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 DEK 23.0013X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2023-07-14

Applicant: **Ashcroft Instruments GmbH**
Max-Planck-Straße 1
Baesweiler 52499
Germany

Equipment: **Programmable HART 5/7 Tx, Model ITT4**

Optional accessory:

Type of Protection: **Ex ia**

Marking: Ex ia IIC T6 …T4 Ga
Ex ia IIIC Db
Ex ia I Ma

Approved for issue on behalf of the IECEx Certification Body: **R. Schuller**

Position: **Certification Manager**

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:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands

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Manufacturer: **Ashcroft Instruments GmbH**
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Manufacturing locations: **Ashcroft Instruments GmbH**
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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 Report:

NL/DEK/ExTR23.0011/00

Quality Assessment Report:

GB/SIR/QAR10.0013/08

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

The programmable HART 5/7 Tx Model ITT4 is a transmitter to convert the measurement signal of a temperature sensor or a mV signal into a 4 ... 20 mA current signal with digital communication (HART).

The transmitter is suitable for mounting in a metal enclosure form B according to DIN 43729 and consists of one channel.

Thermal data

For EPL Ga:
The relation between ambient temperature range and temperature class:

Temperature class	Ambient temperature range	
	P_i = 0.84 W	P_i = 0.75 W
T6	-40 °C to +47 °C	-40 °C to +50 °C
T5	-40 °C to +62 °C	-40 °C to +65 °C
T4	-40 °C to +85 °C	-40 °C to +85 °C

For EPL Db:
The surface temperature of the outer enclosure is +20 K above the ambient temperature, determined without a dust layer.
Ambient temperature range: -40 °C to +85 °C

For EPL Ma:
Ambient temperature range: -40 °C to +85 °C

Electrical data

Supply / output circuit (terminals 1 and 2):
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC and Ex ia I, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 30 V; I_i = 120 mA; P_i = 0.84 W or P_i = 0.75 W; C_i = 1 nF; L_i = 0 µH.

Sensor circuit (terminals 3, 4, 5 and 6):
in type of protection intrinsic safety Ex ia IIC, Ex ia IIIC and Ex ia I, with the following maximum values:
U_o = 9.6 V; I_o = 28 mA; P_o = 67.2 mW; C_o = 3.5 µF; L_o = 35 mH.

The sensor circuit is not infallibly galvanic isolated from the supply / output circuit. However, the galvanic isolation between the circuits is capable of withstanding a test voltage of 500 Vac during 1 minute.

SPECIFIC CONDITIONS OF USE: YES as shown below:
For ambient temperature range see Thermal data above.

If the enclosure is made of non-metallic plastic materials, electrostatic charges on the transmitter enclosure shall be avoided.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga or Ma, and if the enclosure is made of aluminium, it must be installed such, that ignition sources due to impact and friction sparks are excluded.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ga, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP20 according to IEC 60529, and that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Db, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP5X according to IEC 60079-0, and that is suitable for the application and correctly installed.

If the transmitter is installed in an explosive atmosphere requiring the use of equipment protection level Ma, the transmitter shall be mounted in a separately certified enclosure that provides a degree of protection of at least IP54 according to IEC 60529, and that is suitable for the application and correctly installed.