

LASER DUST MONITOR

LM-318 is an in-situ, single pass, non-contact, cross-stack, optical laser dust monitor which measures dust concentration by measuring opacity of the transmission medium.



BENEFITS

- ✓ Fast response time
- ✓ Reasonable cost
- ✓ Optimal for stacks up to 10 meters
- ✓ No moving parts, hence minimal maintenance
- ✓ Good stability and reliability
- ✓ Standard wavelength guarantees long-term accuracy and stability
- ✓ Can be transferred to another location without factory calibration.
- ✓ The alignment of the beam is easy because the beam is narrow.



TRANSMITTER



RECEIVER



MONITOR UNIT



TYPICAL APPLICATIONS



Power plants



Cement factories



Tunnels



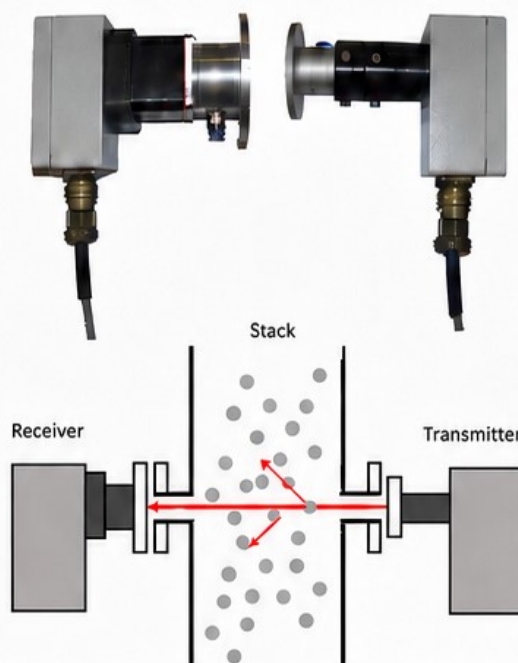
Principle of Operation

When a monochromatic light beam, such as laser beam, traverses through gas that contains particulate matter, the intensity of the beam will decrease by absorption and scattering processes within the particulate distribution. The opacity of the stack gases which attenuates visible light due to the presence of particulate in the effluent is used to measure the concentration of dust in the stacks.



SPECIFICATION

	Unit of Measure	mg/Nm ³
	Range	0...2000 mg/Nm ³ (user configurable)
	Stack Diameter	0.5 m to 10 m
	Settling time	1 s
	Accuracy	+ 1% full scale
	Resolution	1 mg/Nm ³
	Optical System	Single Pass, Visible Laser @ 650 nm
	Alignment Verification	Built-in through Lens System
	Analog Output formats	Current 4 — 20 mA, 500Ω max. Voltage 0 — 10 VDC, 1KΩ output impedance
	Digital Output formats	Modbus RTU over RS232
	Relay outputs	Alarm buzzer
	Power requirement	220V AC 14VA Optional : 110 VAC 14VA
	Operating temperature	0°C to +70°C (32°F to 158°F)
	Humidity	10% to 90°C RH
	Dimension in mm	Monitor Unit: 213 x 185 x 104.5 mm Transmitter: 125 x 80 x 145 mm Receiver: 170 x 110 x 125 mms
	Material	ABS plastic UL-94HB
	Degree of Protection	IP65



ACCURATE MEASUREMENT



RELIABLE PERFORMANCE



LOW MAINTENANCE



COST EFFECTIVE

EXCLUSIVE PARTNER FOR NORTH INDIA



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