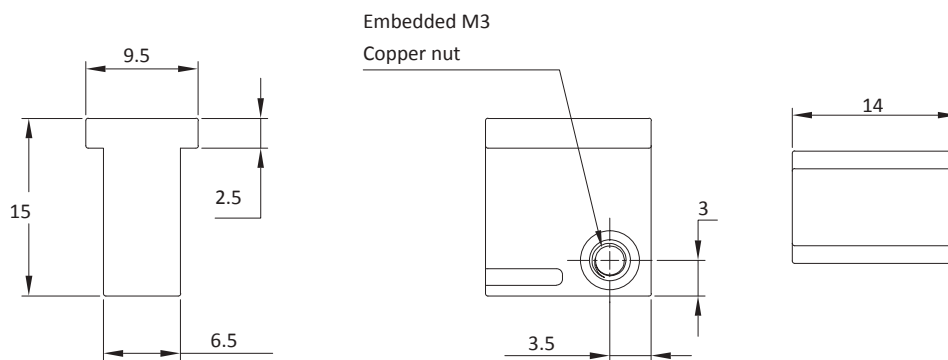


Fig. 4  
Sensor head C1



Type Code

C B O 12. 4 -2 - C B 12. 4 / P

**Product Category**

C-type  
Q-type

**Shape**

Null: Straight  
B: Angled

**Gender**

Null: Male  
O: Female

**Size**

M8\*1  
M12\*1

**No. of Pin**

2: 2-pin  
(2.2, 2.21, 2.22 different pin sequence)  
3: 3-pin  
4: 4-pin  
5: 5-pin  
8: 8-pin

**Special Function and Cable Material**

Null: PVC  
P: PUR  
WS: Shielded  
L: PNP LED  
LN: NPN LED  
EWSR: Welding spark resistance

**No. of Pin**

3: 3-pin  
4: 4-pin  
5: 5-pin  
8: 8-pin

**Size**

M8\*1  
M12\*1

**Shape**

Null: Straight  
B: Angled

**Product Category**

C-type  
Q-type

**Specification**


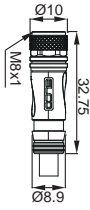
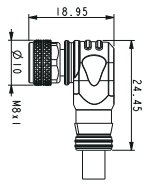

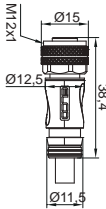
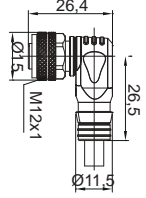

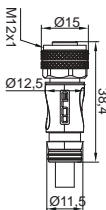
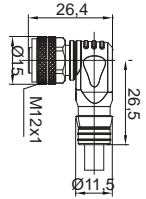
Null: Single Pre-wired

**Cable length**

Standard Length: 2m



# Connector

Size and Pin Assignment	Connector									
	Straight	Angled								
<b>M8</b>  <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>br/BN</td></tr> <tr><td>3</td><td>bl/BU</td></tr> <tr><td>4</td><td>sw/BK</td></tr> </table>	1	br/BN	3	bl/BU	4	sw/BK	 <p>CO8.3-2 CO8.3-5 CO8.3-10</p>	 <p>CBO8.3-2 CBO8.3-5 CBO8.3-10</p>		
1	br/BN									
3	bl/BU									
4	sw/BK									
<b>M12</b>  <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>br/BN</td></tr> <tr><td>2</td><td>ws/WH</td></tr> <tr><td>3</td><td>bl/BU</td></tr> <tr><td>4</td><td>sw/BK</td></tr> </table>	1	br/BN	2	ws/WH	3	bl/BU	4	sw/BK	 <p>CO12.4-2 CO12.4-5 CO12.4-10</p>	 <p>CBO12.4-2 CBO12.4-5 CBO12.4-10</p>
1	br/BN									
2	ws/WH									
3	bl/BU									
4	sw/BK									
<b>M12</b>  <table border="1" style="display: inline-table; vertical-align: middle;"> <tr><td>1</td><td>br/BN</td></tr> <tr><td>2</td><td>bl/BU</td></tr> </table>	1	br/BN	2	bl/BU	 <p>CO12.21-2/NE CO12.21-5/NE CO12.21-10/NE</p>	 <p>CBO12.21-2/NE CBO12.21-5/NE CBO12.21-10/NE</p>				
1	br/BN									
2	bl/BU									

Note: Provide customized sensor with any specification and cable length (2m, 5m, 10m).

# Connector

## Order code for field-attachable connector

L S B O 12. 4 - 0 / C

### Product Category

L: Field-attachable Connector

### Connection

S: Screw  
J: Welding<sup>①</sup>

### Shape

Null: Straight  
B: Angled

### Gender

Null: Male  
O: Female<sup>②</sup>

### Size

M8×1  
M12×1

### Special Function

Null: Special Function<sup>③</sup>  
M/S: Shielded Metal Housing  
C: Standard Product<sup>④</sup>

### Thread Standard

0: PG7  
9: PG9

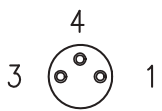
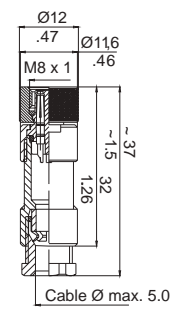
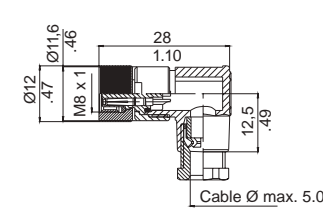
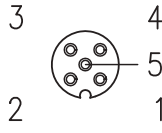
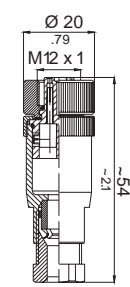
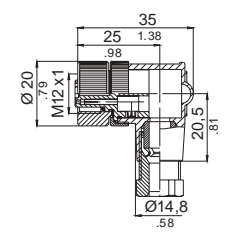
### No of Pin<sup>⑤</sup>

3: 3-pin  
4: 4-pin  
5: 5-pin  
8: 8-pin

### Remarks:

- ①: Welding wiring for part of M8 and all M23 series products
- ②: Mark "O" for female end
- ③: Null for M23 series products
- ④: If no special requirements, Elco supply preferred products to customer to facilitate field wiring (Only for the M8, M12 series products with screw connection).
- ⑤: Only supply metal housing for 19-pin products

# Connector

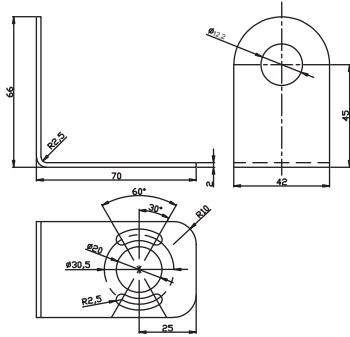
Sensor	Connector	
	Straight	Angled
<p><b>M8</b></p> 	 <p>LSO8.3-0/C</p>	 <p>LSBO8.3-0/C</p>
<p><b>M12</b></p> 	 <p>LSO12.4-0/C LSO12.5-0/C</p>	 <p>LSBO12.4-0/C LSBO12.5-0/C</p>

Note: Provide customized sensor with any specification and cable.

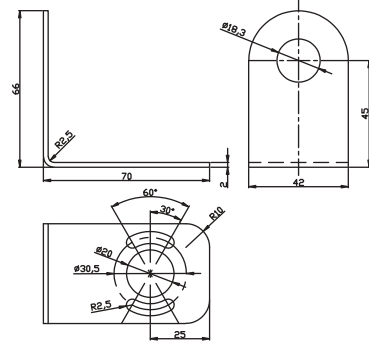
# Mounting Accessories

## Mounting Bracket:

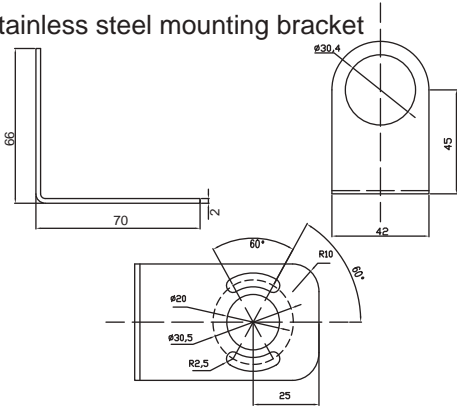
M12 series stainless steel mounting bracket  
EO12DF



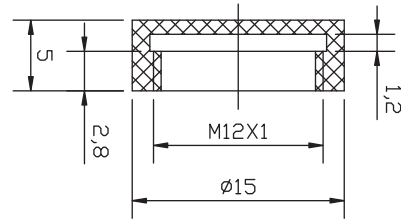
M18 series stainless steel mounting bracket  
EO18DF



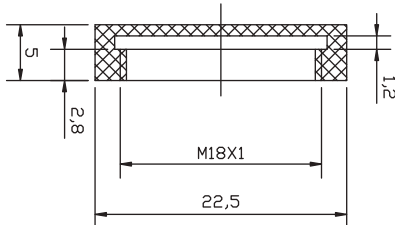
M30 series stainless steel mounting bracket  
EO30DF



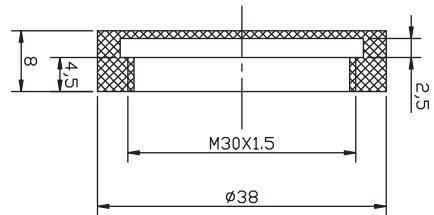
M12 series protective cap  
Telfon  
AS-FCM12



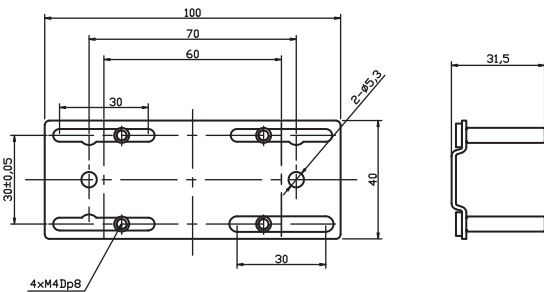
M18 series protective cap  
Telfon  
AS-FCM18



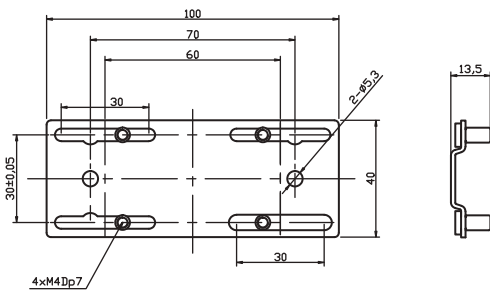
M30 series protective cap  
Telfon  
AS-FCM30



WL40 series stainless steel mounting bracket  
ECL40-R

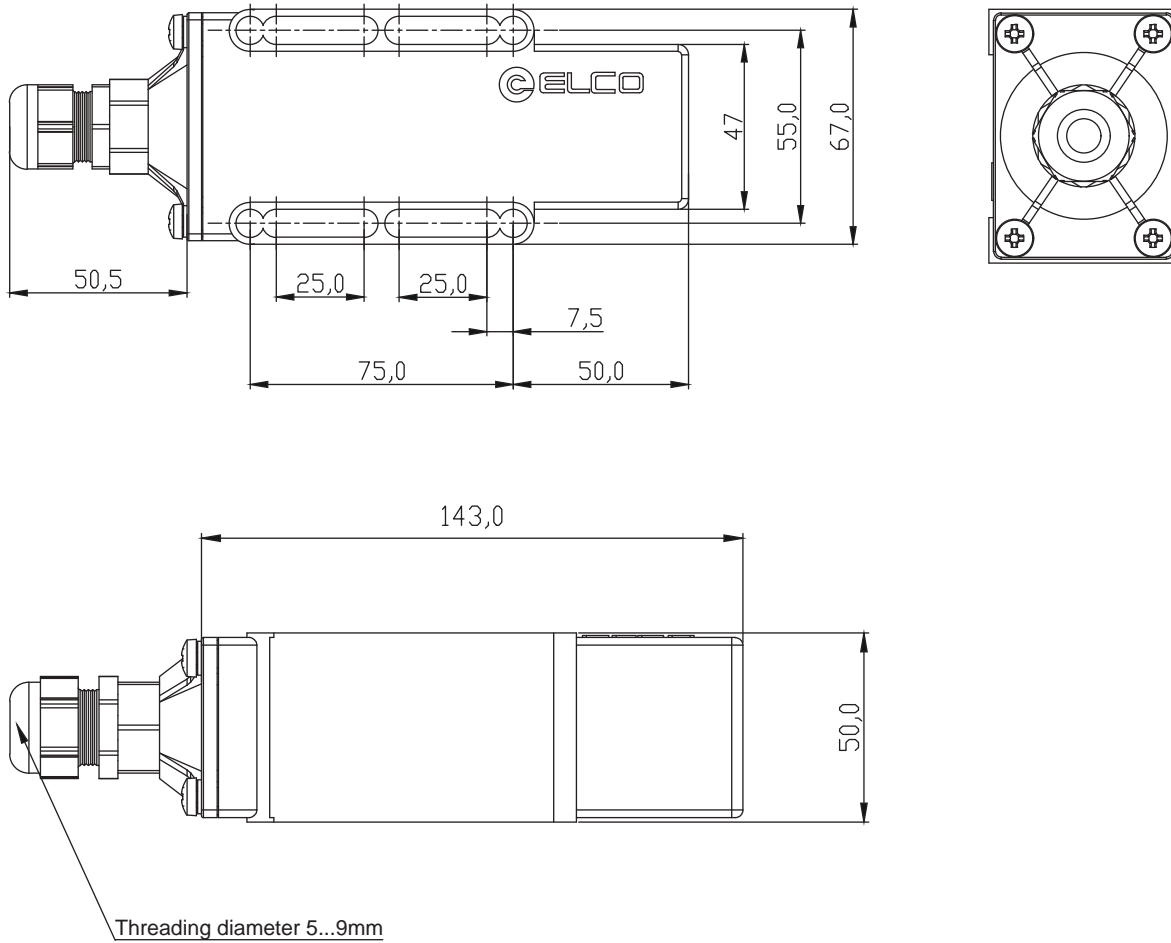


CL40 series stainless steel mounting bracket  
ECL40-R1



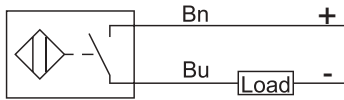
# Mounting Jacket

CL40/WL40 series mounting jacket  
 Main material ULTEM  
 EWL40-H (for WL40 Series)



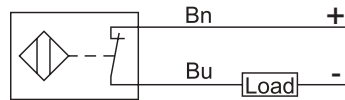
# Wiring Diagram

## Cable Version



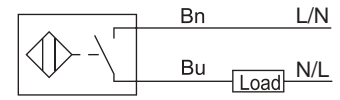
DC-2 wire NO

C01



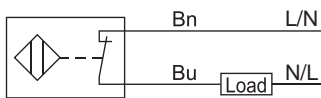
DC-2 wire NC

C02



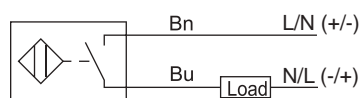
AC-2 wire NO

C03



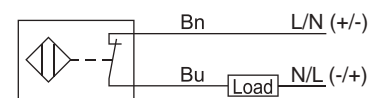
AC-2 wire NC

C04



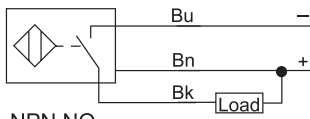
AC/DC-2 wire NO

C05



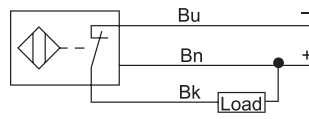
AC/DC-2 wire NC

C06



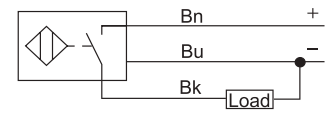
NPN NO

C07



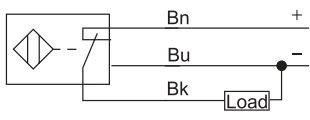
NPN NC

C08



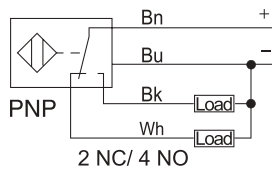
PNP NO

C09



PNP NC

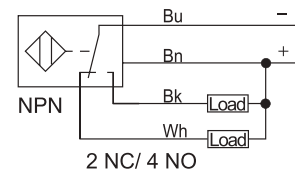
C010



PNP

2 NC/ 4 NO

C011



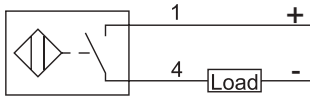
NPN

2 NC/ 4 NO

C012

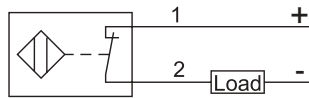
# Wiring Diagram

## Connector Version



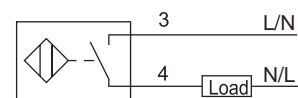
DC-2 wire NO

C013



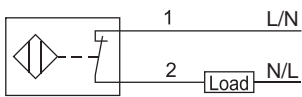
DC-2 wire NC

C014



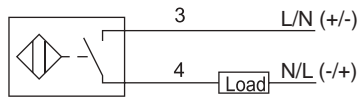
AC-2 wire NO

C015



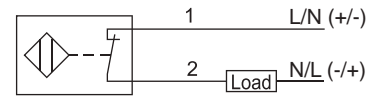
AC-2 wire NC

C016



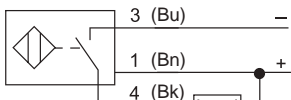
AC/DC-2 wire NO

C017



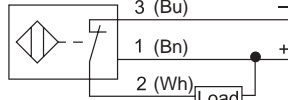
AC/DC-2 wire NC

C018



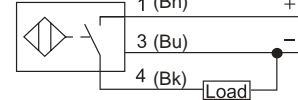
NPN NO

C019



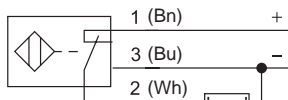
NPN NC

C020



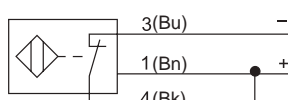
PNP NO

C021



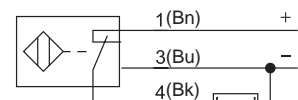
PNP NC

C022



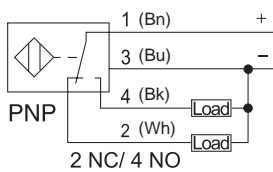
NPN NC

C023



PNP NC

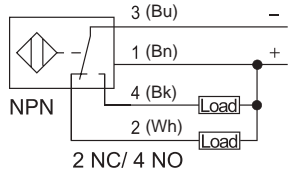
C024



PNP

2 NC/ 4 NO

C025



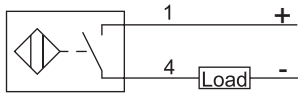
NPN

2 NC/ 4 NO

C026

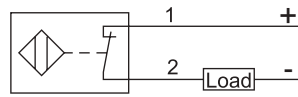
# Wiring Diagram

## Terminal Version



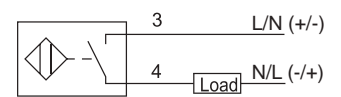
DC-2 wire NO

C027



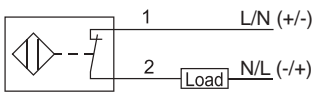
DC-2 wire NC

C028



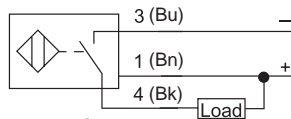
AC/DC-2 wire NO

C029



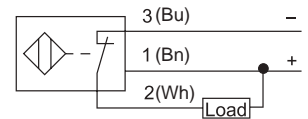
AC/DC-2 wire NC

C030



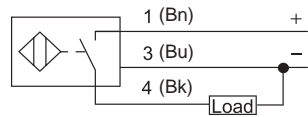
NPN NO

C031



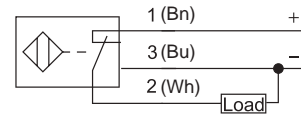
NPN NC

C032



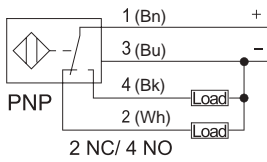
PNP NO

C033



PNP NC

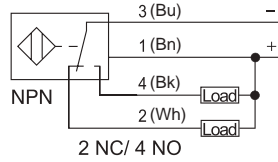
C034



PNP

2 NC/ 4 NO

C035

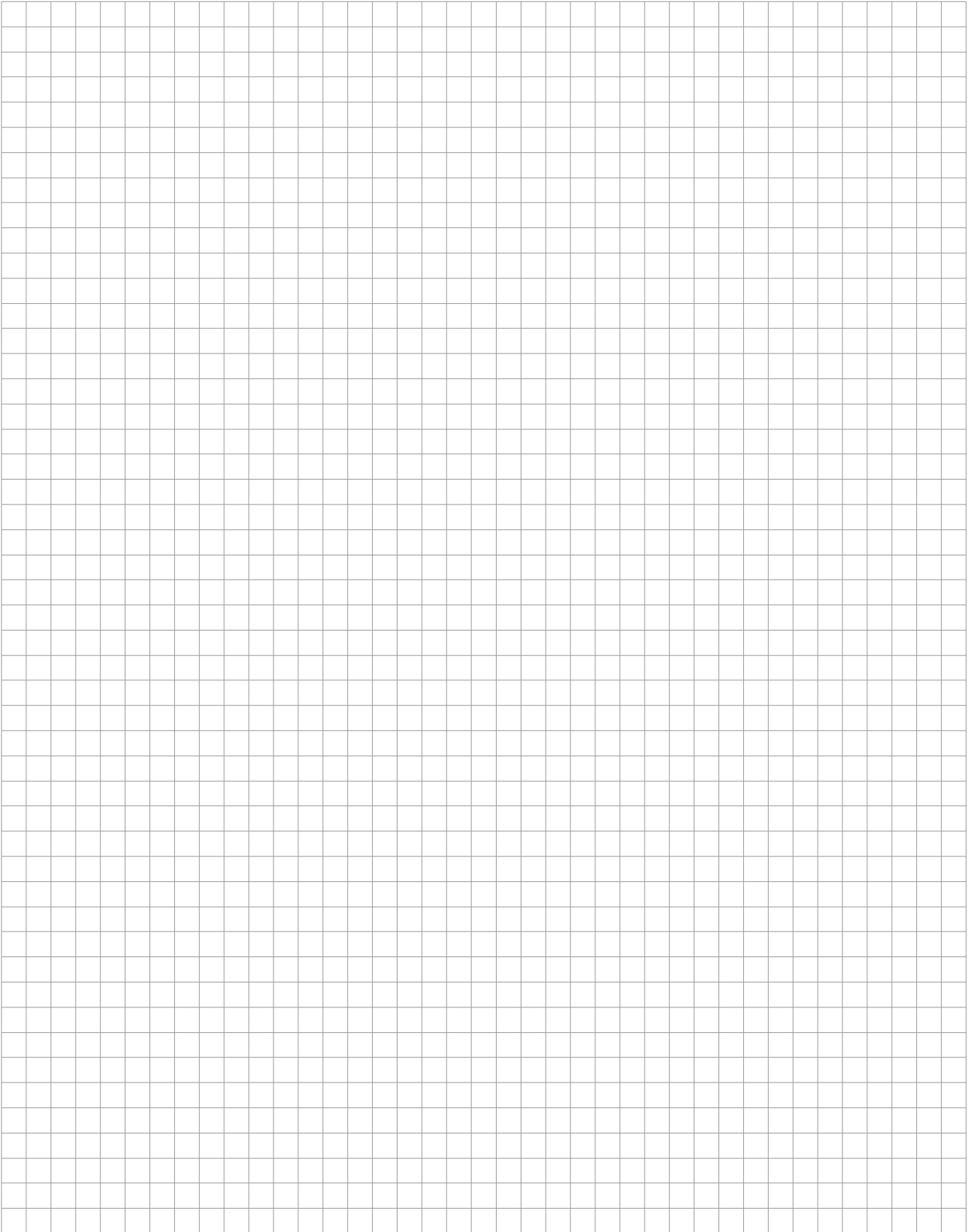


NPN

2 NC/ 4 NO

C036





# << Inductive Sensor

## Introduction

### Resistance to electromagnetic interference

When the inductive load is disconnected, the output voltage rises to a very high value (without a protective element), at which point the output transistor will be destroyed. Therefore, the proximity switch is equipped with a Zener diode at the output, which can limit the disconnect voltage to a safe value (3-wire proximity switch).

When connecting inductive loads with current >100mA and switching voltage >10Hz, it is recommended to connect a continuous current diode directly between the loads (due to power loss in the built-in Zener diode).

### Rf interference protection

The high frequency sensitivity is sufficiently reduced to comply with IEC 61000-4-3 Level 3 (test level 10 V/m).

### Antistatic discharge

The structure of the device is such that electrostatic discharge according to IEC 61000-4-3 Level 3 (8kV) can damage the device.

### Application Electromagnetic Compatibility (EMC)

All inductive proximity switches comply with EMC guidelines protection requirements of No.89/334/ECC. This can be confirmed by EN 60947-5-2 standard.

Individual tests apply the following EMC standards:

- EN 61000-6-2
- EN 61000-6-4
- EN 61000-3-2
- EN 61000-3-3

### Protection level

Sensor housing protection against solids and liquids, IP

The INTERNATIONAL PROTECTION Class standard IEC 60529 is compiled by the IEC (INTERNATIONALELE CTR-Technical) COMMISSION in order to classify electrical appliances and other equipment according to their dustproof and waterproof characteristics. IP protection level is composed of two numbers, the first mark number indicates the electrical dust, to prevent the level of foreign object intrusion, the second mark number indicates the degree of anti-electrical moisture and water intrusion. The greater the number indicates the higher the level of protection. (The foreign objects referred to here include tools, human fingers, etc., should not touch the live part of the electrical appliance to avoid electric shock).

- IP65 Full contact protection under upright part pressure. Anti-dust and drench.
- IP67 Full contact protection under pressure in the upright part.
- IP68 Includes IP67 content
  - 24 hours at +70 °C
  - 24 hours at -25 °C
  - 7 days under 1 meter of water, no seepage
  - +70 °C to -25 °C, every 10 °C for 1 hour

### Reverse polarity protection

Short-circuit protection is applied to the sensor when the polarity reversal results in a short circuit (only relative to the sensor without reverse polarity protection).

### Short circuit protection

Built-in standard short-circuit protection circuit to protect the temporary access current greater than the rated load current.

### Power-on delay

All have power-on delay function, so that the sensor can be switched on the instant circuit protection.

### Standard test substance

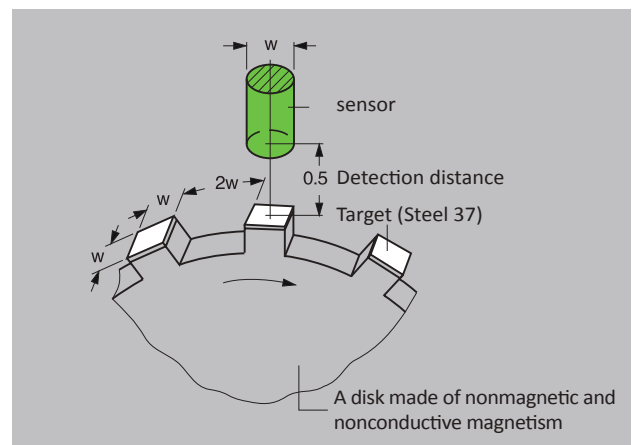
Material: 37 steel

Thickness: 1mm

Dimensions: 3 times the rated working distance, and the diameter of the sensing surface, take the bigger value.

### Switching frequency

The maximum number of switch changes per second measured by a standard dial



### Operating voltage

The operating voltage specification shall include 10% ripple voltage.

### Rated working distance $S_n$

The rated working distance is a general variable used to define the working distance. Scattering of the object under test and changes caused by external influences such as voltage or temperature (IEC) are not taken into account. The working distance is applicable when a standard target is used and measured according to IEC 60947-5-2. If the size of the material and/or target is different from the standard target, the reduction factor must be taken into account.

### Actual working distance $S_r$

The operating distance of a proximity switch at a given temperature, voltage, and installation condition. This is the working distance of the proximity switch measured according to IEC60947-5-2.

Manufacturing tolerance is 10%:

$$0.9 S_n < S_r < 1.1 S_n$$

### Usable working distance $S_u$

The working distance (IEC) of a proximity switch measured under certain conditions. This includes additional expected deviations due to variations in temperature and operating voltage within specified ranges. The usable working distance is between 90% and 110% of the actual working distance. For a reliable design proximity switch:

$$0.81 S_n < S_u < 1.21 S_n$$

### Assured working distance (execution distance) $S_a$

The distance (IEC) from an effective surface to which proximity to the switch execution action is guaranteed under certain conditions.

Ensure that the working distance is between zero and the lowest value of the available working distance:  $0 < S_a < 0.81 S_n$

### Rated operating current $I_e$ (Output current)

Proximity switches are designed to have a specific maximum output current. If this current is exceeded (even for a short time), the built-in overload protection function is activated. Bulb capacitors and other strong capacitive loads (such as long wires) have a similar effect to overload.

### Hysteresis H

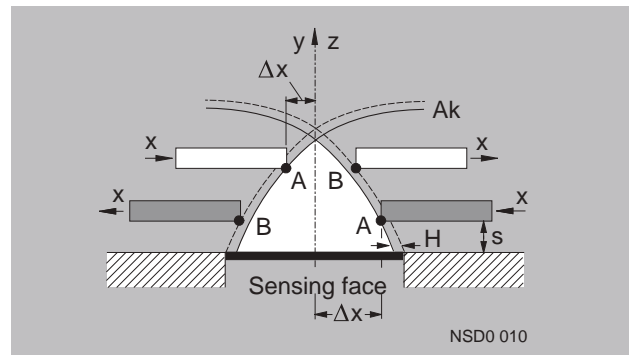
The hysteresis H is the distance between the standard metal target approaching the start point of the sensor and leaving the end point of the sensor.

### Repetition accuracy R

Repetition accuracy refers to the change in the true working distance  $S_r$  (IEC) under certain conditions. The repetition accuracy was measured within 8 hours at 23 °C ( $\pm 5$  °C), within a specified range relative humidity and at a determined supply voltage. The difference between any two measured values should not exceed 10% of the actual working distance.  $S_r$  repetition accuracy is usually much better in cases where measurements are made one after the other.

### Response curve

Curves for all response points A. The curve is determined using standard targets. The correlation characteristics of proximity switch can be obtained from this curve. The Z-axis of the switch is coincided with to the Y-axis.



- |    |                         |    |                                |
|----|-------------------------|----|--------------------------------|
| Ak | Response characteristic | x  | Direction of motion            |
| A  | Response point          | Δx | Trigger distance               |
| B  | Release point           | y  | Distance from proximity switch |
| H  | Differential travel     | Z  | Reference axis                 |
| s  | Working distance        |    |                                |

### No-load current

Refers to the current required by the sensor itself, that is, when there is no load.

### Operating current (continuous current)

Refers to the maximum load current in continuous operation.

# << Inductive Sensor

## Introduction

### **Instantaneous current**

It refers to the current that is allowed for a short period of time when the switch is closed without damaging the sensor.

### **Residual current**

Refers to the current flowing through the load when the sensor is disconnected.

### **Voltage drop U**

It refers to the voltage measured at the two ends of the sensor or the output end when the sensor is switched on.

### **Ripple voltage**

Refers to the AC voltage superimposed on the operating voltage (peak-peak) is usually expressed as a percentage of the arithmetic mean.

### **Switching frequency**

The maximum number of transformations from a attenuation state to an non-attenuation state, measured in Hertz (Hz).

### **Permissive interference voltage**

A voltage spike acting on a power supply for a short period of time that can damage an unprotected sensor.

Turn-on delay refers to the time required when the power supply voltage of the proximity switch is connected until the proximity switch starts working.

### **False pulse suppression**

When the operating voltage is added, the output of the error signal can be suppressed in the time stage of TV.



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