

Programmable Controller RT484



- ◆ Two 4-digit displays
- ◆ Universal programmable input
- ◆ Various control algorithms including auto-tuning
- ◆ PID-pulse, PID-step, and PID-analog available
- ◆ Programmable digital filter
- ◆ Calibration and self-calibration
- ◆ RS485 serial interface option

The COMECO model RT484 is a multifunctional programmable controller with a universal input for the most common thermoresistances, thermocouples, and linear signals. The input has a built-in automatic software compensation of line resistance and cold junction temperature as well as automatic software compensation of temperature drift. The operator can calibrate the input manually. RT484 is also equipped with a programmable input filter and two 4-digit displays with programmable refresh rate. Available are various options for access restriction. The device may have either two relay outputs or an analog plus a relay output, which can control variety of actuators through different control algorithms - ON/OFF, PID plus ON/OFF, PID-pulse, PID-step and analog PID. Provided is also an auto-tuning mode. RT484 enables the operator to work in manual or automatic mode, and the RS485 option enables networking. The device can be manufactured with one of the following 4 DIN front-panel dimensions: 96x96, 48x96, 96x48, and 48x48, or in a case for DIN rail mounting.

Technical specifications

Input - universal

Pt100 (w=1.385); 3-wire	-100 to +600 °C
Pt100 (w=1.391); 3-wire	-100 to +600 °C
Cu100 (w=1.426); 3-wire	-50 to +200 °C
Cu100 (w=1.428); 3-wire	-50 to +200 °C
Thermocouple "J"	0 to +1000 °C
Thermocouple "K"	0 to +1300 °C
Thermocouple "S"	0 to +1700 °C
Thermocouple "R"	0 to +1700 °C
Thermocouple "B"	+100 to +1800 °C
Thermocouple "C"	0 to +2300 °C
Thermocouple "L - GOST"	0 to +600 °C
Linear voltage ⁽¹⁾	0 to 50 mV (-1999 to +9999)
Linear current	0 to 20 mA (-1999 to +9999)
Linear current	4 to 20 mA (-1999 to +9999) ⁽²⁾
Input type selection	Through keyboard
Decimal point selection	Through keyboard
Digital filter	Programmable
Input calibration	Through keyboard

Outputs and algorithms

Relay electromechanical	2 x 5A/250V with NO/NC contacts
Solid state relay (optional)	SSR - 1A/250 VAC
Transistor gate (optional)	Open collector - 40mA/40V or TTL
Operation modes	Manual and automatic
Control algorithms (programmable)	ON/OFF, PID-pulse, PID for motor-valves, PID-analog
Auto tuning	Programmable
Alarms	Programmable
Programmable parameters	See algorithm and alarm types
Other control features	BUMPLESS and ANTI-WINDUP
Analog output (optional)	4(0) to 20 mA, isolated
Serial interface (optional)	RS 485, isolated

Accuracy

Measurement error	0.3 % from span
Temperature drift	Negligible
Self-calibration	Automatic software
Cold junction compensation	Automatic software
RTD line compensation	Automatic software

Power supply

Supply voltage	220(110) VAC or low voltage
Pulse mode (optional)	90 to 250 VAC/DC
Consumption	Max. 3 VA

Indication and keyboard

Digital display	2 x 4 LED indicators (PV-red, SV-green)
LEDs	One for each relay
Keyboard	3 membrane keys

Operating conditions

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

Design and materials

	'H','V'	'B'	'S'	'Z'
Case material	Plastic			
Wiring	Screw terminals			
PV display height [mm]	14, 10	20	9	10
SV display height [mm]	10	14	9	10
Mounting cut-out [mm]	93x45	93x93	45x45	-
Front dimensions [mm]	96x48	96x96	48x48	45x76
Mounting depth [mm]	118	118	111	103
Maximum weight [g]	200	250	100	200
Mounting	In panel			On rail
Protection front/terminals	IP-54 / IP-20			IP-20

⁽¹⁾ Other voltage ranges can be obtained using two external resistors.
⁽²⁾ Provides supply voltage for external two-wire transmitter 12/24VDC
⁽³⁾ Exact value is specified in customer order.

⁽⁴⁾ If mounted, it can be programmed as control or retransmission type!
 Not available with low-voltage power supplies!
⁽⁵⁾ Instead of alarm relay G5_!

Ordering code



RT484 - G0 - G1.G5G5.G9.G11

Code	Feature or option	Code values
G0	Case type	B - 96x96, H - 96x48, V - 48x96, S - 48x48, Z - for rail mounting
G1	Power supply type	A - 220 VAC, B - 110 VAC, C - 90...250 VAC/DC, D - low voltage-DC ⁽³⁾ , E - low voltage-AC ⁽³⁾
G5	Relay output type	C - relay NO/NC (NO for 'S' model), D - SSR, E - open collector NPN, G - TTL
G9	Interface ⁽⁴⁾	X - none, B - RS 485
G11	Analog output ^(4,5)	X - none, E - 0...20 mA, F - 4...20 mA

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

RT