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JUMO Instrument Co. Ltd.
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JUMO HEATtemp

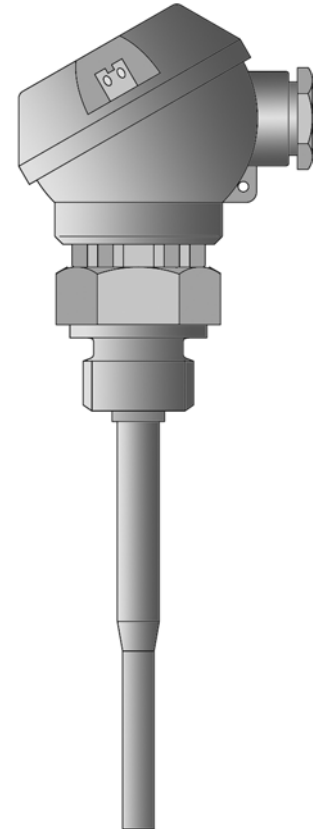
Screw-in RTD temperature probe for heat meter with connection head for direct installation (type DL)

- For temperatures from 0 to 180 °C
- Approval for heat meter MID and domestic approval as exchangeable temperature probes
- Meets the requirements as per DIN EN 1434 and AGFW 202
- Paired and calibrated as per the German calibration regulations
- Production certified as per module D of the MID (CE and metrology sign)

Heat meter RTD temperature probes are used for temperature measurement in closed-loop pipe systems. Optimum thermal coupling of the measuring medium in the heating system is accomplished best by direct installation without additional sheath.

The temperature probes are approved in accordance with the EU directive 2004/22/EC (MID) as well as according to the German calibration regulations (domestic approval).

The temperature probes are available in paired and calibrated execution. The state-approved test body for heat KF2 is responsible for this purpose. Moreover, the production is certified according to module D of MID, and the temperature probes are also available with the CE and metrology sign.



Technical data

Connection head	Form J, die-cast aluminum, M 16x1.5, IP65, Ambient temperature -20 to +100 °C
Process connection	Thread G 1/2, stainless steel
Sheath	Stainless steel, Ø 8 mm stepped down to Ø 6 mm
Measuring insert	Platinum temperature probe as per DIN EN 60751 Rated value: Pt100, Pt500, Pt1000; class B Connection: 2-wire/4-wire circuit
Temperature	0 to 180 °C
Temperature difference	3 to 180 K
Minimum immersion depth	30 mm
Fitting length	85 to 280 mm
Admissible operating pressure PN	25 bar
Maximum flow velocity	2 m/s (water)
Thermoelectric voltage	≤ 5 µV
Response behavior	$t_{0.5} \leq 6$ s
Ambient conditions	Climatic 0 to 70°C Protection class IP65 Electromagnetic E1 Mechanical M3

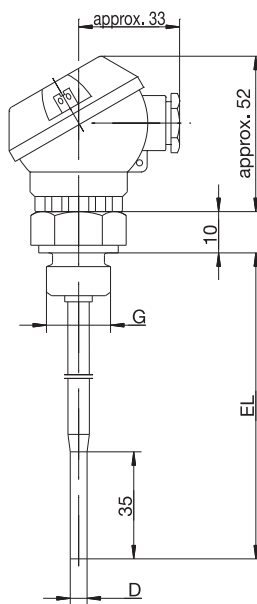
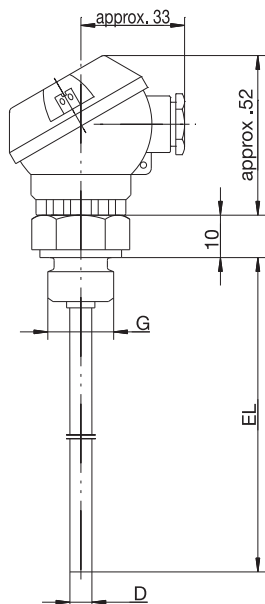
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Dimensions



Basic type 90.238-F40 (DL)
Basic type 902424/10 (DL)
Basic type 902427/10 (DL)

Basic type 90.238-F40 (DL)
Basic type 902424/11 (DL)
Basic type 902427/11 (DL)

Approval overview

Basic type	Approval	
	Type	Number
90.238-F40	Domestic (Germany)	22.30/90.04
902424/10 902424/11	Domestic (Germany) as per DIN EN 1434	22.70/00.02
902427/10 902427/11	Module B as per MID ¹	DE-06-MI004-PTB015

¹ MID = Measuring Instruments Directive, European measuring instrument directive 2004/22/EC

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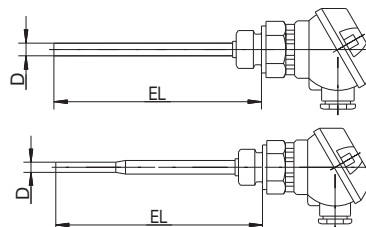
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Order details: Heat meter RTD temperature probe with connection head,
 PTB approved 22.30/90.04 and 22.70/00.02

(1) Basic type

902424/10	Screw-in RTD temperature probe with continuous sheath, design DL as per DIN EN 1434
902424/11	Screw-in RTD temperature probe with stepped sheath, design DL as per DIN EN 1434



(2) Operating temperature in °C

x x	824	0 to 150 °C (Standard)
x x	830	0 to 180 °C

(3) Measuring insert

x x	1003	1x Pt100 in 2-wire circuit
x x	1004	1x Pt500 in 2-wire circuit
x x	1005	1x Pt1000 in 2-wire circuit
x x	1011	1x Pt100 in 4-wire circuit
x x	1012	1x Pt500 in 4-wire circuit
x x	1013	1x Pt1000 in 4-wire circuit

(4) Tolerance class as per DIN EN 60751

x x	1	Class B (standard)
x x	2	Class A
x x	3	Class AA (1/3 DIN B)

(5) Sheath diameter D in mm

x	6	Ø 6 mm
x	8	Ø 8 mm stepped down to Ø 6 mm

(6) Fitting length EL in mm (85 to 400 mm)

x x	85	85 mm
x x	120	120 mm
x	210	210 mm
x x	...	Specifications in plain text

(7) Process connection

x x	104	Screw connection G 1/2
x x	...	Specifications in plain text

(8) Extra codes

x x	000	None
x x	319	Connection head, form B
x x	320	Connection head, form BUZ
x x	340	Version paired as per DIN EN 1434 ^{2, 3}
x x	341	Version paired as per DIN EN 1434 and calibrated ^{2, 3}

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	...	1					
Order example	902424/11	-	830	-	1003	-	1	-	8	-	85	-	104	/	341

Note:
 For the connection heads, refer to the data and price sheet 90.9715 (90.9722)

¹ List extra codes in sequence, separated by commas.
² Price for pairing depends on the quantity; minimum quantity for paired temperature probes: 30 pairs for versions not in stock.
³ Calibration fees as per Federal Law Gazette No. 28 dd. 1.8.2001, quantity-dependent, not subject to discounts

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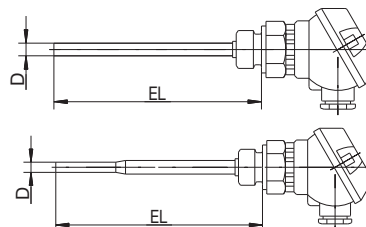
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**Order details: Heat meter RTD temperature probe with connection head,
 MID approved DE-06-MI004-PTB015**

(1) Basic type

902427/10	Screw-in RTD temperature probe with continuous sheath, design DL as per DIN EN 1434
902427/11	Screw-in RTD temperature probe with stepped sheath, design DL as per DIN EN 1434



(2) Operating temperature in °C

x x	824	0 to 150 °C
x x	830	0 to 180 °C

(3) Measuring insert

x x	1003	1x Pt100 in 2-wire circuit
x x	1004	1x Pt500 in 2-wire circuit
x x	1005	1x Pt1000 in 2-wire circuit
x x	1011	1x Pt100 in 4-wire circuit
x x	1012	1x Pt500 in 4-wire circuit
x x	1013	1x Pt1000 in 4-wire circuit

(4) Tolerance class as per DIN EN 60751

x x	1	Class B (standard)
x x	2	Class A
x x	3	Class AA (1/3 DIN B)

(5) Sheath diameter D in mm

x	6	Ø 6 mm (max. admissible EL = 210 mm)
x	8	Ø 8 mm stepped down to Ø 6 mm (max. admissible EL = 280 mm)

(6) Fitting length EL in mm (85 to 280 mm)

x x	85	85 mm
x x	120	120 mm
x	210	210 mm
x x	...	Specifications in plain text

(7) Process connection

x x	104	Screw connection G 1/2
x x	...	Specifications in plain text

(8) Extra codes

x x	000	None
x x	319	Connection head, form B
x x	320	Connection head, form BUZ
x x	340	Version paired as per DIN EN 1434 ²
x x	761	Version paired with CE and metrology sign (first calibration) ²

Order code	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	...	1					
Order example	902427/11	-	830	-	1003	-	1	-	8	-	85	-	104	/	761

Note:
 For the connection heads, refer to the data and price sheet 90.9715 (90.9722)

¹ List extra codes in sequence, separated by commas.
² Price for pairing depends on the quantity; minimum quantity for paired temperature probes: 30 pairs for versions not in stock.