

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

for head and rail case mounting

Panel-mounted-resistance thermometer with measuring transducer RT420



RT420 - advantages:

- low-price and robust (complete sealed - no pots, therefore vibration resistant and long time stable)
- freely programmable - extreme wide measuring range of -200 to 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

Rail adapter

upcharge:

for snap-on the RT420 to top-hat rail

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



RT420 with rail adapter

GTF103 / RT420 (p.r.t. page 131)

Panel-mounted resistance thermometer

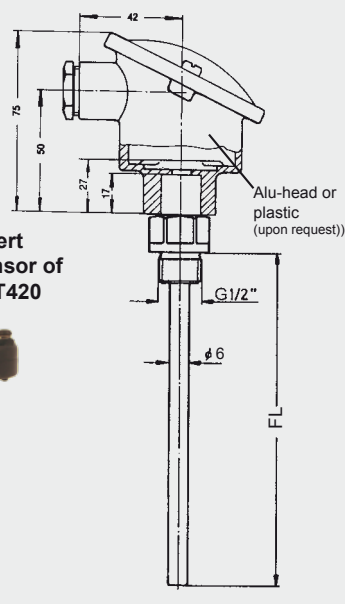
Pt100 cpl. with measuring transducer RT420 - transducer and Pt100 can be taken out in form of an insert. (Price valid for standard length 100 mm and temperature range as to customers specification between -50 ... +400 °C)

Special designs upon request - please contact us!

GTF103/RT420



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



Specification:

- Measuring range: -200 ... +850 °C, universally programmable
 Measuring span: 25 to 1050 K
 Zero shift: -200 ... +825 °C
 Resolution: 14 bit
 Sensor connection: 2-, 3- or 4-wire connection
 Meas. current: < 0,3 mA
 Perm. resistance of connection cable: max. 20 Ohm / wire
 Compensation for cable error: $\pm 0,02$ K / Ohm (at 3-wire)
 Sensor monitoring: monitoring for sensor damage and short-circuit
 Meas. cycle: < 700 ms
 Linearisation: linear to temperature acc. to IEC/DIN/EN 60 751-2
 Accuracy: $\pm 0,25$ °C or $\pm 0,1\%$ of meas. span
 Temperature effect: $< \pm 0,01\%$ / 1K
 Analog output: 4...20 mA, 2-wire technology
 Accuracy output: <0.1% of signal span
 Auxiliary energy: V_s 8 ... 35 V DC (max. ripple factor: $3V_{ss}$ @ 50/60Hz)
 Perm. burden R_A : $R_A \leq (V_s - 8V) / 0,023 A$ [R_A in Ohm, V_s in V]
 Effect of aux. energy: $\pm 0,01\%$ / V
 Power-on time: 10 s
 Damping: adjustable from 0 to 30 s
 Output limits: programmable, 3,5 mA, 23 mA
 Signal for sensor damage: programmable, 3,5mA or 23mA
 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: $\varnothing 44$ mm x 19 mm
 IP rating: Housing: IP40, connection terminals: IP10
 Electric connection: via screw-type terminals
 Weight: approx. 35 g
 Design type ...-SG (snap-on rail housing)
 Dimensions: approx. 22.5 x 78 x 105 mm
 Electric connection: via screw-type terminals
 Weight: approx. 110 g



Accessories:

Programming tool for RT420

The configuration set contains: configuration software, connection cable RS 232-C, battery plug, connection cable and operating manual

For easy storage management at customers site (customer programmability - all ranges and wiring options can be fully utilised)