Double Programmable Controller RT228U

CE

- ♦ **Two RT28U controllers in one case**
- ♦ **Universal input for 4 RTDs, 6 T/Cs, and 3 linear types**
- ♦ **RS485 serial interface available**

RT228U combines two RT28U controllers in one 96x96 mm case. Thanks to its lower cost than the combined cost of 2 separate RT28U controllers, this model is often preferred when 2 technological parameters are controlled in one machine or installation or of separate adjacent processes. Typical applications are control of 2 temperatures, temperature and humidity, pressure and temperature, pH and temperature, and other combinations. Each of the 2 incorporated controllers is equipped with universal input and controls its relay outputs by an ON/OFF algorithm. Thanks to its programmable inputs and displays as well as relay duplex outputs (2 relays per controller, 4 relays per whole device), RT228U is a widely applicable device.

Technical specifications

Input	*(for each controller, programmable)*
Pt100 (w=1.385); 3-wire	-100...850 °C
Pt1000 (w=1.385); 3-wire	-100...600 °C
PTC (1k at 25 °C); 3-wire	-50...150 °C
PTC (2k at 25 °C); 3-wire	-50...150 °C
Thermocouple "T"	-40...400 °C
Thermocouple "J"	-20...999 °C
Thermocouple "K"	-20...999 °C
Thermocouple "S"	0...999 °C
Thermocouple "R"	0...999 °C
Thermocouple "B"	100...999 °C
Linear voltage 0...10 V	-199...999, programmable
Linear current 0(4)...20 mA	-199...999, programmable
Custom linear *(option)* [1]	-199...999, programmable
Two-wire external transmitter	4...20 mA [2]
Manual input offset	programmable
Input type selection	programmable
Decimal point selection	programmable
Temperature measurement unit	°C or °F, programmable

Outputs	*(for each controller, up to 2 relay outputs)*
Relay electromechanical	5A/250V w/ NO/NC contact
Solid state relay [3]	1A/250VAC
MOS gate [3]	0.1A/60V, optically isolated
Output for external SSR	5…24 V, 30 mA
Control algorithm	ON/OFF
Set point	within input range limits
Alarms	programmable
Serial interface	RS485, isolated

Accuracy	*(for each controller)*
Measurement error	0.3% from span
Temperature drift	0.02% from span for 1 °C
Cold junction compensation	automatic, -10...80 °C
RTD line compensation	automatic, up to 2 x 25 Ω

Power supply	*(for each controller)*
Mains supply voltage	230 VAC or 115 VAC
SMPS voltage	90…250 V
Isolated low voltage	12…24 V or 24 VAC
Non-isolated low voltage	12…24 V
Consumption	max. 1.5 VA

Indication and controls	*(for each controller)*
Digital display	3 LED indicators, 14 mm
LEDs	2 LEDs for output state
Keyboard	3 membrane keys

Operating conditions	
Ambient temperature	-10...65 °C
Ambient humidity	0...85 %RH

Design and materials	
Case material	plastic
Mounting	in 90x90 mm panel cut-out
Wiring	plug-in terminals
Dimensions	96x96(front)x107 mm
Mounting depth	98 mm
Weight	max. 600 g
Protection, front/terminals	IP54 / IP20
Increased front IP *(option)*	IP65

[1] Instead of linear current
[2] Provides loop supply voltage - 24 VDC (only w/ isolated power supply)
[3] Ask for availability!

Ordering code RT228U - G1(G1).G5G5(G5G5).G9'9"(G9'9") - #1.#2(#2) [4]

Code	Feature or option	Code values
G1	Power supply	**A** - 230 VAC, **B** - 115 VAC, **C** - 90…250 V, **P** - 12…24 V, non-isolated, **Q** - 12…24 V, isolated, **R** - 24 VAC
G5	Relay output	**X** - none, **C** - relay NO/NC, **D** - SSR [3], **J** - for external SSR, **M** - isolated MOS gate [3]
G9'	Serial interface	**X** - none, **B** - RS485
G9"	Protocol	**A** - ASCII, **C** - ASCII for "PolyMonitor"
#1	Increased front protection	**X** - none, **P** - IP65 front protection
#2	Customer specified input signal	**X** - none, **Z** - custom linear signal (specify!) [1]

[4] Second controller values are in brackets.