PMX

PARTICULATE MONITOR

Monitor smoke and airborne particulates with the PMX sensor. The device combines proven sensor technology with innovative hardware to provide an easy-to-use system for monitoring light transmission in a wide variety of applications. Ideal for industrial ventilation hoods and commercial kitchen ventilation applications.

The PMX is available in two styles: circuit boards for OEM applications and NEMA 4X housings to protect the components while providing a high quality, durable window for light transmission measurement. The transmitter is mounted up to 10 meters from the receiver module, then aligned and adjusted to focus the light onto the receiver. The illumination level is adjusted for the optimum operation at the distance and light transmission range necessary for the specific application. An adjustable threshold level allows the operator to set the discrete output switching point.

The PMX features a 2-digit display that provides an indication of signal strength making set-up and integration quick and easy. The sensor provides both a discrete PNP/NPN output and a 0-5V analog output. The analog output can be monitored allowing the external system to log variations and take action, such as activating exhaust fans.

EMX

INDUSTRIES

EMX Industries, Inc.
4564 Johnston Parkway, Cleveland, Ohio 44128
P. 800 426 9912 **F.** 216 518 9884
Sales Inquiries: salessupport@emxinc.com **Technical Support:** technical@emxinc.com
www.emxinc.com

Applications

- Demand control kitchen ventilation (DCKV)
- Ventilation systems
- Commercial cooking hoods
- Factory venting
- Exhaust systems
- Environmental monitoring

Design & Features

- Small spot size
- High sensitivity and high resolution
- Fast response
- Display range 00-99
- Adjustable gain
- Analog output
- PNP/NPN discrete output

Ordering Information

PMX
Particulate Monitor, Transmitter & Receiver, NEMA 4X

PMX-TX
Transmitter, NEMA 4X

PMX-RX
Receiver, NEMA 4X

PMX-TX-BD
Transmitter board with optics

PMX-RX-BD
Receiver board with optics

Accessories

IRB-325-SP
Liquid tight strain relief connectors, set of 2

**NOT INTENDED FOR USE IN
PERSONAL SAFETY APPLICATIONS.**

Functions

NORMAL OPERATING MODE	Displays relative reflection intensity
CALIBRATION	User sensitivity adjustment
THRESHOLD	Set detection level
LED INTENSITY	Set LED, LO, MED, HI
HYSTERESIS LEVEL	Set undetect level 1-9 steps below threshold
DISCRETE OUTPUT	Set normally open or normally closed
OUTPUT PULSE STRETCH	Set minimum output period 10…90mS
SECURITY	Lock/unlock pushbutton controls
TEACH MODE	Auto-set detection threshold

Specifications

Light source	525nm green LED	Indicators	
Sensing distance (transmitter-to-receiver)	Up to 10m (33 ft.)	7-Segment display	LED
Sensitive area (receiver lens dia.)	18mm	Green LED	Power
Response time	<150uS	Red LED	Detect
Switching frequency	6kHz	Yellow LED	Program
LED intensity	Adjustable		
Relative intensity display range	00 to 99	Transmitter Terminals	
Sensitivity	Adjustable	1	TX -
Signal level	Two 7 segment digits	2	TX +
Detection threshold	Two 7 segment digits		
Digital output	Auto-Detect PNP / NPN	Receiver Terminals	
Output function	NO/NC selectable	1	Power to 24VDC+
Analog output	0…5V	2	Ground
Security	LOCK / UN-LOCK keypad	3	Analog output 0-5V
Power indicator	Green LED	4	Discrete output
Detect indicator	Red LED		PNP/NPN/ NO/NC
Programming indicator	Yellow LED	5	Shield
Data retention	EEPROM non—volatile memory	6	TX +
PMX-RX (receiver)		7	TX -
Dimensions	130mm x 78mm x 78mm (5.1" x 3.1" x 3.1")		
Weight	408g (0.9 lbs.)		
PMX-TX (transmitter)			
Dimensions	130mm x 78mm x 78mm (5.1" x 3.1" x 3.1")		
Weight	340g (0.75 lbs.)		
Supply voltage	10…24 VDC		
Operating current	60 mA		
Short circuit protection	Discrete output		
Overload / reverse polarity protection	Supply voltage		
Operating temperature	-20ºC…55ºC		
Storage temperature	-20ºC…70ºC		
Housing	Plastic		
Mechanical protection	NEMA 4X		

MADE IN THE USA