



1 **EU-TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **CSANe 21ATEX1020X** Issue: **1**

4 Equipment: **Interface Unit Faa-bccdefghijklmnopqrsssss**

5 Applicant: **Endress+Hauser SICK GmbH+Co. KG**

6 Address: **Bergener Ring 27  
01458 Ottendorf-Okrilla  
Germany**

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-1:2014 EN 60079-7:2015 + A1:2018 EN 60079-11:2012

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:



II 2G

Ex db ia IIC T4 Gb or

Ex db eb ia IIC T4 Gb

Ta: -40°C to \*°C

\*See condition of manufacturer for maximum ambient temperature range

Signed: M Halliwell

Title: Senior Director of Operations



Project Number 80256225

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## SCHEDULE

### EU-TYPE EXAMINATION CERTIFICATE

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#### 13 DESCRIPTION OF EQUIPMENT

##### i) Ex db ia

The enclosure used is protection method Ex db. The enclosure housing has two options for material of construction i.e. Aluminium or Stainless-Steel and has Up to 9 threaded cable entries on the bottom side of the enclosure. The enclosure consists of a flameproof compartment for the non-intrinsically safe electronic components and an Ex ia compartment for the intrinsically safe display electronic. A keypad with LCD screen is accessible from outside of the enclosure. The enclosure has a provision for a mechanical latch that can only be opened by a tool.

##### ii) Ex db eb ia

This version consists of two enclosures. The top enclosure is a flameproof (Ex db) enclosure identical to Ex db ia version, including all the electronics. The bottom enclosure is "Ex eb" enclosure which houses only terminals and used for field wiring.

The equipment nomenclature is as below:

Faa-bccdefghijklmnopqrsssss

aa= Special using (Not-safety related)  
CF – Interface Unit and Flow Computer

b= Ex Approval  
A- ATEX, IECEx

cc= Ex classification  
EC – II 2 G Ex db eb ia IIC T4 Gb  
Ex db eb ia IIC T4 Gb  
DC – II 2 G Ex db ia IIC T4 Gb  
Ex db ia IIC T4 Gb

d= Enclosure material (A- Aluminium, S-Stainless steel, H-High grade stainless steel))

e= Housing Painting (Non-safety related)

f= Cable entries

A – 5\*M20\*1,5; 1\*M25\*1,5  
B – 5\*1/2" NPT; 1\* 3/4" NPT  
C – 8\*M20\*1,5; 1\*M25\*1,5  
D – 8\*1/2" NPT; 1\* 3/4" NPT

\* May be any other alphanumeric characters for lower number of cable entries.

g= Display (1-DOT Matrix Display)

h= Terminal block  
S- Screw Clamp  
F- Spring Clamp

i= Tropicalization (Non-safety related)

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j= Ambient temperature range

S= -40C to 60C

E= -40C to 65C

X= Customized within the limits of S and E

k= Input power

1= 115-230VAC

2= 12-24VDC

l= Mainboard (Non-safety related)

m= Analog Module Type 1 (Numeric 1 to 3 describes number of modules and N= no modules)

n= Analog Module Type 2 (Numeric 1 to 3 describes number of modules and N= no modules)

o= Digital Module Type 1 (Numeric 1 to 3 describes number of modules and N= no modules)

p= Interface module (F= Foundation Fieldbus and N=None)

q= Extension module 1 (N=None, reserved for future updates)

r= Extension module 2 (N=None, reserved for future updates)

sssss= Type key extension (Not-safety related - in maximum 5 alphanumeric characters or Blank)

**Variation 1** - This variation introduced the following changes:

- i. To change the applicant/manufacturer name from SICK Engineering GmbH to Endress+Hauser SICK GmbH+Co. KG.

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

### 14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	14 May 2021	R80034688A	The release of the prime certificate.
1	10 June 2025	R80256223A	The introduction of Variation 1.

## 15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

- 15.1 Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the equipment shall only be cleaned with a damp cloth.
- 15.2 Opening the unit is only permitted if an explosive atmosphere can be excluded.
- 15.3 In order to maintain the IP54 protection suitably certified glands must be fitted.

## 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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17 CONDITIONS OF MANUFACTURE

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.
- 17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.
- 17.3 The ambient temperature range -40°C to 60°C or -40°C to 65°C. It depends on the various modules used in interface units and the manufacturer shall therefore assemble their products in accordance with the details below.
  - a. The modules must be inserted starting from the left or slot 1 and filling up accordingly to the right.
  - b. If a Foundation Fieldbus module is installed, it is plugged into the rightmost slot. The adjacent left slot of a Foundation Fieldbus module must be kept free.
  - c. According to the following ranking levels, different module types are installed together, therefore the modules with the highest-ranking level are inserted first and then according to the ranking level.

Ranking Level	Module
1	Analog Module Type 1
2	Analog Module Type 2
3	Digital Module Type 1
4	Foundation Fieldbus

- d. For 60°C variant: The sum of the plugged modules "Analog Type 1" plus "Analog Type 2" plus "Digital Type 1" must not exceed 4.
- e. For 65°C variant: The devices variant with an ambient temperature range of up to 65°C are limited to a sum of 3 I/O-modules with only one Analog Type 1 or Analog Type 2 module at a time.

Module	Maximum number of modules allowed for temperature range -	
	-40°C to +60°C	-40°C to +65°C
Analog Module Type 1	3	1
Analog Module Type 2	2	1
Digital Module Type 1	3	1
Foundation Fieldbus	1	1

- f. The Ex d enclosure shall be subjected to Routine Test @ 1.5 X 271.14 Psi (18.70 bar) pressure for at least 10 seconds as per the IEC 60079-1, Ed.7<sup>th</sup> Cl. 16.1.
- g. Routine Dielectric test must be performed on all "Ex db eb ia" AC versions. 1500VAC or 2100DC shall be applied for between the AC terminals and ground. Test voltage shall be applied for 1 minute. Alternatively, 1.2 times of test voltage can be applied for 100ms.

# Certificate Annexe



Certificate Number: CSANe 21ATEX1020X  
Equipment: Interface Unit Faa-bccdefghijklmnopqrsssss  
Applicant: Endress+Hauser SICK GmbH+Co. KG

## Issue 0

Drawing	Sheets	Rev.	Date	Title
9304606	1 of 1	1ATS	19 Feb 21	Enclosure Zone1 DIV1
E265053	1 to 6	00	19 Feb 21	Excerpt Of Operating Instruction
E252554	1 to 4	00	19 Feb 21	BOM Enclosure Zone 1 Div 1
E254943	1 of 1	0.1	19 Feb 21	EX-Concept G5-IU Ex db eb_AC
E254944	1 of 1	0.1	19 Feb 21	EX-Concept G5-IU Ex db eb_DC
9302664	1 of 1	17SW	19 Feb 21	PCBD-Mainboard
E224156	1 to 7	14	19 Feb 21	BOM Critical Components FLIO
E215336	1 to 44	18	19 Feb 21	INTERFACE UNIT ZONE AND DIV 1/2-Technical Description

## Issue 1

Drawing	Sheets	Rev.	Date (Stamp)	Title
E215336	1 to 44	20	30 May 25	INTERFACE UNIT ZONE AND DIV 1/2 Technical Description
E265053	1 to 6	01	30 May 25	FLIO Z1 EXCERPT OF OPERATING INSTRUCTION

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