



Specification Guide A1-01a General Purpose Pod

At a glance...

Internal Sensors

- Ambient Temperature
- Relative Humidity
- Vibration
- Acoustic Level
- Visible Light

External Sensors

- 4-20 mA Current Input
- 0-5V Analog Input
- Contact Closure (Digital Input 1)
- Counter/Totalizer (Digital Input 2)

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 interval)

Wireless

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

Mounting Options

Wall, pipe, 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: $\pm 0.3^\circ\text{C}$
Temperature Accuracy over Full Range: $\pm 1.4\% \text{FS}$
Measurement Resolution: 0.01°C

Vibration

Number of Axis (averaged together): 3
Maximum Acceleration, each axis: $\pm 2\text{G}$
Offset Error: $\pm 10\%$
Sensitivity Error: $\pm 10\%$
Measurement Resolution: 0.006G

Relative Humidity

Humidity Range: 5% to 95% RH
Humidity Accuracy at 25°C $\pm 2\% \text{RH}$
Humidity Accuracy over Full Range: $\pm 3\% \text{RH}$
Measurement Resolution: 0.03% RH

Acoustic Level

Range: 0% to 100%
Resolution: 0.1%

Visible Light

Range (logarithmic): 0-64,000 Lux
Resolution: 200 pts/Decade

EXTERNAL SENSOR INPUTS

4 to 20 mA Current Input

Range: 0 -20mA
Resolution: 0.020345 mA
Accuracy: $\pm 0.29\% \text{FS}$
Loop Supply: +20V $\pm 0.6\text{V}$
Max Current: 25 mA
Settling Time: 200 ms

Digital Input 1 (Pulse/Contact/Timer)

Timer Range: 24hrs
Timer Resolution: 1ms
Count Range: 2^{16}
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 K Ω
Input Impedance (input voltage >3.3V): 3.3K Ω

0-5V Analog Input w/+5V Source

Range: 0 to 5 V
Resolution: 4.883 mV
Accuracy: $\pm 0.28\% \text{FS}$
Input impedance: >1 M Ω
Source Accuracy: $\pm 4\%$
Maximum current: 25 mA
Settling time: 64 ms

Digital Input 2 (Pulse/Contact)

Count Range: 2^{22}
Maximum Frequency: 2500 Hz
Minimum Pulse Width: 200 μs
High Level Maximum: 10V
High Level Minimum: 2.4V
Low Level Maximum: 0.5V
Input Impedance (in. voltage <3.3V, contact closure): 20 K Ω
Input Impedance (input voltage >3.3V): 3.3 K Ω

