



GS-AQOPM Series

Outside Particulate Matter Sensor



Overview

The GS-AQOPM Outside Particulate Matter Sensor uses an optical sensor based on laser scattering principles and features innovative contamination resistance technology to perform highly accurate and reliable PM measurements. The replaceable sensor measures particles of PM1.0, PM2.5, PM4.0, or PM10, with a continuous operation lifetime of more than 8 years. The sensor will provide longterm reliability and high resolution particle size binning for the detection of environmental dust and other particles.

Applications

- Outdoor Air Quality
- Air Mixing Control
- Use as redundancy for Indoor units

Features & Benefits

- Accurately monitor Air Quality
- Fast response time (1 second)
- Laser light scattering technology
- PM1.0, PM2.5, PM4.0, or PM10
- Preset Air Quality Index
- 8 Years Continuous Sensor Operation

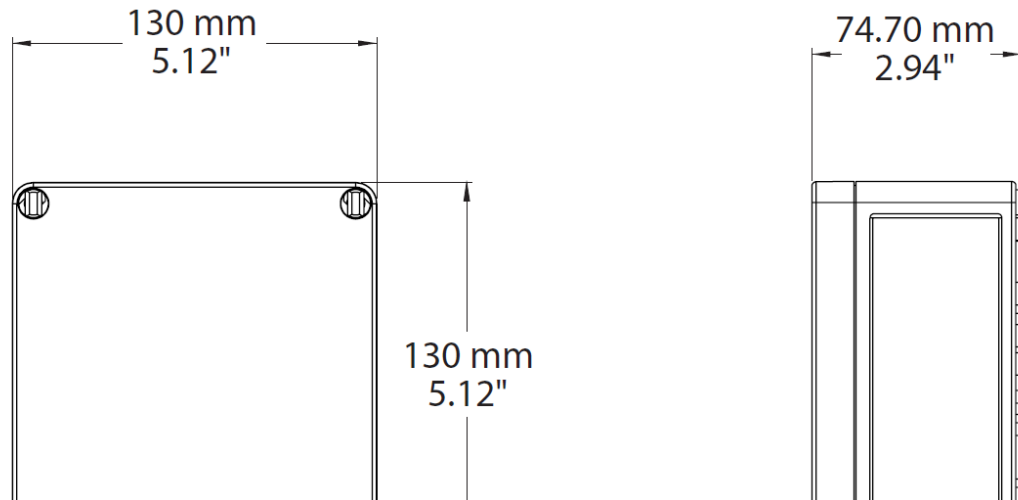
Model Selection

GS-AQ	O	PM	X	X	X	A
Air Quality Sensor						
O = Outdoor Unit						
Particulate Matter						
X = No Display						
X = No LED						
X = No Relay						
R = With Relay						
A = Analog						
B = BACnet						
M = Modbus						

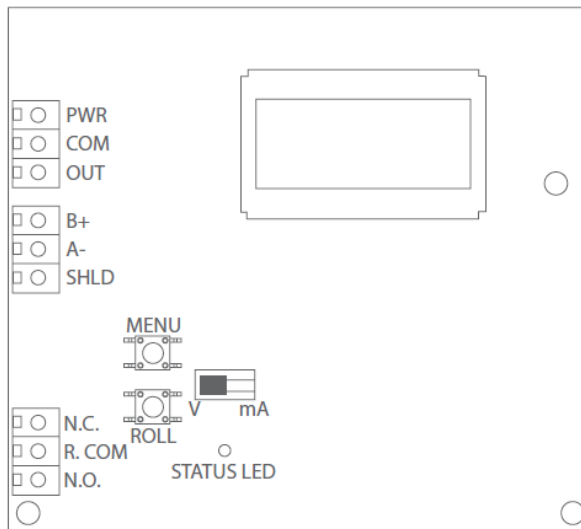
Specifications

Sensor	Laser scatter method (field replaceable)
Particulate size	PM1.0, PM2.5, PM4.0, or PM10 (selectable)
Mass concentration range	0 - 1000 ug/m ³
Resolution	1 ug/m ³
Accuracy	±10 ug/m ³ (0 - 100 ug/m ³), ±10% (100 - 1000 ug/m ³)
Response time	1 second
Sensor lifetime	>8 years
Analog model	
<input type="checkbox"/> Consumption	75 mA max @ 24 Vdc, 100 mA max @ 24 Vac
<input type="checkbox"/> Output signal	4-20 mA (sourcing) or 0-5 Vdc / 0-10 Vdc (selectable)
<input type="checkbox"/> Output drive capability	Current - 550Ω max, Voltage - 5,000Ω min
<input type="checkbox"/> Output scale	0 to 1000 ug/m ³ (menu selectable)
BACnet model	
<input type="checkbox"/> Consumption	50 mA max @ 24 Vdc, 80 mA max @ 24 Vac
<input type="checkbox"/> Interface	MS/TP, 2 wire RS-485
<input type="checkbox"/> Baud rate	9600, 19200, 38400, 57600, 76800 or 115200 (menu selectable)
<input type="checkbox"/> Address range	0-127 (menu selectable)
Modbus model	
<input type="checkbox"/> Consumption	50 mA max @ 24 Vdc, 80 mA max @ 24 Vac
<input type="checkbox"/> Interface	MS/TP, 2 wire RS-485, RTU
<input type="checkbox"/> Baud rate	9600, 19200, 38400, 57600, 76800 or 115200 (menu selectable)
<input type="checkbox"/> Address range	0-255 (menu selectable)
PM alarm relay (optional)	
<input type="checkbox"/> Contact Ratings	Form C (NO + NC), 2A @ 140 Vac, 2A @ 30 Vac
<input type="checkbox"/> Setpoint + Hysteresis	Programmable via menu
<input type="checkbox"/> Time Display	Programmable via menu
Display	
<input type="checkbox"/> Mass Concentration	0 - 1000 ug/m ³
<input type="checkbox"/> Air Quality Index	0 - 500 AQI Good/Moderate/Poor (menu selectable)
Power supply	
24 Vac/dc ±20% (non-isolated half-wave rectified)	
Protection circuitry	
Reverse voltage protected, overvoltage protected	
Operating conditions	
0 to 50°C (32 to 122°F), 20 to 80 %RH non-condensing	
Storage conditions	
-30 to 60°C (-22 to 140°F)	
Enclosure	
Polycarbonate, IP65 (NEMA 4X)	
Enclosure dimensions	
130mm W x 130mm H x 75mm D (5.12" x 5.12" x 2.95")	
Wiring	
Screw terminal block (14 to 22 AWG)	
Country of origin	
Canada	
Certifications	
ROHS, ISO9001, CE, Senrision SPS30 sensor: MCERTS & DIN EN 15267	

Dimensions



Wiring Information



Terminal	Function
PWR	+24 Vdc/24 Vac (HOT)
COM	Common
OUT	Analog Output
NO	Relay Normally Open Contact
R. COM	Relay Common
NC	Relay Normally Closed Contact
If BACnet or Modbus Output Selected	
B(+)	Network Output
A(-)	Network Output
SHLD	Network Output

Specifications subject to change without notice.
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