

## HEAD-MOUNT TRANSMITTER

### TCH series



- output signal 4 ... 20 mA (**TCH-2**)  
0 ... 10 V (**TCH-3**)
- for use with sensors Pt100, J, K, N, S, R, B
- 2-wire or 3-wire Pt100 sensor connection
- with or without sensor linearization
- automatic compensation of thermocouple cold junction
- for mounting in type B connection heads

The TCH type transmitter converts the Pt100 sensor resistance or voltage of thermocouples to a current signal in the range 4...20mA (TCH-2...) or to a voltage signal in the range 0...10V (TCH-3...). TCH-2... transmitter is powered from current loop. 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

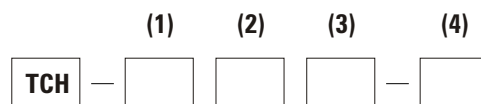
Sensor type, measuring range	according to the table <sup>(1), (2)</sup>
Output signal	4 ... 20 mA 2-wire arrangement ( <b>TCH-2</b> ) 0 ... 10 V 3-wire arrangement ( <b>TCH-3</b> )
Bias current of Pt100 sensors	0,5 mA
Accuracy ( $T_A = 23^\circ\text{C} \pm 5^\circ\text{C}$ )	0,15% of the range value
Temperature drift	0,02% of the range value / °C
Power supply	12 ... 36 V DC / 25 mA
Ambient temperature $T_A$	-20°C...+70°C
Dimensions (diameter x height)	42 x 29 mm
Weight	ca. 70 g

Code	Range [°C]	Pt100	J	K	N	S, R, B
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	+	+	+	+	
65	0 ... 1000			+	+	
70	0 ... 1200			+	+	
75	300 ... 1400					+
80	300 ... 1600					+

<sup>(1)</sup> Other sensor types on demand

<sup>(2)</sup> Other measuring ranges on demand

#### ORDERING CODE



(1)	Output signal	<b>2</b>	4 ... 20 mA
		<b>3</b>	0 ... 10 V
(2)	Sensor linearisation	<b>0</b>	no
		<b>1</b>	yes
(3)	Measuring range	<b>10 ... 80</b>	(code according to the table)
(4)	Sensor type	<b>Pt100, J, K, N, S, R, B</b>	

#### Example for order:

TCH-2130-Pt100 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.