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 17.0014**

Certificate history:
Issue 0 (2017-05-05)

Status: **Current**

Issue No: 1

Date of Issue: 2020-08-20

Applicant: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany

Equipment: **Display Type FHX 40**

Optional accessory:

Type of Protection: **Ex i**

Marking: Ex ia IIC T6…T5 Gb
Ex ia IIIC T80 °C Db

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

Position: **Certification Manager**

Signature:
(for printed version)

Date: 2020-08-20

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:

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

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Certificate No.: **IECEx DEK 17.0014**

Date of issue: 2020-08-20 Issue No: 1

Manufacturer: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany

Additional manufacturing locations: **refer to Annex 2 for 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

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/ExTR17.0022/01

Quality Assessment Report:

DE/TUN/QAR06.0003/08

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

Display Model FHX 40 is used for the display of the measurement value of the connected transmitter.
The display with an aluminium enclosure, is provided with keys for local configuration and control.
The display is connected to the transmitter via a pluggable cable.
The maximum cable length is 40 m.

The enclosure provides a degree of protection of IP 65, 66 and 67 per IEC 60079-0 and IEC 60529.

See attached Annex 1 to Report No. NL/DEK/ExTR17.0022/01 for Nomenclature, Thermal data and Electrical data.

SPECIFIC CONDITIONS OF USE: NO

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
1. Assessed per 60079-0 Ed. 7

Annexes:

224773900-Annex1.pdf
224773900-Annex2.pdf

Thermal data

Ambient temperature range: -40 °C to +60 °C for temperature class T6
-40 °C to +75 °C for temperature class T5
-10 °C to +75 °C for EPL Db

The maximum surface temperature "T" of the enclosure is based on the maximum ambient temperature of 75 °C.

Type designation

Nomenclature: FHX40-abcd			
	a =	Certificate	F = IECEx Ex ia IIC T6…T5 Gb E = IECEx Ex ia IIIC T80 °C Db
	b =	Cable	1 = 20m/65ft (> HART) 5 = 20m/65ft (> PROFIBUS PA / FOUNDATION Fieldbus) x = special version not relevant for safety
	c =	Additional Options	A = Basic version B = Mounting braket, pipe 1”/2” x = special version not relevant for safety
	d =	Additional Marking	1 = Tagging (TAG)

Electrical data

Supply and input circuit (Connector, Pins 1 … 4):
in type of protection intrinsic safety Ex ia IIC or Ex ia IIIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:
U_i = 5.6 V; I_i = 47 mA; P_i = 66 mW; C_i = 11 µF; L_i = 30 µH.

The values for the capacitance C_i and the inductance L_i include the cable capacitance and inductance.

Annex 2 to Certificate of Conformity IECEx DEK 17.0014

Manufacturing locations

1. Endress+Hauser SE+Co. KG
   Hauptstraße 1
   79689 Maulburg
   Germany

2. Endress+Hauser GmbH+Co. KG
   Miramstraße 87
   34123 Kassel
   Germany

3. Endress+Hauser (USA) Automation Instrumentation Inc.
   2340 Endress Place
   Greenwood, Indiana 46143
   USA

4. Endress+Hauser (Suzhou) Automation Instrumentation Co. Ltd.
   China-Singapore Industrial Park (SIP)
   Su-Hong-Zhong-Lu, No. 491
   Jiangsu Province, 215021 Suzhou
   China

5. Endress+Hauser (India) Automation Instrumentation Pvt. Ltd.
   M-192, Waluj
   Aurangabad - 431136
   Maharashtra State
   India

6. Endress+Hauser Yamanashi Co. Ltd.
   862-1, Sakaigawa-cho
   Fuefuki-shi
   406 0846 Yamanashi
   Japan

7 Endress+Hauser (Brasil),
   Instrumentação e Automação Ltda.,
   Avenida Antonio Sesti, 600, Itatiba/SP
   Brasil