

Programmable Controller RT284

- ◆ **Low cost**
- ◆ **4 DIN front sizes**
- ◆ **Two relay On/OFF outputs**
- ◆ **4 - digit display**
- ◆ **Automatic software line and 'cold junction' correction**
- ◆ **Self-testing and Self-calibration**

The series of the widely applicable controller RT284 is designed to replace the RT28 range. RT284 is an effective inexpensive solution for measurement, and control of various physical variables with resolution of up to 3000 points within the input range. The four-digit display is very convenient in cases when temperatures above 1000 degrees have to be measured, as well as in any case when higher resolution is needed. In addition to the standard features of the RT28 range, the RT284 controllers have also: a built in circuit for self-testing and self-calibration, manual measurement offset setting, automatic software compensation of line resistance or cold junction temperature. RT284 has two relay outputs with separate set-point, direction and hysteresis adjustment providing a flexible ON/OFF control.



Technical specifications

RT

Inputs

Pt50 (w=1.385); 3-wire	-100.0 to +200.0(600) °C
Pt100 (w=1.385); 3-wire	-100.0 to +200.0(600) °C
Pt500 (w=1.385); 3-wire	-100.0 to +200.0(600) °C
Pt1000 (w=1.385); 3-wire	-100.0 to +200.0(600) °C
Cu100; 3-wire	-50.0 to +200.0 °C
Cu50; 3-wire	-50.0 to +200.0 °C
Other thermoresistive ⁽¹⁾	min. -100 to max.+800 °C
Thermocouple "J"	0 to +1000 °C
Thermocouple "K"	0 to +1300 °C
Thermocouple "L-GOST"	0 to +800 °C
Thermocouple "S"	0 to +1700 °C
Thermocouple "R"	0 to +1700 °C
Thermocouple "B"	0 to +1800 °C
Thermocouple "C"	0 to +2300 °C
Other thermocouple ⁽¹⁾	min. 0 to max.+2000 °C
Linear voltage ⁽²⁾	0 to 10 V (0 to 3000)
Linear current ⁽²⁾	0(4) to 20 mA (0 to 3000)
Custom linear voltage ^(1,2)	max. 40 V (0 to max.3000)
Custom linear current ^(1,2)	max.80 mA (0 to max. 3000)
Input type selection	fixed as specified in the order

Outputs

Relay electromechanical	2 x 3A/250V, NO/NC contact
Solid state relay (optional)	SSR - 1A/250 VAC
Transistor gate (optional)	Open collector - 40mA/40V or TTL
Control algorithm	ON/OFF, PID
Set point	Within input range limits
Programmable parameters	According to control algorithm

Accuracy

Measurement error	0.4 % from span
Temperature drift	0.005 % from span for 1 °C
Cold junction compensation	Automatic software
Line resistance compensation	Automatic software
Calibration	Automatic software

Power supply

Supply voltage	220 VAC ± 10%
Pulse mode (optional)	90 to 250 VAC/DC
Low voltage supply (optional)	12 to 24 VAC/DC
Consumption	Max. 3 VA

Indication and keyboard

Digital display	4 LED-indicators 9...20 mm
Measurement offset	Through keyboard
LEDs	2 LEDs for relay outputs
Keyboard	3 membrane keys

Operating conditions

Operating temperature	-10 to 65 °C
Operating humidity	0 to 85 %RH

Design and materials

Case material	Plastic
Mounting	In panel cut-out
Wiring	Screw terminals
Dimensions	96(48) x 48(96) x 120 mm
Weight	Max. 350 g
Protection front/terminals	IP-54 / IP-20

⁽¹⁾ Custom - specify range within the limits stated

⁽²⁾ Provides voltage for external transmitter power supply - 12VDC/30mA

Ordering code



RT284 - G0 - G1.G5G5.G6'6" - #1

Code	Feature or option	Code values
G0	Case (front panel) type	B - 96x96, H - horizontal 96x48, V - vertical 48x96, S - 48x48
G1	Power Supply type	A - 220 Vac, C - 90...250 VAC/DC ⁽⁴⁾ , D - low voltage-DC ⁽³⁾ , E - low voltage-AC ⁽³⁾
G5	Relay output type	C - relay NO/NC, D - SSR, E - open collector NPN, G - TTL
G6'	Input signal type	B - thermoresistance, C - thermocouple, D - linear, Z - other on request
G6"	Sensor type	Thermoresistance (RTD) B - Pt50, D - Pt100, F - Pt500, G - Pt1000, H - Cu50, K - Cu100, Z - other
		Thermocouple B - "B", C - "C", J - "J", K - "K", M - "L-GOST", R - "R", S - "S", Z - other
		Linear B - 0...20 mA DC, C - 4...20 mA DC, K - 0...10 VDC, Z - other
#1	Auxiliary supply output	X - none, A - installed (12 or 24 ⁽⁴⁾ VDC/30mA)

⁽³⁾ Exact value specified by the customer

⁽⁴⁾ Contact COMECO for availability!

For detailed instructions on ordering coding see chapter "ORDERING CODES"!