



# Specification Guide A1-02a Temperature Pod

## At a glance...

### Internal Sensors

- Ambient Temperature

### External Sensors

- 100 ohm Platinum RTD
- Type K Thermocouple
- Thermistor
- Digital Input (Contact Closure)
- 0-5V Analog Input

## GENERAL SPECS

### Physical Size

3.5 in x 3.25 in x 2 in. (89mm x 83mm x 51mm)  
Weight:: 8 oz. (227 g)

### Power Options

100-240V AC 50-60Hz .2A  
DC Input 4-7VDC  
(3) AA Batteries (6 month life, 5 minute sampling intervals)

### Wireless

Range: 260 ft (80 m)  
Topology: Mesh  
Wireless Standard: IEEE 802.15.4  
Frequency: 2.4GHz DSS  
Power Output: -79dBm

### Mounting Options

Wall, pole, or DIN rail (w/adaptor)

### Sampling Rate

User Settable 30s-24hr

### Data Storage

256 Samples

### Operating Environment

-40°C to 70°C , 5-95% RH

## INTERNAL SENSORS

### Ambient Temperature

Temperature Range: -40°C to +70°C  
Temperature Accuracy at 25°C: ±1.4°C  
Temperature Accuracy over Full Range: ±2.1%FS  
Measurement Resolution: 0.21°C

## EXTERNAL SENSOR INPUTS

### Type K Thermocouple

Thermocouple temperature Range: -150°C to +1150°C  
Measurement Resolution: 0.4°C  
Accuracy over 100°C to 1100°C Range : ±0.7% FS  
Accuracy at 25°C: 6±3°C  
Cold junction compensation range: 0°C to 70°C

### 100 ohm platinum RTD

Temperature Range: -100°C to +250°C  
Measurement Resolution: 0.085°C  
Accuracy over full range: ±2.1% FS  
TCR = 0.00385  
Source Current: 200 µA

### 0-5V Analog Input

Range: 0 to 5 V  
Measurement Resolution: 4.883 mV  
Accuracy: ±0.28% FD  
Input impedance: >1 MΩ

### Thermistor

Temperature Range: -40°C to +112°C  
Accuracy over range of -10°C to +50°C: ±0.49°C  
Measurement Resolution: 0.1°C  
NTC Thermistor Resistance at 25°C: 10 KΩ

### Digital Input (Pulse/Contact/Timer)

Timer Range: 24hrs  
Timer Resolution: 1ms  
Count Range: 2<sup>16</sup>  
Maximum Frequency: 2500 Hz counting; 40 Hz interval meas.  
Minimum Pulse Width: 25ms  
High Level Input Level (absolute maximum): 10V  
High Level Input Level (minimum): 2.4V  
Low Level Input (maximum): 0.5V  
Input Impedance (input voltage <3.3V, contact closure): 100 KΩ  
Input Impedance (input voltage >3.3V): 3.3KΩ

