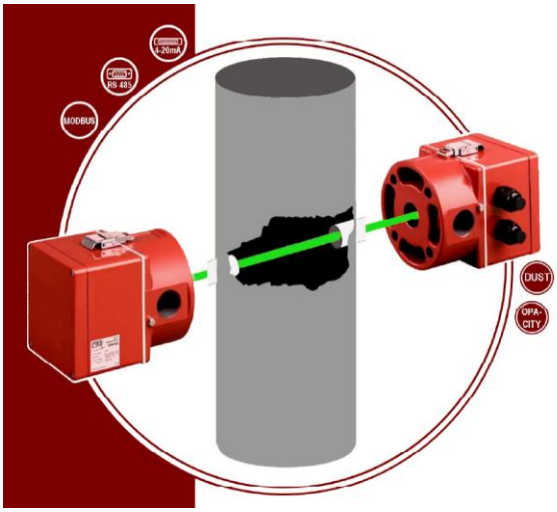
CONTINUOUS DUST OPACITY MONITORING SYSTEM FOR USEPA COMPLIANCE

DUST / OPACITY MONITORING SYSTEM

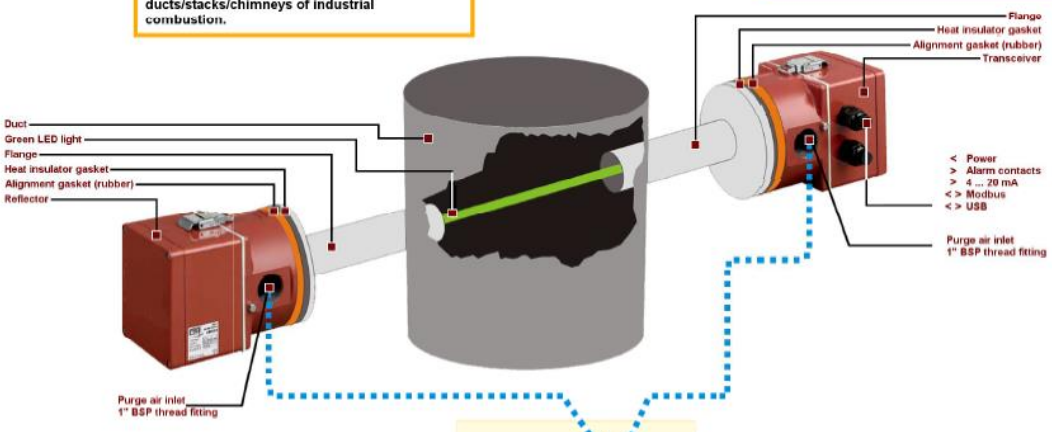
- Double pass opacity monitor
- Small, light weight, low power supply and operating costs
- Direct continuous measurement across stack
- No moving parts – minimal maintenance
- Long-life green light LED



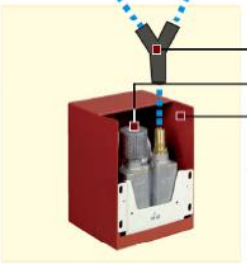
Double pass transmission measurement
Measures 0 ... 100 % opacity
or 10 ... 1,000 mg/m dust (*)
(*) after on site calibration according to VDI 2066

FEATURES:
- Direct continuous measurement across stack
- Small, lightweight & low operating costs
- Simple installation, commissioning and operation
- No moving parts – minimal maintenance
- PC based setup, control and data logging
- Long-life green LED source
- High measuring accuracy
- Opacity or mg/m3

the ideal dust monitoring instrument for continuous monitoring of flue gas particulates in the ducts/stacks/chimneys of industrial combustion.



is designed for use in multiple industries including:
- Power utilities
- Refineries
- Chemical / Petrochemical
- Incinerators
- Cement plants
- Iron and steel plants
- Crematoria
- and others



Both the transceiver and reflector are supplied with ambient air (blower unit).
This will prevent dust particle deposition on the optical lenses by continuous purging with clean ambient air and extend substantially the maintenance free operation.

Indusmation LLC
3837 Pine Valley Dr Plano TX 75025
631.901.8857
info@indusmation.com | www.indusmation.com

CONTINUOUS DUST OPACITY MONITORING SYSTEM FOR USEPA COMPLIANCE

TECHNICAL SPECIFICATIONS

Parameter	Units	Min	Max	Comments
Measurement performance				
Path length	m	0.5	12	flange to flange distance
Flange to flange	feet	1.64	39	
Measuring range	%	0	100	user selectable
	mg/m3	10	1,000	after on site calibration
Accuracy	%	-2	+2	
Resolution	%		0.1	display resolution
Damping	s	1	60	selectable
Drift with temperature	%	-2	+2	for every 20°C change
Operation wave length	nm	510	540	green LED

Power and air requirements	Units	Min	Max	Comments
Voltage	VDC	+24	+24	optional 90 ... 240 VAC PSU available
Air supply volume	m3/h	5	60	optimal: 40 m3/h
Air supply pressure	mbar		500	must exceed max stack pressure
	inH2O		200	
Air supply fittings				1" BSP thread fitting

Interface options	Units	Min	Max	Comments
RS 485				Modbus RTU
Analog output	mA	4	20	isolated and scalable
Relay contacts	A	0	3	level alarm and service alarm

Physical	Units	Min	Max	Comments
Protection class		IP65		for outdoor use
Operating temperature	°C	-20	+50	air temperature around equipment
	°F	-4	122	
Gas temperature	°C	100	600	optional insulators required above 300°C
	°F	212	1,112	optional insulators required above 572°F

Dimensions	Units	Comments
Transceiver	mm	153 x 122 x 120
	inch	6.02" x 4.8" x 4.72"
Reflector	mm	153 x 122 x 120
	inch	6.02" x 4.8" x 4.72"
Weight	kg	2 kg each
	lbs.	4.4 lbs. each
Enclosure		die cast aluminum

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