

CERTIFICATE

(1) EU-Type Examination

(2) **Equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 99ATEX5112 X** Issue Number: **4**

(4) Product: **Capacitive Level Limit Switch MINICAP, Type FTC 262-...**

(5) Manufacturer: **Endress+Hauser SE+Co. KG**

(6) Address: **Hauptstraße 1, 79689 Maulburg, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/DEK/ExTR14.0038/02.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 : 2018

EN 60079-11 : 2012

EN 60079-31 : 2014

except in respect of those requirements listed at item 18 of the Schedule.

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 1/2 D Ex ia/tb [ia Da] IIIC T₂₀₀ 108 °C T91 °C Da/Db

Date of certification: 19 March 2021

DEKRA Certification B.V.

R. Schuller
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 99ATEX5112 X**

Issue No. 4

(15) **Description**

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 equipment category 1, 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 equipment category 2.

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 T 91 °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.

(13) **SCHEDULE**

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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.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/DEK/ExTR14.0038/02.

(17) **Specific conditions of use**

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

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/DEK/ExTR14.0038/02.

(20) **Certificate history**

Issue 1 - 9511200	initial certificate
Issue 2 - 216479000	evaluation to latest standards
Issue 3 - 224871400	evaluation to EN IEC 60079-0 : 2018 and EN 60079-31 : 2014
Issue 4 - 225433200	Ex tc changed to Ex tb