



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 SIR 20.0021X** Page 1 of 3 [Certificate history:](#)

Status: **Current** Issue No: 0

Date of Issue: 2020-08-14

Applicant: **SICK Engineering GmbH**
Bergener Ring 27
01458 Ottendorf-Okrilla
Germany
Germany

Equipment: **Interface Unit Faa-bccdefghijklmnopqrsssss**

Optional accessory:

Type of Protection: **Increased Safety ec and Intrinsically Safe ia**

Marking: Ex ec ia IIC T4 Gc
Ta: -40°C to *°C
*See condition of manufacturer for maximum ambient temperature range.

Approved for issue on behalf of the IECEx
Certification Body:

Neil Jones

Position:

Certification Manager

Signature:
(for printed version)

Date:

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:

SIRA Certification Service
CSA Group
Unit 6, Hawarden Industrial Park
Hawarden, Deeside, CH5 3US
United Kingdom





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Manufacturer: **SICK Engineering GmbH**
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Additional
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

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

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 Report:

[GB/SIR/ExTR20.0144/00](#)

Quality Assessment Report:

[DE/TUN/QAR09.0005/06](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The Interface Unit is a device for recording, processing and transferring of measuring values. The Interface Unit is intended to use in classified hazardous areas with potential explosive atmospheres.

The Interface unit is a metallic enclosure with electronic circuits fitted within the enclosure. A keypad with LCD screen is accessible from external to the enclosure. The keypad is protected by a non-metallic cover. The enclosure has a provision of mechanical latch that can only be opened by a tool. The Interface unit comes in two different electrical input range (12-24VDC or 90-253VAC) and two different ambient range (-40°C to 60°C and -40°C to 65°C). The AC variant is identical to the DC variant, except additional AC/DC power supply that provides 24VDC output.

Refer to the certificate annexe for the nomenclature

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.

Annex:

[IECEx SIR 20.0021X Annexe Issue 0.pdf](#)

Annexe to: IECEx SIR 20.0021X Issue 0
Applicant: SICK Engineering GmbH
Apparatus: Interface Unit
Faa-bccdefghijklmnopqrsssss



The equipment nomenclature is as below:

Faa-bccdefghijklmnopqrsssss

aa= Special using (Not-safety related)

b= Ex Approval
A- ATEX, IECEx
C- CSA (NEC/CEC)

cc= Ex classification
NC – ATEX/IECEx certification marking
CN – NEC/CEC certification marking

d= Enclosure material (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)
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)

Annexe to: IECEx SIR 20.0021X Issue 0
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 Apparatus: Interface Unit
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Conditions of Manufacture

- i. 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