**Emission monitors dust**

**Dusthunter SP100**

***Description***

The DUSTHUNTER SP100 is a type-approved measuring device with probe for very low to medium dust concentrations. Installation from one side makes it ideal for thick-walled or double-walled ducts. The measurement is based on the forward scattering of light. An automated check of the zero and reference point as well as a contamination check are on board in the device.

***Specification***

Measured values: Scattered light intensity, dust concentration (after gravimetric comparison measurement)

Performance-tested measured: Scattered light intensity

Measurement principle: Scattered light forward

Spectral range: 640 mm ... 660 mm

Laser, protection class 2, power < 1 mW

Measuring ranges: Dust concentration 0 ... 5 mg/m³ / 0 ... 200 mg/m³

Certified measuring ranges: Scattered light intensity 0 ... 15 SI / 0 ... 5 SI / 0 ... 20 SI / 0 ... 50 SI / 0 ... 100 SI / 0 ... 200 SI

Response time (t90): 1 s ... 600 s Freely adjustable

Accuracy: ≤ 2 % Of measuring range full scale

Process temperature

Standard version DHSP-T2xx –40 °C ... +220 °C

Standard version DHSP-T2xxx1Ex3G –15 °C ... +220 °C

High temperature version DHSP-T2xx –40 °C ... +400 °C

High temperature version DHSP-T4xxx1Ex3G –15 °C ... +400 °C

Process pressure

With MCU-P control unit –50 hPa ... 10 hPa

With external purge air unit –50 hPa ... 30 hPa

With instrument air (provided by the customer) –100 hPa ... 100 hPa

Process gas humidity: Non-condensing

Duct diameter ≥ 0.25 m

Conformities: Approved for plants requiring approval  
2001/80/EC (13. BImSchV)  
2000/76/EC (17. BImSchV)  
27.BImSchV  
TA-Luft (Prevention of Air Pollution)  
EN 15267  
EN 14181  
MCERTS  
2010/75/EU  
U.S. EPA PS-11 compliant

Electrical safety: CE

Test functions: Automatic self-test (linearity, contamination, drift, aging)  
Contamination limit values: Warning at 30%, fault at 40%  
Manual linearity test with reference filter