

## FEATURES

- Relay and relay-CO output types
- Two outputs
- One universal input
- Supply voltage of 24 V ac/dc
- Easy-to-read OLED display
- DC current, DC voltage, RTD and thermocouple inputs (universal)
- Screw termination type
- DIN-rail mounting
- Operating temperature range of 0°C to +55°C
- Panel depth of 123 mm
- Termination via screw
- IP ratings include IP20

# RS PRO DIN Rail PID Temperature Controller, 22.5 x 110mm 1 Input, 2 Output Relay, Relay-CO, 24 V ac/dc Supply Voltage

RS Stock No.: 144-8677



RS Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

This DIN-rail PID (proportional, integral, derivative) temperature controller from the RS PRO range uses a control loop mechanism to regulate the process temperature of equipment. Basic heating devices can be used for similar purposes, but their performance is generally less accurate and less energy-efficient. PID controllers on the other hand use mathematical formulas to keep process temperatures at the user set point, producing fewer fluctuations and requiring less power consumption. The DIN rail mount provides more flexibility than panel-mounted alternatives, as the connector can be slid or snapped into place on the rail without any equipment.

## General Specifications

<b>Control Type</b>	ON/OFF, PID Controller
<b>Configurable Outputs</b>	1 x C/O Relay, 1 x Relay
<b>Communication Module Available</b>	Yes
<b>Communications</b>	2 Wire RS485, 1,200 to 38,400 baud, Modbus RTU option
<b>Setting Method</b>	Digital setting using front panel keys
<b>Display Type</b>	OLED
<b>Display Colour</b>	Black
<b>Additional Functionality</b>	High/low, deviation or band.
<b>Applications</b>	Petro-Chemistry, Plastic, Glass, Automotive, Mechanical production, textile

Input Data	
Input Type	DC Current, DC Voltage, RTD, Thermocouple
Number of Inputs	1
Thermocouple	J, K, C, R, S, T, B, L, N
RTD	3 Wire PT100
DC Linear	0 to 20mA, 4 to 20mA, 0 to 50mV, 10 to 50mV, 0 to 5V, 1 to 5V, 0 to 10V, 2 to 10V Scalable -1999 to 9999, with adjustable decimal point
Accuracy	Thermocouple $\pm 0.25\%$ of full range $\pm 1$ LSD ( $\pm 1^\circ\text{C}$ for thermocouple CJC). PT100 $\pm 0.25\%$ of full range, $\pm 1$ LSD, DC Linear $\pm 0.2\%$ of full range, $\pm 1$ LSD.
Sampling	4 per second
Impedance	$>10\text{M}\Omega$ resistive, except DC mA ( $5\Omega$ ) and V ( $47\text{K}\Omega$ )
Sensor Break Detection	$<2$ seconds (except zero based DC ranges), high alarms activate for T/C, RTD and mV ranges, low alarms activate for mA or V ranges

Output Data	
Output Type	Relay, Relay-CO
Number of Outputs	2
Relay	SPST Form A relay; current capacity 2A at 250VA. $>150,000$ operations at rated voltage/current, resistive load
SSR	Drive capability $>10\text{V DC @ } 20\text{mA}$

## Electrical Specifications

Supply Voltage	24 V ac/dc
Frequency	50/60Hz
Termination Type	Screw

## Mechanical Specifications

Size	22.5mm x 110mm
Length	22.5mm
Height	110mm
Depth	121mm
Panel Depth	123mm
Mounting Type	DIN Rail

## Operation Environment Specifications

Temperature Range	0°C to 55°C
Minimum Operating Temperature	0°C
Maximum Operating Temperature	55°C
Relative Humidity	20% to 95% RH non-condensing

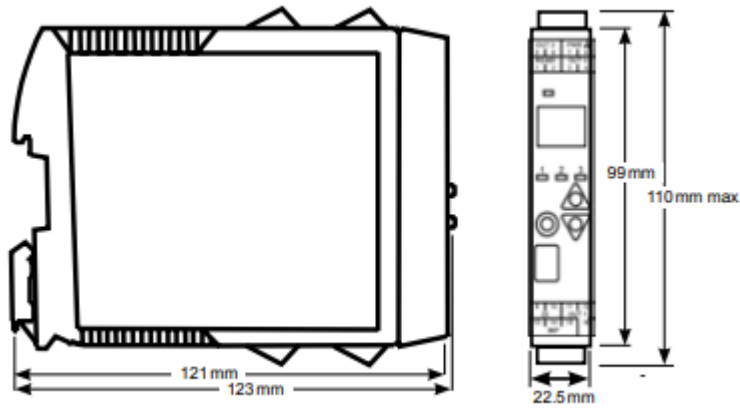
## Protection Category

IP Rating	IP20
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## Approvals

Compliance/Certifications	EN61326(Susceptibility & Emissions), EN61010-1
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### Ordering

Stock Number	Supply Voltage	Number Outputs	Communications
1448680	110-240V ac	1 x C/O Relay, 1 x Relay	Not fitted
1448681	110-240V ac	1 x C/O Relay, 1 x SSR, 1 x Relay	Not fitted
1448682	110-240V ac	1 x C/O Relay, 1 x SSR, 1 x Relay	RS485 Comms
1448677	24V ac/dc	1 x C/O Relay, 1 x Relay	Not fitted
1448678	24V ac/dc	1 x C/O Relay, 1 x SSR, 1 x Relay	Not fitted
1448679	24V ac/dc	1 x C/O Relay, 1 x SSR, 1 x Relay	RS485 Comms