



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 20.0051X** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 1 [Issue 0 \(2020-08-30\)](#)
Date of Issue: 2021-03-19
Applicant: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany
Equipment: **Capacitive Level Limit Switch MINICAP, Type FTC 262-...**
Optional accessory:
Type of Protection: **Ex ia, Ex tb**
Marking: Ex ia/tb [ia Da] IIIC T₂₀₀ 108 °C T91 °C Da/Db

Approved for issue on behalf of the IECEx
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

2021-03-19

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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Date of issue: 2021-03-19

Issue No: 1

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

Additional manufacturing locations: **Refer to Annex 1 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

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

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/ExTR14.0038/02](#)

Quality Assessment Report:

[DE/TUN/QAR06.0003/08](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

With the capacitive Level Limit Switch for solids MINICAP Type FTC 262-..., the level limit of powders or fine-grained solids is directly detected by a capacitive probe and converted into an electrical signal.

The probe, suitable for EPL Da, consists of a plastic probe enclosure with two electrodes in it.

The electronics enclosure, made of aluminum, with the electronics insert inside is suitable for EPL Db.

The probe is connected to the electronics enclosure via a reinforced cable (rope) with a maximum length of 10 m.

Depending on the type of electronics insert, a load is energized by an output transistor (dc version) or a potential free switch-over contact is available (ac/dc version).

The probe and the probe circuit are in type of protection intrinsic safety Ex ia IIIC.

Ambient temperature range of the enclosure -40 °C to +60 °C,
process temperature range -40 °C to +80 °C.

The maximum surface temperature of the probe "T₂₀₀ 108 °C" is based on a maximum process temperature of 80 °C. The maximum surface temperature of the electronics enclosure, based on a maximum ambient temperature of 60 °C, is T91 °C.

Electrical data

type FTC 262-...2... (dc version):

Supply: 10.8 ... 45 Vdc, max. 1.5 W

Output current: max. 200 mA

U_m = 253 Vac

type FTC 262-...4... (ac/dc version):

Supply: 20 ... 253 Vac, 47 ... 63 Hz

20 ... 55 Vdc, max. 2 W

U_m = 253 Vac

Output: 1 switch-over contact, potential free

max. 253 Vac, 4 A

max. 30 Vdc, 4 A

max. 253 Vdc, 0.2 A

Probe circuit of both versions:

In type of protection intrinsic safety Ex ia IIIC. The maximum length of the cable between probe and enclosure is 10 m.

The probe circuit is infallibly galvanically isolated from the non-intrinsically safe supply and output circuits up to a peak value of the nominal voltage of 375 V.

Mechanical data

Carrying capacity of the probe rope:

bearing-power of the probe ≤ 3000 N at 20 °C and ≤ 2800 N at 80 °C.

The mechanical stress at the probe may not exceed the minimum value of the bearing-force of the probe rope.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Precautions shall be taken to assure that propagated brush discharges on the marking plate are avoided.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Ex tc Changed to Ex tb

Annex:

[225433200-Annex1.pdf](#)

Annex 1 to Certificate of Conformity IECEx DEK 20.0051X

Manufacturing locations

1. Endress+Hauser SE+Co. KG
Hauptstraße 1
79689 Maulburg
Germany
2. Endress+Hauser (USA) Automation Instrumentation Inc.
2340 Endress Place
Greenwood, Indiana 46143
USA
3. Endress+Hauser (Suzhou) Automation Instrumentation Co. Ltd.
China-Singapore Industrial Park (SIP)
Su-Hong-Zhong-Lu, No. 491
Jiangsu Province, 215021 Suzhou
China
4. Endress+Hauser (India) Automation Instrumentation Pvt. Ltd.
M-192, Waluj
Aurangabad - 431 136
Maharashtra State
India
5. Endress+Hauser Yamanashi Co. Ltd.
862-1, Sakaigawa-cho
Fuefuki-shi
406 0846 Yamanashi
Japan
6. Endress+Hauser (Brasil),
Instrumentação e Automação Ltda.,
Avenida Antonio Sesti, 600, Itatiba/SP
Brasil