Optio Particulate Matter Monitor

The Optio Particulate Matter (PM) sensor is a technological breakthrough in optical PM sensors. Its measurement principle is based on laser scattering and makes use of Conspec's innovative contamination- resistance technology.

This technology, together with high-quality and long-lasting components, enables precise measurements from its first operation and throughout its lifetime of more than ten years.

In addition, Conspec's advanced algorithms provide superior precision for different PM types and higher-resolution particle size binning, opening up new possibilities for the detection of different sorts of environmental dust, smoke, diesel particulate matter, and other particles based on their concentrated size range.

BENEFITS

- Reliable & Stable Operation

- Multiple Particulate Size Options

- Enhanced Alarming Capabilities

- Easy Menu Navigation - Icon Based

- Native Horn/Strobe Support

APPLICATIONS

- Enclosed Parking Garages

- Mining Applications

- Air Quality Stations

- Factories | Warehouses

- Manufacturing Facilities

OPTIO™ PM
Reliability when every second matters.

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Technical Specifications

SENSORS

Parameter	Conditions	Value	Units
Number Concentration Size Range	PM0.5	0.3 to 0.5	µm
	PM1.0	0.3 to 1.0	µm
	PM2.5	0.3 to 2.5	µm
	PM4	0.3 to 4	µm
	PM10	0.3 to 10	µm
Number Concentration Precision[1,2] for PM0.5, PM1 and PM2.5[3]	0 to 1000 #/cm^3	±100	#/cm^3
	1000 to 3000 #/cm^3	±10	% m.v.
Number Concentration Precision[1,2] for PM4, PM10[4]	0 to 1000 #/cm^3	±250	#/cm^3
	1000 to 3000 #/cm^3	±25	% m.v.

ALARMS

- 4 Custom Alarm Levels with hysteresis and hold-to-alarm times
- Sensor Fail-High and Fail-Low alarms
- Ability to associate relay outputs with alarm levels from a single sensor, or multiple sensors using logical "AND/OR"

I/O CAPABILITIES

- 6 Relay Outputs (250 VAC, 220 VDC, 2A)
- Horn/strobe configurable alarming

INPUT POWER OPTIONS (NON IS)

- 6-30 VDC
- 100 - 240VAC 50/60Hz

COMMUNICATION INTERFACES

- Conspec Trunk, RS-485, RS-232, Conspec Wireless 900MHz/800MHz (pending) Band, Wi-Fi, Ethernet, POE, LTE, Leaky Feeder (VHF, UHF)
- Com Distance up to 6km (3.75miles)

COMMUNICATIONS PROTOCOLS

- MODBUS RTU, MODBUS TCP, Conspec Legacy ACCESSOR

CONFIGURATION

- Using IR remote with local LCD menu
- Via MODBUS/Conspec Legacy Accessor Register Map using Conspec OASIS software/Conspec Senturion SCADA

MENU & DISPLAY

- Intuitive menu using graphical LCD
- Password protected (user or admin)
- Quick info screen shows device settings
- Real-time readings of multiple sensors
- Dimmable RGB backlight
- Backlight color indicates monitor status

USER INTERFACE

- Must be connected to Optio Monitor
- IR remote control
- 4 Local Tactile Buttons
- Conspec OASIS Windows configuration software

DIMENSIONS

- 9"x9"x5" @ 6lbs (Optio Monitor Only)

POWER CONSUMPTION

- 2mA @ 15VDC (no sensors and 10% Backlight)

TEMPERATURE & HUMIDITY RANGE

- -20°C to +40°C, 0-95% RH non-condensing

WARRANTY

- One year standard warranty