



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 BVS 17.0089** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 [Issue 1 \(2020-12-18\)](#)
[Issue 0 \(2017-11-21\)](#)
Date of Issue: 2021-12-22
Applicant: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
Germany
Equipment: **Capacitive level limit switch Minicap type FTC260**
Optional accessory:
Type of Protection: **Protection by Enclosure "t"**
Marking: Ex ta/tb IIIC T₂₀₀105°C Da/Db


Approved for issue on behalf of the IECEx
Certification Body:

Dr Michael Wittler

Position:

Deputy Head of Certification Body

Signature:
(for printed version)



22.12.2021

Date:

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 Testing and Certification GmbH
Certification Body
Dinnendahlstrasse 9
44809 Bochum
Germany

 **DEKRA**
On the safe side.



IECEX Certificate of Conformity

Certificate No.: **IECEX BVS 17.0089**

Page 2 of 4

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Manufacturer: **Endress+Hauser SE+Co. KG**
Hauptstraße 1
79689 Maulburg
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 60079-31:2013](#) 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:

[DE/BVS/ExTR17.0085/02](#)

Quality Assessment Report:

[DE/TUN/QAR06.0003/09](#)



IECEX Certificate of Conformity

Certificate No.: **IECEX BVS 17.0089**

Page 3 of 4

Date of issue: 2021-12-22

Issue No: 2

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

General product information:

The Capacitive Point Level Switch MINICAP Type FTC260-***** has two electrodes forming a capacitor with a defined low capacitance when the probe is uncovered.

As soon as some material covers the probe a parallel circuit consisting of a larger capacitance and the resistance of the material (impedance) a signal is activated.

The Capacitive Point Level Switch consists of an aluminium electronics enclosure (F34) situated in Zone 21 and a plastic sensor located in Zone 20.

Parameters:

See Annex

Thermal limits

See Annex

SPECIFIC CONDITIONS OF USE: NO



IECEx Certificate of Conformity

Certificate No.: **IECEx BVS 17.0089**

Page 4 of 4

Date of issue: 2021-12-22

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Change from EPL Da/Dc to Da/Db

Annex:

[BVS_17_0089_Endress_Hauser_Annex_issue2.pdf](#)



IECEX Certificate of Conformity



Certificate No.: IECEx BVS 17.0089 Issue No. 2
Annex
Page 1 of 1

Parameters

Electrical parameters

Type FTC260-**4** (AC/DC-Version)

Maximum operating voltage or Current consumption	AC 20...253 V, 50/60 Hz DC 20... 55 V max. 2 W
Relay circuit or or	AC 253 V / 4 A / 1000 VA DC 253 V / 0.2 A / 50 W DC 30 V / 4 A / 120 W

Type FTC260-**2** (DC-Version)

Maximum operating voltage Current consumption	DC 10.8...45 V max. 1.5 W
Switch output (PNP) Current Switching capacity	max. 200 mA 9 W

Thermal limits

Permissible process temperature of the sensor (zone 20)	-40 °C...+ 80 °C
Maximum surface temperature of the sensor (zone 20) at an ambient temperature of 80 °C	105 °C
Maximum surface temperature of the sensor (zone 20) at an ambient temperature of 40 °C	65 °C
Permissible ambient temperature of the electronics housing (zone 22)	-40 °C...+ 60 °C
Maximum surface temperature of the sensor (zone 22) at an ambient temperature of 60 °C	90 °C
Maximum surface temperature of the sensor (zone 22) at an ambient temperature of 40 °C	70 °C