

D-R 220

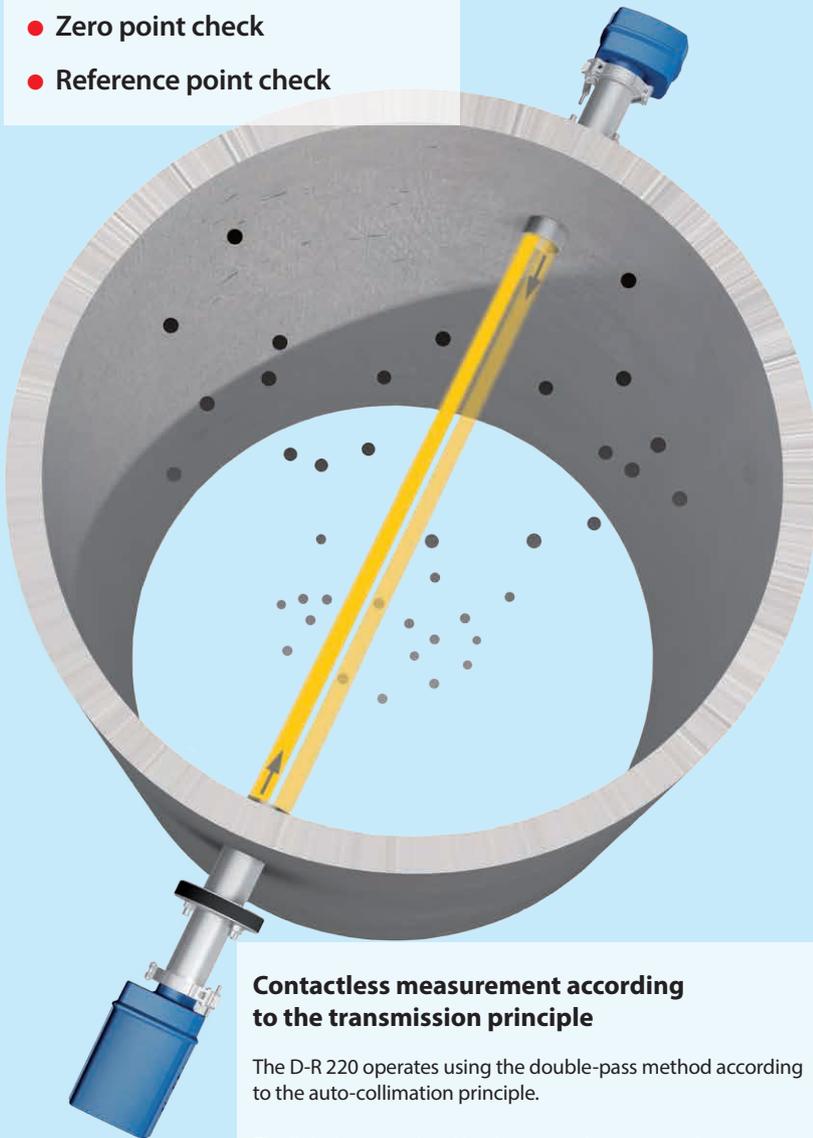
Optical dust and opacity monitor



Optical dust and opacity monitor

Cost effective and small device

- Automatic internal self-test
- Zero point check
- Reference point check



Contactless measurement according to the transmission principle

The D-R 220 operates using the double-pass method according to the auto-collimation principle.

The light beam emitted by the transceiver crosses the measuring path twice. The attenuation of the light beam by the dust in the measuring section is detected and evaluated. A long-life LED is used as a light source.

Features

- Suitable for medium and high dust concentrations on short to medium measuring lengths
- Automatic internal self-test
- Automatic zero and reference point check
- Manual contamination check
- Manual linearity test with reference filters

Your benefits

- Extremely low maintenance due to durable LED and contactless measurement
- Easy installation and commissioning with universal operating unit and adjustment tool
- Convenient operation including remote access capability
- Cost-effective, small measuring system in well-known DURAG quality

Certificates, approvals



Cement plant



Process monitoring



Power plant

Convenient operation, readings anywhere accessible

The D-R 220 is the smallest available and the most cost effective DURAG dust monitor. Operating the D-R 220 is very convenient and flexible. It is operated optionally via

- USB interface
- RS-485 interface
- Universal operating unit D-ISC 100

The software D-ESI 100 allows remote access via web interface. The sensor itself can be operated either directly as an independent device or via operating unit.

Universal operating unit D-ISC 100

The universal operating unit D-ISC 100 allows connecting several DURAG measuring systems at once. Dust and volume flow measurements can be combined in this way.

- Operation either via built-in panel or via remote access
- Modular design, many expansion options available

Options

- Universal operating unit D-ISC 100 offers additional inputs and outputs
- Calibrated filters for linearity check
- Adjustment tool

Applications

Continuous dust concentration measurement in

- Incineration plants
- Power plants, thermal power stations
- Cement plants
- Converters or asphalt mixing plants
- Biomass incineration plants

Opacity measurements on ships operating in non-US-EPA areas

- Ro-Ro ships
- Cruise ships
- Container ships

Also suitable for

- Cost effective process monitoring
- Filter monitoring
- Measurement of ambient air dust-load in halls or warehouses



System components

- Measuring head
- Purge air and connection flange
- Supply unit with purge air blower
- Universal operating unit D-ISC 100
- Reflector
- Purge air and connection flange

Technical data

Flue gas temperature	Above dew point, ≤ 200 °C (≤ 392 °F) standard ≤ 600 °C (≤ 1112 °F) option
Inner duct pressure	-50 ... +50 hPa
Flue gas relative humidity	0 ... 95 % RH, non-condensing
Stack/duct inner diameter	0.4 ... 10 m (1.3 ... 32.8 ft)
Measuring values	Opacity, extinction, transmission, dust concentration
Measuring ranges (depending on measuring path and calibration)	Opacity: 0 ... 100 % Extinction: 0 ... 1.6 Transmission: 100 ... 0 % Dust concentration: 0 ... 5000 mg/m ³
Ambient temperature	-20 ... +50 °C (-4 ... +122 °F)



Petrochemistry



Steel industry



Marine