Gas-actuated thermometer
Stainless steel version
Model 73

For further approvals,
see page 10

Configurator

Standard article

Applications

- General process instrumentation in the chemical and petrochemical industries, oil and gas industries, energy and water/wastewater industries
- Universally suitable for machine building, plant, tank, equipment manufacturing and food industry
- Temperature measurement without medium contact
- Mounting in instrument panels, control cabinets and control panels

Special features

- Scale ranges from -200 ... +700 °C [-328 ... +1,292 °F]
- Fast response behaviour
- Case and stem from stainless steel 316
- Various connection and case mounting designs
- QR code on dial links to instrument-specific information

Fig. left: lower mount (radial), model R73.100
Fig. centre: with capillary and instrument mounting bracket, model F73.100
Fig. right: back mount (axial), model A73.100

Description

The model 73 gas-actuated thermometer has been developed and is manufactured in accordance with the EN 13190 standard. This high-quality thermometer has been designed especially for the requirements of the process industry. The thermometer, completely manufactured from stainless steel, is used particularly successfully in the chemical and petrochemical, oil and gas, and power engineering industries.

To allow optimum fitting to the process, individual insertion lengths and process connections are available. The thermometers have a high ingress protection of IP65 and can be used in outdoor applications even at negative temperatures. With liquid damping operation under high vibration conditions is possible. Due to the wide variety of possible designs, the model 73 gas-actuated thermometers can be perfectly adapted to any process connection or location.

With the contact bulb version, temperature measurements are possible without any contact with the medium, even when the pipe diameter is extremely small. The contact bulb is intended for external mounting on pipes and tanks.

When it comes to harsh climatic conditions at the place of use, the model 73 is the right choice, as it can be used at temperatures ranging from -40 °C [-40 °F] ... +60 °C [+140 °F] (In the POLARgauge® version also to -50 °C [-58 °F] of -70 °C [-94 °F]).

The QR code on the dial allows instrument-specific information such as the serial number, the order number, certificates and other product data to be retrieved from the internet easily and in the long term.

Specifications

Basic information		
Standard	EN 13190	
Nominal size	■ 100 mm [4"] ■ 160 mm [6"]	
Window	■ Laminated safety glass ■ Polycarbonate	
Connection location		
A73.1x0	Back mount (axial)	
R73.1x0	Lower mount (radial)	
S73.1x0	Back mount, adjustable stem and dial	
F73.1x0	Version with capillary	
Connection designs		
S	Standard (threaded connection) [1]	
1	Plain stem (without thread)	
2	Rotatable connection	
3	Union nut	
4	Compression fitting (sliding on stem)	
5	Union nut and loose threaded connection	
6	Compression fitting (can be adjusted on either capillary or spiral protective sleeve)	
7	Compression fitting on the case [1]	
"Adjustable stem and dial" case version	Swivelling 90° and rotatable 360°	
Damping	■ With liquid damping (silicone oil) ■ With food-compatible liquid damping	
Materials (non-wetted)		
Case, bayonet bezel	Stainless steel 304	
Pointer	Aluminium, black, micro adjustment	
Articulated joint "adjustable stem and dial"	Stainless steel 304	
Dial	Aluminium (white)	

1) Not applicable to version with capillary

Measuring element		
Type of measuring element	Gas-pressure inert gas filling, physiologically safe	
Working range		
Constant loading (1 year)	Measuring range per EN 13190	
Short time (max. 24 h)	Scale range per EN 13190	
Movement materials	■ Combination of brass and stainless steel ■ Completely from stainless steel	
Capillary		
Diameter	⌀ 2 mm [0.08 in]	
Spiral protective sleeve	⌀ 7 mm [0.28 in]	
Length	Capillary without spiral protective sleeve	Max. 60 m [197 ft]
	Capillary with spiral protective sleeve	Max. 40 m [131 ft]
	Capillary with spiral protective sleeve and PVC coating	Max. 20 m [66 ft]
Minimum bending radius	Capillary without spiral protective sleeve	6 mm [0.24 in]
	Capillary with spiral protective sleeve	20 mm [0.79 in]
	Capillary with spiral protective sleeve and PVC coating	30 mm [1.18 in]
Material	Stainless steel 316	

Measuring element	
Mounting options for instruments with capillary	■ Surface mounting flange, stainless steel ■ Instrument mounting bracket, aluminium die-casting ■ Panel mounting flange, stainless steel ■ Triangular profile ring with clamp, stainless steel
Contact bulb	
Dimensions	120 x 22 x 12 mm [4.72 x 4.8 x 0.47 in]
Mounting types	■ Mounting on pipes ■ Mounting on tanks
Material	Stainless steel 316

Accuracy specifications	
Accuracy class	Class 1 per EN 13190 at 23 °C ±10 °C ambient temperature

Scale range in °C	Measuring range in °C [1]	Scale interval in °C	Error limit in accordance with EN 13190 ±°C
-200 ... +50	-170 ... +20	5	5
-200 ... +100	-170 ... +70	5	5
-110 ... +50	-90 ... +30	2	2
-80 ... +60	-60 ... +40	2	2
-60 ... +40	-50 ... +30	1	1
-50 ... +50	-40 ... +40	1	1
-50 ... +100	-30 ... +80	2	2
-50 ... +150	-30 ... +130	2	2
-40 ... +60	-30 ... +50	1	1
-30 ... +50	-20 ... +40	1	1
-20 ... +40	-10 ... +30	1	1
-20 ... +60	-10 ... +50	1	1
-20 ... +80	-10 ... +70	1	1
-20 ... +180	0 ... +160	2	2
-10 ... +100	0 ... +90	1	1
0 ... 60	10 ... 50	1	1
0 ... 80	10 ... 70	1	1
0 ... 100	10 ... 90	1	1
0 ... 120	10 ... 110	2	2
0 ... 160	20 ... 140	2	2
0 ... 200	20 ... 180	2	2
0 ... 250	30 ... 220	5	2.5
0 ... 300	30 ... 270	5	5
0 ... 400	50 ... 350	5	5
0 ... 500	50 ... 450	5	5
0 ... 600	100 ... 500	10	10
0 ... 700	100 ... 600	10	10
50 ... 650	150 ... 550	10	10

1) The measuring range is indicated on the dial by two triangular marks. Only within this range is the stated error limit valid per EN 13190.

Further details on: scale range		
Unit	■ °C ■ °F ■ °C/°F (dual scale)	
Dial		
Scale graduation	■ Single scale ■ Dual scale	
Scale colour	Single scale	Black
	Dual scale	Red
		→ Other colours on request

Process connection	
Thread size	■ Plain, without thread ■ G ½ B ■ ½ NPT ■ G ½ female ■ ½ NPT female ■ M20 x 1.5 ■ M24 x 1.5 female
	→ Other threads on request
Materials (wetted)	Stainless steel 316
Stem	
Diameter	■ 6 mm [0.24 in] ■ 8 mm [0.32 in] ■ 10 mm [0.39 in] ■ 12 mm [0.47 in]
Thermowell/protection tube	In principle, the operation of a mechanical thermometer is possible without a thermowell/protection tube with low process-side loading (low pressure, low viscosity and low flow rates). However, in order to enable exchanging the thermometer during operation (e.g. instrument replacement or calibration) and to ensure a better protection of the instrument and also the plant and the environment, it is advisable to use a thermowell/protection tube from the extensive WIKA thermowell/protection tube portfolio.
	→ For further information on the wake frequency calculation of the thermowell/protection tube, see technical information IN 00.15.

Operating conditions	
Ambient temperature (on the case)	■ -40 ... +60 °C [-40 ... +140 °F] ■ -50 ... +60 °C [-58 ... +140 °F] (extended range) ■ -70 ... +60 °C [-94 ... +140 °F] (POLARgauge version)
Storage temperature	
Without liquid damping	-50 ... +70 °C [-58 ... +158 °F]
With liquid damping	-40 ... +70 °C [-40 ... +158 °F]
Max. operating pressure at the stem	Max. 25 bar [363 psi], static
Ingress protection per IEC/EN 60529	■ IP65 ■ IP66

Design	1			2 and 3			4 and 5			S		
Stem diameter in mm [in]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]
Scale range in °C	Minimum insertion length in mm [in]											
Models A73 (back mount) and R73 (lower mount)												
-200 ... +50	80 [3.15]	80 [3.15]	80 [3.15]	70 [2.76]	70 [2.76]	70 [2.76]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	75 [2.95]	75 [2.95]
-200 ... +100	80 [3.15]	80 [3.15]	80 [3.15]	70 [2.76]	70 [2.76]	70 [2.76]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	75 [2.95]	75 [2.95]
-110 … +50	75 [2.95]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]
-80 ... +60	95 [3.74]	60 [2.36]	60 [2.36]	95 [3.74]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	110 [4.33]	75 [2.95]	75 [2.95]
-60 ... +40	105 [4.13]	70 [2.76]	60 [2.36]	105 [4.13]	70 [2.76]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	120 [4.72]	85 [3.35]	75 [2.95]
-50 … +50	100 [3.94]	70 [2.76]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]
-50 … +100	85 [3.35]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]
-50 … +150	75 [2.95]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]
-40 ... +60	105 [4.13]	70 [2.76]	60 [2.36]	105 [4.13]	70 [2.76]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	120 [4.72]	85 [3.35]	75 [2.95]
-30 ... +50	125 [4.92]	75 [2.95]	60 [2.36]	125 [4.92]	75 [2.95]	60 [2.36]	120 [4.72]	70 [2.76]	60 [2.36]	140 [5.51]	90 [3.54]	75 [2.95]
-20 ... +40	135 [5.31]	90 [3.54]	65 [2.56]	115 [4.53]	65 [2.56]	60 [2.36]	125 [4.92]	75 [2.95]	60 [2.36]	125 [4.92]	80 [3.15]	60 [2.36]
-20 ... +60	125 [4.92]	85 [3.35]	60 [2.36]	125 [4.92]	85 [3.35]	60 [2.36]	120 [4.72]	80 [3.15]	60 [2.36]	140 [5.51]	100 [3.94]	75 [2.95]
-20 ... +80	105 [4.13]	70 [2.76]	60 [2.36]	105 [4.13]	70 [2.76]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	120 [4.72]	85 [3.35]	75 [2.95]
-20 … +180	75 [2.95]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	65 [2.56]	60 [2.36]	60 [2.36]
-10 … +100	100 [3.74]	70 [2.76]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]
0 ... 60	145 [5.71]	95 [3.74]	70 [2.76]	120 [4.72]	70 [2.76]	60 [2.36]	130 [5.12]	80 [3.15]	60 [2.36]	135 [5.31]	85 [3.35]	60 [2.36]
0 ... 80	125 [4.92]	85 [3.35]	60 [2.36]	125 [4.92]	85 [3.35]	60 [2.36]	120 [4.72]	80 [3.15]	60 [2.36]	140 [5.51]	100 [3.94]	75 [2.95]
0 ... 100	115 [4.53]	75 [2.95]	60 [2.36]	115 [4.53]	75 [2.95]	60 [2.36]	110 [4.33]	70 [2.76]	60 [2.36]	130 [5.12]	90 [3.54]	75 [2.95]
0 ... 120	95 [3.74]	70 [2.76]	60 [2.36]	95 [3.74]	70 [2.76]	60 [2.36]	90 [3.54]	65 [2.56]	60 [2.36]	110 [4.33]	85 [3.35]	75 [2.95]
0 ... 160	95 [3.74]	60 [2.36]	60 [2.36]	95 [3.74]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	110 [4.33]	75 [2.95]	75 [2.95]
0 ... 200	95 [3.74]	60 [2.36]	60 [2.36]	95 [3.74]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	110 [4.33]	75 [2.95]	75 [2.95]
0 ... 250	75 [2.95]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	90 [3.54]	75 [2.95]	75 [2.95]
0 ... 300	105 [4.13]	90 [3.54]	90 [3.54]	95 [3.74]	80 [3.15]	80 [3.15]	70 [2.76]	60 [2.36]	60 [2.36]	90 [3.54]	75 [2.95]	75 [2.95]
0 ... 400	105 [4.13]	90 [3.54]	90 [3.54]	95 [3.74]	80 [3.15]	80 [3.15]	70 [2.76]	60 [2.36]	60 [2.36]	90 [3.54]	75 [2.95]	75 [2.95]
0 ... 500	165 [6.50]	130 [5.12]	130 [5.12]	155 [6.10]	120 [4.72]	120 [4.72]	125 [4.92]	90 [3.54]	90 [3.54]	150 [5.91]	115 [4.53]	115 [4.53]
0 ... 600	145 [5.71]	130 [5.12]	130 [5.12]	135 [5.31]	120 [4.72]	120 [4.72]	105 [4.13]	90 [3.54]	90 [3.54]	130 [5.12]	115 [4.53]	115 [4.53]
0 ... 700	155 [6.10]	135 [5.31]	130 [5.12]	125 [4.92]	105 [4.13]	105 [4.13]	115 [4.53]	95 [3.74]	95 [3.74]	140 [5.51]	120 [4.72]	120 [4.72]
50 ... 650	155 [6.10]	130 [5.12]	130 [5.12]	125 [4.92]	100 [3.94]	100 [3.94]	115 [4.53]	90 [3.54]	90 [3.54]	140 [5.51]	115 [4.53]	115 [4.53]

Design	1			2 and 3			4 and 5			S		
Stem diameter in mm [in]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]
Scale range in °C	Minimum insertion length in mm [in]											
Model S73 (back mount, adjustable stem and dial)												
-200 ... +50	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	65 [2.56]	65 [2.56]	65 [2.56]
-200 ... +100	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	65 [2.56]	65 [2.56]	65 [2.56]
-110 … +50	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]
-80 ... +60	80 [3.15]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	65 [2.56]
-60 ... +40	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	110 [4.33]	75 [2.95]	65 [2.56]
-50 … +50	85 [3.35]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	70 [2.76]	60 [2.36]
-50 … +100	70 [2.76]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]
-50 … +150	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]
-40 ... +60	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	110 [4.33]	75 [2.95]	65 [2.56]
-30 ... +50	110 [4.33]	60 [2.36]	60 [2.36]	110 [4.33]	60 [2.36]	60 [2.36]	120 [4.72]	70 [2.76]	60 [2.36]	130 [5.12]	80 [3.15]	65 [2.56]
-20 ... +40	120 [4.72]	75 [2.95]	60 [2.36]	120 [4.72]	75 [2.95]	60 [2.36]	125 [4.92]	75 [2.95]	60 [2.36]	135 [5.31]	85 [3.35]	60 [2.36]
-20 ... +60	110 [4.33]	70 [2.76]	60 [2.36]	110 [4.33]	70 [2.76]	60 [2.36]	120 [4.72]	80 [3.15]	60 [2.36]	130 [5.12]	90 [3.54]	65 [2.56]
-20 ... +80	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	60 [2.36]	110 [4.33]	75 [2.95]	65 [2.56]
-20 … +180	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]
-10 … +100	85 [3.35]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	70 [2.76]	60 [2.36]
0 ... 60	130 [5.12]	80 [3.15]	60 [2.36]	130 [5.12]	80 [3.15]	60 [2.36]	130 [5.12]	80 [3.15]	60 [2.36]	140 [5.51]	90 [3.54]	65 [2.56]
0 ... 80	110 [4.33]	70 [2.76]	60 [2.36]	110 [4.33]	70 [2.76]	60 [2.36]	120 [4.72]	80 [3.15]	60 [2.36]	130 [5.12]	90 [3.54]	65 [2.56]
0 ... 100	100 [3.94]	60 [2.36]	60 [2.36]	100 [3.94]	60 [2.36]	60 [2.36]	110 [4.33]	70 [2.76]	60 [2.36]	120 [4.72]	80 [3.15]	65 [2.56]
0 ... 120	80 [3.15]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	65 [2.56]	60 [2.36]	100 [3.94]	75 [2.95]	65 [2.56]
0 ... 160	80 [3.15]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	65 [2.56]
0 ... 200	80 [3.15]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	65 [2.56]	65 [2.56]
0 ... 250	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	65 [2.56]	65 [2.56]
0 ... 300	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	65 [2.56]	65 [2.56]
0 ... 400	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	65 [2.56]	65 [2.56]
0 ... 500	120 [4.72]	85 [3.35]	85 [3.35]	120 [4.72]	85 [3.35]	85 [3.35]	90 [3.54]	60 [2.36]	60 [2.36]	135 [5.31]	100 [3.94]	100 [3.94]
0 ... 600	100 [3.94]	85 [3.35]	85 [3.35]	100 [3.94]	85 [3.35]	85 [3.35]	70 [2.76]	60 [2.36]	60 [2.36]	115 [4.53]	100 [3.94]	100 [3.94]
0 ... 700	115 [4.53]	90 [3.54]	85 [3.35]	100 [3.94]	80 [3.15]	80 [3.15]	75 [2.95]	60 [2.36]	60 [2.36]	125 [4.92]	115 [4.53]	100 [3.94]
50 ... 650	110 [4.33]	85 [3.35]	85 [3.35]	100 [3.94]	75 [2.95]	75 [2.95]	75 [2.95]	60 [2.36]	60 [2.36]	125 [4.92]	100 [3.94]	100 [3.94]

Design	1			2 and 3			4 and 5			S		
Stem diameter in mm [in]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]
Scale range in °C	Minimum insertion length in mm [in]											
Model F73 (capillary ≤ 5 m [16 ft])												
-200 ... +50	95 [3.74]	70 [2.76]	70 [2.76]	90 [3.54]	65 [2.56]	65 [2.56]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
-200 ... +100	95 [3.74]	70 [2.76]	70 [2.76]	90 [3.54]	65 [2.56]	65 [2.56]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
-110 … +50	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	-	-	-
-80 … +60	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
-60 … +40	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-50 … +50	70 [2.76]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
-50 … +100	70 [2.76]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
-50 …+150	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	-	-	-
-40 … +60	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-30 … +50	145 [5.71]	105 [4.13]	75 [2.95]	140 [5.51]	100 [3.94]	70 [2.76]	130 [5.12]	90 [3.54]	60 [2.36]	-	-	-
-20 ... +40	140 [5.51]	80 [3.15]	60 [2.36]	140 [5.51]	80 [3.15]	60 [2.36]	150 [5.91]	90 [3.54]	60 [2.36]	-	-	-
-20 … +60	145 [5.71]	105 [4.13]	75 [2.95]	140 [5.51]	100 [3.94]	70 [2.76]	130 [5.12]	90 [3.54]	60 [2.36]	-	-	-
-20 … +80	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-20 …+180	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	-	-	-
-10 …+100	85 [3.35]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]	95 [3.74]	60 [2.36]	60 [2.36]	-	-	-
0 … 60	125 [4.92]	70 [2.76]	60 [2.36]	125 [4.92]	75 [2.95]	60 [2.36]	135 [5.31]	85 [3.35]	60 [2.36]	-	-	-
0 … 80	155 [6.10]	105 [4.13]	75 [2.95]	150 [5.91]	100 [3.94]	70 [2.76]	140 [5.51]	90 [3.54]	60 [2.36]	-	-	-
0 … 100	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 … 120	125 [4.92]	85 [3.35]	70 [2.76]	120 [4.72]	80 [3.15]	65 [2.56]	110 [4.33]	70 [2.76]	60 [2.36]	-	-	-
0 … 160	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
0 … 200	105 [4.13]	80 [3.15]	70 [2.76]	100 [3.94]	75 [2.95]	65 [2.56]	90 [3.54]	65 [2.56]	60 [2.36]	-	-	-
0 … 250	105 [4.13]	70 [2.76]	70 [2.76]	100 [3.94]	65 [2.56]	65 [2.56]	90 [3.54]	60 [2.36]	60 [2.36]	-	-	-
0 ... 300	95 [3.74]	70 [2.76]	70 [2.76]	90 [3.54]	65 [2.56]	65 [2.56]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
0 ... 400	95 [3.74]	70 [2.76]	70 [2.76]	90 [3.54]	65 [2.56]	65 [2.56]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
0 ... 500	115 [4.53]	70 [2.76]	70 [2.76]	110 [4.33]	65 [2.56]	65 [2.56]	100 [3.94]	60 [2.36]	60 [2.36]	-	-	-
0 ... 600	95 [3.74]	70 [2.76]	70 [2.76]	90 [3.54]	65 [2.56]	65 [2.56]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
0 ... 700	70 [2.76]	60 [2.36]	60 [2.36]	70 [2.76]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	-	-	-
50 ... 650	70 [2.76]	60 [2.36]	60 [2.36]	75 [2.95]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]	-	-	-

Design	1			2 and 3			4 and 5			S		
Stem diameter in mm [in]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]
Scale range in °C	Minimum insertion length in mm [in]											
Model F73 (capillary > 5 ... 10 m [16 ... 33 ft])												
-200 ... +50	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
-200 ... +100	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
-110 … +50	80 [3.15]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	-	-	-
-80 … +60	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-60 … +40	155 [6.10]	105 [4.13]	75 [2.95]	150 [5.91]	100 [3.94]	70 [2.76]	140 [5.51]	90 [3.54]	60 [2.36]	-	-	-
-50 … +50	105 [4.13]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	115 [4.53]	75 [2.95]	60 [2.36]	-	-	-
-50 …+100	90 [3.54]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	100 [3.94]	60 [2.36]	60 [2.36]	-	-	-
-50 …+150	75 [2.95]	60 [2.36]	60 [2.36]	80 [3.15]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	-	-	-
-40 … +60	155 [6.10]	105 [4.13]	75 [2.95]	150 [5.91]	100 [3.94]	70 [2.76]	140 [5.51]	90 [3.54]	60 [2.36]	-	-	-
-30 … +50	165 [6.50]	115 [4.53]	85 [3.35]	160 [6.30]	110 [4.33]	80 [3.15]	150 [5.91]	100 [3.94]	70 [2.76]	-	-	-
-20 ... +40	140 [5.51]	80 [3.15]	60 [2.36]	140 [5.51]	80 [3.15]	60 [2.36]	150 [5.91]	90 [3.54]	60 [2.36]			
-20 … +60	175 [6.89]	115 [4.53]	85 [3.35]	170 [6.69]	110 [4.33]	80 [3.15]	160 [6.30]	100 [3.94]	70 [2.76]	-	-	-
-20 … +80	155 [6.10]	105 [4.13]	75 [2.95]	150 [5.91]	100 [3.94]	70 [2.76]	140 [5.51]	90 [3.54]	60 [2.36]	-	-	-
-20 …+180	80 [3.15]	60 [2.36]	60 [2.36]	85 [3.35]	60 [2.36]	60 [2.36]	90 [3.54]	60 [2.36]	60 [2.36]	-	-	-
-10 …+100	105 [4.13]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	115 [4.53]	75 [2.95]	60 [2.36]	-	-	-
0 … 60	140 [5.51]	80 [3.15]	60 [2.36]	140 [5.51]	85 [3.35]	60 [2.36]	155 [6.10]	95 [3.74]	60 [2.36]	-	-	-
0 … 80	175 [6.89]	115 [4.53]	85 [3.35]	170 [6.69]	110 [4.33]	80 [3.15]	160 [6.30]	100 [3.94]	70 [2.76]	-	-	-
0 … 100	155 [6.10]	105 [4.13]	85 [3.35]	150 [5.91]	100 [3.94]	80 [3.15]	140 [5.51]	90 [3.54]	70 [2.76]	-	-	-
0 … 120	145 [5.71]	105 [4.13]	75 [2.95]	140 [5.51]	100 [3.94]	70 [2.76]	130 [5.12]	90 [3.54]	60 [2.36]	-	-	-
0 … 160	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 … 200	125 [4.92]	85 [3.35]	70 [2.76]	120 [4.72]	80 [3.15]	65 [2.56]	110 [4.33]	70 [2.76]	60 [2.36]	-	-	-
0 … 250	125 [4.92]	85 [3.35]	70 [2.76]	120 [4.72]	80 [3.15]	65 [2.56]	110 [4.33]	70 [2.76]	60 [2.36]	-	-	-
0 ... 300	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
0 ... 400	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
0 ... 500	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 ... 600	115 [4.53]	80 [3.15]	70 [2.76]	110 [4.33]	75 [2.95]	65 [2.56]	100 [3.94]	65 [2.56]	60 [2.36]	-	-	-
0 ... 700	95 [3.74]	60 [2.36]	60 [2.36]	95 [3.74]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	-	-	-
50 ... 650	100 [3.94]	60 [2.36]	60 [2.36]	100 [3.94]	60 [2.36]	60 [2.36]	110 [4.33]	65 [2.56]	60 [2.36]	-	-	-

Design	1			2 and 3			4 and 5			S		
Stem diameter in mm [in]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]	6 [0.24]	8 [0.32]	≥ 10 [0.40]
Scale range in °C	Minimum insertion length in mm [in]											
Model F73 (capillary > 10 ... 15 m [33 ... 49 ft])												
-200 ... +50	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-200 ... +100	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
-110 ...+50	105 [4.13]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	115 [4.53]	75 [2.95]	60 [2.36]	-	-	-
-80 ... +60	155 [6.10]	105 [4.13]	85 [3.35]	150 [5.91]	100 [3.94]	80 [3.15]	140 [5.51]	90 [3.54]	70 [2.76]	-	-	-
-60 ... +40	175 [6.89]	115 [4.53]	85 [3.35]	170 [6.69]	110 [4.33]	80 [3.15]	160 [6.30]	100 [3.94]	70 [2.76]	-	-	-
-50 ... +50	130 [5.12]	75 [2.95]	60 [2.36]	130 [5.12]	75 [2.95]	60 [2.36]	140 [5.51]	85 [3.35]	60 [2.36]	-	-	-
-50 ... +100	115 [4.53]	65 [2.56]	60 [2.36]	115 [4.53]	70 [2.76]	60 [2.36]	125 [4.92]	80 [3.15]	60 [2.36]	-	-	-
-50 ... +150	100 [3.94]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	115 [4.53]	70 [2.76]	60 [2.36]	-	-	-
-30 ... +50	185 [7.28]	125 [4.92]	95 [3.74]	180 [7.09]	120 [4.72]	90 [3.54]	170 [6.69]	110 [4.33]	80 [3.15]	-	-	-
-20 ... +40	160 [6.30]	95 [3.74]	60 [2.36]	165 [6.50]	95 [3.74]	60 [2.36]	175 [6.89]	105 [4.13]	70 [2.76]	-	-	-
-20 ... +60	185 [7.28]	125 [4.92]	95 [3.74]	180 [7.09]	120 [4.72]	90 [3.54]	170 [6.69]	110 [4.33]	80 [3.15]	-	-	-
-20 ... +80	175 [6.89]	115 [4.53]	85 [3.35]	170 [6.69]	110 [4.33]	80 [3.15]	160 [6.30]	100 [3.94]	70 [2.76]	-	-	-
-20 ... +180	105 [4.13]	60 [2.36]	60 [2.36]	105 [4.13]	60 [2.36]	60 [2.36]	115 [4.53]	75 [2.95]	60 [2.36]	-	-	-
-10 ... +100	125 [4.92]	75 [2.95]	60 [2.36]	130 [5.12]	75 [2.95]	60 [2.36]	140 [5.51]	85 [3.35]	60 [2.36]	-	-	-
0 ... 60	165 [6.50]	95 [3.74]	60 [2.36]	165 [6.50]	95 [3.74]	60 [2.36]	175 [6.89]	105 [4.13]	70 [2.76]	-	-	-
0 ... 80	195 [7.68]	125 [4.92]	95 [3.74]	190 [7.48]	120 [4.72]	90 [3.54]	180 [7.09]	110 [4.33]	80 [3.15]	-	-	-
0 ... 100	175 [6.89]	115 [4.53]	85 [3.35]	170 [6.69]	110 [4.33]	80 [3.15]	160 [6.30]	100 [3.94]	70 [2.76]	-	-	-
0 ... 120	165 [6.50]	115 [4.53]	85 [3.35]	160 [6.30]	110 [4.33]	80 [3.15]	150 [5.91]	100 [3.94]	70 [2.76]	-	-	-
0 ... 160	155 [6.10]	105 [4.13]	85 [3.35]	150 [5.91]	100 [3.94]	80 [3.15]	140 [5.51]	90 [3.54]	70 [2.76]	-	-	-
0 ... 200	145 [5.71]	105 [4.13]	75 [2.95]	140 [5.51]	100 [3.94]	70 [2.76]	130 [5.12]	90 [3.54]	60 [2.36]	-	-	-
0 ... 250	145 [5.71]	95 [3.74]	75 [2.95]	140 [5.51]	90 [3.54]	70 [2.76]	130 [5.12]	80 [3.15]	60 [2.36]	-	-	-
0 ... 300	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 ... 400	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 ... 500	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 ... 600	135 [5.31]	95 [3.74]	70 [2.76]	130 [5.12]	90 [3.54]	65 [2.56]	120 [4.72]	80 [3.15]	60 [2.36]	-	-	-
0 ... 700	130 [5.12]	60 [2.36]	60 [2.36]	130 [5.12]	70 [2.76]	60 [2.36]	140 [5.51]	75 [2.95]	60 [2.36]	-	-	-
50 ... 650	135 [5.31]	65 [2.56]	60 [2.36]	135 [5.31]	70 [2.76]	60 [2.36]	145 [5.71]	80 [3.15]	60 [2.36]	-	-	-

The technical feasibility of minimum insertion lengths in combination with capillary > 15 m [49 ft] should be tested beforehand.

Optional approvals

Logo	Description	Country
	EU declaration of conformity	European Union
	ATEX directive Hazardous areas Zone 1 gas II 2G Ex h IIC T6 ... T1 Gb X Zone 21 dust II 2D Ex h IIIC T85 ... T450 °C Db X	
	EAC	Eurasian Economic Community
	EMC directive	
	Hazardous areas Zone 1 gas I Ex h IIC T6 ... T1 Gb X Zone 21 dust Ex h T85°C ... T450°C Db X	
-	**MChS** Permission for commissioning	Kazakhstan
-	**PAC Ukraine** Metrology, measurement technology	Ukraine

Certificates

Certificates	
Certificates	■ 2.2 test report ■ 3.1 inspection certificate
Calibration	DAkkS calibration certificate

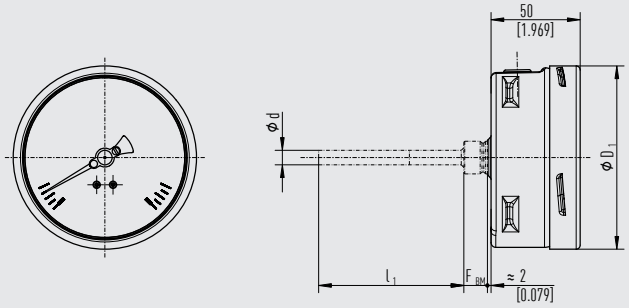
→ For approvals and certificates, see websitew

Connection locations

Legend

G	Connection thread
i	Thread length (incl. collar)
Ø d_4	Diameter of the sealing collar
SW	Spanner width
Ø d	Stem diameter
l_1	Insertion length
l_2	Active length
F xx	Clearance to stem
LF	Capillary length

Model A73, back mount



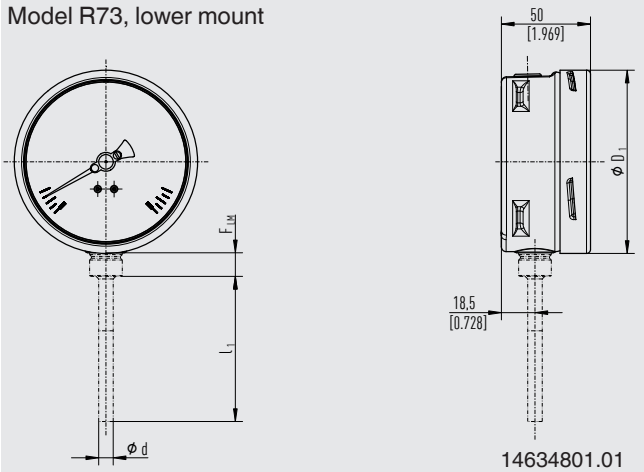
14634800.01

NS	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Design	F_{BM} 1)	Connection
S	30 [1.18]	G ½ - male
1	13 [0.51]	Ø 18
2	35 [1.38]	G ½ - male
3	15 [0.59]	G ½ - female
4	53 [2.09]	G ½ - male
5	50 [1.97]	G ½ - male
7	53 [2.09]	G ½ - male

1) Additionally + 40 mm [1.57 in] for instruments with end of scale range: >= 300 °C [572 °F], start of scale range: -200 °C [-328 °F]

Model R73, lower mount



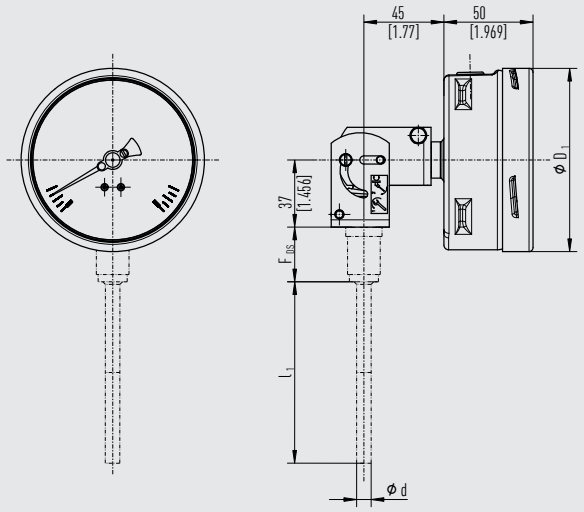
14634801.01

NS	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Design	F_{LM} 1)	Connection
S	30 [1.18]	G ½ - male
1	13 [0.51]	Ø 18
2	35 [1.38]	G ½ - male
3	15 [0.59]	G ½ - female
4	53 [2.09]	G ½ - male
5	50 [1.97]	G ½ - male
7	53 [2.09]	G ½ - male

1) Additionally + 40 mm [1.57 in] for instruments with end of scale range: >= 300 °C [572 °F], start of scale range: -200 °C [-328 °F]

Model S73, back mount, adjustable stem and dial



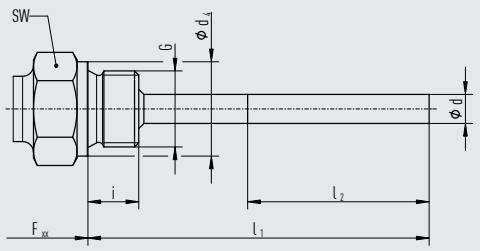
NS	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Design	F_{DS}	Connection
S	17.5 [0.69]	G ½ - male
1	28 [1.10]	Ø 18
2	38 [1.50]	G ½ - male
3	30 [1.18]	G ½ - female
4	68 [2.68]	G ½ - male
	68 [2.68]	G ½ - male
5	55 [2.68]	G ½ - male
7	68 [2.68]	G ½ - male

Connection designs for back mount, lower mount and back mount adjustable stem and dial

Design: standard (male threaded connection)

3073050.07

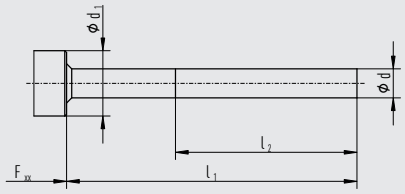


Process connection	Dimensions in mm [in]		
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Standard insertion length l_1 = 63, 100, 160, 200, 250 mm
[2.48, 3.94, 6.3, 7.87, 9.84 in]

Design 1, plain stem (without thread)

3073050.07

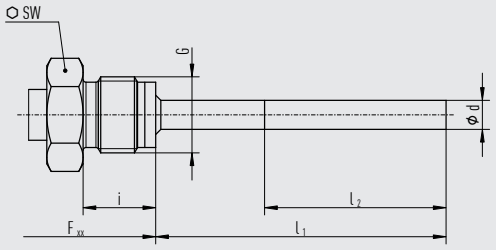


Dimensions in mm [in]
Ø d1
18 [0.7]

Standard insertion length l_1 = 100, 140, 200, 240, 290 mm
[3.94, 5.12, 7.87, 9.45, 11.42 in]
Basis for design 4, compression fitting

Design 2, rotatable connection

3073050.07

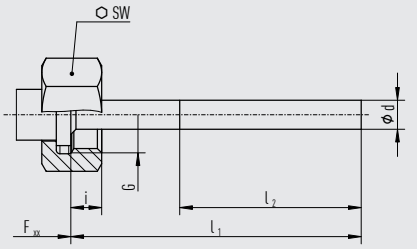


Process connection	Dimensions in mm [in]	
G	i	SW
G ½ B	20 [0.79]	27 [1.06]
M18 x 1.5	15 [0.59]	22 [0.89]

Standard insertion length l_1 = 80, 140, 180, 230 mm
[3.15, 5.12, 7.09, 9.06 in]

Design 3, union nut

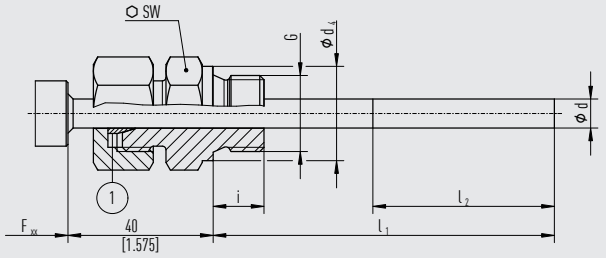
3073050.07



Process connection	Dimensions in mm [in]	
G	i	SW
G ½ B	14 [0.55]	27 [1.06]
G ¾ B	16 [0.63]	32 [1.26]
M24 x 1.5	13.5 [0.53]	32 [1.26]

Standard insertion length l_1 = 89, 126, 186, 226, 276 mm
[3.50, 4.96, 7.32, 8.9, 10.87 in]

Design 4, compression fitting sliding on stem

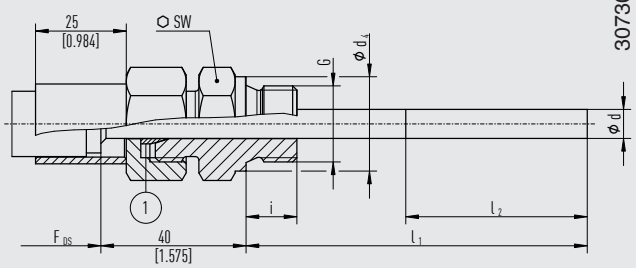


① Sealing ring

Process connection	Dimensions in mm [in]		
G	i	SW	Ø d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = variable

Design 4.1, compression fitting with support tube sliding on stem

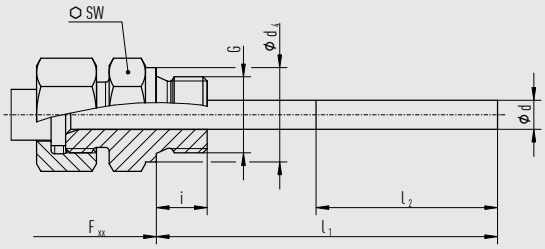


① Sealing ring

Process connection	Dimensions in mm [in]		
G	i	SW	Ø d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = variable

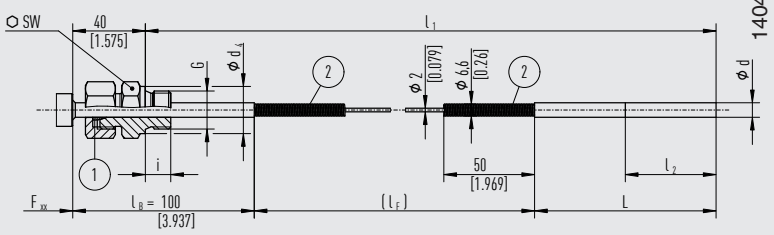
Design 5, union nut and loose threaded connection



Process connection	Dimensions in mm [in]		
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = variable

Design 7, compression fitting on the case



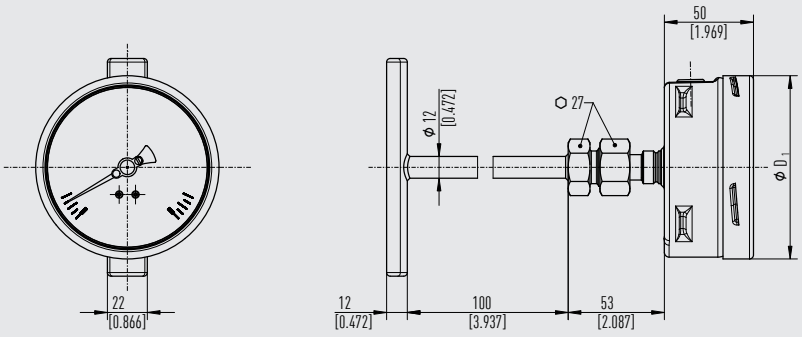
① Sealing ring
② Bend protection (not applicable to Ø d = 6 mm [0.24 in])

Process connection	Dimensions in mm [in]		
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = ≥ 400 mm [15.75 in]
Probe length L = 200 mm [7.87 in] with Ø d = 6 mm
170 mm [6.69 in] with Ø d = 8 mm
100 mm [3.94 in] with Ø d = ≥ 10 mm
l_B = 100 mm [3.94 in], others on request

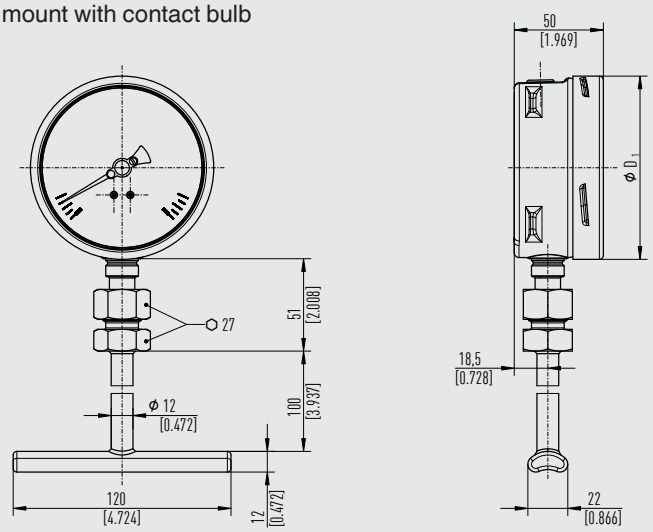
Back mount, lower mount and back mount adjustable stem and dial connection designs with contact bulb

Back mount with contact bulb



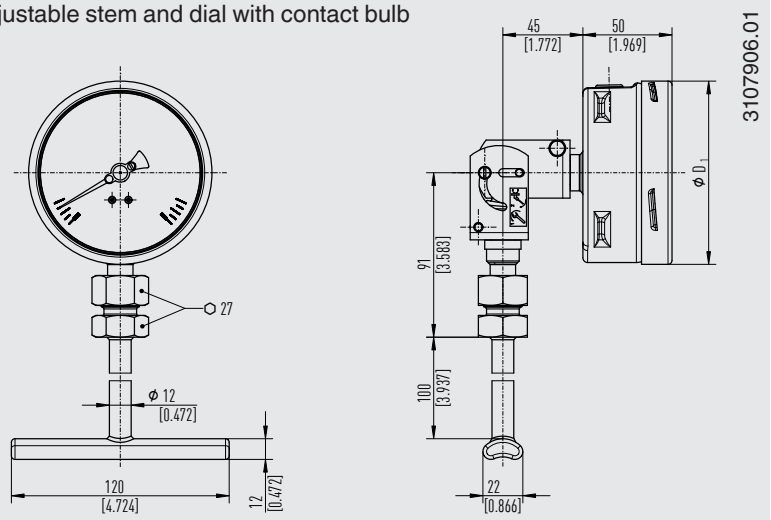
Nominal size	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Lower mount with contact bulb



Nominal size	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Adjustable stem and dial with contact bulb

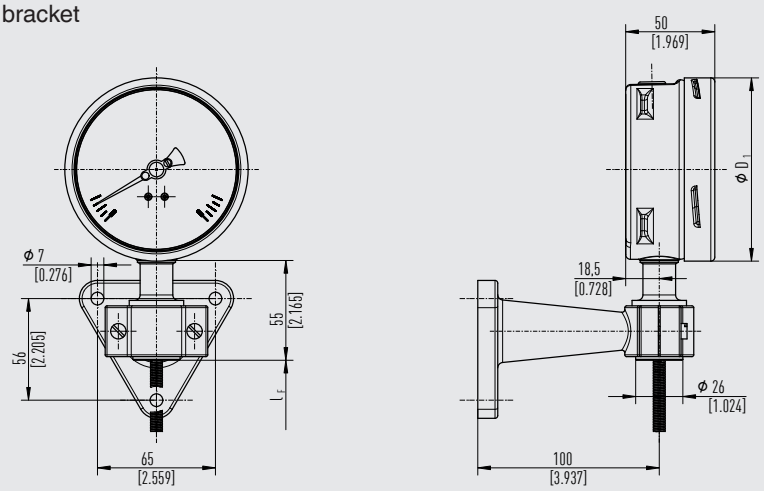


3107906.01

Nominal size	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Capillary instruments F73 with case mounting options

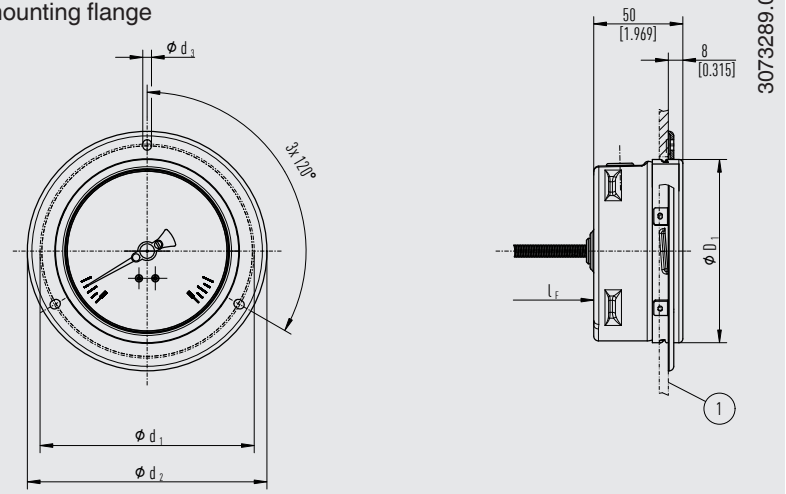
Model F73, capillary instrument, lower mount with instrument mounting bracket



3073270.02

Nominal size	Ø D_1 in mm [in]
100	101 [3.98]
160	161 [6.34]

Model F73.100, capillary instrument, back mount with panel mounting flange

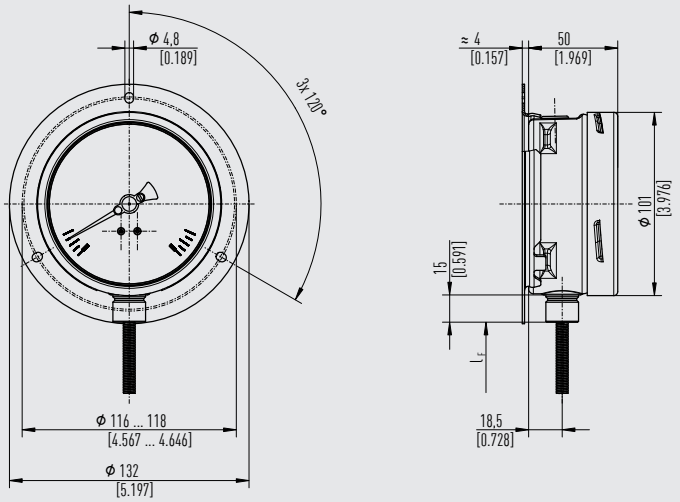


3073289.03

① Control panel

Nominal size	Ø D_1 in mm [in]	Ø d_1 in mm [in]	Ø d_2 in mm [in]	Ø d_3 in mm [in] [1)]
100	101 [3.98]	116 ... 118 [4.57 ... 4.65]	132 [5.2]	4.8 [0.19]
160	161 [6.34]	178 [7.01]	196 [7.72]	5.8 [0.23]

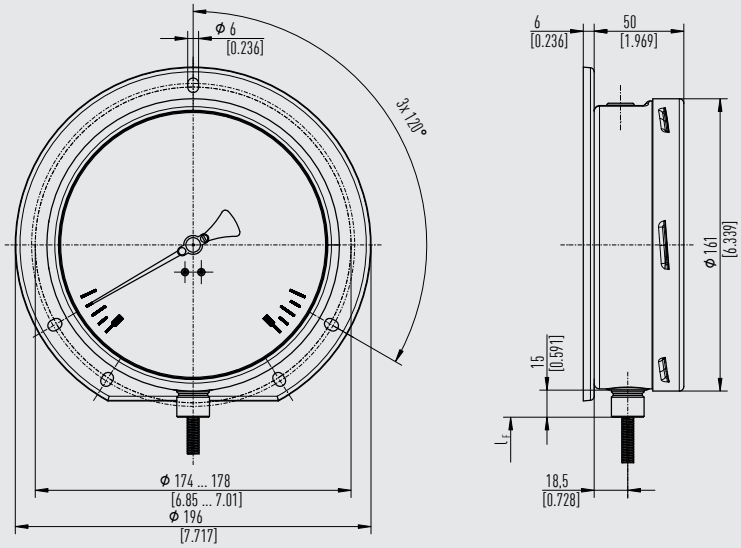
Model F73.100 capillary instrument, lower mount, with surface mounting flange



14126562.02

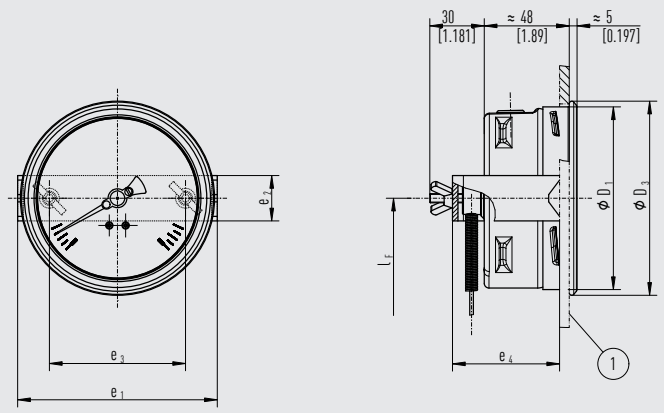
Model F73.160 capillary instrument, lower mount with surface mounting flange

3073165.04



Model F73 capillary instrument, back mount with triangular profile ring and yoke

3073297.02

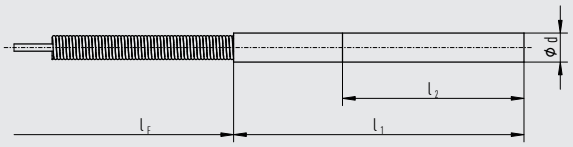


① Control panel

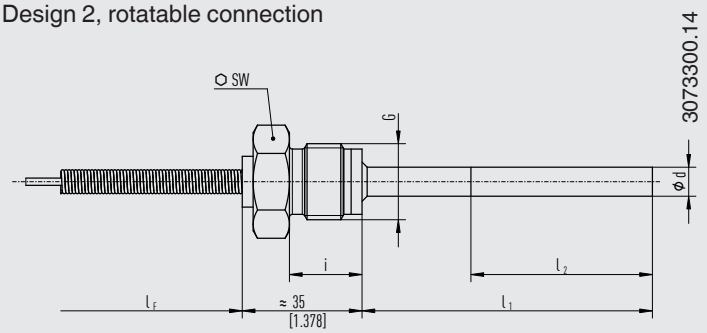
Nominal size	Ø D_1 in mm [in]	Ø D_3 in mm [in]	e_1	e_2	e_3	e_4
100	101 [3.98]	4.8 [0.19]	110 [4.33]	25 [0.98]	75 [2.95]	59 [2.32]
160	161 [6.34]	5.8 [0.23]	173 [6.81]	25 [0.98]	126 [4.96]	73 [2.87]

Connection designs for capillary instruments

Design 1, plain stem (without thread)

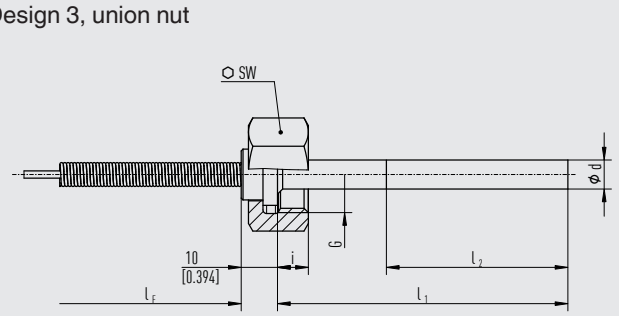


Design 2, rotatable connection



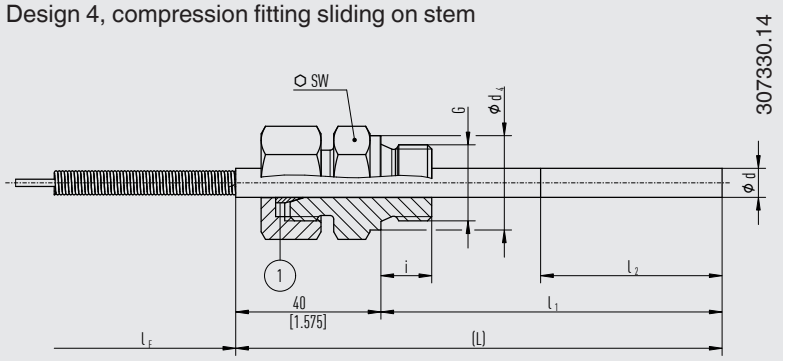
Process connection		Dimensions in mm [in]
G	i	SW
G ½ B	20 [0.787]	27 [1.06]
M8 x 1.5	15 [0.59]	22 [0.87]

Design 3, union nut



Process connection		Dimensions in mm
G	i	SW
G ½ B	14 [0.55]	27 [1.06]
G ¾ B	16 [0.63]	32 [1.26]
M24 x 1.5	13.5 [0.53]	24 [1.26]

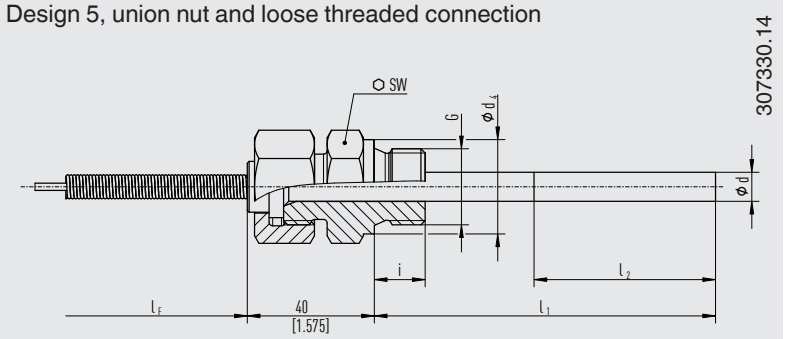
Design 4, compression fitting sliding on stem



① Sealing ring

Process connection		Dimensions in mm	
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

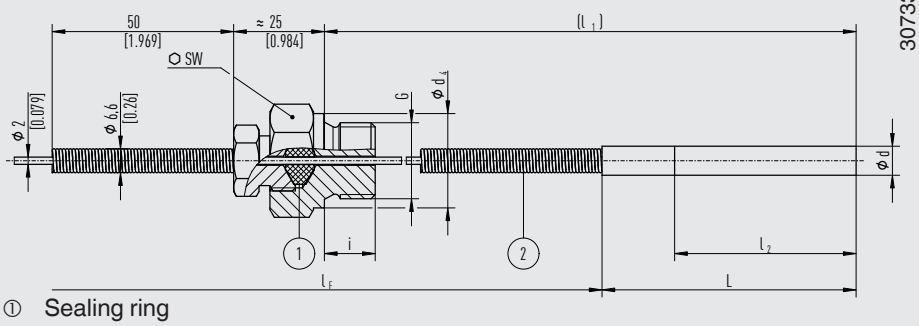
Design 5, union nut and loose threaded connection



Process connection		Dimensions in mm	
G	i	SW	Ø d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
M18 x 1.5	12 [0.47]	24 [0.95]	23 [0.91]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Design 6.1, compression fitting sliding on capillary (compression fitting is leak-proof)

307330.14



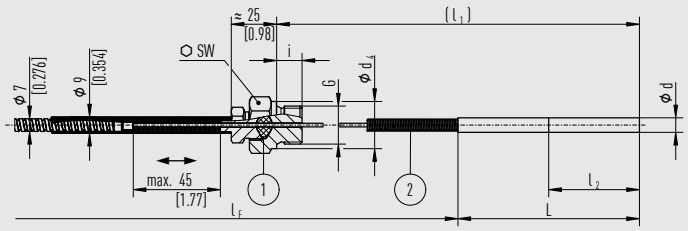
① Sealing ring
② Bend protection spring (not applicable to d = 6 mm [0.24 in])

Process connection		Dimensions in mm	
G	i	SW	Ø d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = Variable
Probe length L = 200 mm [7.87 in] with Ø d = 6 mm [0.24 in]
170 mm [6.69 in] with Ø d = 8 mm [0.32 in]
100 mm [3.94 in] with Ø d = ≥ 10 mm [0.39 in]

Design 6.2, compression fitting sliding on capillary with spiral protective sleeve (compression fitting is leak-proof)

307330.14

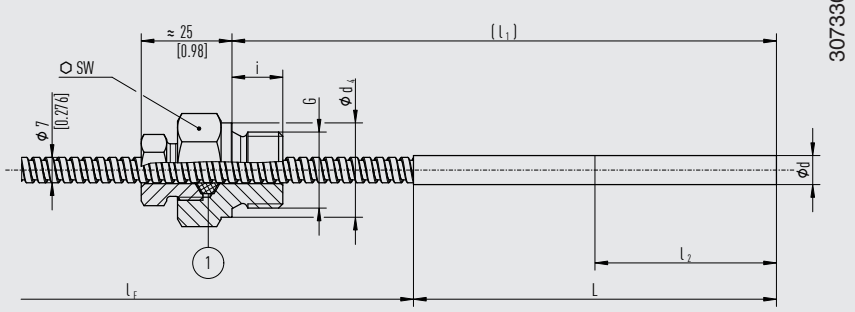


① Sealing ring
② Bend protection spring (not applicable to d = 6 mm [0.24 in])

Process connection		Dimensions in mm	
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.60]	32 [1.26]	32 [1.26]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = ≥ 300 mm [11.81 in] with Ø d = 6 mm [0.24 in] or 8 mm [0.32 in]
≥ 200 mm [7.87 in] with Ø d = ≥ 10 mm [0.39 in]
Probe length L = 200 mm [7.87 in] with Ø d = 6 mm [0.24 in]
170 mm [6.69 in] with Ø d = 8 mm [0.32 in]
100 mm [3.94 in] with Ø d = ≥ 10 mm [0.39 in]

Design 6.3, compression fitting sliding on spiral protective sleeve (compression fitting is not leak-proof)



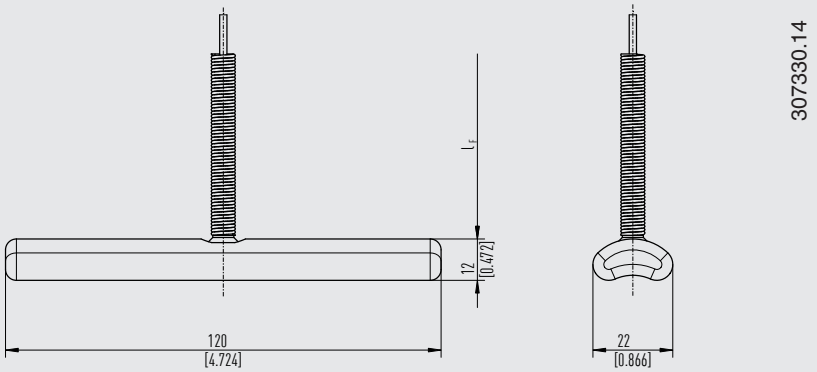
① Ferrule

Process connection		Dimensions in mm [in]	
G	i	SW	d_4
G ½ B	14 [0.55]	27 [1.06]	26 [1.02]
G ¾ B	16 [0.63]	32 [1.26]	32 [1.26]
½ NPT	19 [0.75]	22 [0.87]	-
¾ NPT	20 [0.79]	30 [1.18]	-

Insertion length l_1 = Variable
Probe length L = 200 mm [7.87 in] with Ø d = 6 mm [0.24 in]
170 mm [6.69 in] with Ø d = 8 mm [0.39 in]
100 mm [3.94 in] with Ø d = ≥ 10 mm [0.39 in]

Note for designs 6.1, 6.2, 6.3:
With some combinations, the active length l2 can correspond to the probe length L.
If an additional compression fitting is desired, the probe length L increases by at least 60 mm [2.36 in].

Design: contact bulb



Ordering information

Model / Nominal size / Scale range / Connection design / Process connection / Length l_1 / Capillary length l_F / Options

Standard article

Configurator

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