CERTIFICATE

(1) EC-Type Examination

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **DEKRA 13ATEX0072X** Issue Number: 1

(4) Equipment: **Prosonic T, Model FMU 30**

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

(6) Address: **Hauptstrasse 1, D-79689 Maulburg, Germany**

(7) This equipment 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 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems 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/**

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

EN 60079-0 : 2012 **EN 60079-11 : 2012** **EN 60079-26: 2007**

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

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

II 1/2 G Ex ia IIC T5 Ga/Gb

This certificate is issued on 5 April 2013 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

DEKRA Certification B.V.

R. Schuller
Certification Manager

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(13) # SCHEDULE

(14) **to EC-Type Examination Certificate DEKRA 13ATEX0072 X** Issue No. **1**

(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).

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 ºC to +60 ºC.
Process temperature range -20 ºC to +60 ºC.

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 V; I_i = 300 mA; P_i = 1 W; L_i = 0 mH; C_i = 13 nF.

Display connector (X301):
in type of protection intrinsic safety Ex ia IIC, with following maximum values:
U_o = 3,8 V; I_o = 30,53 mA; P_o = 29 mW; C_o = 100 µF; L_o = 1 mH and
U_i = 3,8 V; I_i = 47 mA; P_i = 66 mW; C_i = 0 nF; Li = 0 µH.

Installation instructions

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

(16) **Test Report**

No. NL/DEK/ExTR13.0021/**.

(17) **Special conditions for safe 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 (9).

(19) **Test documentation**

As listed in Test Report No. NL/DEK/ExTR13.0021/**