

LABFACILITY

TEMPERATURE & PROCESS TECHNOLOGY

LOW COST, HIGH ACCURACY 2 WIRE TEMPERATURE TRANSMITTER



- ◆ 4-20mA, 2 wire loop
- ◆ Low cost
- ◆ High accuracy
- ◆ In-head mounting, DIN standard fixing
- ◆ Pt100
- ◆ High reliability
- ◆ Non-interactive span & zero pots for calibration
- ◆ Permits virtually unlimited length of cable run in low-cost copper
- ◆ More expensive thermocouple extension cable not required
- ◆ Rugged construction
- ◆ Effective input 'noise' rejection
- ◆ CE compliant
- ◆ RoHS compliant

About Labfacility

Formed in 1971, Labfacility specialize in the field of Temperature and Process Measurement.

We are the largest UK manufacturer of both temperature sensors and thermocouple connectors

Quality & Service

Quality and Service are key elements in the continued growth of Labfacility.

Technical support is always freely available from our experienced technical sales teams and the company has ISO9001 accreditation.

Contact Details

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sales@labfacility.com

Website
www.labfacility.com

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Specification

PT100 to IEC751, 3 wire

0 to 450°C

0 to 200°C

0 to 100°C

-50 to 50°C

Junctions/ sensors must be insulated from sheath

Output

4-20mA loop powered, max 30mA.

Directly proportional to mV input for thermocouples. Directly proportional to temperature for Pt100.

Loop supply

12-36V dc; reverse connection protected.

Accuracy

Pt100 ranges $\pm 0.1\%$ of span (linear to temperature input)

Zero drift

$\pm 0.02\%$ of span per °C

Span drift

$\pm 0.02\%$ of span per °C

Supply voltage effect

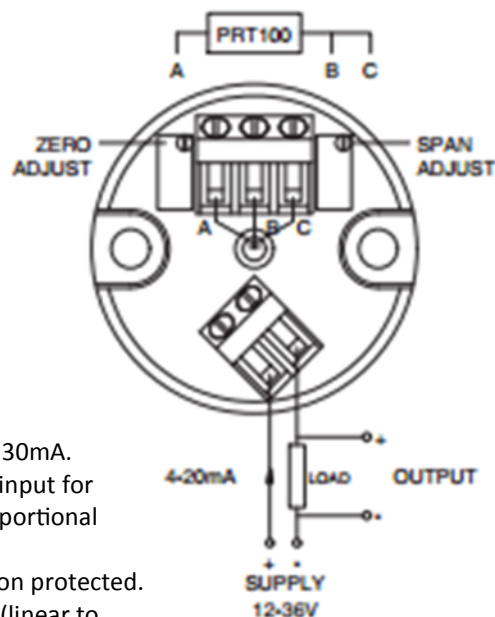
$\pm 0.03\%$ change of span over 12 to 36 voltage change

Cold junction compensation

Better than 2°C over ambient temperature range of 0 to 50°C ;
Rejection ratio better than 25:1

Sensor open circuit detection & indication

Upscale; output current between 23 and 27 mA. Separate, independent alarms should be used if required for process safety.



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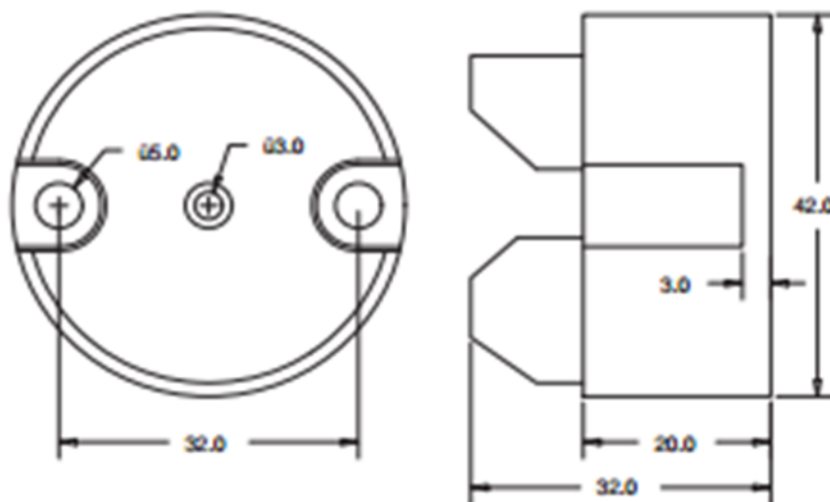
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Specification

Load capability	$(V_s - 12)/0.02 \text{ Ohm}$; $V_s = 12 \text{ to } 36\text{Vdc}$
Ambient operating temperature	0 to 70 °C
Storage temperature	-20 to 100 °C
Zero adjustment potentiometer	$\pm 20\%$ of span, 25 turns
Span adjustment potentiometer	down to 50% of span for thermocouple input and 30% of Span for PRT100 input, 25 turns (see note 1)

Mechanical

Head mounting, dia.42mm, height 32mm, 2 mounting holes 32mm between centres



All dimensions in mm.

Note 1: The transmitter can be easily ranged and calibrated by means of the multi-turn zero and span adjusters in conjunction with either a mV source or standard resistance input. For example, a type K-thermocouple which has a working temperature range of 0 to 1100°C can be easily calibrated to operate between 0 to 600°C, where 4mA and 20mA represent 0 and 600°C respectively.