



PT3800

8 Channel PRT Input Module

The PT3800 PRT input module offers eight channels of PRT inputs for use 4 wire probes of type Pt100. Platinum Resistance Thermometers (PRTs), also known as RTD (resistance temperature devices) offer high accuracy and repeatability over a wide temperature range. The PT3800 module offers up to eight channels of PRT measurement but its unique capability allows up to four channels to be used as digital inputs. This makes the module ideal for monitoring temperatures within freezers, fridges or cold rooms where door switches are fitted as standard. The PT3800 module's digital inputs can also be connected to motion sensors making it ideal for monitoring incubators where constant movement is essential. When used for temperature mapping all eight inputs can be used for high precision measurements with additional channels being accommodated simply by connecting further PT3800 modules using the expansion sockets.

Probes connect directly to the sockets on the face of the module and their function is automatically detected without the need for any additional configuration. Conversion is carried out according to IEC751 ($\alpha=0.00385$) or JIS C1604 ($\alpha=0.003916$) with results in °C or °F.

The PT3800 has flexible communication options, the most convenient being USB. Simply plug the PT3800 module in to a spare USB socket on a PC or laptop and the USB interface provides the necessary power and communications. Further channels are accommodated automatically by connecting further PT3800 modules using the expansion ports. Where USB is not available (or not suitable due to distance), the RS485 expansion ports can be used instead.

Specification

- 8 PRT inputs for Pt100 probes
 - 4 wire probes supported
 - Protected to 30VDC and against short circuits
- Bench top or wall mounted enclosure
 - Width 220mm
 - Height 122mm
 - Depth 55mm (75mm with optional wall mount)
 - Weight 85g
- Power supply
 - Powered via USB (5VDC) or 24VDC $\pm 10\%$ via expansion port
 - 20mA (typ.), 50mA (max.)
- Interfaces
 - USB 2.0
 - RS485 expansion out, 19k2 baud, 1.2km
 - RS485 expansion in, 19k2 baud, 1.2km
 - Maximum number of devices 20
- Environmental
 - Operating -20°C to +60°C
- Measurement
 - Measurement range -200 to +850°C
 - Up to 8 channels for 4 wire Pt100
 - Accuracy $\pm 0.1^\circ\text{C}$
 - Temperature coefficient 0.005°C/°C
 - Series mode rejection 65dB @ 50/60Hz
 - Up to 4 of the PRT inputs can be used as digital inputs for simple switches or motion sensors

Ordering Information

- PT3800 8 Channel PRT Input Module
- WM3000 Wall Mounting Kit
- EC3005 Expansion Cable 5 (metre)

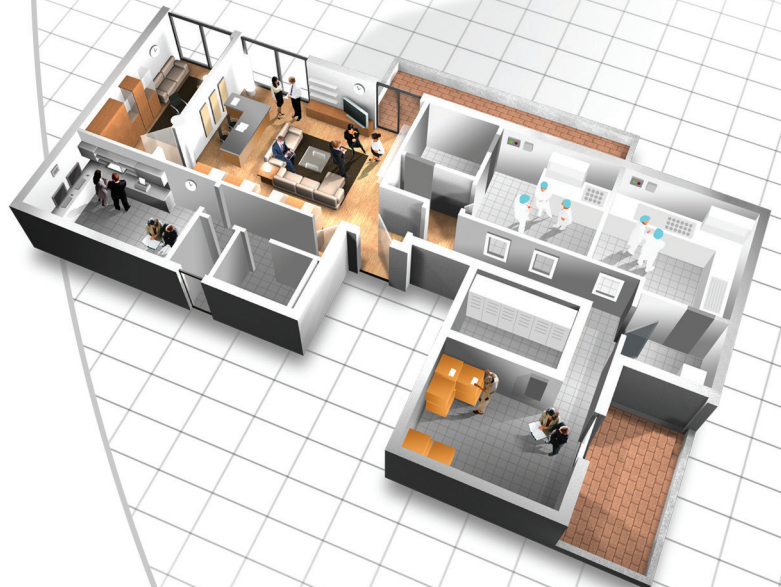
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