

TEMPERATURE CONTROLLER

type R-720



- control characteristic **P, PI, PD, PID** or threshold with hysteresis
- auto-tuning** function helps to choose control parameters
- real time clock enables **temperature profile programming**
- for use with wide assortment of sensors:
Pt100, Ni100, Fe-CuNi (J), NiCr-NiAl (K), NiCrSi-NiSi (N), PtRh30-PtRh6 (B), PtRh13-Pt (R), PtRh10-Pt (S), Cu-CuNi (T)
- overload range and open circuit sensor alarm
- programmable multifunction alarm with relay output
- access control function
- programming by a computer or by keypad

R-720 is a universal one-channel microprocessor temperature controller designed for use with RTDs and thermoelectric sensors. The software enables easy choice of control characteristics P, PI, PID or threshold with hysteresis. The controller is equipped with a special autotuning function. This allows identification and dynamic estimation of process control parameters. Values of separate parameters are calculated automatically. Temperature profile programming function allows programming the set value as a function of time. The operating commands and process parameters are set from the front keypad or with a serial communication interface by a computer and are also displayed on the dual 4-digit LEDs. This makes it very easy and helpful for the operator. The special access control function gives protection from un-authorized operators. The controller as a default is equipped with a two SPDT output relays: one for control and one for a programmable multifunction alarm. Voltage outputs for SSR driving are available on demand. The R-720 type temperature controllers are widely used in many industrial process.

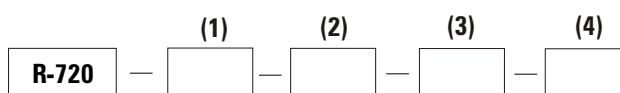
TECHNICAL DATA

Sensor type, measuring and set value range	according to the table
Resolution	0,1°C up to +1000°C; 1°C over +1000°C
Accuracy ($T_A = 23^\circ\text{C} \pm 5^\circ\text{C}$, T - temp. readout)	$\pm (0,002 \times T + 0,3^\circ\text{C} + 1 \text{ digit})$
Pt100, Ni100 bias current	0,2 mA
Standard control and alarm outputs	SPDT relay contacts 5 A, 250 V AC / 24 V DC
Optional control and alarm outputs	12 \pm 2 V DC for SSR driving
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
Ambient temperature T_A	0°C...+45°C
Mounting window dimensions (height x width)	91 x 44 mm
Dimensions (height x width x depth) / weight	96 x 48 x 140 mm / 400 g

Sensor type	Range [°C]
B PtRh30-PtRh6	400...1800
R PtRh13-Pt	200...1600
S PtRh10-Pt	200...1600
N NiCrSi-NiSi	-100...1300
K NiCr-NiAl	-100...1200
J Fe-CuNi	-100...1000
T Cu-CuNi	-100...230
Pt100 ⁽¹⁾	-100...850
Ni100 ⁽¹⁾	-60...180

⁽¹⁾ 2 or 3 wire connection

ORDERING CODE



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|-------------------------------------------------|----------------------------------------|
| (1) Serial interface, if other than RS-232 | RS-485 |
| (2) Control output, if other than relay contact | SSRRG |
| (3) Alarm output, if other than relay contact | SSRAL |
| (4) Power supply, if other than 230 V AC | 24VAC, 24VDC, 12VDC, 110/115VAC |

Example for order: R-720 temperature controller with RS232 interface, relay outputs and power supply 230VAC.

R-720-485-SSRRG-24VDC temperature controller with RS-485 interface, voltage control output for SSR driving, power supply 24 V DC.