



### Specific&Performance

- Compact design, integrated with transmitter
- Available with PT100 output or 4-20mA output
- Available with thread connection or hygienic connection

### Application

- Food & beverage
- Water treatment
- Hydraulic system
- Energy
- HVAC
- Construction machine

### Specification

Housing	Dia: Ø 18mm Material: 304SS (1.4301)
Electric connection	M12*1 with 4pins
Output signal	Pt100 or 4...20mA 2-wire
Sensor material	316LSS (1.4404)
Sensor dia	Ø 6mm
Sensor length	< 3000 mm

### Response time (t0.5)

Ø 6mm sensor	in water	3.0 sec
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### Sensor Accuracy Pt100 DIN/EN/IEC 60751

Pt100 class B	$\pm(0.3 + 0.005 \times t) \text{ } ^\circ\text{C}$
Pt100 class 1/3B	$\pm 1/3 \times (0.3 + 0.005 \times t) \text{ } ^\circ\text{C}$
Pt100 class A	$\pm(0.15 + 0.002 \times t) \text{ } ^\circ\text{C}$

Single element	1 $\times$ Pt100
Double element	2 $\times$ Pt100

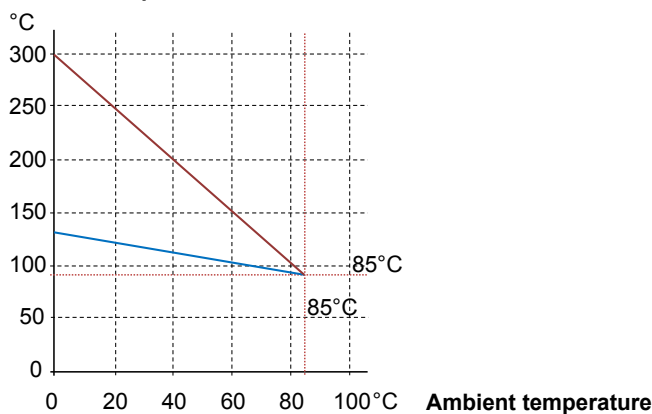
Sensor wire connection	
Single element	2-wire, 3-wire, 4-wire
Double element	2-wire

### Environment

Ambient temperature	Pt100	-40...125°C
	4-20mA	-40...85°C
IP protection	IP 67	

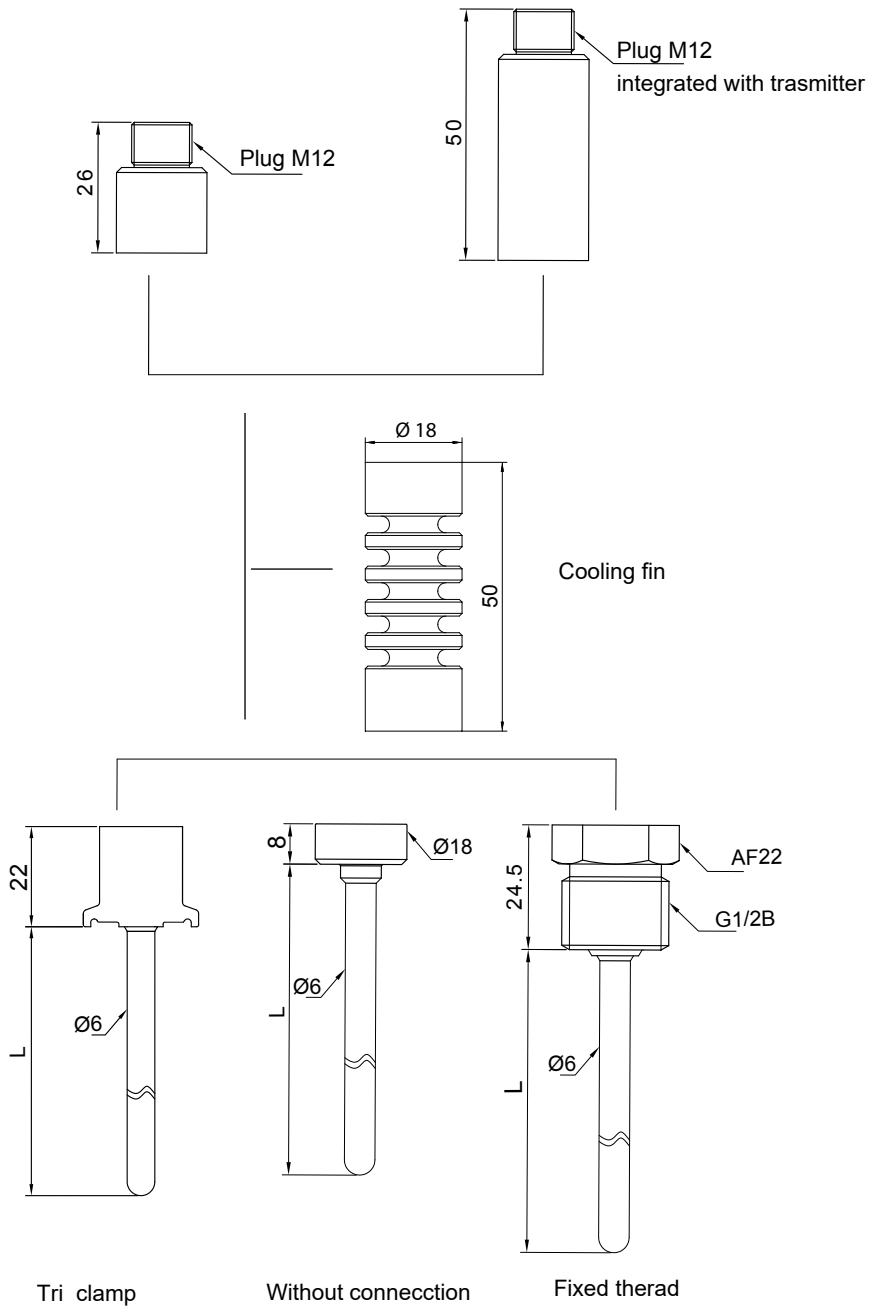
### Temperature curve

#### Medium temperature

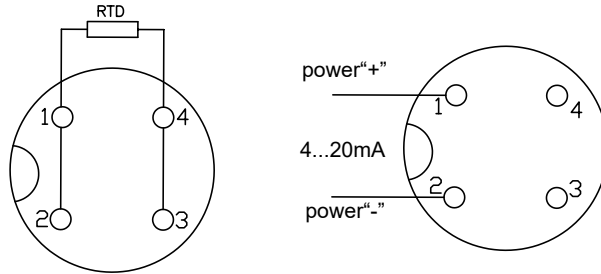


— with cooling fin  
— without cooling fin

## Dimension(mm)



## Electric connection



M12 Plug

## 4-20mA transmitter

Input	
Accuracy	< 0.25°C (@ ≤ 100°C)
Sample time	< 0.7 sec.
Pt100 standard	IEC/DIN/EN 60 751-2
Measuring current	0.3 mA, continuously
Units	°C or °F
Min range	25°C
Voltage protection	±35 VDC
Resolution	14 bit
Repeatability	< 0.1°C
Offset adjustment	Max 10°C

Output	
Output signal	4...20 mA, 2-wire
Accuracy	< 0.1% FS
Supply voltage	8...35 VDC
Max load	$RL \leq (VDC - 8)/23$ [kOhm]
Alarm current	23 mA/3.5 mA
Damp	0...30 sec.
Protection	Reversed polarity protection
Resolution	12 bits

Other data	
Thermal drift	typical. 0.003% per °C Max. 0.01% per °C
Start time	20 sec.

Environment	
Ambient temperature	-40...85°C
Storage temperature	-55...90°C

TIS ordering code			
	Code	Specification	
1.	<input type="text"/>	TIS	Series
2.	<input type="text"/>	1	Output signal Pt100
		2	4...20mA
3.	<input type="text"/>	1	Sensor type 1* Pt100 2-wire
		2	1* Pt100 3-wire
		3	1* Pt100 4-wire
		4	2* Pt100 2-wire (only available for Pt100 output)
4.	<input type="text"/>	1	Sensor dia 6mm
		2	8mm
5.	<input type="text"/>	0	Process connection Without
			<b>Fixed thread</b>
		1	G1/2" B
		2	G1/4" B
		3	1/2" NPT
		4	1/4" NPT
		5	M20X1.5
			<b>Tri-clamp</b>
		S	DN15/DN20 (1/2", 3/4" Tridamp)
		T	DN25/DN38 (1", 1.5" Tridamp)
8.	<input type="text"/>	A	Sensor accuracy Class A
		B	Class B
		3	Class 1/3 B
9.	<input type="text"/>	1	Cooling fin With
		0	Without
10.	<input type="text"/>	0010	Sensor length 10mm
		0020	20mm
		XXXX	length in mm(Example: 60mm, code 0060)
11.	<input type="text"/>	EP	Option Electro polished, surface finish Ra≤0.25µm