Temperature-measuring transducer 4-20 mA, Pt100, 2- / 3- or 4-wire with digital adjustment

WK

FOR HEAD AND RAIL CASE MOUNTING
PANEL-MOUNTED-RESISTANCE THERMOMETER
WITH MEASURING TRANSDUCER RT420

RT420 with rail adapter

HIGHLIGHTS:

- *low-price and robust (complete sealed - no pots, therefore vibration resistant and long time stable)*
- *freely programmable - extreme wide measuring range of -200 ... 850 °C (measuring span already from ≥ 25 °C)*
- *selectable probe connection as 2- / 3- or 4-wire*
- *high accuracy (0.1%)*
- *large ambient temperature range (-40 ... +85 °C)*
- *error message in case of sensor damage or sensor short-circuit*
- *functional warranty 5 years*

RT420 / WE [*1]
head transmitter, set by our works

RT420 - SG / WE [*1]
set by our works and mounted in snap-on rail housing

[*1] = Ordering data required:
1. required probe connection (2- / 3- or 4-wire)
2. measuring range from / to (max. range: -200 ... +850 °C)
Order example: RT420 / WE, 4-wire, 0 ... 50 °C
　　　　　　　　　　RT420-SG / WE, 3-wire, -50 ... +150 °C

Specification:	
Measuring range:	-200 ... +850 °C, universally programmable
Measuring span:	25 ... 1050 K
Zero shift:	-200 ... +825 °C
Resolution:	14 bit
Sensor connection:	2-, 3- or 4-wire connection
Measuring current:	< 0.3 mA
Permitted resistance of connection cable:	max. 20 Ohm / wire
Compensation for cable error:	±0.02 K / Ohm (at 3-wire)
Sensor monitoring:	monitoring for sensor damage and short-circuit
Measuring cycle:	< 700 ms
Linearisation:	linear to temperature acc. to IEC/DIN/EN 60 751-2
Accuracy:	±0.25 °C or ±0.1 % of measuring span
Temperature effect:	< ±0.01 % / 1 K
Analog output:	4 … 20 mA, 2-wire technology
Accuracy output:	<0.1 % of signal span
Auxiliary energy: U_B	8 … 35 V DC (max. ripple factor: 3 Vss @ 50/60 Hz)
Permitted burden R_A:	$R_A ≤ (U_B - 8 V) / 0.023 A$ [R_A in Ohm, U_B in V]
Effect of auxiliary energy:	±0.01 % / V
Power-on time:	10 s
Damping:	adjustable from 0 ... 30 s
Output limits:	programmable, 3.5 mA, 23 mA
Signal for sensor damage:	programmable, 3.5 mA or 23 mA
Operating temperature:	-40 … +85 °C
Relative humidity:	0 ... 98 % RH (non condensing)
Storage temperature:	-55 … +90 °C
Electromagnetic compatibility (EMC):	conforming to CE acc. to DIN EN 61326
Housing:	housing suitable for head mounting
Dimensions:	Ø 44 mm x 19 mm
IP rating:	Housing: IP40, connection terminals: IP10
Electric connection:	via screw-type terminals
Weight:	approx. 35 g

Accessories and spare parts:	

Rail adapter
for snap-on the RT420 to top-hat rail

GTF103 / RT420
Panel-mounted resistance thermometer (p.r.t. page 135)
Pt100 cpl. with measuring transducer RT420

General:	

Transducer and Pt100 can be taken out in form of an insert.
(Price valid for standard length 100 mm and temperature range as to customers specification between -50 ... +400 °C)
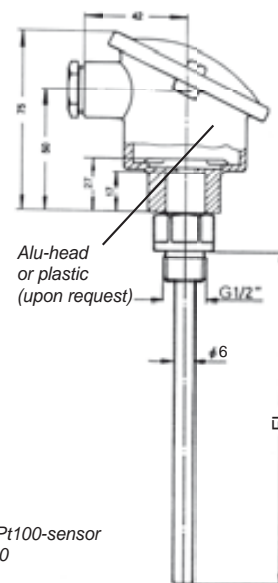Special designs upon request - please contact us!

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GTF103/RT420

Alu-head or plastic (upon request)

G1/2"
Ø6
FL

RT420-insert with Pt100-sensor of a GTF103/RT420