



Dust Measuring Devices
DUSTHUNTER SF100, Scattered light dust
measuring device

DUSTHUNTER SF100



Type [> DUSTHUNTER SF100](#)



The DUSTHUNTER SF100 is an approved measuring device for dust at very low to medium concentrations. The measurement is based on the forward scattering of light. An automatic check of zero and reference point as well as contamination check is integrated in the device.

At a glance

- For very low to medium dust concentrations
- Contamination check
- Automatic check of zero and reference point
- For medium to large duct diameters

Your benefits

- For difficult duct configurations and medium conditions
- Approved according to EN 15267
- Low maintenance due to self-monitoring and contamination check

Fields of application

- Emissions monitoring at power plants and waste incineration plants
- Monitoring of filter systems
- Monitoring of dust load in factory halls

Note

The exact device specifications and performance data of the product may deviate from the information provided here, and depend on the application in which the product is being used and the relevant customer specifications.

Technical data

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|----------------------------|--|
| Measurement principles: | Scattered light forward |
| Measured values: | Dust concentration (after gravimetric comparison measurement) Scattered light intensity |
| Max. number of measurands: | 1 |
| Measuring ranges: | Dust concentration: 0 ... 5 mg/m ³ / 0 ... 200 mg/m ³ |
| Remark measuring ranges: | Higher measuring ranges on request |
| Process temperature: | -25 ... +300 °C |
| Process pressure: | With external purge air unit: -50 ... 30 hPa With MCU-P control unit: -50 ... 2 hPa |
| Process gas humidity: | non-condensing |
| Duct diameter: | With scattered light receiver DHSF-R0: 0.5 ... 3 m With scattered light receiver DHSF-R1: 2.5 ... 6 m |

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| Ambient temperature: | Sender unit, receiver unit, control unit MCU-N: -40 ... +60 °C MCU-P control unit: -40 ... +45 °C intake temperatures for purge air |
| Conformities: | 2000/76/EC (17. BImSchV) 2001/80/EC (13. BImSchV) 2010/75/EU 27. BImSchV EN 14181 EN 15267 MCERTS TA-Luft (Prevention of Air Pollution) Approved for plants requiring approval |
| Electrical safety: | CE |
| Enclosure rating: | IP 66 |
| Analog outputs: | 3 outputs: 0/2/4 ... 20 mA, 750 Ω electrically isolated; two additional outputs if using I/O modules (option) |
| Analog inputs: | 2 inputs: 0 ... 20 mA not electrically isolated; two additional inputs if using I/O modules (option) |
| Digital outputs: | 5 relay contacts: 48 V, 1 A potential-free; for status signals |
| Digital inputs: | 4 potential-free contacts |
| Interfaces and bus protocols: | Ethernet: Modbus TCP Ethernet: OPC Ethernet: SOPAS ET RS-485: Modbus RTU RS-485: PROFIBUS DP RS-485: SOPAS ET USB: SOPAS ET |
| Operation: | Via LC-display (option) or software SOPAS ET |
| Device version: | Cross-duct version |
| System components: | Receiver unit Sender unit MCU control unit |
| Test functions: | Automatic self-test (linearity, contamination, drift, aging) Manual linearity test with reference filter Contamination limit values: warning at 20%, fault at 30% |
| Options: | External purge air unit, I/O module(s), Interface module(s) |

Australia

Phone +61 3 9457 0600
1800 33 48 02 – tollfree
E-Mail sales@sick.com.au

Belgium/Luxembourg

Phone +32 (0)2 466 55 66
E-Mail info@sick.be

Brasil

Phone +55 11 3215-4900
E-Mail marketing@sick.com.br

Canada

Phone +1 905 771 14 44
E-Mail information@sick.com

Česká republika

Phone +420 2 57 91 18 50
E-Mail sick@sick.cz

China

Phone +86 4000 121 000
E-Mail info.china@sick.net.cn
Phone +852-2153 6300
E-Mail ghk@sick.com.hk

Danmark

Phone +45 45 82 64 00
E-Mail sick@sick.dk

Deutschland

Phone +49 211 5301-301
E-Mail info@sick.de

España

Phone +34 93 480 31 00
E-Mail info@sick.es

France

Phone +33 1 64 62 35 00
E-Mail info@sick.fr

Great Britain

Phone +44 (0)1727 831121
E-Mail info@sick.co.uk

India

Phone +91-22-4033 8333
E-Mail info@sick-india.com

Israel

Phone +972-4-6881000
E-Mail info@sick-sensors.com

Italia

Phone +39 02 27 43 41
E-Mail info@sick.it

Japan

Phone +81 (0)3 5309 2112
E-Mail support@sick.jp

Magyarország

Phone +36 1 371 2680
E-Mail office@sick.hu

Nederland

Phone +31 (0)30 229 25 44
E-Mail info@sick.nl

Norge

Phone +47 67 81 50 00
E-Mail sick@sick.no

Österreich

Phone +43 (0)22 36 62 28 8-0
E-Mail office@sick.at

Polska

Phone +48 22 837 40 50
E-Mail info@sick.pl

România

Phone +40 356 171 120
E-Mail office@sick.ro

Russia

Phone +7-495-775-05-30
E-Mail info@sick.ru

Schweiz

Phone +41 41 619 29 39
E-Mail contact@sick.ch

Singapore

Phone +65 6744 3732
E-Mail sales.gsg@sick.com

Slovenija

Phone +386 (0)1-47 69 990
E-Mail office@sick.si

South Africa

Phone +27 11 472 3733
E-Mail info@sickautomation.co.za

South Korea

Phone +82 2 786 6321/4
E-Mail info@sickkorea.net

Suomi

Phone +358-9-25 15 800
E-Mail sick@sick.fi

Sverige

Phone +46 10 110 10 00
E-Mail info@sick.se

Taiwan

Phone +886 2 2375-6288
E-Mail sales@sick.com.tw

Türkiye

Phone +90 (216) 528 50 00
E-Mail info@sick.com.tr

United Arab Emirates

Phone +971 (0) 4 88 65 878
E-Mail info@sick.ae

USA/México

Phone +1(952) 941-6780
1 (800) 325-7425 – tollfree
E-Mail info@sickusa.com

More representatives and agencies
at www.sick.com