

TEMPERATURE TRANSMITTER TS 100



29

Features

- Compact and robust stainless steel assembly 1.4435 (316L)
- Pt 100 measuring element according to DIN IEC 751 class A
- Max. pressure up to 850 bar
- Customized temperature ranges
- Complies with the EMC directive 89/336/EEC
- High reliability
- Short delivery time
- Customized versions due to modular assembly
- Reverse polarity and short circuit protected

Typical applications

- Machine installations
- Industrial process control
- Heating and ventilation
- Environmental monitoring
- Food industry
- Mobile hydraulics
- Test and calibration systems

Specifications

Temperature probe and electronics

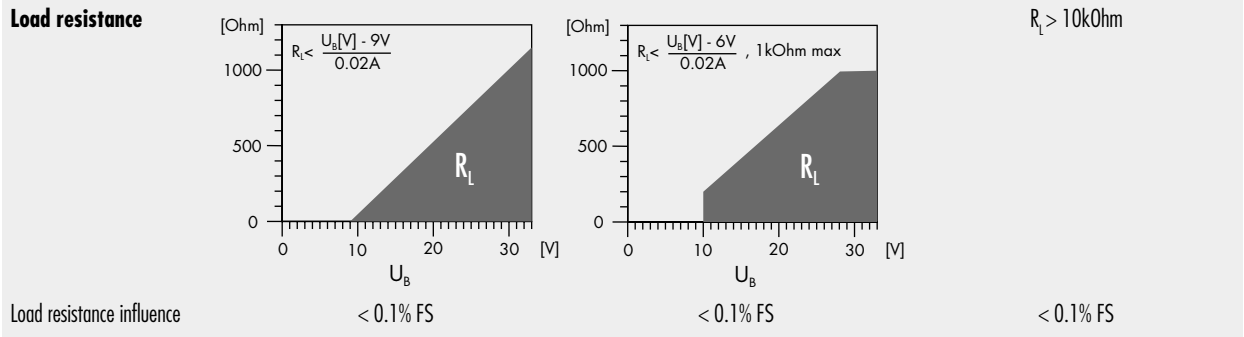
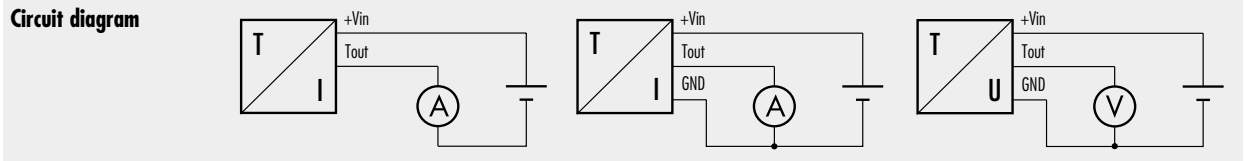
Temperature measuring range	-50...150°C
Standard	0...70°C
Optional	special calibration on request (minimum temperature difference: 30°C)

Accuracy	
0...70°C	≤ ± 1 °C
-25...85°C	≤ ± 1.5 °C
-50...150°C (Electronics temperature -25...85°C)	≤ ± 2 °C

Output signal	4 ... 20 mA	0 ... 20 mA	0 ... 5 V / 0 ... 10 V
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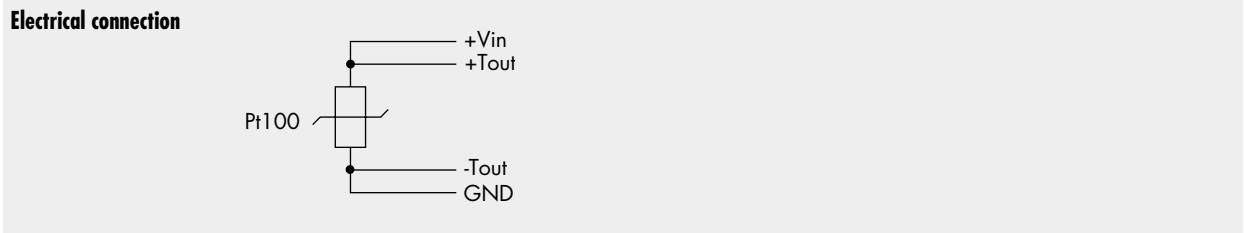
Type	Two wire current transmitter	Three wire current transmitter	Three wire voltage transmitter
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Supply voltage	9...33 V DC	9...33 V DC	15...30 V DC
Supply voltage influence	< 0.1% FS	< 0.1% FS	< 0.1% FS



Emission	fulfill the requirements described in the EMC directive 89/336/EEC	CE
Generic emission standard	EN 50081-1:1992	
Emission	EN 50082-2:1995	

Four wire version (without amplifier)



Materials

Probe/Process connection, housing	Stainless steel 1.4435 (316L)	(others materials on request)
Seals (standard)	Viton	

Ordering Information

29 0 . 98XX . XXXX . XX . XX

Type	TS 100	29	0					
Temperature range	0...70°C (standard) special temperature ranges on request							
Probe	G 1/4 M, Ø 3.5 x 17 mm (Fig. 1)							95
	G 1/4 M, Ø 5 x 32 mm (Fig. 2)							70
	G 1/2 M, Ø 3.5 x 25.5 mm (standard) (Fig. 3)							71
	G 1/2 M, Ø 5 x 100 mm (Fig. 4)							96
	G 1/2 M, Ø 5 x 200 mm (Fig. 5)							97
	M 10, Ø 3.5 x 17 mm (Fig. 6)							98
	Special probe							99
Electrical connection	Connector DIN 43650 (screwed on ¹⁾) ²⁾ (Fig. 10)	IP 65						01
	Connector Binder 723, 5-pin ²⁾ (Fig. 11)	IP 67						03
	Connector Binder 723, 5-pin (screwed on ¹⁾) ²⁾ (Fig. 12)	IP 67						43
	Connector MIL C26482, (10-6) ²⁾ (Fig. 13)	IP 40						06
	PE cable ³⁾ ⁴⁾ (Fig. 14)	IP 67						13
	PUR cable ³⁾ (Fig. 14)	IP 67						15
	Teflon cable ³⁾ (Fig. 14)	IP 67						21
	Special electrical connection							99
Output signal	0... 5 V DC							46
	0... 10 V DC							47
	0... 20 mA							00
	4... 20 mA							05
	4 wires (without amplifier)							70
	Special output signal							99
Accuracy	according to data sheet							3
Temperature range of the probe	max. media temperature 0... 80°C							0
	max. media temperature -25... 100°C							1
	max. media temperature -25... 150°C							2
	Special temperature range							9
Options	Electronics packed in gel							D
	Special options							Z

¹⁾ Zero offset and span adjustable

²⁾ Cable socket connector not included

³⁾ Please specify the required cable length

⁴⁾ Suitable for drinking water (food approved)

Probe

Dimensions

Electrical connection

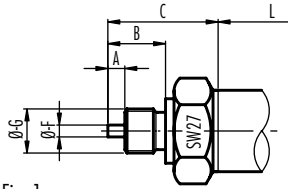


Fig. 1

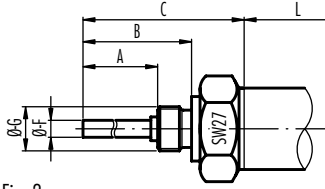


Fig. 2

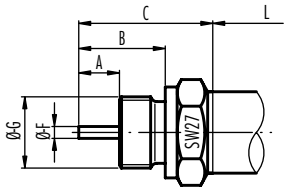


Fig. 3

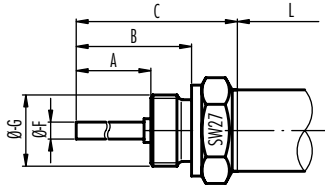


Fig. 4

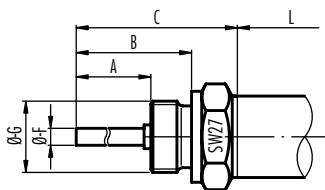


Fig. 5

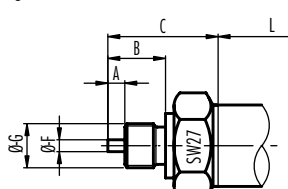
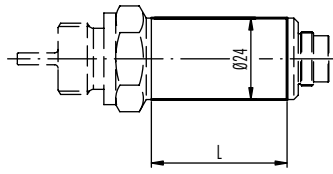


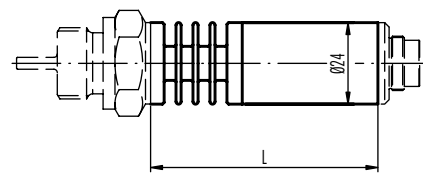
Fig. 6

Version for media temperature up to 100°C



L = 40 mm for connector DIN 43650 (Fig. 10)
L = 45 mm for all other versions

Version for media temperature up to 150°C



L = 67 mm for connector DIN 43650 (Fig. 10)
L = 72 mm for all other versions

Probe	A	B	C	Ø-F (Probe)	Ø-G (Thread)
Fig. 1	5	17	32.5	3.5	G 1/4 M
Fig. 2	22	32	47.5	5	G 1/4 M
Fig. 3	12	25.5	39.5	3.5	G 1/2 M
Fig. 4	88	100	113.5	5	G 1/2 M
Fig. 5	188	200	213.5	5	G 1/2 M
Fig. 6	5	17	32.5	3.5	M 10

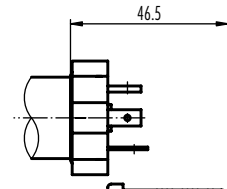


Fig. 10

Pin	2-Wire	3-Wire	4-Wire
1	+Vin	+Vin	+Vin
2	Tout	Tout	+Tout
3		GND	GND
⊥			-Tout

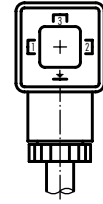


Fig. 11

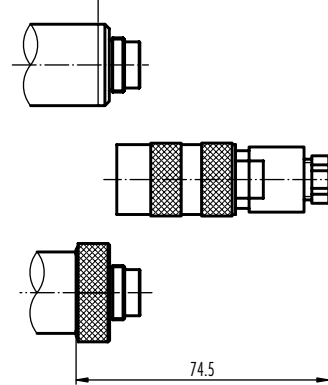
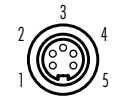


Fig. 12

Cable socket connector



Pin	2-Wire	3-Wire	4-Wire
1			+Vin
2	Tout	Tout	+Tout
3	+Vin	+Vin	-Tout
4		GND	GND

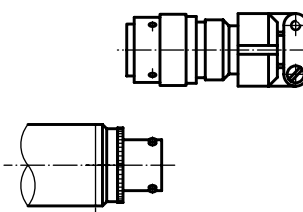


Fig. 13

Cable socket connector



Pin	2-Wire	3-Wire	4-Wire
A	+Vin	+Vin	+Vin
B		GND	GND
C			+Tout
D	Tout	Tout	-Tout

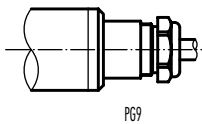


Fig. 14

Colour	2-Wire	3-Wire	4-Wire
white	+Vin	+Vin	+Vin
green	Tout	Tout	-Tout
yellow		GND	GND
brown			+Tout

Specifications may change without notice. Release 06/01