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 PTB 19.0026X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2019-10-14)
Date of Issue:	2020-03-10		
Applicant:	**INDUSTRONIC® Industrie-Electronic GmbH & Co.KG** Carl-Jacob-Kolb-Weg 1 97877 Wertheim **Germany**		
Equipment:	**Intercom station, types DX 7x5 and DXE 7x5 or types DX 7x5/25 and DXE 7x5/25**		
Optional accessory:			
Type of Protection:	**Intrinsic Safety "i", Increased Safety "e", Flameproof Enclosure "d"**		
Marking:	Ex db eb ib [ib] IIC T4 Gb or Ex db eb ib IIC T4 Gb		

Approved for issue on behalf of the IECEx Certification Body: **Dr.-Ing. F. Lienesch**

Position: **Head of Department "Explosion Protection in Sensor Technology and Instrumentation"**

Signature: (for printed version)

Date: 20.7.20

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:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

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Manufacturer: **INDUSTRONIC® Industrie-Electronic GmbH & Co.KG**
Carl-Jacob-Kolb-Weg 1
97877 Wertheim
Germany

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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/PTB/ExTR19.0021/01

Quality Assessment Report:

DE/TPS/QAR19.0007/00

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

See the attachment to this certificate.

The following component certificates are used:
Flameproof enclosure IECEx PTB 19.0029U/0 , IEC60079-0 Ed.7, IEC60079-1 Ed.7 , IEC60079-7 Ed.5.1
Terminals IECEx KEM 06.0027U/6 , IEC60079-0 Ed.6 , IEC60079-7 Ed.5.1
Terminals IECEx PTB 06.0096U/1 , IEC60079-0 Ed.6 , IEC60079-7 Ed.5
No applicable Technical Differences.

SPECIFIC CONDITIONS OF USE: YES as shown below:
See the attachment to this certificate.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
The changes relate to the revision of the documentation, replacement of individual components and alternative mounting of a rocker switch with cover.

Annex:

CoCA190026X-01.pdf

Applicant: INDUSTRONIC® Industrie-Electronic GmbH & Co.KG
Carl-Jacob-Kolb-Weg 1
97877 Wertheim, Germany

Electrical Apparatus: Intercom station, type DX 7x5 and type DXE 7x5

Description of equipment

The intercom station basically consists of the electrical modules supply and interface electronics (1 DEX 03), intrinsically safe control electronics (6 DSX 11 or 6 DSX 11/HS) and an optional keyboard with microcontroller (12 DMW 21) as part of the control electronics. Non-intrinsically safe parts of the circuit are installed in an enclosure designed to type of protection Flameproof Enclosure "d". Optionally, an amplifier (25 DVX 03) can be installed in the flameproof enclosure to supply an external loudspeaker.

Both, the flameproof enclosure and the intrinsically safe control electronics are installed in an installation case.

The intercom station enclosure is manufactured from an electrostatically non-conductive material.

The assignment of the temperature class to the ambient temperature is listed in the table below.

Type	Marking	Ambient temperature
Series DX 705 or DX 715 without amplifier (25 DVX 03), intrinsically safe circuits inside the enclosure	**Ex db eb ib IIC T4 Gb**	-40°C up to +70°C
Series DX 705/25 or DX 715/25 with amplifier (25 DVX 03), intrinsically safe circuits inside the enclosure	**Ex db eb ib IIC T4 Gb**	-40°C up to +55°C
Series DXE 7x5 with intrinsically safe interface or DXE 7x5/25 series with additional amplifier (25 DVX 03) and intrinsically safe interface	**Ex db eb ib [ib] IIC T4 Gb**	-20°C up to +55°C

Electrical data

Supply voltage, max. [La(+), Lb(-)] and [+V, -V]	72 V (DC) safety-related maximum voltage U_m = 90 V
Floating relay contacts [NO, NO Opt, COM, NC]	direct voltage, I < 1 A safety-related maximum voltage U_m = 90 V
Additional speaker output [L100, L0]	100 V, 25 W, 150-7000 Hz only for connection to a passive loudspeaker

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Postfach 33 45, 38023 Braunschweig, Germany
Telephone +49 531 592-0, Telefax +49 531 592-3605

Listen/talk- and switch interface
[Flange socket, plug connector]

type of protection Intrinsic Safety Ex ib IIC,
Maximum values:

U_o = 7.08 V
I_o = 207 mA
P_o = 280 mW
L_i negligibly low
C_i = 1.3 nF

Maximum values for commonly occurring external reactances (without Ci):
(the following values correspond to the ISpark program 6.2)

IIC	
L_o (mH)	C_o (µF)
1.0	1.8
0.5	2.1
0.2	2.8

Special conditions for safe use

The intercom station enclosure consists of an electrostatically non-conductive material. A warning note on the type label points to the risk of electrostatic discharge.

The intercom station shall only be installed in locations where flowing atmospheres (e.g. caused by technical ventilation) do not need to be reckoned with, i.e. charge generating processes shall be prevented.

The equipment shall only be cleaned by appropriate measures, e.g. using a damp cloth.

The permissible ambient temperature range of the intercom station of type series DXE can be restricted by the use of a separately approved listen/talk-system. The respective ambient temperature range of the separately approved listen/talk-system shall be observed.

The corresponding torques for the installation of cable glands and enclosure cover must be observed and taken from the operating instructions manual.

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