Insertion Resistance Thermometers

with Plug-and-Socket Connection according to DIN 43650 and Integrated Transmitter
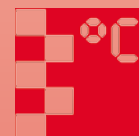
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TMA

- Economically-priced digital thermometers with optional plug-on display

- Compact construction with integrated transmitter 4 - 20 mA output

- Measuring ranges: -200 ... 600 °C

- Material: stainless steel

- Connector DIN 43 650

- Good immunity to vibration

T2

°C

Technical Details

Temperature sensor

Bulb:	stainless steel 1.4571
Thread:	stainless steel 1.4571, G¼, G½, ½" NPT
Transmitter housing:	stainless steel
p_{max}:	36 bar
Sensor element:	Pt 100 / 2-wire, category B
Connector:	DIN 43 650
Protection:	IP 65

Transmitter

Output:	4-20 mA
Supply:	12 ... 30 V_{DC}
Min. measuring span:	50 K
Ambient temperature:	-40 ... +85 °C
Measuring range:	-50 ... +200 °C (TMA-0/TMA-V) -200 ... +600 °C (TMA-H)
Accuracy:	<0.5% of measuring span

Plug-on display

Display:	4-digit, red LED Height of digits 7.62 mm
Indicating range:	-1999 ... +9999
Voltage drop:	≤ 5 V_{DC}
Programming:	via 2 buttons, menu-assisted scaling of indicating range decimal point, damping, fault indication, switch point (optional)
Protection:	IP 65
Ambient temperature:	0 ... +60 °C

Description

The screw-in temperature sensors with integrated transmitter are used with the plug-on display model AUF... as economical digital thermometers with analogue output (4-20 mA). The plug-on display is available with limit contact as an option.

The model TMA-... temperature sensors comprise a rugged sensor made of stainless steel with fixed G½ or ½" NPT external thread. The bulbs have been designed for pressures up to 36 bar, depending on the process conditions.

A connector according to DIN 43 650 allows the transmitter to be easily connected electrically or retrofitted with the plugon display.

The temperature sensor is equipped with a stand-off for process temperatures >150 °C.

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

Transmitter

Temperature sensors with transmitter are used to transmit measuring signals noise-free over long distances.

The two-wire transmitter is integrated in the resistance thermometer and outputs a temperature linear output signal of 4 -20 mA.

Applications

- Heating installation, furnace and apparatus construction
- Machine construction and building installations
- Marine engineering
- General industrial

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with Plug-and-Socket Connection according to DIN 43650 and Integrated Transmitter Model TMA

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Order Details Sensor (Example: **TMA-064 03 1 05**)

Model screw connection	Model relocatable screw connection	Immersion length [mm]	Connection	Transmitter measuring range	Output
TMA-06403..	-	25 mm[1]		**..05** = 0...50 °C **..10** = 0...100 °C **..12** = 0...120 °C **..xx** = others[2]	
TMA-06405..	-	50 mm			
TMA-06410..	-	100 mm			
TMA-06416..	-	160 mm			
TMA-06420..	-	200 mm			
TMA-064xx..	-	Special length[2]	**..1..** = G ¼		**..4** = 4-20 mA
TMA-H6405..	TMA-V6405..	50 mm	**..2..** = G ½ **..8..**= ½" NPT	**..05** = 0...50 °C **..10** = 0...100 °C **..12** = 0...120 °C **..24** = -200...+400 °C **..26** = -200...+600 °C **..20** = 0...+200 °C **..40** = 0...+400 °C **..60** = 0...+600 °C **..xx** = others[2]	**..1** = 0-10 V **..5** = 0-5 V
TMA-H6410..	TMA-V6410..	100 mm			
TMA-H6416..	TMA-V6416..	160 mm			
TMA-H6420..	TMA-V6420..	200 mm			
TMA-H64xx..	TMA-V64xx..	Special length[2]			

[1] By temperature deduction limited accuracy
[2] Please specify in writing special measuring range for transmitter (min. measuring span: 50 K) and special lengths for sensor. For temperatures >150 °C, please select TMA-H...

Order Details for plug-on display

Model	Description
AUF-1000	Standard plug-on display
AUF-1001	Plug-on display with open collector switch

Dimensions [mm]

TMA-0
Standard

approx. 28
approx. 80
52
27 AF
Probe length
Ø 6
G ½ A

TMA-H
Stand-off

52
50 (Standard for temperature range up to 400 °C)
100 (Standard for temperature range up to 600 °C)
G1/2
27 AF
6
EL

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No responsibility taken for errors; subject to change without prior notice.

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