



Open Smart Monitor



OpenSense

A smart device built to monitor; environmental parameters, energy usage, waste, costs and productivity.

Parameters

- Electricity Usage
- Water Usage
- Gas Usage
- Sound
- Temperature
- Light Levels
- Air Quality
- Humidity

Increase Productivity

Comms

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Reduce Costs

Connectivity

- CAN bus
- 1-wire
- RS232
- RS485
- Modbus

Compliance Aid

Technical Specification

Built-in measurements:

- Air Quality
- Temperature
- Relative Humidity
- Sound Level Meter
- Light Level Meter

Air Quality

(PM1.0, PM2.5, PM4, PM10, VOC Index, *NOX Index)

Range: 0 - 1000ug/m³

Resolution: 1.25ug/m³

Accuracy: (0 µg/m³ to 100 µg/m³ range ±10 µg/m³), (100µg/m³ to 1000 µg/m³ range ±25 %)

Temperature:

Range: -10 to +50°C

Accuracy: ±0.45°C

Humidity:

Range: 0 - 90%RH

Accuracy: ±4.5%RH

Sound Level Meter:

Range: 35.1 - 122.5dB

Resolution: 0.1dB

Accuracy: ±2dB

Light Level Meter:

Range: 0 - 3500 Lux

Resolution: 1 Lux

Accuracy: ±5.0% (RDG)

External measurements/inputs:

- 15A/30A/50A/100A/200A* Current Clamp (1ph/3ph)
- Pulse Input x 2 (3.3V to 24V DC Levels)
- RS485 Modbus (e.g. Utility Meters, BMS, Sensors)
- CAN Bus (e.g. Control modules, Sensors)
- 1-Wire DS18B20 Temperature Probe

Current Clamps:

Channels: 1-3

Range: 0 - 200A

Resolution: 0.081A

Accuracy: ±1.0% (RDG)

(Suitable for cable size up to 13mm diameter)

Digital Inputs (Pulse/1-Wire Functions):

Channels: 2

Range: 0 - 100kHz

Modbus RTU RS485:

Supports 8 devices & 16 registers/device

Data rate: 1Mbps

ESD Protection:

±15 kV IEC 61000-4-2 air discharge

±8 kV IEC 61000-4-2 contact discharge

CAN Bus:

Data rate: 1Mbps

Compliant with ISO 11898-2

ESD Protection Exceeds ±16 kV HBM

Licenses: Hardware: CERN OHL-W v2

Software: LGPLv3

***Special Order**

Power: USB Type C 5V 1A adaptor (supplied),

Weight: 350g

Dimensions: 110mm x 90mm x 48mm

Comms: WiFi or LoRaWAN

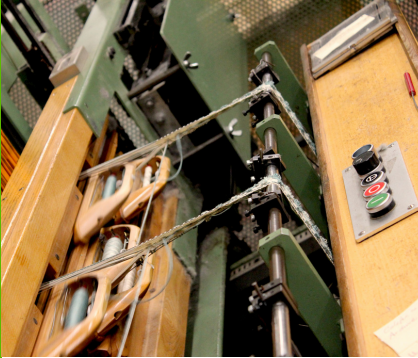


Certifications



Use Cases & Industries

Case Studies



Machine Monitoring



Predictive Maintenance



Energy Monitoring



Productivity Insights



Green Energy



Remote Monitoring



Clean Room Monitoring



Smart Farming



Smart Cities

Ordering Details

OSM-ENV01-CTx-Ax-Px-Bx-Rx-COMx

OpenSense = OSM-ENV01-CT3-A0-P0

OpenSense (+TP) = OSM-ENV01-CT3-A0-P1

OpenSense Air = OSM-ENV01-CT3-A1-P0

OpenSense Air (+TP) = OSM-ENV01-CT3-A1-P1

WiFi = COM1

LoRaWAN = COM2

Region - R(X) Europe(1), USA/AUS(2), Korea(3), Asia(4),
India(5)

Bracket Options

Side Arm Brackets (Standard) = B1

DIN Bracket = B2

VESA Bracket = B3



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