

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: **DEKRA 13ATEX0072 X** Issue Number: **2**

(4) Product: **Prosonic T, models FMU 30 and O FMU30**

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

(6) Address: **Hauptstrasse 1, D-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/ExTR13.0021/01.

(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 60079-26: 2015

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 G Ex ia IIC T5 Ga/Gb

Date of certification: 27 January 2021

DEKRA Certification B.V.

R. Schuller
Certification Manager

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0072 X**

Issue No. 2

(15) **Description**

Compact ultrasonic level transmitter Prosonic T Model FMU 30 is mainly used for continuous non-contact measurement of liquids. Compact ultrasonic level transmitter Prosonic T Model FMU 30 combines a 1.5" or 2" sensor and the electronics. The sensor transmits short ultrasonic pulses and receives the echo reflected by the surface of the media. The electronics analyses the signal and computes the level data based on the time of flight principle and converts the data into a 4 to 20 mA signal (2-wire loop). Model O FMU30 is identical to FMU 30.

Programming, data visualizing and calibration can be done using the optional FMU30 display. Instead a certified adapter, e.g. Commubox +ToF Adapter FXA291 can be connected.

Ambient temperature range -20 °C to +60 °C.

Process temperature range -20 °C to +60 °C.

Electrical data

Interface 4 - 20 mA (Terminals 1, 2 and 3):

Supply and output circuit (terminals + and - or connector):

in type of protection intrinsic safety Ex ia IIC, only for connection to a certified intrinsically safe circuit, with the following maximum values:

$U_i = 30 \text{ V}$; $I_i = 300 \text{ mA}$; $P_i = 1 \text{ W}$; $L_i = 0 \text{ mH}$; $C_i = 13 \text{ nF}$.

Display connector (X301):

in type of protection intrinsic safety Ex ia IIC, with following maximum values:

$U_o = 3,8 \text{ V}$; $I_o = 30,53 \text{ mA}$; $P_o = 29 \text{ mW}$; $C_o = 100 \text{ }\mu\text{F}$; $L_o = 1 \text{ mH}$ and

$U_i = 3,8 \text{ V}$; $I_i = 47 \text{ mA}$; $P_i = 66 \text{ mW}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ }\mu\text{H}$.

Installation instructions

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

(16) **Report Number**

No. NL/DEK/ExTR13.0021/01.

(17) **Specific conditions of use**

Electrostatic charges on the Compact ultrasonic level transmitter Prosonic T Model FMU 30 shall be 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/ExTR13.0021/01.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate DEKRA 13ATEX0072 X**

Issue No. **2**

(20) **Certificate history**

Issue 1 - 215776500	initial certificate
Issue 2 - 225243100	evaluation to EN IEC 60079-0 : 2018 and EN 60079-26: 2015 and minor constructional changes