



Application area

- Chemical and petrochemical industry
- Machinery construction
- General process technology
- Shipping

Techn. Data

Case

stainless steel material no. 1.4301 (304), nominal size 100 and 160 mm

Process connection

rigid temperature detecting element, radially protruding at bottom. Different connections can be supplied, see order details

Case design

degree of protection IP 66 per EN 60529, alternatively with liquid filling

Measuring element

helix from thermostatic bimetal per DIN 1715 with good adjusting power and fast acting, thermally aged, base and connection piece laser welded

Pointer shaft

stainless steel material no. 1.4571 (316Ti), with multiple bearings

Temperature detecting element

stainless steel material no. 1.4571 (316Ti), diameter 8 or 6 mm, can be supplied in standard lengths, see order details, other sizes upon request

Scale

aluminium, white with black inscription

Pointer

aluminium, black with micro adjusting device for zero-point correction

Window

instrument glass, alternatively macrolon

Case seal

Perbunan

Measuring system damping

indicator damping as standard, labofin additionally liquid filling for damping the whole system can be supplied optional for nominal ranges from -40 °C up to 160 °C

Nominal ranges

per EN 13190 from -40...+500 °C (with restrictions also 600 °C), other values upon request. For nominal ranges above 400 °C, we recommend the use of a thermowell per DIN 43772

Accuracy

per EN 13190, class 1

Storage or transport temperature

max. -20...+60 °C, other values upon request

Weights

DN 100, without filling:	approx. 0.4 kg
DN 100, with filling:	approx. 0.6 kg
DN 160, without filling:	approx. 0.8 kg
DN 160, with filling:	approx. 1.5 kg

Features

- Case and wetted parts of stainless steel
- Case DN 100/160, degree of protection IP 66
- Different connections can be supplied
- Accuracy class 1 as per EN 13190
- Micro adjusting pointer for indication correction
- Indicator damping (standard)

Options

- Case with liquid filling
- Calibration certificate per DIN EN 10204
- Connection to zone 0 with thermowells

Application

These thermometers are suitable for use outdoors and in aggressive environments. The devices can also be supplied with additional liquid damping for use in extreme conditions. The temperature detecting element is susceptible to bending, therefore, fitting with thermowell is recommended. See data sheets T5-... for suitable thermowells.

Instructions for use

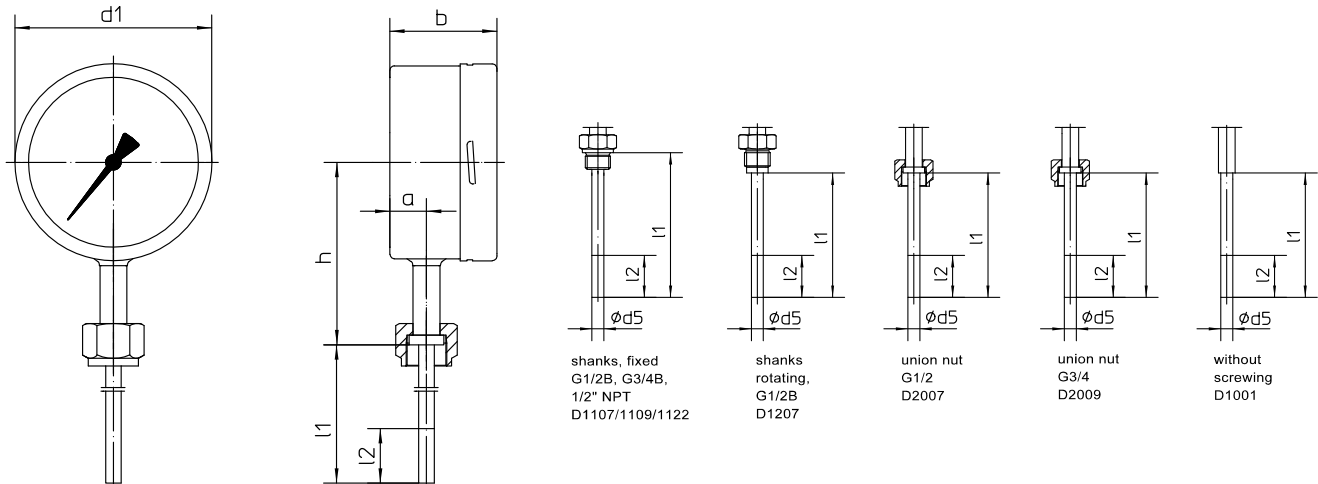
the loading capacity of the temperature detecting element depends on the following parameters:

1. measured medium
2. measured medium pressure
3. measured medium temperature
4. flow velocity
5. immersion length
6. material

A technical test is necessary where required.

Information on other models upon request or see order details

Dimensions



shanks, fixed
G1/2B, G3/4B,
1/2" NPT
D1107/1109/1122

shanks rotating,
G1/2B
D1207

union nut
G1/2
D2007

union nut
G3/4
D2009

without
screwing
D1001

The sensitive portion L_2 shall reach the process temperature completely. The insertion length L_1 should have adequate size.

dimensions (mm)					h (up to sensor)					the necktubes (dimension h) are extended by 36 mm for nominal range > 300 °C
case	d_1	a	b	L_2	D1001	D1107/1109/1122	D1207	D2007	D2009	
NG 100	100	15	60	60 ± 5	97	79	97	97	97	
NG 160	160	15	60	60 ± 5	127	109	97	97	97	

Order Details - Please give additional specifications for models not listed -

Bimetal thermometer radial bottom connection										standard measuring and nominal ranges °C, per EN 13190			
case	· DN 100		FA2 ...							nominal range °C	meas. range °C	order code	
	· DN 160		FA3 ...							-20...+40	-10...+30	340	
case design	· IP 66		400							-20...+60	-10...+50	346	
	· IP 66 with liquid filling		600							-30...+50	-20...+40	322	
accuracy	· standard class 1 (full range)				A2					0...60	10...50	520	
measuring range	· per table				...					-40...+40	-30...+30	220	
process connection	· shanks, fixed G 1/2 B						D1107		-40...+60			-30...+50	222
	· shanks, fixed G 3/4 B						D1109		0...100			10...70	522
	· shanks, fixed 1/2 NPT						D1122		0...120			10...90	524
	· shanks, rotating G 1/2 B						D1207		0...160			20...100	540
	· union nut G 1/2						D2007		0...200			20...180	548
	· union nut G 3/4						D2009		0...250			30...220	560
	· without screwing						D1001		0...300 ¹			30...270 ¹	565
temperature detecting element ϕd_5	· 6 mm								F6		0...400 ¹	50...350 ¹	627
	· 8 mm								F8		0...500 ¹	50...450 ¹	630
immersion length L_1 (mm) ²	D 11.. shanks fixed	D1207 shanks rotating G 1/2 B	D2007 union nut G 1/2	D2009 union nut G 3/4	D1001 without screwing					0...600 ¹		100...500 ¹	640
	100	080	089	093	100								
	160	140	126	130	160								
	250	230	186	190	250								
	400	380	276	280	400								
			426	430									
	deviating length: pls specify										999		
additional features (to be indicated in case of need, only)													
window	· macrolon with adjustable reference pointer								R13				
marking	· on scale (pls specify)										T2		
Order code (example):					FA2400	A2222	D1109	F8100					

¹ measuring range without case filling, only

² standard immersion length to be specified in order code, e.g. L_1 80 mm: order code 080