

TEMPERATURE CONTROLLER

type R-201

type R-202



- ☐ control characteristic:
 - proportional (**P**) (R-201)
 - threshold with hysteresis for heating (R-202)
 - threshold with hysteresis for cooling (R-202-Pt100/2)
- ☐ for use with sensors:
 - Pt100**, Fe-CuNi (**J**), NiCr-NiAl (**K**), NiCrSi-NiSi (**N**), PtRh30-PtRh6 (**B**), PtRh13-Pt (**R**), PtRh10-Pt (**S**), Cu-CuNi (**T**)
 - or current loop 4...20 mA⁽¹⁾
- ☐ automatic compensation of thermocouple cold junction
- ☐ assembly into the hole on the board or control panel

R-201 and R-202 are easy-to-use microprocessor temperature controller. To control the temperature of the process simply type the temperature set point and two additional parameters: the width of the proportionality zone and the pulse repetition period (R-201) or hysteresis and dead time (R-202).

Ideal for applications not requiring control by PID algorithm. Four-digit display for measured temperature or temperature setpoint and other control parameters.

Application: temperature control in plastics and rubber processing industries as well as in different types of furnaces and driers.

TECHNICAL DATA

Temperature control range	according to table ^{(1),(2)}
Accuracy (T_A 23°C ± 5°C)	0,25% of control range
Output	relay contacts or control voltage for SSR
Relay contacts	SPDT, 5 A, 250 V AC / 24 V DC
SSR control voltage	10VDC ± 2V
Thermocouple cold junction compensation	internal, automatic
Ambient temperature T_A	0°C... +45°C
Standard power supply	230 V AC +10% -15%, 50 Hz, 3 VA
Optional power supply	24 V AC, 24 V DC, 12 V DC, 110/115 V AC
Mounting window dimensions (height x width)	45,5 x 45,5 mm
Dimensions (height x width x depth) / weight	48 x 48 x 115 mm / 200 g

⁽¹⁾ When ordering version with input signal 4...20 mA indicate temperature value for 4 mA and 20 mA

⁽²⁾ Set value limiting and other parameters on demand

Sensor type	Range [°C]
B PtRh30-PtRh6	400...1800
R PtRh13-Pt	200...1600
S PtRh10-Pt	200...1600
N NiCrSi-NiSi	0...1300
K NiCr-NiAl	0...1200
J Fe-CuNi	0...700
T Cu-CuNi	0...200
Pt100 ⁽³⁾	0...800
Pt100 ⁽³⁾	0,0...199,9
Pt100 ^{(3),(4)} cooling	-50,0...150,0

⁽³⁾ 2 or 3 wires

⁽⁴⁾ type 202 only

ORDERING CODE

R — (1) — (2) / (3) — (4) — (5)

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|---|--|
| (1) Type (control characteristic) | proportional 201 , threshold with hysteresis 202 |
| (2) Input | PT100, B, J, K, N, R, S, T, 420 |
| (3) Reduced measurement range, resolution 0,1°C (PT100) | 1 |
| Option for cooling (R-202-PT100) | 2 |
| Readout for 4 and 20 mA | (lower range value ... upper range value) |
| (4) Control output, if other then relay contacts | SSR |
| (5) Power supply, if other then 230 V AC | 24VAC, 24VDC, 12VDC, 110/115VAC |

Example for order: R-201-Pt100/1 temperature controller of range 0,0°C...199,9°C for use with Pt100 sensor.
R-202-420/(0...+400°C) temperature controller of range 0°C...400°C, for use with current loop 4...20 mA.