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## **TEMPERATURE CONTROLLER**

type R-700, R-701, R-703





control characteristic **P**, **PI**, **PD**, **PID** or threshold with hysteresis

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

RS-232 or RS-485 communication interface and data logging software for PC: **Logger** and **Logger-9** (R-700 and R-701 only)

Sensor

R-700, R-701 and R-703 are universal one-channel microprocessor based temperature controllers which are used with RTD and thermoelectric temperature sensors. The software enables easy choice of control characteristics P, PI, PD, PID or threshold with hysteresis. Menu driven operating commands are displayed on a dual 4-digit LED to allow easy setting of process parameters. The special access control function gives protection from un-authorised operators. These controllers are equipped with a two SPDT output relays by default: one for control and one for a programmable multifunction alarm. Different voltage outputs for driving SSR are available on request. R-700 and R-701 controllers have a built-in serial communication interface which allows reading and programming of the process parameters by a computer. Windows® application programs: **Logger** and **Logger-9** allow visualization of the temperature read out on the screen of the monitor, printing graphs and saving to the file (see EMT-200 datasheet). Programs can be ordered for an additional fee on CD-ROM or downloaded free of charge from the <a href="https://www.czaki.pl">www.czaki.pl</a>.

## **TECHNICAL DATA**

Sensor type, measuring range

Resolution

Accuracy ( $T_A = 23^{\circ}C \pm 5^{\circ}C$ , T - temp. readout)

Pt100, Ni100 bias current

Standard control and alarm outputs

Optional control and alarm outputs

Standard power supply

Optional power supply

- - -

Ambient temperature T<sub>A</sub>

Mounting window dimensions (height x width)

Dimensions (height x width x depth) / weight

according to the table

 $0.1^{\circ}$ C up to  $+1000^{\circ}$ C;  $1^{\circ}$ C over  $+1000^{\circ}$ C

 $\pm (0.002 \times |T| + 0.3^{\circ}C + 1 \text{ digit})$ 

0,2 mA

SPDT relay contacts 5 A, 250 V AC / 24 V DC

12 ± 2 V DC for SSR driving

230 V AC +10% -15%, 50 Hz, 3 VA

24 V AC, 24 V DC, 12 V DC, 110/115 V AC

 $0^{\circ}C...+45^{\circ}C$ 

91 x 44 mm (R-700)

44 x 91 mm (R-701)

45,5 x 45,5 mm (R-703)

96 x 48 x 140 mm / 400 g (R-700)

48 x 96 x 128 mm / 400 g (R-701)

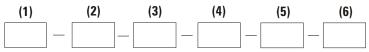
48 x 48 x 115 mm / 260 g (R-703)

type	[°C]
<b>B</b> PtRh30-PtRh6	4001800
<b>R</b> PtRh13-Pt	2001600
<b>S</b> PtRh10-Pt	2001600
<b>N</b> NiCrSi-NiSi	-1001300
<b>K</b> NiCr-NiAl	-1001200
<b>J</b> Fe-CuNi	-1001000
<b>T</b> Cu-CuNi	-100230
Pt100 <sup>(1)</sup>	-100850
Ni100 <sup>(1)</sup>	-60180

Range

(1) 2 or 3 wire connection

## **ORDERING CODE**



(1) Type

(2) Serial interface, if other then RS-232

(3) Control output, if other then relay contact

(4) Alarm output, if other then relay contact(5) Power supply, if other then 230 V AC

(5) Power supply, if other t(6) Additional accessories

R-700, R-701, R-703

RS-485 (R-700 i R-701 only)

SSRRG SSRAL

24VAC, 24VDC, 12VDC, 110/115VAC

LOGGER - CD-ROM with applications: Logger and Logger-9

**Example for order:** 

 $R-701\ \ temperature\ controller\ with\ RS232\ interface,\ relay\ outputs\ and\ power\ supply\ 230VAC.$ 

R-700-485-SSRRG-24VDC temperature controller with RS-485 interface, voltage control output for SSR

driving, power supply 24 V DC.