



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: 2¹⁶
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

