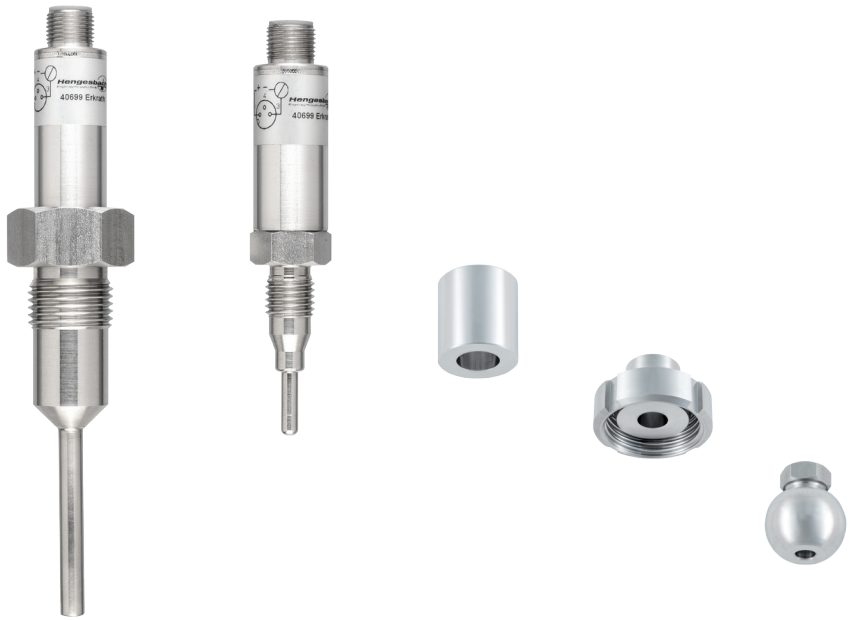
Compact resistance thermometer
- TP50/TW68... -



CHARACTERISTICS

- COMPACT DESIGN, SIMPLE INSTALLATION
- 1x PT100 4-WIRE, CLASS A
- OUTPUT SIGNAL 4...20MA OR RESISTOR
- OPTIONAL WITH NECKTUBING
- OPTIONAL WITH TAPERED SENSORTIP

DESCRIPTION

The resistance thermometer TP50 in compact design is optimal suited to measure the temperature of fluids. It comes with various hygienic process connections.

The stainless steel vibration proof design (protection class IP66 and IP67) is ideally suited for applications in critical environment and sophisticated and challenging process conditions.

The fitted transmitter is programmable via the round plug M 12x1 and enables with this universal use.

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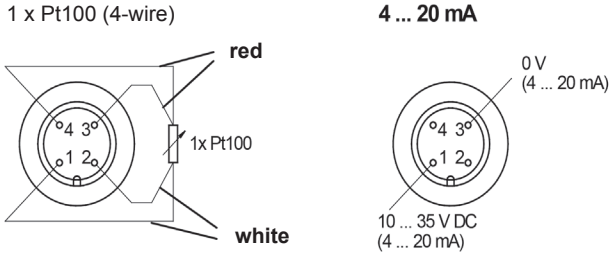
TECHNICAL DATA

General details			
Device type/measuring principle	TP50/TW68... / Pt100-resistor		
Measuring insert			
Sensor type	1x Pt100 in accordance with EN 60751, 4-wire		
Dimensions	Insertion length selectable from 20....600mm Ø=6mm standard tapered sensor tip optional		
Output			
Supply voltage	10...35V DC	Load resistance	(V_{ref}-10V)/0,023A
Current requirement	≤ 3,5mA	Long-term stability	≤ ± 0,1K/year
Current limitation	≤ 23mA	Burden influence	≤ ± 0,02%/100Ω
Switch-on delay	2s	Calibration temperature	23°C ± 5K
Response time	1s	Ambient temperature	-40...+85°C
Fault signal	≤ 3,6mA / ≥ 21mA, configurable	Protection class	IP66 und IP67
Voltage change influence	≤ ± 0,01%/V von 24V	Climate class	Kl. C, EN60654-1
Circuit type	2-wire	CE conformity	EN 61326-1
Output signal	4...20mA oder 20...4mA, 2-wire	beginning of range	< 50% final value
Measuring accuracy			
Pt100 class in accordance with EN 60751	A (standard)		
Measuring accuracy	≤ 0,3K or 0,08% of the adjusted measuring span		
Conditions of use			
Medium temperature	-50...150°C standard, (200°C version with necktubing)		
Ambient / storage conditions	-40...+85°C		
Protection class acc. to EN60529	IP 66/67		
Construction			
Electrical connection	round plug-in connector M12x1, 2-polig		
Process connection	- A plain sensor d=6mm (TP15) - B G½ screw-in thread (TP12) - C G½ elastomer-free sealing cone (TP16) - D M12x1,5 elastomer-free sealing cone (TP26)		
Materials	- Field housing / lid: CrNiSt 1.4301 (304) - Sensor CrNiSt 1.4404, 1.4571 (316 L)		
Accessories TP50/TW68...			
Certificates	Calibration certificate Material inspection certificates as per EN 10204		

ELECTRICAL CONNECTION

M12 plug with transmitter



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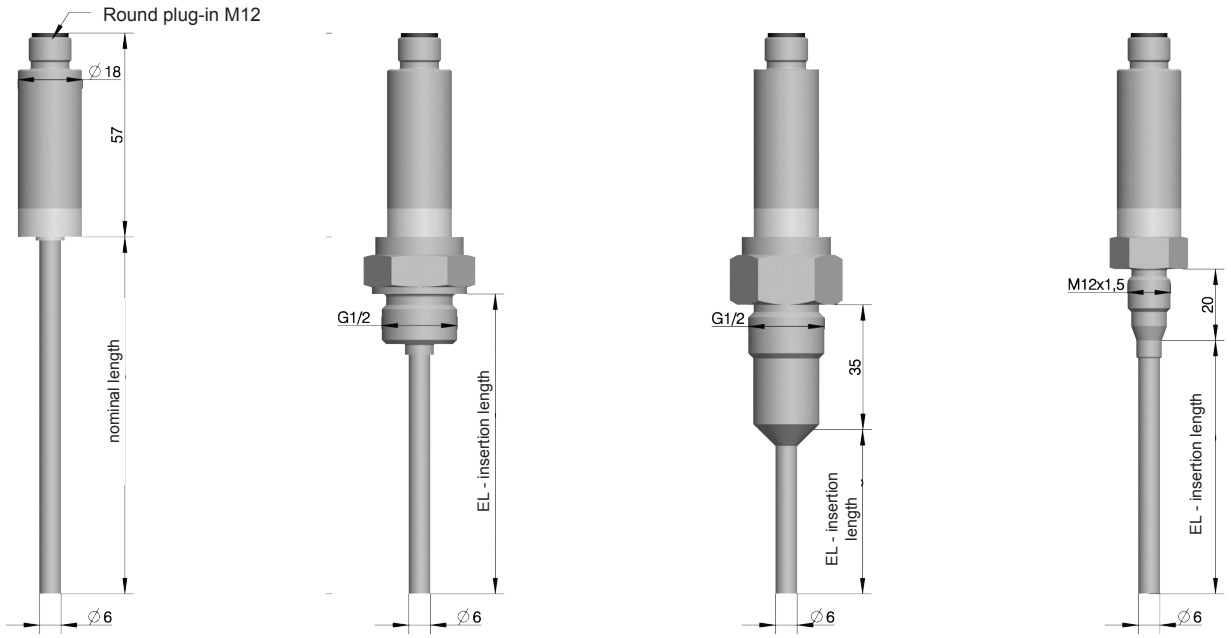
DIMENSION DRAWINGS (dimensions in mm)



ORDER INFORMATIONEN TP50/TW68...

Sensor type / version

C	1xPt100, 4-W, class A, compact design

Process connection

A	plain sensor d=6mm (TP15)
B	G½ screw-in thread (TP12)
C	G½ screw-in thread with elastomer free sealing cone (TP16)
D	M12x1,5 screw-in thread with elastomer free sealing cone (TP26)

Insertion lenght

02	20mm, Ø=4mm
05	50mm
10	100mm
20	160mm
30	200mm
90	other insertion lenght

Output / measuring range

Y0	00	resistor	
L0		transmitter TE62, 4...20mA, 2-L	
	20	-50°C...+50°C	
	30	0...50°C	
	40	0...100°C	
	41	0...120°C	
	50	0...150°C	
	60	0...200°C	necktubing
	61	0...250°C	necktubing
	70	0...300°C	necktubing
	71	0...350°C	necktubing
	80	0...400°C	necktubing
	99	other measuring range	

TP50/TW68	C			

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ORDER INFORMATIONEN for accessories TP50/TW68... (please order seperately)

Item no.: TEM1FTP16

Weld-in lug for
process connection TP16 -
protective sleeve 06402380

Item no.: TEM1LTP16

Weld-in lug for
leakage holes for
process connection TP16 -
protective sleeve 06402380

Item no.: TCL4FTP16

Clamp DIN 32676 DN40 for
process connection TP16 -
protective sleeve 06402380

Item no.: TCL5FTP16

Clamp DIN 32676 DN50 for
process connection TP16 -
protective sleeve 06402380

Item no.: TMN2FTP16

Conical coupling with grooved
union nut DIN 11851 DN25
for process connection TP16 -
protective sleeve 06402380

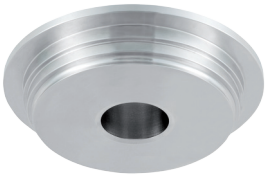
Item no.: TMN4FTP16

Conical coupling with grooved
union nut DIN 11851 DN40 for
process connection TP16 -
protective sleeve 06402380

Item no.: TMN5FTP16

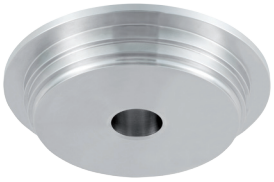
Conical coupling with grooved
union nut DIN 11851 DN50
for process connection TP16 -
protective sleeve 06402380

Item no.: TVA5FTP16



VARIVENT® type F, Ø50mm for
process connection TP16 -
protective sleeve 06402380

Item no.: TVA6FTP16



VARIVENT® type N, Ø68mm
for process connection TP16 -
protective sleeve 06402380

Item no.: 06402303

Weld-in spherical sleeve
Ø25mm, with clamping ring
made from stainless steel and
clampingscrew M12x1.5
for protective sleeve 06402381

optionally with clamping ring
made from PEEK
Item no. 06402363

Item no.: TED1FTP16

Weld-in dummy for
process connection TP16,
G½“ with elastomer-free
sealing cone, mat. Ms58

Item no.: TVS1FTP16

Sealing plug for
process connection TP16, G½“
with elastomer-free
sealing cone, mat. 1.4404

Other accessories for instance Clamp (DIN / ISO / TRI-Clamp), DIN 11851, DIN 11864-1, ... on request

Please observe the permissible nominal pressure of the process connection selected.
All specifications and certifications specified are only guaranteed when Hengesbach original components are used.
It is up to the system operator to ensure that the materials are compatible with the process conditions and the peripherals.
The devices are not suitable for use in potentially explosive areas and safety-related system components (SIL).
Our devices are subject to constant development; subject to technical modification.

T-TP50-E-18-4