

Dust and opacity monitor

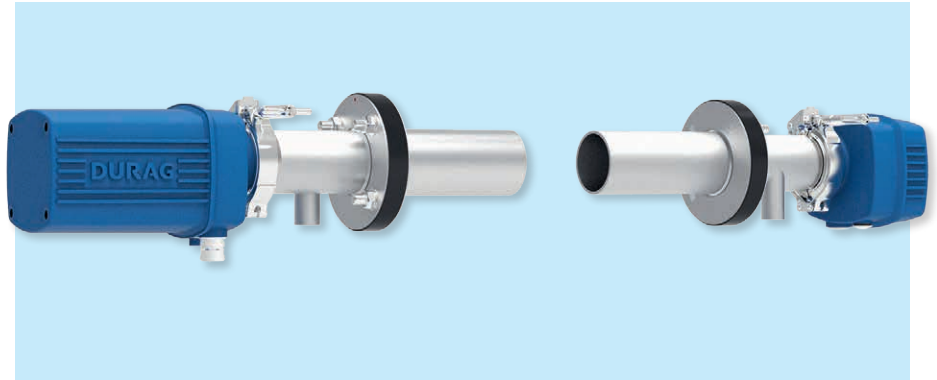
Ideally suited for monitoring medium to high dust concentration on smaller plants and in process applications

Features

- Automatic self check
- Extremely low maintenance thanks to durable LED
- Remote access possible
- Cost-efficient and space-saving measuring system in the well-known DURAG quality

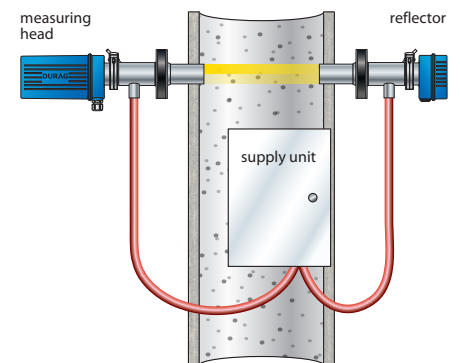
Applications

- Non-compliant device for monitoring dust concentration in processes or smaller plants
- Incineration plants, heating stations, power stations
- Boiler plants in industry, barracks, hospitals, schools
- Dedusting and filter plants
- Process monitoring



Measuring principle

The device operates using the double-pass method according to the auto-collimation principle. The light beam traverses the measuring distance twice. The attenuation of the light beam by the dust content in the measuring section is measured and evaluated. A durable LED serves as light source.



System components

- Measuring head
- Reflector
- Mounting flanges
- Supply unit with purge air unit

Options

- Filter set for linearity control
- Sighting scope
- Universal operating unit D-ISC 100
- Service software D-ESI 100
- Zero point reflector

measurements	opacity, extinction	detection limit	<2% of measuring range
measuring ranges	0...100% OP 0...1.6 Ext 0 ... 10000 mg/m ³ dust ¹⁾	power supply	24 VDC, 0.4 A from supply unit
measuring principle	transmission	dimensions (h x w x d)	measuring head 160 x 150 x 314 mm
flue gas temperature	above dew point up to 200 °C, optional up to 500 °C	weight	measuring head 2.7 kg reflector 1.6 kg
flue gas pressure	-50 ... +10 hPa, optional higher	supply box	
duct diameter	0.4 ... 10 m	purge air supply	integrated
ambient temperature	-20 ... +50 °C	power supply	85 ... 264 VAC, 46 ... 63 Hz, 50 VA
protection	IP65	dimensions (h x w x d)	210 x 300 x 380 mm
measuring output	0/ 4 ... 20 mA/ 400 Ohm, Modbus RTU bi-directional	weight	13 kg
digital outputs	2 relay outputs 30 VA, max. 48 V/ 0.5A	protection	IP54
remarks	¹⁾ with reference to one meter of path length after gravimetric calibration		

