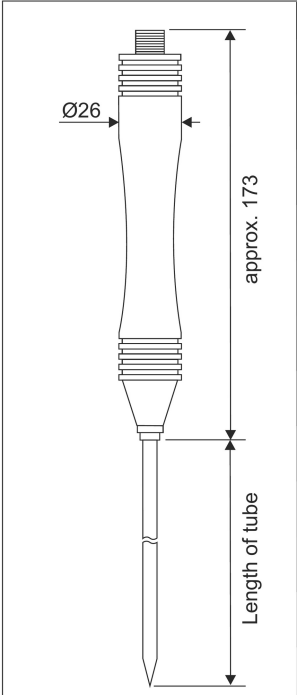


HAND TEMPERATURE SENSOR



- STAINLESS STEEL HANDLE
- PT100 · 4...20 MA HART
- CANOPEN · PROFIBUS
- TUBE 50...1000 MM
- IP 65



KEY DATA

Property	Value	Property	Value
Input	Pt100 · Pt1000, 2-, 3-, 4-wire	Medium	-50 ... +200 °C
Output	direct · 4...20 mA HART · fieldbus	Ambient	-40 ... +85 °C (1)
Accuracy	0.2 K or 0.08 % of span	Storage	-40 ... +100 °C
Sheath	Ø 6 × 0.5 mm, stainless steel 1.4571	Tube length	50 ... 1000 mm
Tip	flat · pointed · heated	Product code	MH

A hand sensor for check measurements in liquids and soft substances.



TECHNICAL DATA

INPUT AND OUTPUT

Sensor	Pt100 · Pt1000, also 2x in 2- or 3-wire
Classes	A · B · B 1/2 DIN
Temperature range	-50 ... +200 °C
Direct output	Pt100 · Pt1000 on the connector
Current output	4 ... 20 mA with HART, 2-wire loop
Current range	3.8 ... 20.8 mA
Fault signal	3.8 mA on break
Digital	CANopen · Modbus RTG · PROFIBUS DP
Resolution	16 bit / 0.3 µA

PERFORMANCE

Accuracy	0.2 K or 0.08 % of span
Transfer characteristic	linear to temperature
Response time	1 s
Switch-on delay	< 5 s
Filter	available
Setting	with the HART tool
Calibration	2 points and 6 points (linearisation)
Handle	stainless steel 1.4571
Weight	approx. 450 g (100 mm, M12)
Protection	IP 65 with the connector plugged

SUPPLY AND ENVIRONMENT

Pt100 direct	no supply
HART loop	12 ... 40 VDC
Load	$R = (U_B - 12 \text{ V}) / 22 \text{ mA}$
Interface	10 ... 35 VDC
Ambient	-40 ... +85 °C (1)
Medium	-50 ... +200 °C
Storage	-40 ... +100 °C

MECHANICS

Process connection	tube end flat or pointed, optionally heated
Sheath	Ø 6 × 0.5 mm, stainless steel 1.4571
Handle	stainless steel 1.4571
Tube length	50 · 100 · 200 · 250 · 400 · 600 · 1000 mm · other
Handle length	approx. 173 mm, Ø 26 mm
Mounting position	any
Weight	approx. 450 g (100 mm, M12)
Protection	at least IP 65 with the connector plugged

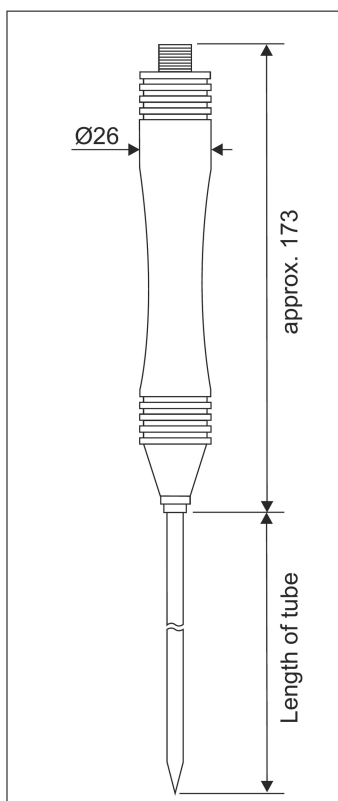
(1) The ambient temperature is not the medium temperature.

ELECTRICAL CONNECTION

Nine electrical connections are available: M12x1 four-, five- and eight-pole, Deutsch DT04 three- and four-pole, Super Seal 1.5 three-pole, bayonet (DIN) four-pole, valve plug four-pole, AMP MIL PT028-10 six-pole and cable. Not every connection carries every output and not every one carries the heating — two sensors in three-wire connection are possible on M12 eight-pole, on AMP and on the cable only; Super Seal and Deutsch three-pole carry no heating.



DIMENSIONS



Dimensions in mm.



CONFORMITY

Protection	at least IP 65 with the connector plugged
Material to the medium	stainless steel 1.4571

ORDER INFORMATION

Accessories

- HART interface DEV-HM with USB and software. The HART tool is a menu-driven operating program. When communicating through a HART modem a resistance of 250 Ω has to be taken into account.

ORDER KEY

Field	Value	Meaning
Product code	MH	stands at the beginning of every order code
Input	0 ... 3	1x Pt100 · 1x Pt1000 · 2x Pt100 · 2x Pt1000 (2x in 2- or 3-wire only)
Sensor type	0 · 1 · 2	2-wire · 3-wire · 4-wire
Accuracy	0 · 1 · 2	class A · class B · class B 1/2 DIN
Process connection	0 ... 3	tube end flat · pointed · flat with heating · pointed with heating
Output	0 ... 4	sensor direct · 4...20 mA HART · CANopen · Modbus RTG · Profibus
Tube length	0 ... 7	50 · 100 · 200 · 250 · 400 · 600 · 1000 mm · other, please state
Electrical connection	0 ... 9	M12 4/5/8-pole · Deutsch DT04 3/4-pole · Super Seal · bayonet · valve · cable 2 m · AMP MIL 6-pole
Configuration	0 · 1	factory setting · customer-specific
Other	0	special model

The order code is formed from the product code and the fields of the key.

