

D-R 808 **Dust monitor**

Continuous dust measurement for small
to medium concentrations

- QAL1 certified in accordance with EN 15267
- Compliant with US EPA 40 CFR 60 PS 11
- Automatic control functions



Features

- Continuous dust measurement
- Smallest certified measuring range 0 ... 7.5 mg/m³
- Single-sided installation without optical alignment
- Automatic control functions
- Continuous integrated purge air monitoring
- Maintenance and linearity check without disassembly

Technical data

| | |
|-------------------------------------|---|
| Measuring principle | Forward scattering, in-situ, continuous, single-sided installation |
| Measuring variable | Scattered light units, calibratable as dust concentration in mg/m ³ |
| Measuring range | Min. 0 ... 5 mg/m ³ Max. 0 ... 200 mg/m ³ |
| Certified measuring range | 0 ... 7.5 mg/m ³ |
| Certificates | QAL1, MCERTS |
| Conformities | IED 2010/75/EU, EN 15267-1, EN 15267-2, EN 15267-3, EN 14181, US EPA 40 CRF 60 PS 11, 13th / 17th / 27th / 30th BImSchV, TA Luft |
| Interface* | <ul style="list-style-type: none"> ▪ Analog output: 1x 4 ... 20 mA, max. 400 Ω, potential-free (various parameters adjustable) ▪ Digital output: 2x NC/NO, max. 60 V_{DC}, 30 V_{AC}, 0.5 A (various parameters adjustable) ▪ RS 485 Modbus RTU, USB |
| Nominal voltage | 24 V _{DC} |
| Ambient conditions | <ul style="list-style-type: none"> ▪ Installation location: Indoor and outdoor installation** ▪ Temperature: -40 ... +60 °C |
| Operating conditions in duct | <ul style="list-style-type: none"> ▪ Temperature: Max. 350 °C, optional: 500 °C ▪ Relative humidity: 0 ... 95%, non-condensing ▪ Relative pressure: -50 ... +50 hPa |
| Duct dimensions | <ul style="list-style-type: none"> ▪ Inner diameter: >0.3 m (a representative measurement must be ensured) ▪ Wall thickness: Max. 0.47 m |

Benefits

- Suitable for official emission monitoring
- Reliable measurement of small dust concentrations
- Space-saving and easy installation
- Reliable emission monitoring
- Long service life
- Low maintenance

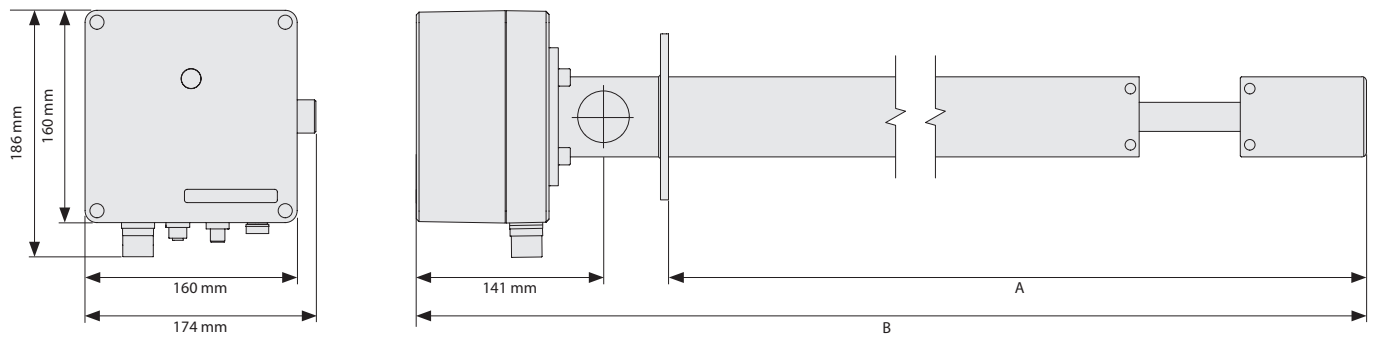
| | |
|------------------------------|--|
| Control functions | Automatic zero and reference point measurement, automatic contamination measurement and compensation, integrated purge air monitoring |
| Degree of protection | IP65 in accordance with DIN EN 60 529 |
| Light source | Laser, class 2 in accordance with DIN EN 60825-1, < 1 mW at 650 nm |
| Connections | <ul style="list-style-type: none"> ▪ Process: Flange, DN 40 PN6 including stud bolts, bolt circle 100 mm ▪ Device: M23 DURAG Standard ▪ Purge air hose: Ø 25 mm ▪ Purge air sensor: M12 8-pin |
| Explosion protection | N/A |
| Display and operation | <ul style="list-style-type: none"> ▪ Status display: LED ▪ D-ESI 100 software** ▪ or D-ISC 100 operating unit |
| Material | <ul style="list-style-type: none"> ▪ Probe: 1.4404, AISI 316L, polished ▪ Housing: Painted aluminum |
| System components | <ul style="list-style-type: none"> ▪ D-R 808 dust monitor ▪ D-ESI 100 software*** ▪ D-TB 200 Terminal Box ▪ or D-TB 100 Terminal Box (external purge air supply required) ▪ or D-ISC 100 P operating and purge air unit |

* Additional interfaces with D-ISC 100 operating unit

** A weather protection cover is required for outdoor installation

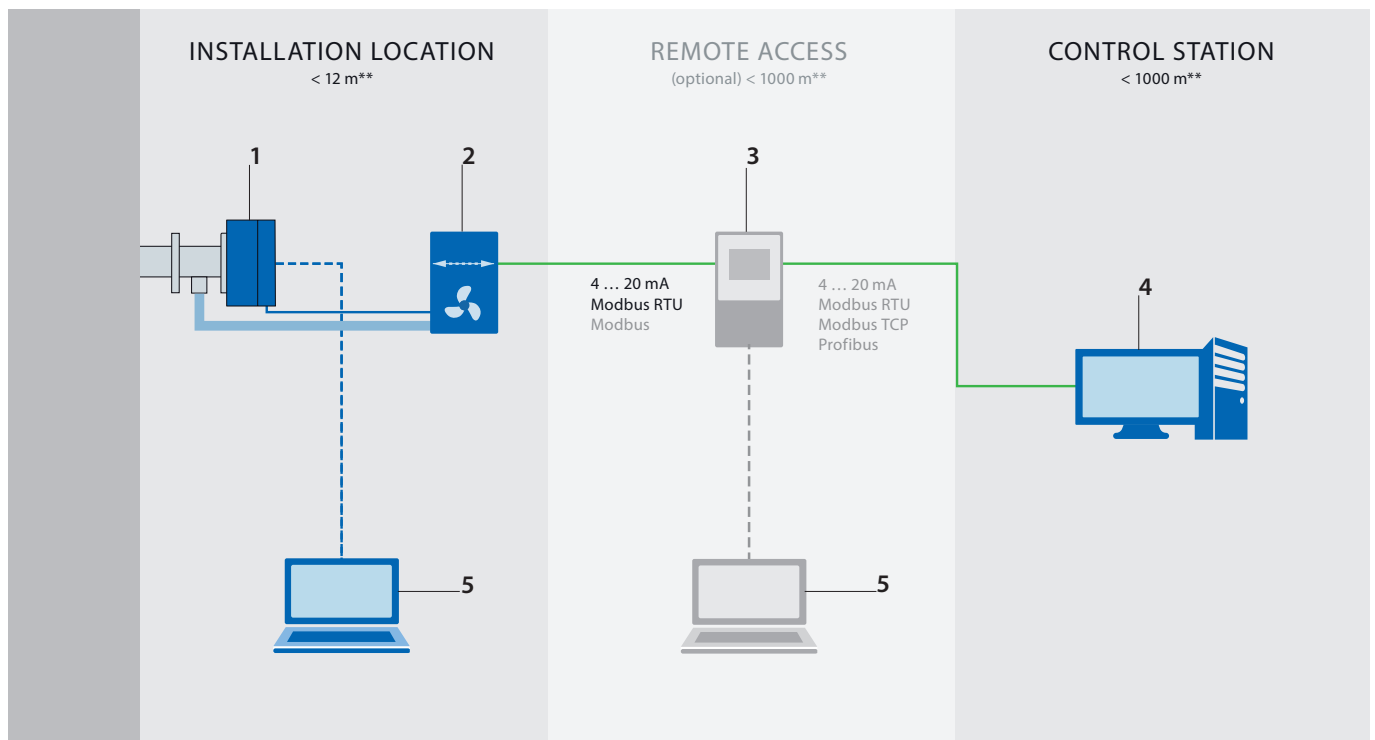
*** Enables remote access via web interface, requires PC with Windows operating system

D-R 808 | DIMENSIONS AND WEIGHT OF DIFFERENT PRODUCT VARIANTS



| Product variant | A (mm) | B (mm) | Weight |
|---------------------|--------|--------|--------|
| Probe length 400 mm | 387 | 577 | 3 kg |
| Probe length 800 mm | 787 | 977 | 7 kg |

EXAMPLES OF SYSTEM CONFIGURATIONS* | STANDARD + OPTIONAL WITH REMOTE ACCESS



- 1 Dust monitor
- 2 Terminal Box with/without purge air unit***
- 3 Operating unit
- 4 Emission evaluation system
- 5 PC with Windows operating system and software

* All system components shown are available on request
 ** Maximum permitted cable and hose length

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