

HEAD-MOUNT TRANSMITTER type TCHF



- output signal: 4 ... 20 mA
- powered from current loop
- for use with Pt100 sensors**
- 2-wire or 3-wire Pt100 sensor connection
- with or without sensor linearization
- for mounting in type B connection heads

TCHF type transmitter converts the Pt100 sensor resistance into a 4...20mA current signal on the 2-wire system (power supply from current loop). It is designed for use with 2-wire or 3-wire Pt100 sensors. The electronic circuit of the transmitter allows high accuracy of conversion with low temperature drift and very good resistance to noise. It is widely used for temperature measurement in many branches of industry.

TECHNICAL DATA

Input sensor type	Pt100
Measuring range	according to the table ⁽¹⁾
Pt100 bias current	0,8 mA
Accuracy ($T_A = 23^\circ\text{C} \pm 5^\circ\text{C}$)	0,15% of the range value
Temperature drift	0,02% of the range value / °C
Output signal	4...20 mA
Sensor failure indication:	resistance too high resistance too low
	27 ± 3 mA $2,2 \pm 0,5$ mA
Power supply	12 ... 36 V DC / 30 mA
Ambient temperature T_A	-20°C... +70°C
Dimensions (diameter x height) / weight	42 x 20 mm / ca. 50 g

Code	Range [°C]
10	-50 ... 50
15	0 ... 50
20	0 ... 100
25	0 ... 150
30	0 ... 200
35	0 ... 300
40	0 ... 400
45	0 ... 500
50	0 ... 600
55	0 ... 700
60	0 ... 800

⁽¹⁾ Other measuring ranges on demand

ORDERING CODE

(1) (2) (3)

TCHF —

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|-----|----------------------|------------------|----------------------------|
| (1) | Output signal | 2 | 4 ... 20 mA, 2-wire system |
| (2) | Sensor linearisation | 0 | no |
| | | 1 | yes |
| (3) | Measuring range | 10 ... 60 | (according to the table) |

Example for order:

TCHF-2130 means transmitter for range 0...200°C, with sensor linearization, for use with Pt100 temperature sensor, output current 4...20 mA, powered from current loop.