



Datasheet IO-Link Servo CTR-060

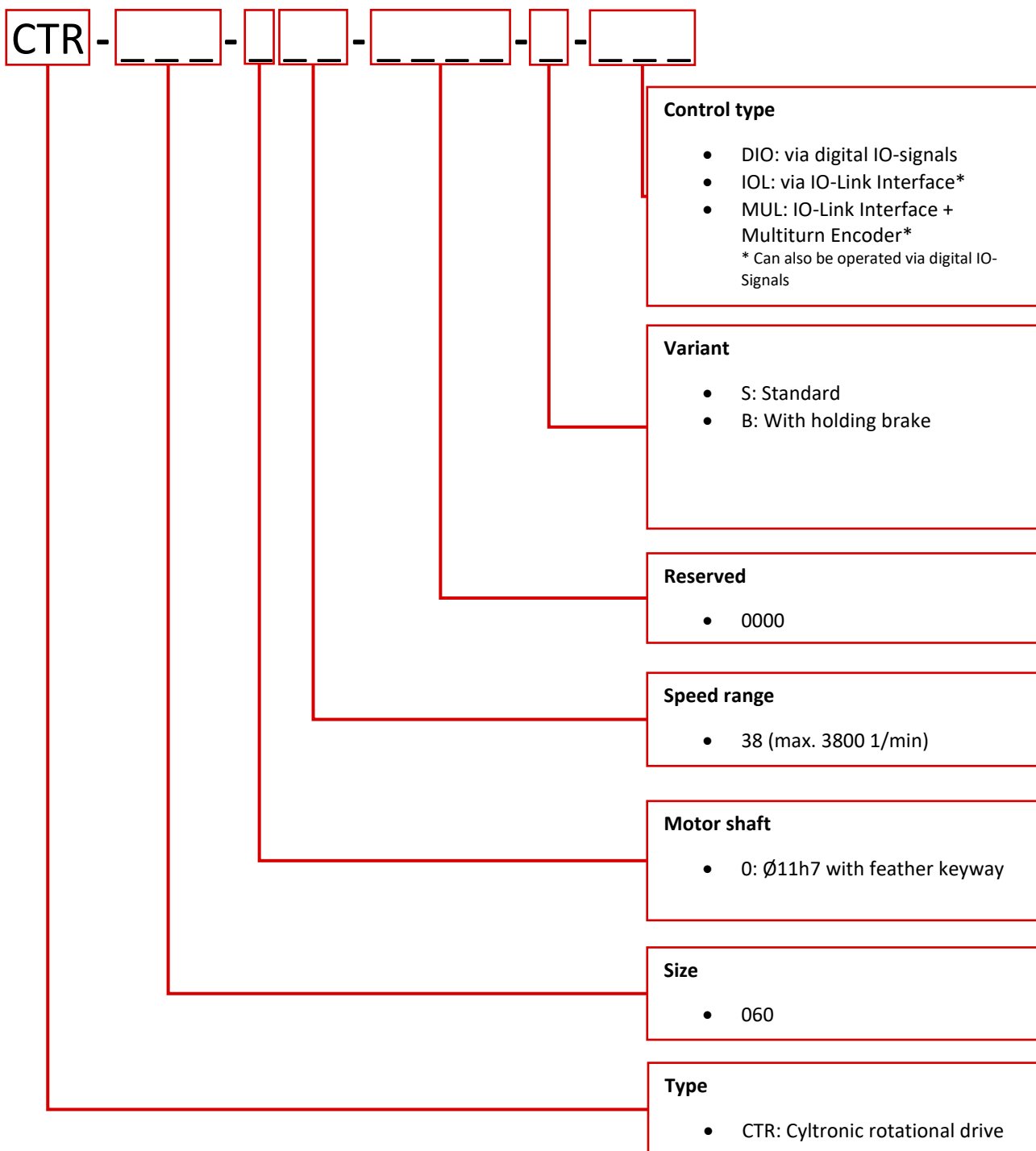
Control type	-DIO	-IOL	-MUL
Control / Parameterization Setting force & speed Control functions	Digital I/O - Movements controlled by IO signal - Teach-in distances (teach run) - Teached-in distances can be called up Control panel - Speed adjustable for both directions via potentiometer - Maximum force adjustable via potentiometer	 IO-Link - Singleturn-Encoder - Target position setting in real time - Adjustable speed, force and acceleration settings in real time - Real-time feedback of position, speed and force - Pre-programmable travel sets - Press-in mode - Extensive diagnostic options - Many more features	 IO-Link - Multiturn-Encoder (keeps track of movements when powered off) - Higher positioning accuracy - Target position setting in real time - Adjustable speed, force and acceleration settings in real time - Real-time feedback of position, speed and force - Pre-programmable travel sets - Press-fit mode - Extensive diagnostic options - Many more features
Speed range		-038	
Max. Torque (Peak)	[Nm]	1.2	
No load current @max. speed	A	0.35	
Max. Speed In 24V operation In 48V operation	[r/min]	1700 3800	
Nominal torque (continuous operation)	[Nm]	0.4	
Nominal speed @ nom. torque In 24V operation In 48V operation	[r/min]	1250 3200	
Max. Acceleration	[r/s ²]	2000	
Positioning accuracy	[°]	DIO/IOL: +/- 1.5 MUL: +/-0.3	
Positioning precision (repeatability)	[°]	DIO/IOL: +/-0.3 MUL: +/-0.1	
Mounting position		any	
Ambient temperature	[°C]	0...+40	
Ambient temperature note		At ambient temperatures above 25° C a reduction in performance must be expected.	
Storage temperature	[°C]	-20...+60	
Protection class		IP40 IP65 / IP67 on inquiry	
Relative humidity	[%]	0...90 (non-condensing)	
Motor type		Synchronous-Servomotor	
CE mark (see Declaration of Conformity)		According to EU-RoHS-RL	
		According to EU-EMC-Directive	

Connectors, signals, control		
Status display		3x LED
Rated voltage power circuit	[V DC]	24 - 48
Max. current consumption	[A]	3.5 (continuous load operation)
	[A]	11 (consumption peak load operation)
Operating range signal input	[V DC]	24
Permissible voltage variations	%	+/- 15
Max. current consumption logic	[mA]	50
Max. current digital signal outputs	[mA]	100 / output
Number of digital signal inputs	3	extend, retract, teach
Number of digital signal outputs	3	extended, retracted, ready
Features signal input		galvanically isolated from power circuit not galvanically isolated between signals
Max. cable length	[m]	20
Switching logic outputs		push-pull
Switching logic inputs		positive switching
Reference		External fixed stop (-DIO) External fixed stop / manually by IO-Link (-IOL) Optional: manually by IO-Link (-MUL)

Weight (+/- 10%)		
Standard, without holding brake	[g]	1080
With holding brake	[g]	In development
Rotor moment of inertia	[kgcm ²]	0.125

Materials	
Housing, cover	Aluminium anodized
Motor shaft	Steel C45+C
Seals	NBR / EPDM
Screws	Steel galvanized
Covers knobs	Stainless steel
Connector fittings	Zinc nickel plated
RoHS Information	Conform according to declaration
REACH Information	All Variants: contains > 0,1% of 7439-92-1 Variante-MUL: contains > 0,1% of: D4 556-67-2

Configuration key



Example: CTR-060-038-0000-S-IOL

Dimensions

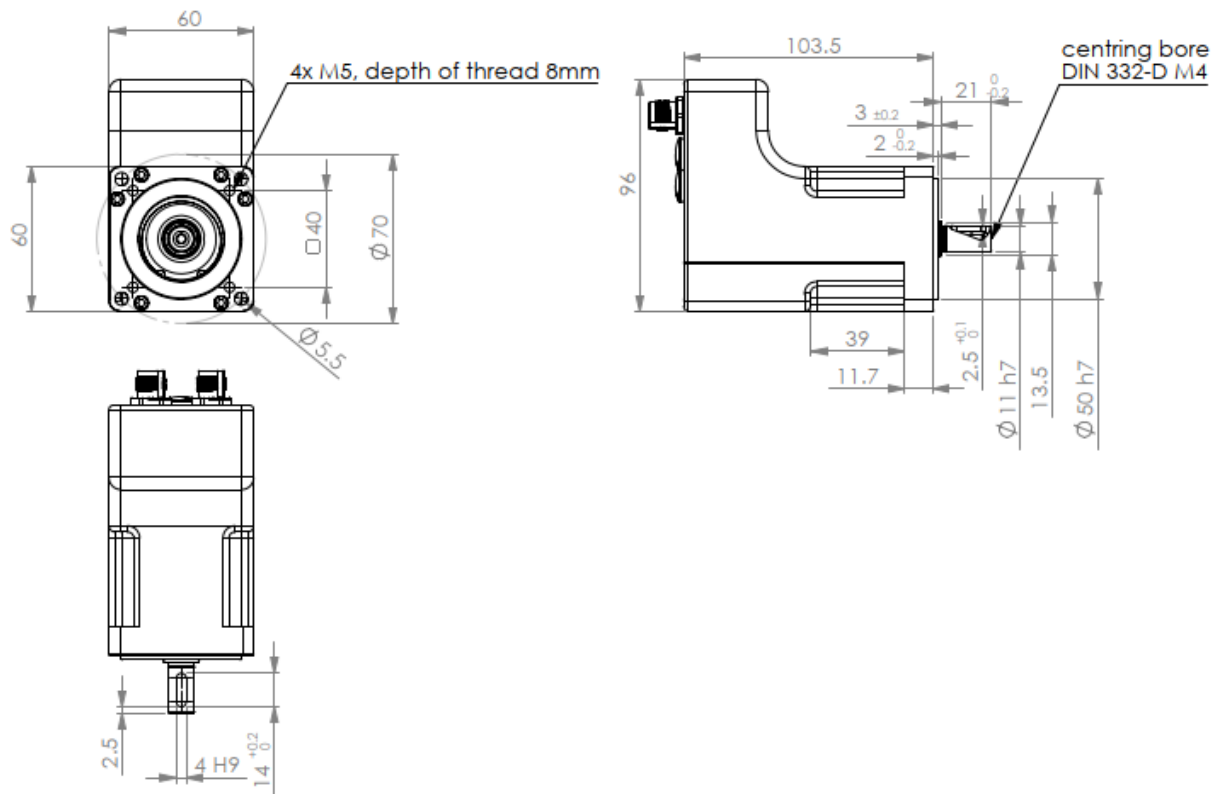
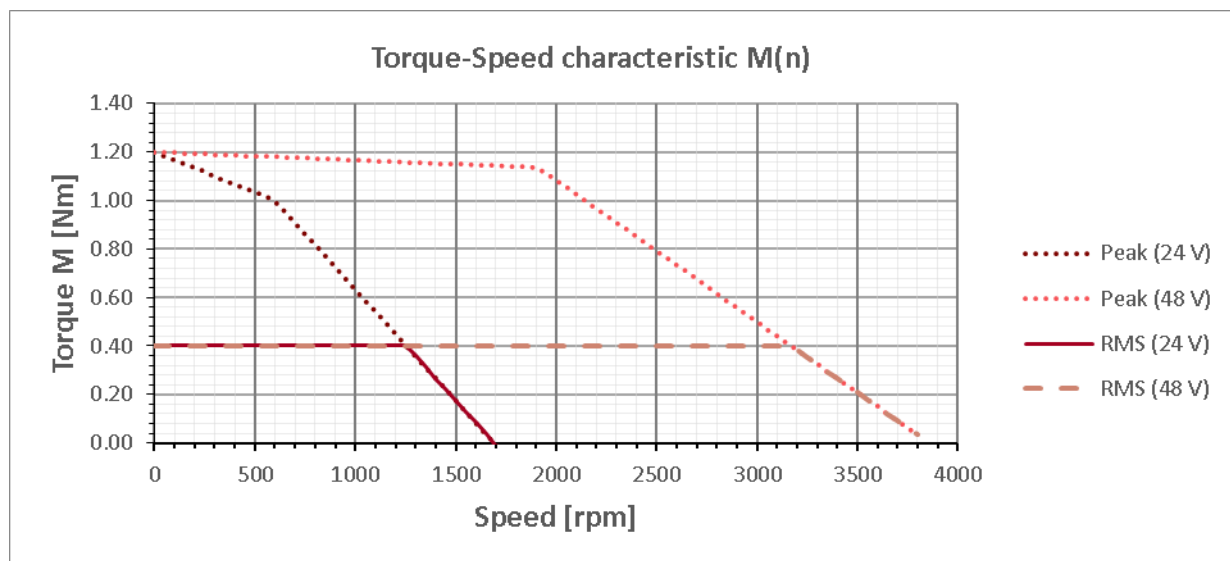


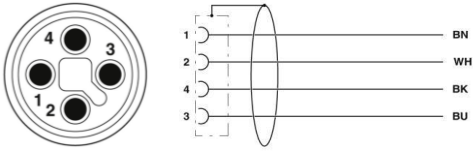
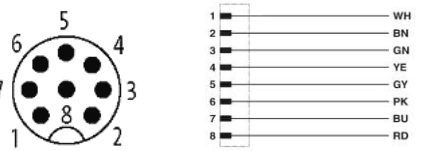
FIGURE 1: DIMENSIONS

Characteristic

Torque Speed characteristic



Electrical Connection of the Drive

Power			Signal		
Plug M12x1, 4-pole T-coded according to EN 61076-2-11			Plug M12x1, 8-pin A-coded according to EN 61076-2-101 (Shielded cables are recommended)		
					
Pin	Color	Function	Pin	Color	Function
1	BN	Power voltage 24V-48V $\pm$ 15% (max. 10A) At 48V the use of a brake chopper is recommended.	1	WH	DO Ready / IO-Link CQ
2	WH	Functional earth (FE)	2	BN	Logic voltage 24V $\pm$ 15% (max. 500mA)
3	BU	GND 0V	3	GN	DO is extended
4	BK	reserved, do not connect	4	YE	DO is retracted
			5	GY	DI Retract*
			6	PK	DI Extend*
			7	BU	GND 0V
			8	RD	DI Teach / Reset / Powerless

IO-Link interface

Parameter		
Transfer rate		COM3
Cycle time	ms	1.5
IO-Link specification		V1.1.3
Process data input (Slave->Master)		Status Actual Position (in r = rotations) Actual Speed (in r/s) Actual Torque (in Nm)
Process data output (Master->Slave):		Motion Mode Target Position (in r = rotations) Override 1-3 (in %)
Service data		Configuration, diagnosis, statistics, identification
IO-Link profile		Common Profile BLOB Transfer & Firmware Update