

Pilot Monitor Pyrometer Datasheet

Pilot Monitor (PM)

Flammable vent gasses are ignited by a pilot flame when released into the atmosphere by oil refineries, natural gas processing plants, and petrochemical facilities. The proper incineration of these gasses is a critical safety and environmental concern. Therefore, it is essential to confirm that the pilot flame is lit at all times.

Monitoring via thermocouple is common, however, failures frequently occur and replacements require costly process shutdowns. Remote sensing IR technology (PM) is the superior alternative.



Model PM-35-N4
Model PM-50-N4
NEMA4X / IP65 Housing

Model PM-35-EXP
Model PM-50-EXP
Explosion Proof Housing

Model PM-35-EXPSS
Model PM-50-EXPSS
Explosion Proof
Stainless Steel Housing

High Performance PM Sensors

The Williamson Pilot Monitor (**PM**) utilizes proven dual-wavelength technology to sense the presence of the small, distant pilot flame. This technology allows the pilot monitor to view clearly through severe weather conditions caused by fog, wind, rain, snow and sleet.

- Self-regulating means no on-site calibration
- May be grade-mounted for easy access
- 30% greater sensitivity means greater reliability
- Includes Signal Dilution output for measurement validation and diagnostics
- Large viewing area for easy alignment

Typical Configuration	
Part Number	Area Classification
PM-35-N4	Non-Hazardous
PM-35-A-EXP	Hazardous

Instrument Datasheet for the Williamson Pilot Monitor (PM)

Designed & Manufactured by Williamson Corporation, Concord, MA 01742

Pilot Monitor Specifications

Output Scale	0-100%
Spectral Response	Proprietary Narrow Wavebands
Optical Resolution	D/35 or D/50
Maximum Distance	2000 feet, 610 m
Response Time	Adjustable .1 second to 24 seconds
Analog Outputs	4-20mA or 0-20mA output (max impedance 1000 ohms)
Alarms	Sensor: One SPST Relay Alarm Output 2A@120 or 250 Vac
Digital Interface	Bi-Directional RS485 and RS232 communications
Human Interface	Built-in Menu System
Measurement Parameters	Filtered signal, unfiltered signal, signal dilution, ambient temperature
Input Power	Stand-Alone Sensor: 24 Vdc (300mA)
Ambient Temperature Limits	Sensor: -40 to 150°F / -40 to 65°C
Environmental Ratings & Certifications	N4: NEMA4X, IP66 EXP: ANSI/UL, FM, CSA Class I, Zone 1 AEx db IIB+H2 T6 Gb Class I Div 2 Groups BC&D T6 Ex db IIB+H2 T6 Gb Glass I Div 1 Groups BC&D T6 IP66 Type 4X.
Temperature Rating	T6
Safety Integrity Level (SIL)	Level 2
ATEX	II 1 G Ex db IIB+H2 T6 Gb IP66
IECEX	Ex d IIB+H2 T6 Gb
Dimensions (LxWxH)	N4 Sensor: 16in x 7in x 8in (406mm x 178mm x 203mm) EXP Sensor: 10.7in x 5.4in x 10in diameter (272mm x 137mm x 254mm diameter)
Weight	N4 Sensor and Swivel Bracket: 7.8 lbs. (3.5 kg) EXP Sensor and Swivel Bracket: 11.6 lbs. (5.3 kg) EXPSS: 25 lbs. (11.3 kg)
Warranty	2 Years