TEMPERATURE CONTROLLER
type R-700, R-701, R-703

R-703

R-700   **R-701**

☐ 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)

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 www.czaki.pl.

TECHNICAL DATA

Sensor type, measuring range	according to the table
Resolution	0,1°C up to +1000°C; 1°C over +1000°C
Accuracy (T_A = 23°C ± 5°C, T - temp. readout)	± (0,002 × |T| +0,3°C +1 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 ± 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 (R-700)
	44 x 91 mm (R-701)
	45,5 x 45,5 mm (R-703)
Dimensions (height x width x depth) / weight	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)

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

(1)   (2)   (3)   (4)   (5)   (6)

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(1)	Type	**R-700**, **R-701**, **R-703**
(2)	Serial interface, if other then RS-232	**RS-485** (R-700 i R-701 only)
(3)	Control output, if other then relay contact	**SSRRG**
(4)	Alarm output, if other then relay contact	**SSRAL**
(5)	Power supply, if other then 230 V AC	**24VAC**, **24VDC**, **12VDC**, **110/115VAC**
(6)	Additional accessories	**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.