



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

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|---------------------|--|-------------|--|
| Certificate No.: | IECEx BVS 20.0079X | Page 1 of 5 | <u>Certificate history:</u> |
| Status: | Current | Issue No: 2 | Issue 1 (2024-08-23) Issue 0 (2021-04-20) |
| Date of Issue: | 2025-04-16 | | |
| Applicant: | Endress+Hauser SICK GmbH+Co. KG Bergener Ring 27 01458 Ottendorf-Okrilla Germany | | |
| Equipment: | Dust analyser type DUSTHUNTER SP100-Tabcdef | | |
| Optional accessory: | | | |
| Type of Protection: | Flameproof Enclosures "d", Optical Radiation "op", Protection by Enclosure "t" | | |
| Marking: | Ex db op is IIC T6 Gb Ex tb op is IIIC T85°C Db or Ex db op is IIC T6 Gb or Ex tb op is IIIC T85°C Db | | |

Approved for issue on behalf of the IECEx
Certification Body:

Dr Michael Wittler

Position:

Deputy Head of Certification Body

Signature:
(for printed version)

Date:
(for printed version)

2025-04-16

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany





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Manufacturer: **Endress+Hauser SICK GmbH+Co. KG**
Bergener Ring 27
01458 Ottendorf-Okrilla
Germany

Manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

[IEC 60079-0:2017](#) Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

[IEC 60079-1:2014](#) Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

[IEC 60079-28:2015](#) Explosive atmospheres - Part 28: Protection of equipment and transmission systems using optical radiation
Edition:2

[IEC 60079-31:2013](#) Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[DE/BVS/ExTR21.0017/02](#)

Quality Assessment Report:

[DE/TUN/QAR09.0005/12](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Subject and type

See Annex

Description

The dust analyser type DUSTHUNTER SP100-Tabcdef of the family DHSP100EX consists of an electronic housing in type of protection Flameproof Enclosure or Protection by Enclosure 'tb' and a probe with measuring head in type of protection Optical Radiation 'op is' for continuous measurement of dust concentrations in exhaust gas plants.

The maximum temperature of the medium may exceed the permissible surface temperature of the respective temperature class. In this case, the thermal insulation also has to perform functions of explosion protection (restricting the surface temperature on the outside of the insulation). This thermal insulation, however, is not subject of this Certificate.

The measuring head is supplied with purge gas for cooling and cleaning.

SPECIFIC CONDITIONS OF USE: YES as shown below:

In case any temperature of the medium exceeds the permissible surface temperature of the temperature class, the thermal insulation provides a measure of explosive protection that has to be tested separately. Among other aspects, this test has to observe the following:

- Parts of the equipment surface that may take on impermissibly high temperatures, have to be integrated into the insulation; otherwise, the thermal conduction has to be restricted.
- It has to be ensured that the surface temperature of the enclosure is below 80 °C. At nominal rating the inner temperature rise is up to 2 K.
- The dimensions of the flameproof gap of this equipment are partly longer and the gap widths of the flameproof gap partly smaller than required in Table 3 of IEC 60079-1:2014

It has to be assured that the dust analyser is permanently supplied with purge gas while attached to the duct.



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Equipment (continued):

Parameters

Electrical data

Nominal voltage 24 V DC
Power 8 W

Thermal data

Max. gas temperature in the channel +400 °C
Ambient temperature $-40\text{ °C} \leq T_a \leq 60\text{ °C}$

| Gas temperature in the channel | Volume flow of the purge gas |
|--------------------------------|--------------------------------|
| up to +220 °C | $\geq 3.5\text{ m}^3/\text{h}$ |
| from +220 °C up to +400 °C | $\geq 8.0\text{ m}^3/\text{h}$ |



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- The manufacturer name has been changed to Endress+Hauser Sick GmbH+Co. KG.

Annex:

[BVS_20_0079X_Sick Engineering_Annex_issue1_.pdf](#)

