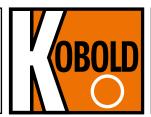


Screw-In and Welded Resistance Thermometers according to DIN

with Removable Measuring Element



measuring

monitoring

analysing

TWD



KOBOLD companies worldwide:

Optional head mounted

form A, B, C, D, G, F

transmitter; output: 4-20 mA

Protective tubes according to DIN 43 763

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Nordring 22-24 D-65719 Hofheim/Ts. Head Office:

+49(0)6192 299-0 +49(0)6192 23398 info.de@kobold.com www.kobold.com

KOBOLD Messring GmbH

Screw-In and Welded Resistance Thermometers according to DIN



with Removable Measuring Element Model TWD

Description

The screw-in resistance thermometers comprise a rugged installation fitting made of stainless steel with thread or flange connection, a connection head made of aluminium casting and a removable measuring element. The measuring insert can also be replaced without emptying the process.

The weldable sleeve is supplied as standard for welded resistance thermometers.

A Pt 100 temperature sensor according to IEC 751, category B in two-wire circuitry is fitted in the measuring insert as standard.

These sensors are available as single or double resistance thermometers.

The resistance thermometer is available with a transmitter as an option.

Special versions

In addition to standard immersion lengths according to DIN, customer specified resistance thermometers can also be delivered.

For example:

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- Terminal housings BUZ or BBK
- other immersion lengths
- other materials
- other connection threads
- other tolerance class

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; its output is a temperature linear output signal of 4 - 20 mA.

Applications

Screw-in resistance thermometers are particularly suited for measuring temperature in liquid and gaseous media.

Areas of application are to be found in air conditioning and refrigeration technology, in heating installation, furnace, machine and apparatus construction as well as in industry in general.

Technical Details

Protection: head form B IP 54 ambient

temperature head:

max. 85°C

Sensor: Pt 100, category B

(category A optional)

 p_{max} : 25 bar

Transmitter

Output: 4-20 mA
Min./Max. measuring range: -50/+600°C

• Minimum measuring span: 50 K

• Supply volt: 6.5-32 V_{DC}

Einschraub-Widerstandsthermometer form B mit und without neck pipe

Protective tube G1/2 male nach DIN 43 763 (with neck pipe)

	= 50 = 	Model no.	Immersion length [mm]	Protective tube	Connec- tion	Sensor type / ca- tegory	Wiring	Connection head
	+-	TWD-L9410	100	9x7 mm				
		TWD-L9416	160	stainless steel 1.4571	2. .= G½	3 = 1x P(100, category B (-80+600 °C) 4 = 2x P(100,	2 = 2-wire	B = form B
ē	030	TWD-L9425	250	max. 600 °C without neck			from an installation length >160 mm we recommend a 3- or 4-wire	T * = form B with transducer
	G	TWD-L9440	400	pipe				for top mounting TUM-KW
		TWD-B9410	100	9x7 mm stainless steel 1.4571 max. 600 °C with neck pipe	2 = G½			P *= form B with transducer
<u>Ø9</u>	Ø9 - H	TWD-B9416	160					for top mounting
		TWD-B9425	250					TUM-KP
		TWD-B9440	400					

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only

Screw-In and Welded Resistance Thermometers according to DIN

with Removable Measuring Element Model TWD



Screw-in resistance thermometer form C with neck pipe

Protective tube G 1 male according to DIN 43 763

50	Model no.	Immersion length [mm]	Protective tube	Connection	Sensor type / category	Wiring	Connection head
	TWD-CB410	100	11x 7 mm stainless steel 1.4571 max. 600 °C		1 = 1x Pt100, category B (-30+550°C)	2 = 2-wire	B = form B T * = form B with
Ø 45	TWD-CB416	160		4. .= G1	2 = 2x Pt100, category B (-30+550°C)	4= 4-wire** from an installation	transducer for top mounting TUM-KW
G	TWD-CB425	250		4 – G I	3 = 1x Pt100, category B (-80+600°C)		P*= form B with transducer for top
Ø 11	TWD-CB440	400			4 = 2x Pt100, category B (-80+600°C)		mounting TUM-KP

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only

Screw-in resistance thermometer form G with neck pipe

Tapered protective tube G 1 AG according to DIN 43 763 for faster response time

	50	Model no.	Immersion length [mm]	Protective tube	Connection	Sensor type / category	Wiring	Connection head
Į g	015	TWD-G9416	0-G9416 160	9x 7 mm stainless steel 1.4571 max. 600°C	4. .= G1	(-30 +400 °C) 2 = 2x Pt100, category B (-30 +400 °C)	2 = 2-wire 3 = 3-wire	B = form B T* = form B with transducer
ē	G 88 0 12 0 0 9	TWD-G9425	250				installation length	for top mounting TUM-KW P*= form B with transducer for top mounting TUM-KP
		TWD-G9428	280					

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only

Immersion resistance thermometer form A

Protective tube according to DIN 43 763 with adjustable screwing

50	-	Model no.	Nominal length [mm]	Protective tube	Connection	Sensor type / category	Wiring	Connection head
+-		TWD-AF450	500			1 = 1x Pt100, category B (-30+550°C)		B = form B
55		TWD-AF471	7100	15x11 mm	B= adjustable, G34, stainless	2 = 2x Pt100, category B		T * = form B with transducer for top
	_	TWD-AF41T 1000 s	stainless steel 1.4571	steelC= aluminium	(-30+550°C) 3 = 1x Pt100,	3 = 3-wire 4 = 4-wire**	mounting TUM-KW	
		TWD-AF4T4	1400	max. 600°C	sliding flange DIN 43743	category B (-80+600°C))	P *= form B with transducer for top
Ø 15	<u> </u>	TWD-AF42T	2000			category B (-80+600°C)		mounting TUM-KP

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only





with Removable Measuring Element Model TWD

Welded resistance thermometer form D

with protective tube according to DIN 43 763

50	+	Model no.	Lengths EL/L1 [mm]	Protective tube	Connection	Sensor type / category	Wiring	Connection head
-		TWD-D1406	65 / 140 (D1)	-60+550°C	2 = 2x Pt100, category B			
		TWD-D1412	125 / 200 (D2)				B = form B	
		TWD-D4406	65 / 200 (D4)			,	3 = 3-wire 4 = 4-wire**	T * = form B with transducer
Ø 24	D1/D2=50 D4/D5=110	TWD-D5412	125 / 260 (D5)					for top mounting TUM-KW
	- 60	TWD-D1906	65 / 140 (D1)					P *= form B with
Ø 12,5	•	TWD-D1912	125 / 200 (D2)					transducer for top mounting
		TWD-D4906	65 / 200 (D4)					TUM-KP
		TWD-D5912	125 / 260 (D5)					

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only

Insertion resistance thermometer form F

with flange DN 25 PN 40, tapered protective tube according to DIN 43 763 for faster response time

	50	Model no.	Immersion length [mm]	Protective tube	Connection	Sensor type / category	Wiring	Connection head
<u>Ø 11</u>	Ø 12 11 8	TWD-F9422	225	9x7 mm st. steel 1.4571 max. 400°C	4= DN 25	1 = 1x Pt100, category B (-30+400°C) 2 = 2x Pt100, category B	3 = 3-wire 4 = 4-wire**	B = form B T* = form B with transducer
	Ø 115 80	TWD-F9428	285					for top mounting TUM-KW P*= form B with
	Ø9 <u>.</u>	TWD-F9434	345			(-30 +400 °C)		P*= form B with transducer for top mounting TUM-KP

^{*} Please specify meas. range when ordering. ** with 1 x Pt100 only

Spare measuring insert for resistance thermometers according to DIN 43 762

Ø 42	Model no.	For form	Immers. length [mm]	Length of sensing [mm]	Diame- ter [mm]	Sensor type / category	Wiring	Electrical connection
	TWD-M82050	Α	500	525	8			K = ceramic base
 	TWD-M82071	Α	710	735	8		2 = 2-wire	for head
	TWD-M8201T	А	1000	1025	8	1 = 1x Pt100,	3 = 3-wire	form B
	TWD-M82T4	Α	1400	1425	8	category B2 = 2x Pt100, category BA = 1x Pt100, category A installatio lengthB = 2x Pt100,B = 2x Pt100,		_
	TWD-M8202T	Α	2000	2025	8		4 = 4-wire**	T * = form B with
l i .	TWD-M62010	B,** C	100	255	6			transducer
┃ ╣ ▮	TWD-M62016	B,** C	160	315	6		from an installation	for top mounting
	TWD-M62025	B,** C	250	405	6			TUM-KW
	TWD-M62040	B,** C	400	555	6			
	TWD-M620D1	D1	65	315	6		>160 mm we	P *= form B with
	TWD-M620D2	D2	125	375	6	category A	recommend a	transducer for
Ø 6	TWD-M620D4	D4	65	375	6		3- or 4-wire	top mounting TUM-KP
	TWD-M620D5	D5	125	435	6			I OIVI-KP

^{*}Please specify meas. range when ordering. ** Version B with neck pipe (without neck pipe on request)