Datasheet

Stock No: 1241060

RS Pro 35 x 77mm ON/OFF/PID Temperature Controller, 2 outputs

At a glance
- 35x77mm size
- Heating or cooling applications
- Thermocouple or PT100 inputs
- Two outputs for control and alarms
- ON/OFF or PID control

Overview
Compact 35mm x 77mm digital thermostat for general industrial applications. Thermocouple or PT100 sensor input and two outputs, relay and SSR.

Key Features
- On sensor failure, manual control can be selected
- Sensor input offset setting
- Two setpoint - selectable from front panel
- Selectable thermocouple types or PT100 input. (Specify at order)
- PID Autotune
- Soft-Start feature
- Two outputs - Relay (control or alarm) and SSR (control)
- CE marked
Specifications

Inputs

<table>
<thead>
<tr>
<th>Input Type</th>
<th>Temperature Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT100 MODEL ONLY, 1241058</td>
<td>-99.9...300.0 °C</td>
<td>± 0.5% (for full scale) ± 1 Digit</td>
</tr>
<tr>
<td>PT100 Resistance thermometer</td>
<td>-99.9...543.0 °F</td>
<td>± 0.5% (for full scale) ± 1 Digit</td>
</tr>
<tr>
<td>PT100 Resistance thermometer</td>
<td>-200...600 °C</td>
<td>± 0.5% (for full scale) ± 1 Digit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Temperature Range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT100 Resistance thermometer</td>
<td>-328...1112 °F</td>
<td>± 0.5% (for full scale) ± 1 Digit</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THERMOCOUPLE MODELS ONLY, 1241059 &amp; 1241060</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J (FeCuNi) Thermocouple</td>
<td>0... 600 °C</td>
</tr>
<tr>
<td>K (NiCr-Ni) Thermocouple</td>
<td>0...1300 °C</td>
</tr>
<tr>
<td>T (Cu-CuNi) Thermocouple</td>
<td>0... 400 °C</td>
</tr>
<tr>
<td>S (Pt10Rh-Pt) Thermocouple</td>
<td>0...1700 °C</td>
</tr>
<tr>
<td>R (Pt13Rh-Pt) Thermocouple</td>
<td>0... 1700 °C</td>
</tr>
</tbody>
</table>

Environmental Conditions

Ambient / Storage: 0 ... +50°C/-25 ... +70°C (with no icing).
Max. Relative humidity: Relative humidity 80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C.
Protection Class: According to EN60529; Front panel: IP65 Rear Panel: IP20
Height: Max. 2000m

Electrical Characteristics

Supply: 230V AC +%10 -%20, 50/60Hz or 24V AC %10, 50/60Hz
Power Consumption: Max. 5VA
Wiring: Power connector: 2.5mm² screw-terminal, Signal connector: 1,5mm² screw-terminal connection.
Line Resistance: Max. 100ohm
Data Retention: EEPROM (minimum 10 years)
EMC: EN 61326-1: 2013
Safety Requirements: EN 61010-1: 2010 (Pollution degree 2, overvoltage category II)

Outputs

C/A2 Output: Relay : 250V AC, 8A (for resistive load), Selectable as NO+NC Control or Alarm2 output.
SSR Output: Max 20mA 12Volt (as control output)
Life Expectancy for Relay: Mechanical 30.000.000; Electrical 100.000 operation. 250V AC, 8A

Control

Control Type: Single-setpoint and alarm control.
Control Algorithm: On-Off / P, PI, PD, PID (selectable)
A/D Converter: 12 bit
Sampling Time: 100ms
Proportional Band: Adjustable between 0% and 100%. If Pb=0%, On-Off control is selected.
Control Period: Adjustable between 1 and 250 seconds
Hysteresis: Adjustable between 1 and 50°C/F
Output Power: The ratio of power at a set point can be adjusted between 0% and 100%
Housing

Housing Type
Suitable for flush-panel mounting according to DIN 43 700.

Dimensions
H35xW77xD71mm

Weight
Approx. 200g (After packing)

Enclosure Material
Self extinguishing plastics.

Dimensions

Front Fascia
35 x 77mm.

Front

Depth

Panel cut-out

*Panel thickness should be maximum 7mm.

Ordering

<table>
<thead>
<tr>
<th>Stock Number</th>
<th>Supply Voltage</th>
<th>Number Outputs</th>
<th>Sensor Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1241058</td>
<td>230V ac</td>
<td>1 x relay, 1 x SSR</td>
<td>PT100</td>
</tr>
<tr>
<td>1241059</td>
<td>230V ac</td>
<td>1 x relay, 1 x SSR</td>
<td>Thermocouple</td>
</tr>
<tr>
<td>1241060</td>
<td>24V ac</td>
<td>1 x relay, 1 x SSR</td>
<td>Thermocouple</td>
</tr>
</tbody>
</table>