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

Certificate No.:	**IECEx FTZU 21.0010X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2021-08-31)
Date of Issue:	2025-03-28		
Applicant:	**Endress+Hauser SICK GmbH+Co. KG** Bergener Ring 27 01458 Ottendorf-Okrilla **Germany**		
Equipment:	**Module FLPS2-60042-S-5 and FLPS2-6004E-S-5**		
Optional accessory:			
Type of Protection:	**Intrinsic safety "i"**		
Marking:	[Ex ia Ga] IIC		

Approved for issue on behalf of the IECEx Certification Body: **Dlpl. Ing. Lukáš Martinák**

Position: **Head of the Certification Body**

Signature:
(for printed version)

Date:
(for printed version)

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:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

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Certificate No.: **IECEx FTZU 21.0010X**

Date of issue: 2025-03-28 Issue No: 1

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 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

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 Reports:

CZ/FTZU/ExTR21.0010/00 CZ/FTZU/ExTR21.0010/01

Quality Assessment Report:

DE/TUN/QAR09.0005/12

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The product is an associated intrinsically safe equipment.

The product is equiped by four pasive non intrinsically safe inputs DO0-DO3, power supply terminal Vin, two RS485 interfaces. The product is equiped by intrinsically safe outputs Vcl, Vout and four pasive inputs DI0-DI3 and two RS485 interfaces.

In the model FLPS2-6004E-S-5 is used ETHERNET interface instead one non intrinsically safe RS485 interface.

The enclosure of product consists from plastic. The product is intended for installation on DIN rail in area without present of explosive atmosphere. Into enclosure are placed two PCB´s. On the head of enclosure are LED´s for indication of state of work. On the head of enclosure is USB interface which is used only service of equipment.

Parameters:

Ambient temperature: Ta= -40°C to +60°C
Ingress protection: IP20

Non IS terminals:
Vin: Um = 30 V AC, 60 V DC
DO0 – DO3: Um = 30 V AC, 60 V DC
RS485 (a1,b1 and a2,b2): Um = 30 V AC, 60 V DC
Ethernet: Um = 30 V AC, 60 V DC

IS terminals:
see Annex to this CoC.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The value of Um for all Non intrinsically safe terminals is lower than 250 V due to circuits which are connected with Non intrinsically safe terminals have to be SELV or PELV and is necessary to accept a measures which are listed in the user manual.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue No. 1:

The manufacturer name was changed from “SICK Engineering GmbH” to “Endress+Hauser SICK GmbH+Co. KG”.

Annex:

Annex_to_IECEX_FTZU_21.0010X.pdf

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

Electrical Apparatus: **Module types: FLPS2-60042-S-5, FLPS2-6004E-S-5**

IS terminals parameters:

+ Vout to - Vout						
Group	Uo (V)	Io (mA)	Po (W)	Co (µF)	Lo (mH)	Lo/Ro (µH/Ω)
IIC	16,5	463	1,3	0,415	0,1	18,6
IIB	16,5	463	1,3	2,45	0,4	74,4
IIA	16,5	463	1,3	2,2	0,8	148

+ Vcl to -Vcl					
Group	Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)
IIC	16,5	89	368	0,2	2,3
IIB	16,5	89	368	1,9	16
IIA	16,5	89	368	9,8	32

(+) DI0 to (–) DI0 – (+) DI3 to (-) DI3								
Group	Uo (V)	Io (mA)	Po (mW)	Co (µF)	Lo (mH)	Ui (V)	Ci (µF)	Li (mH)
IIC	16,5	9,7	40	0,41	100	16,5	0	0
IIB	16,5	9,7	40	2,45	200	16,5	0	0
IIA	16,5	9,7	40	9,8	300	16,5	0	0

Aux+, 1A, 1B, 2A, 2B to Aux-								
Group	Uo (V)	∑Io (mA)	∑Po (mW)	∑Co (µF)	∑Lo (mH)	Ui (V)	∑Ci (µF)	Li (mH)
IIC	7,14	164	293	2,55	0,33	7,14	3,45	n.s.
IIB	7,14	164	293	196	2,5	7,14	3,45	n.s.
IIA	7,14	164	293	296	5	7,14	3,45	n.s

Note: n.s. mean negligible small, ∑ The values are valid as the sum for terminals Aux, 1A, 1B, 2A, 2B

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