

## TEMPERATURE-MEASURING TRANSDUCER 4 ... 20 MA, PT100, 2- / 3- OR 4-WIRE

FOR HEAD AND RAIL CASE MOUNTING



HIGHLIGHTS:

- low-price and robust (complete sealed - no pots, therefore vibration resistant and long time stable)
- 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

### RT420-00/WE

Head transmitter, set by our works

### RT420-SG/WE

Set by our works and mounted in snap-on rail housing

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

**Accessories and spare parts:**

**Hutschienenadapter**

Art. no. 603659

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

RT420 - 1 - 2 - 3 - 4

Greisinger		
1.	Version	
	00/WE	Head transmitter
	SG/WE	Head transmitter in snap-on housing
2.	Sensor connection	
	P2	Pt100 (2-wire)
	P3	Pt100 (3-wire)
	P4	Pt100 (4-wire)
3.	Measuring range	
		-200 ... +850 °C
	MBS	0 ... 25 °C
	MBS	0 ... 40 °C
	MBS	10 ... 42 °C
	MBS	0 ... +50 °C
	MBS	-50 ... +50 °C
	MBS	-200 ... +50 °C
	MBS	-50 ... +100 °C
	MBS	0 ... 100 °C
	MBS	-30 ... +100 °C
	MBS	0 ... 120 °C
	MBS	0 ... 150 °C
	MBS	-50 ... +150 °C
	MBS	0 ... 160 °C
	MBS	0 ... 170 °C
	MBS	0 ... 180 °C
	MBS	-50 ... +200 °C
	MBS	-50 ... +230 °C
	MBS	-50 ... +400 °C
	MBS	0 ... 200 °C
	MBS	0 ... 300 °C
4.	Probe break signal	
	FBU	3.5 mA
	FBO	> 23 mA