



Signal converter



Type: Transcont KTM / ExKTM

2-wire-technology 4...20 mA, optional with PNP switching output or 3-wire-technology 0...10V

Application

The temperature head transmitter KTM, for connection to an temperature resistor Pt100 is a temperature signal converter for measurement, conversion and supervision of temperatures in the range from -100°C to +600°C with a measurement span between 20 Kelvin and 700 Kelvin.

Due to the implemented PNP switching output in the 2-wire-variant (4...20 mA), separate evaluation devices are not necessary in many cases.

The temperature head transmitter KTM can be installed in a connection head (form B) or in a field housing.

A constant current from an integrated current source is feed to a 2- or 3-wire Pt100 resistor that is installed in a sensor. This current leads to a voltage drop at the Pt100, that becomes higher or lower, dependent on the measured medium temperature. The produced resistance proportional voltage signal is measured by the transmitter and is than linearized and converted into a constant current signal 4...20mA or a constant voltage signal 0...10V.

The measured voltage signal of the Pt100 is supervised and in the case of sensor breakage a failure information is produced on to the 4...20mA resp. 0...10V output signal. The output signal rises in that case to 21,7 mA or 10,85 V. At a sensor short circuit the signal goes to 3,55 mA resp. 0 V. In the temperature head transmitter in 2-wire-technology with 4...20 mA, an optional freely adjustable overload and short circuit protected PNP switching output in working current principle is integrated.

Your benefits

- 2-wire-technology 4...20mA, optional with a freely adjustable PNP switching output
- 3-wire-technology 0...10V
- 12 different standard measurement ranges or adjustment by customer specification
- Connection of Pt100 in 2- or 3-wire circuit
- Sensor breaking supervision
- Certificated for the use in explosive hazardous areas

Order code

Certificates
 KTM- without certificates
 ExKTM- ATEX II 1 G Ex ia IIC T4

Temperature range

A	0°C...+50°C	H	0°C...+400°C
B	0°C...+100°C	J	0°C...+500°C
C	0°C...+150°C	L	0°C...+600°C
E	0°C...+200°C	Q	-40°C...+60°C
F	0°C...+250°C	O	-50°C...+100°C
G	0°C...+300°C	N	-100°C...+50°C
		Y	special measuring range separate spec. necessary

Transmitter electronic

- AO 4...20 mA, 2-wire-electronic
- AS 4...20 mA, 2-wire-electronic with PNP switching output (not for variant ExKTM)
- AG 2-wire current, signal 4 ... 20mA, galvanically isolated (not as Ex-version)
- BO 0...10 V, 3-wire electronics (not as Ex version)

Order code

Transcont KTM



Connection

