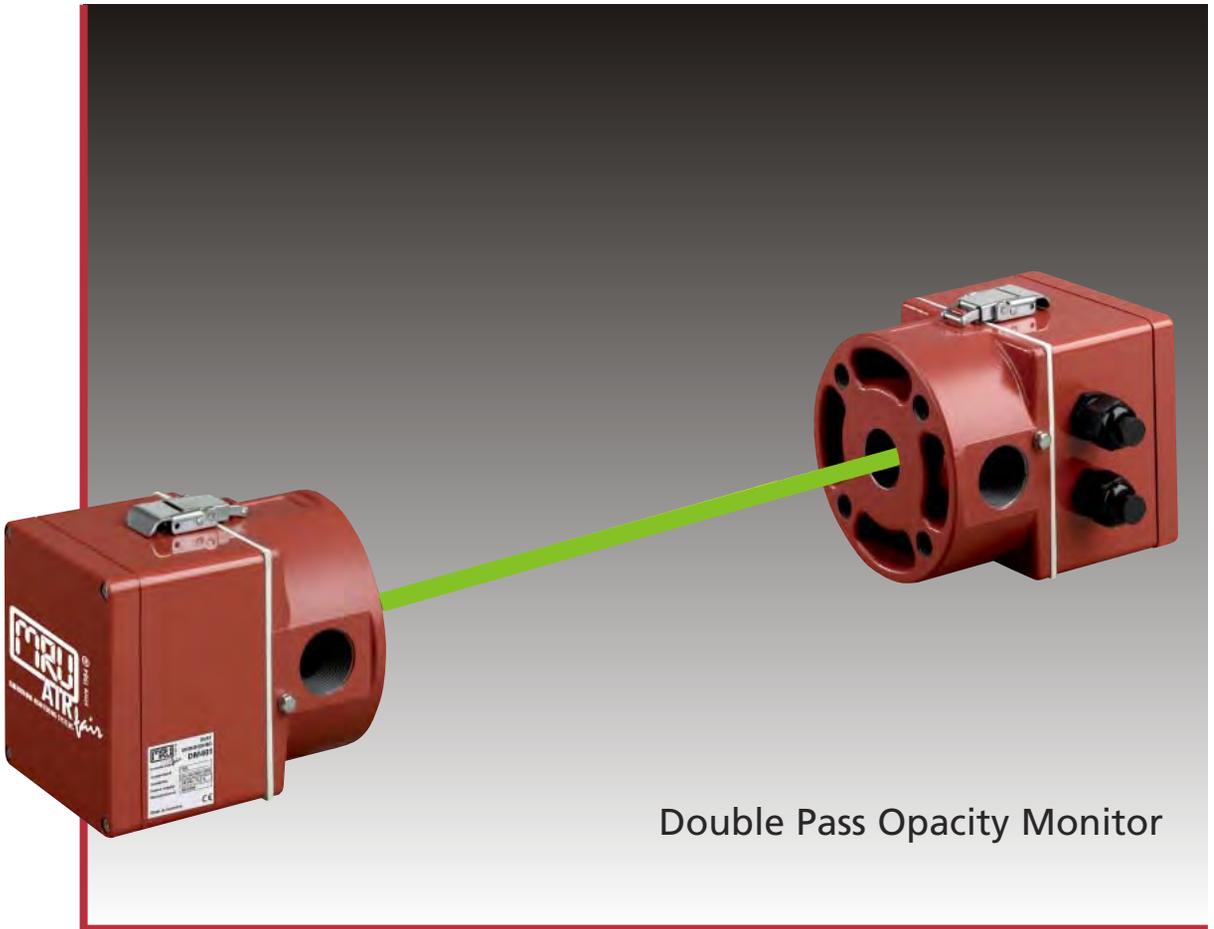


EMISSION MONITORING SYSTEMS

We *care* about the environment

DUST OPACITY MONITORING SYSTEM



Double Pass Opacity Monitor

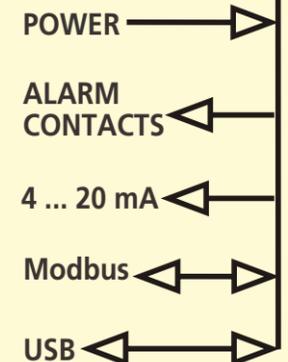
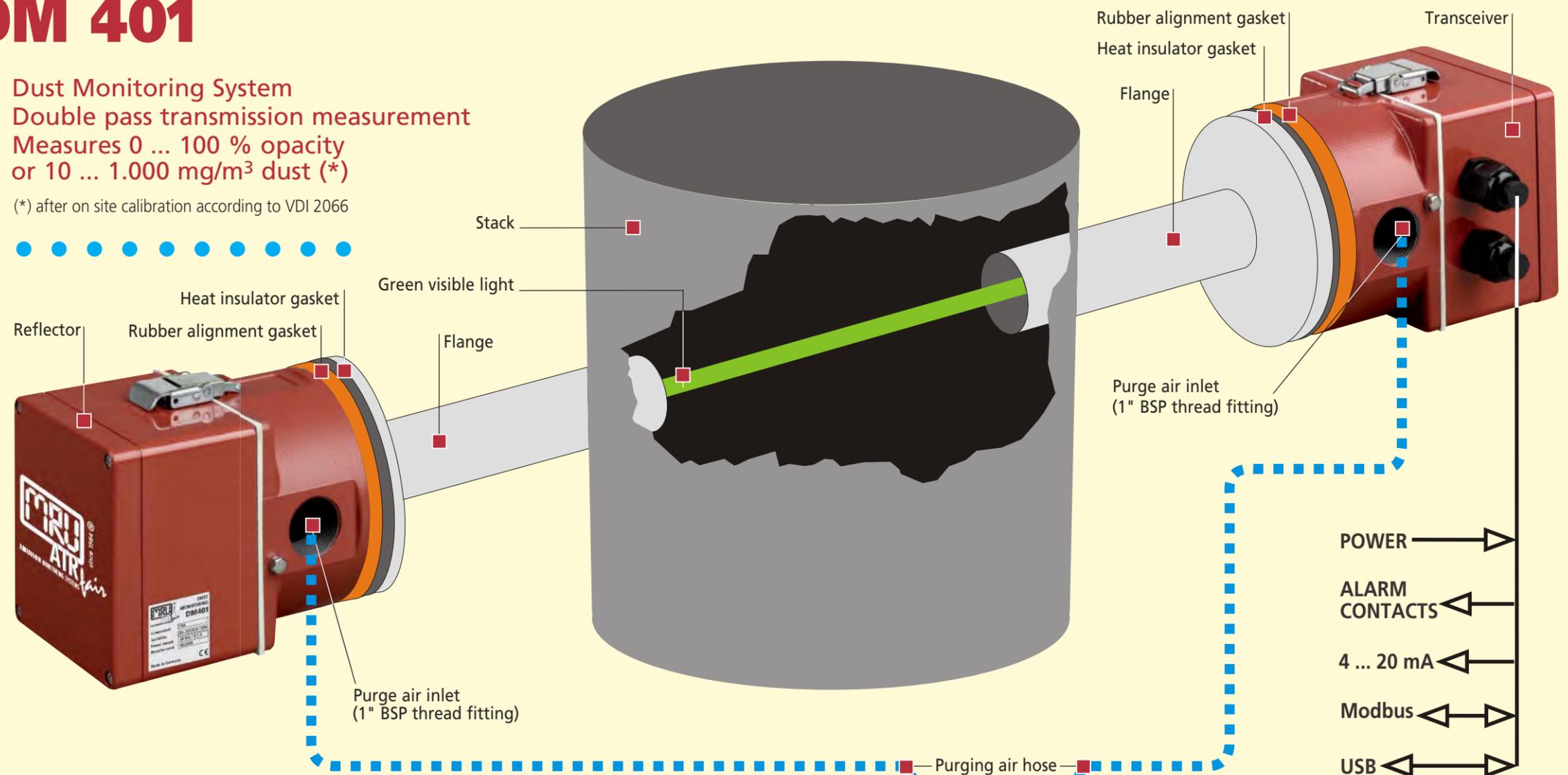


DM 401
Continuous in-situ measurement

DM 401

Dust Monitoring System
 Double pass transmission measurement
 Measures 0 ... 100 % opacity
 or 10 ... 1.000 mg/m³ dust (*)

(*) after on site calibration according to VDI 2066

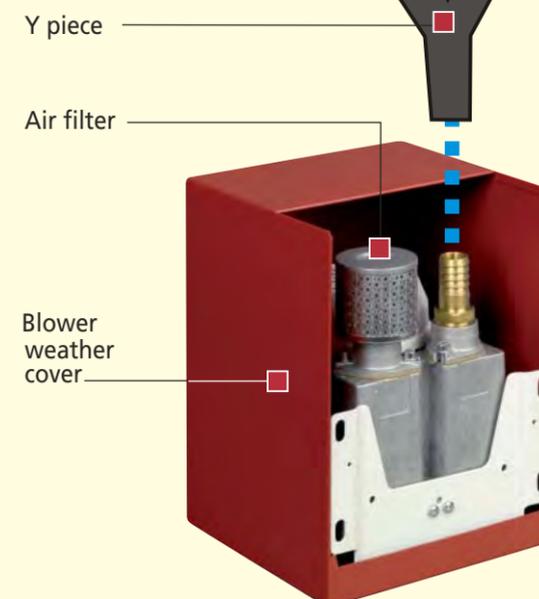


DM 401 is the ideal dust monitoring instrument for continuous monitoring of flue gas particulates in the ducts / stacks / chimneys of industrial combustion.

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

Purging air blower



DM 401 is designed for the use in almost every industry sector like:

- Power utilities
- Refineries
- Chemical / Petrochemical
- Incinerators
- Cement plants
- Iron and steel plants
- Crematoria
- Electrostatic precipitators
- Filter bag houses

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

Technical specifications

Parameter	Units	Min	Max	Comment
Measurement performance				
Path. length (flange to flange)	m	0,5	12	flange-to-flange distance
Measuring range	% mg/m ³	0,0 10,0	100,0 1000	user selectable after on site calibration
Accuracy	%	-2	+2	
Resolution	%		0,1	display resolution
Damping	s	1	60	selectable
Drift with temperature	%	-2	+2	for any 20 °C change
Operating wave length	nm	510	540	green LED
Power and air requirements				
Voltage	VDC	+24	+24	optional 90 ... 240 VAC PSU available
Air supply volume	m ³ /h	5	60	optimum: 40 m ³ /h
Air supply pressure	mbar		500	must exceed max. stack pressure
Air supply fitting				1" BSP threaded aperture
Interface options				
RS 485				ModBus RTU
Analog outputs	mA	4,0	20,0	isolated and scalable
Relay contact	A	0	3	level alarm and service alarm
Physical				
Protection class		IP 65		for outdoor use
Operating temperature	°C	-20	+50	air temperature around the equipment
Gas temperature	°C	+100	+600	optional insulators required above 300 °C
Dimensions				
Transceiver				153 x 122 x 120 mm
Reflector				153 x 122 x 120 mm
Weight				transceiver: 2 kg, reflector: 2 kg
Enclosure				die cast aluminium

Data subject to change without notice

Dealer:



EMISSION MONITORING SYSTEMS

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