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 CSAE 25.0013**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2025-07-07		
Applicant:	**R. STAHL HMI SYSTEMS GmbH** Adolf-Grimme-Allee 6 50829 Köln **Germany**		
Equipment:	**TREX2 Device Communicator**		
Optional accessory:			
Type of Protection:	**Ex ia**		
Marking:	Ex ia [ia Ga] [ia Da IIIC] IIC T4 Gb -20˚C ≤ Tamb ≤ 50 ˚C		

Approved for issue on behalf of the IECEx Certification Body:	**Michelle Halliwell**
Position:	**Senior Director of Operations**
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:

CSA Group Testing UK Ltd
Unit 6, Hawarden Industrial Park
Hawarden, Deeside CH5 3US
United Kingdom

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Certificate No.: **IECEx CSAE 25.0013**

Date of issue: 2025-07-07

Issue No: 0

Manufacturer: **R. STAHL HMI SYSTEMS GmbH**
Adolf-Grimme-Allee 6
50829 Köln
Germany

Manufacturing locations:

R. STAHL HMI SYSTEMS GmbH
Adolf-Grimme-Allee 6
50829 Köln
Germany

EMERSON SRL
iCENTER, BUSINESS UNIT
EMERSON STREET NO.4, 400638
CLUJ-NAPOCA
Romania

Computational Systems Inc (CSI)
Emerson Process Management LLLP
835 Innovation Drive
Knoxville, TN, 37932.
United States of America.
Thailand

See following pages for more 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 60079-11:2023 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:7.0

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/CSAE/ExTR25.0049/00

Quality Assessment Reports:

DE/BVS/QAR06.0007/16 GB/CSAE/QAR23.0011/00 GB/SIR/QAR17.0002/05

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

The TREX2 Device Communicator is a handheld, battery-powered, intrinsically safe, portable maintenance tool, typically for use in a process plant.
The device communicates with microprocessor-based measurement and actuation field devices.
It supports multiple communication protocols including HART® and FOUNDATION(TM) Fieldbus™.

For full description see annexe.

SPECIFIC CONDITIONS OF USE: NO

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Additional manufacturing locations:

Emerson Asia Pacific Private Limited
Global Customer Distribution Center
10, Pandan Crescent #03-03/04/05/06 128486
Singapore

Annex:

IECEx CSAE 25.0013 Iss 0 Annexe.pdf

EQUIPMENT (continued)

Type designation: TREX2-abcde

where:

a = Communication Module: (specifies the installed devices according to IEC/EN 60079-11):
C= TREX 2 Device Communication
L= TREX 2 Device Communication Plus
D= Reserved for the complete TREX2 device assembly
For further details, see the marking on the communication module label
0=None

b = Power Module Type: (specifies the installed devices according to IEC/EN 60079-11):
P=Rechargeable Li-Ion Power Module Rev.04
0=None

c = Product Certification:
KL= ATEX, cCSA and CSAus, IECEx Intrinsically Safe (includes FISCO as applicable)
NA= None (Used for individual modules that are not Ex-certified as a stand-alone device, as well as for use of the complete TREX2 device in non-hazardous areas)

d = Radio options:
W= Wifi and or Bluetooth for TREX2
9= None for TREX2
M= Reserved for the complete TREX2 device assembly
For further details, see the marking on the Display and CPU module label

e= Options
* =any alphanumeric or symbolic characters
(not relevant for hazardous area certification)

The device consists of 3 main modules built in or may be attached by the customer or a service center:

1- Display and CPU module
A module that mainly contains the display, the motherboard with IS circuits and CPU and the PCBs for the front-panel keypads, plus an optional WLAN/Bluetooth module.

2- Communication module
A communication and measurement module containing various PCBs in different options

3- Power module
A power supply module containing the batteries and the PCBs controlling charging and discharging.

Depending on the options, the device TREX2 can be fitted with connectors for HART, mA and or FOUNDATION fieldbus.

Two connectors protected by rubber covers are intended for use outside the hazardous area only:
- Micro USB interface for downloading updates from a PC: 7.13 V, 85 mA.
- AC adaptor for charging the power module and operating in parallel: 12-17 Vdc, 4A

Electrical data

Trex Device Communicator communication module

For the version TREX2-abcde (with "a"="C" and "c"="KL")

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Hawarden Deeside CH5 3US, UK.

Table 1			
	Foundation Fieldbus™ (non-FISCO)	**Foundation Fieldbus™ (FISCO)**	**HART®**
	FF + and -	**FF + and -**	**HART + and -**
Ui	30 Vdc	30 Vdc	30 Vdc
Ii	380 mA	215 mA (IIC) 380 mA (IIB)	200 mA
Pi	1.3 W	1.9 W (IIC) 5.3 W (IIB)	1.0 W
Ci	0	0	0
Li	0	0	0
Uo	1.89 V	1.89 V	1.89 V
Io	1,91 µA	1,91 µA	19,1 µA
Po	3,61 µW	3,61 µW	36,1 µW
Co	14.3 µF	14.3 µF	14.3 µF
Lo	100 mH	100 mH	100 mH

Trex Device Communicator Plus communication module
For the version TREX2-abcde (with "a"="L" and "c"="KL")

Table 2							
	mA-Interface	**Foundation Fieldbus™ (non-FISCO)**		**HART®**		**Foundation Fieldbus™ (FISCO)**	
	mA	**FF pwr and F-**	**FF + and -**	**HART + pwr**	**HART + and -**	**FF pwr and F-**	**FF + and -**
Ui	30 Vdc	17.5 V	30 Vdc	30 Vdc	30 Vdc	17.5 V	30 Vdc
Ii	200 mA	380 mA	380 mA	200 mA	200 mA	380 mA	215 mA (IIC) 380 mA (IIB)
Pi	1.0 W	1.3 W	1.3 W	1.0 W	1.0 W	1.3 W	1.9 W (IIC) 5.3 W (IIB)
Ci	0	20,5 nF	0	0	0	20,5 nF	0
Li	0	0	0	0	0	0	0
Uo	0.09V	17.44V	1.89 V	28,35V	1.89 V	17.44V	1.89 V
Io	14.63mA	153mA	1.91 µA	68.1mA	19.1 µA	153 mA	1.91 µA
Po	1.28mW	1.73 W	3.61 mW	776mW	36.1 µW	1.73 W	3.61 µW
Co	-	see table 3	14.3 µF	see table 4	14.3 µF	see table 3	14.3 µF
Lo	-	see table 3	100 mH	see table 4	100 mH	see table 3	100 mH

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Table 3: Co and Lo values for FF pwr and F-			
Co [nF]*	249.5	318.5	318.5
Lo [µH]	100	50	30

Table 4: Co and Lo values for HART + pwr				
Co [nF]	56	62	71	79
Lo [µH]	1000	750	500	100

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