Zertifiziertes QM-System
DIN EN ISO 9001
Zertifikat-Nr. 01017

In-line Resistance Thermometers for Hygienic Applications

KOBOLD

measuring • monitoring • analysing

TWP

- Dead-zone-free, reliable temperature measurement
- CIP-/SIP compliance, suitable for in-place cleaning
- No additional pressure loss
- Measuring ranges: -20 ... +200 °C
- Optional head transmitter output 4-20 mA
- Connections: dauby pipe thread or clamp, others on request

T2

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Description

The in-line resistance thermometers allow dead-zone-free temperature measurement in piping. The annular cross section generates no additional flow resistance. Suitable for complete cleaning in place (with and without pipeline scrapper).

The selection of materials, the surface condition and the construction of the connections assure secure operation for the most stringent hygienic requirements. Wetted parts in stainless steel can be electropolished as an option.

In addition to standard process connections, thread according to DIN 11887, clamp according to ISO 2852 and other types are available.

Pt 100 temperature sensors according to IEC 751, category B are used as standard. In addition to the connection head form B these resistance thermometers can also be fitted with a housing made of stainless steel.

The in-line resistance thermometers are available with an optional transmitter.

Transmitter

Resistance thermometers with transmitter are used to transmit measuring signals noise-free over long distances.

The two-wire transmitter is encapsulated in epoxy resin and is situated in the connection head; it outputs a temperature linear output signal of 4-20 mA.

Applications

Tube resistance thermometers are ideally suited for measuring temperature in liquid and gaseous media, where stringent hygienic conditions are required. Areas of application include the processing of liquid foodstuffs and drinks, processing and transportation of milk and milk products, the production of pharmaceutical and cosmetics products, the production, preparation and distribution of paints and paint products, as well as in all areas where the quality of products must be assured.

Technical Details

Protection:	head form B IP 65, painted aluminium stainless steel housing IP 67
Sensor:	1xPt100, class B 2xPt100, class B
Ambient temperature:	-25 ... +80 °C
Measuring range:	-20 ... +200 °C
Material:	
connection A DIN 11887:	1.4571
connection Clamp ISO 2852:	1.4404
Housing:	acc. to DIN form B (painted aluminium) or stainless steel
Option:	wetted parts electropolished st. st.

Transmitter

Output:	4-20 mA
Supply voltage:	8 ... 30 V_{DC}
Min.max. measuring range:	-20 ... +200 °C
Minimum measuring span:	50 K

In-line resistance thermometers

Head form B

Stainless steel housing

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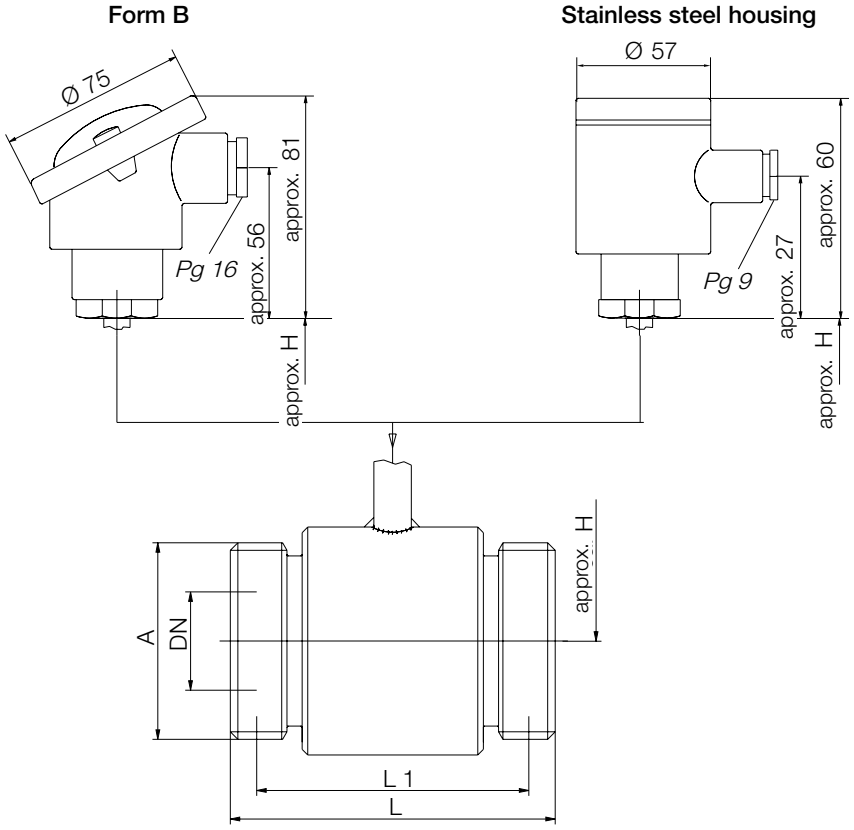
Order Details In-line Resistance Thermometer (Example: **TWP-MA4D15 12 B 0**)

Connection A DIN 11887, wetted parts 1.4571

Model number	Connection	Sensor / Wiring	Head	Option
TWP-MA4D15..	DN 15	**..12..** = 1 x Pt 100 / 2-wire **..14..** = 1 x Pt 100 / 4-wire **..22..** = 2 x Pt 100 / 2-wire	**..B..** = form B **..T..** = form B with transducer for top mounting* **..G..** = stainless steel housing **..H..** = stainless steel housing with transducer for top mounting*	**..0** = without **..P** = wetted parts electropolished
TWP-MA4D25..	DN 25			
TWP-MA4D32..	DN 32			
TWP-MA4D40..	DN 40			
TWP-MA4D50..	DN 50			
TWP-MA4D65..	DN 65			
TWP-MA4D80..	DN 80			

* Please specify measuring range when ordering

Dimensions [mm]



Dimensions [mm]

Connection A with thread DIN 11887	DN	A	L	L1	Approximately H
TWP-MA4D15..	15	Rd 34 x ⅛"	80	72	60
TWP-MA4D25..	25	Rd 52 x ⅙"	86	72	70
TWP-MA4D32..	32	Rd 58 x ⅙"	86	72	80
TWP-MA4D40..	40	Rd 65 x ⅙"	86	72	80
TWP-MA4D50..	50	Rd 78 x ⅙"	86	72	85
TWP-MA4D65..	65	Rd 95 x ⅙"	90	74	90
TWP-MA4D80..	80	Rd 110 x ¼"	100	84	105

Order Details In-line Resistance Thermometer (Example: **TWP-LA8D15 12 B 0**)

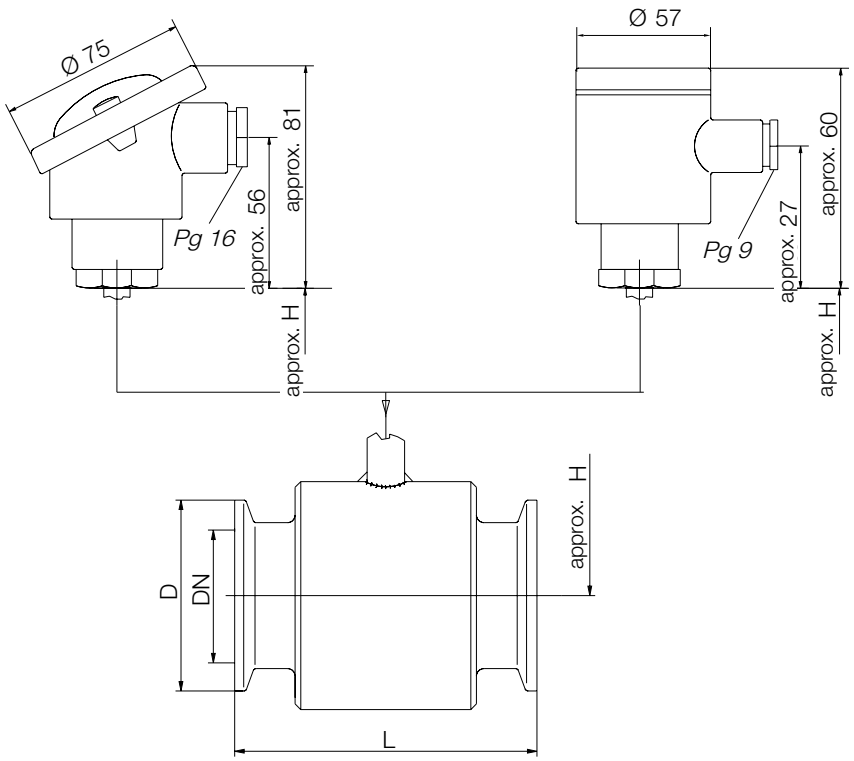
Connection clamp ISO 2852, wetted parts 1.4404

Model number	Connection	Sensor / Wiring	Head	Option
TWP-LA8D15..	½"	**..12..** = 1 x P 100 / 2-wire **..14..** = 1 x Pt 100 / 4-wire **..22..** = 2 x Pt 100 / 2-wire	**..B..** = form B **..T..** = form B with transducer for top mounting* **..G..** = stainless steel housing **..H..** = stainless steel housing with transducer for top mounting*	**..0** = without **..P** = wetted parts electropolished
TWP-LA8D20..	¾"			
TWP-LA8D25..	1"			
TWP-LA8D40..	1½"			
TWP-LA8D50..	2"			
TWP-LA8D65..	2½"			

* Please specify measuring range when ordering

Dimensions [mm]

Form B **Stainless steel housing**



Dimensions [mm]

Connection Clamp ISO 2852	DN	D Ø	L	L1	Approximately H
TWP-LA4D15..	½"	25	73	-	60
TWP-LA4D25..	¾"	25	73	-	60
TWP-LA4D32..	1"	50.5	73	-	70
TWP-LA4D80..	1½"	50.5	73	-	70
TWP-LA4D50..	2"	64	73	-	80
TWP-LA4D65..	2½"	77.5	73	-	85

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