



AIM Model 2075

AIR INSTRUMENTS & MEASUREMENTS, LLC

*A High Performance System with Electronic
Modulated Single-Pass Transmitter Technology*

APPLICATIONS

An economical Visible light Opacity - Smoke Density Monitor designed for easy installation in new and existing stacks, such as oil or coal fired boilers, bag houses, ideal for meeting Title V opacity (smoke) regulations, oven exhaust, diesel exhaust, duct fire alarm, multi-point systems, ambient air such as garages, tunnels, stations, or any particulate measurement with \leq 36 inch (91cm) path length to be measured.

The precision single beam Transmitter with a Solid-State electronic modulated source provides continuous, low maintenance, precise measurements of dust or opacity in industrial or workplace applications. It is a cost-effective instrument that serves as an aid in operating pollution and/or process control equipment or personnel safety. Price starts below \$3000; please contact us for a detailed quote.

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FEATURES

Standard Items:

- *Electronic enclosure:* NEMA 12, Size, 10.75 x 8 x 6 inch (27.3 x 20.3 x 15.24 cm).
- *Single-pass* with electronic modulated lamp, not affected by reflective particles.
- *In-Situ, Across-Stream* - No sample contact
- *Fast Response Time* – Less than 5 seconds – allows prompt process analysis and adjustments.



Optional Features: 1 1/4" pipe flange, other optional mounts available. Multi point system, Alarm contacts, Analog or digital displays, Recorders, data

- *Reliable Design* -The Model 2075 Analyzer features a simple, low-maintenance, rugged design, assuring trouble-free operation.

Control unit:

Enclosure	NEMA 12, Size, 10.75 x 8 x 6 " (27.3 x 20.3 x 15.24 cm)
* Digital Display	4-digit LED, 0-100% Opacity
Ambient Temperature Range	+4 to +52° C (+40 to + 125° F)
Power Requirements	115 VAC, 50/60 Hz, 1 amp +10%; 230 VAC, 50/60 Hz, 0.5 amp +10%

Indicator Lights/Contact Closures:

* Early warning & Alarm	5 amp 11 5v - 1 amp 220v Adjustable 0-100%
* Alarm Time Delay	Adjustable 0-5 Minutes
* Alarm Reset	Manual
Standard Output Format	Output: 4-20 mA (500 ohms max), 0-5V, range Opacity 0-100%

Sensors:

Enclosure	NEMA 4 watertight enclosure
Receiver over all dimensions	4.625 x 2.0 inch (11.75 x 5.08 cm)
Transmitter over all dimensions	6.87 x 2.0 inch (17.45 x 5.08 cm)
Lens clean air inlet	1/8 inch N.P.T. <0.5 lpm
Path Length	2 to 36 inches (5 to 91 cm)
Optical System	Single Pass
Transmitter/Receiver weight	Transmitter: 1.25 Lbs (0.56kg), Receiver: 0.9 Lbs (0.41kg)
Light Source Life	Incandescent, 45,000 hours (> 3 years)
Ambient Temperature Limits	From +4 to +52° C (+40 to + 125° F)
Process Gas	Up to 750° F (400 °C), standard (higher available-contact factory)
Mounting Flanges	1 ¼ inch pipe flange standard - Others available
Ambient Light Immunity	Solid-state electronic light modulation
Wiring	2 pair twisted shielded cable, 22 AWG

Design and performance:

Peak and Mean Spectral Response	Photopic; 515 to 585 nm, less than 10% of peak response outside the desired 400 to 700 nm region.
Angle of View	< 4.0 ° from optical axis < 4.0 °
Angle of Projection	from optical axis +/- 3% opacity
Accuracy	< 5 second
Response time	External with span filter and clear condition zero adjustments.
Calibration check	

Optional equipment

