



# GS-AQDPM Series

Duct Particulate Matter Sensor

## Overview

The GS-AQDPM Duct 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 long-term reliability and high resolution particle size binning for the detection of environmental dust and other particles.



## Applications

- Monitoring of indoor/outdoor air quality
- Air mixing control
- Detection of airborne particles

## 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-AQDPMRB	Duct Particulate Matter Transmitter, Relay, BACnet communication
GS-AQDPMRM	Duct Particulate Matter Transmitter, Relay, Modbus communication
GS-AQDPMRFS	Duct Particulate Matter Transmitter, Relay, Field Selectable Analog Output
GS-AQDPMXB	Duct Particulate Matter Transmitter, BACnet communication
GS-AQDPMXM	Duct Particulate Matter Transmitter, Modbus communication
GS-AQDPMXFS	Duct Particulate Matter Transmitter, Field Selectable Analog Output

## Product Specifications

Sensor	Laser scatter method (field replaceable)
Particulate Size	PM1.0, PM2.5, PM4.0, or PM10 (selectable)
Mass Concentration Range	0 - 1000 ug/m3
Resolution	1 ug/m3
Accuracy	±10 ug/m3 (0 - 100 ug/m3), ±10% (100 - 1000 ug/m3)
Response Time	1 second
Sensor Lifetime	>8 years

### Analog Model

Consumption	75 mA max @ 24 Vdc, 100 mA max @ 24 Vac
Output Signals	4-20 mA (sourcing) or 0-5 Vdc / 0-10 Vdc (selectable)
Output Drive Capability	Current - 550Ω max Voltage - 5,000Ω min
Output Scale	0 to 1000 ug/m3 (menu selectable)

### BACnet® Model

Consumption	50 mA max @ 24 Vdc, 80 mA max @ 24 Vac
Interface	MS/TP, 2 wire RS-485
Baud Rate	9600, 19200, 38400, 57600, 76800 or 115200 (menu selectable)
Address Range	0 - 127 (menu selectable)

### Modbus Model

Consumption	50 mA max @ 24 Vdc, 80 mA max @ 24 Vac
Interface	MS/TP, 2 wire RS-485, RTU
Baud Rate	9600, 19200, 38400, 57600, 76800 or 115200 (menu selectable)
Address Range	1-255 (menu selectable)

### Tri-Color LED

Good	Green (0 to 50 ug/m3)
Moderate	Yellow (51 to 150 ug/m3)
Poor	Red (151 to 1000 ug/m3)

### PM Alarm Relay (Optional)

Contact Ratings	Form C (NO + NC), 2A @ 140 Vac, 2A @ 30 Vac
Setpoint + Hysteresis	Programmable via menu
Relay Time Delay	Programmable via manu

### Display

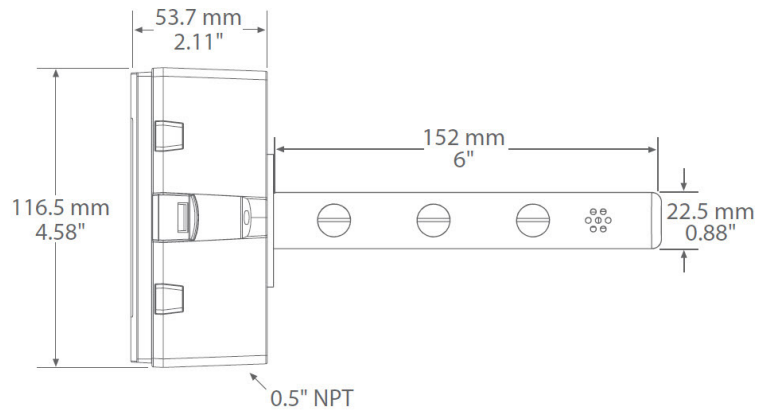
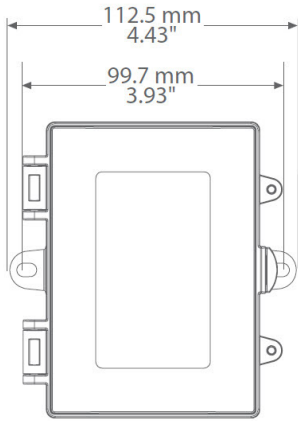
LCD Size	35mm W x 15mm H (1.4" x 0.6")
LCD Backlight	Enable or disable via menu
Display Value	<b>Mass Concentration:</b> 0 - 1000 ug/m3 <b>Air Quality Index:</b> 0 - 500 AQI Good/Moderate/Poor (menu selectable)

### Enclosure

Material	Polycarbonate, Grey, UL95-V0, IP65, (NEMA 4X)
Dimensions	116mm W x 100mm H x 54mm D (4.6" x 3.9" x 2.1")
Probe	22.5mm D x 152mm L (0.88" x 6")

Power Supply	24 Vac/dc ±20% (non-isolated half-wave rectified)
Protection Circuitry	Reverse voltage protected, over-voltage protected
Operating Conditions	-10 to 60°C (14 to 140°F), 20 to 80 %RH non-condensing
Storage Conditions	-40 to 70°C (-40 to 158°F)
Wiring	Screw terminal block (14 to 22 AWG)
Country of Origin	Canada

# Dimensions



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