# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION
## IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

| | | |
|---|---|---|
| Certificate No.: | IECEx DEK 13.0015X issue No.:0 | Certificate history: |
| Status: | **Current** | |
| Date of Issue: | **2013-04-05** Page 1 of 4 | |

Applicant: **Endress + Hauser GmbH + Co. KG**
Hauptstrasse 1
79689 Maulburg
**Germany**

Electrical Apparatus: **Prosonic T, Model FMU 30**
*Optional accessory:*

Type of Protection: **Ex i**

Marking: Ex ia IIC T5 Ga/Gb

*Approved for issue on behalf of the IECEx Certification Body:* R. Schuller

*Position:* Certification Manager

*Signature:*
*(for printed version)*

*Date:* 2013-04-05

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 the Official IECEx Website.

Certificate issued by:

**DEKRA Certification B.V.**
**Utrechtseweg 310**
**6812 AR Arnhem**
**The Netherlands**

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Date of Issue: **2013-04-05** Issue No.: **0**



Manufacturer: **Endress + Hauser GmbH + Co. KG**
Hauptstrasse 1
79689 Maulburg
**Germany**

Additional Manufacturing location (s):
**Endress + Hauser GmbH + Co. KG**
Hauptstrasse 1
79689 Maulburg
Germany

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 electrical apparatus 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 : 2011**<br>Edition: 6.0 | Explosive atmospheres - Part 0: General requirements |
| **IEC 60079-11 : 2011**<br>Edition: 6.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" |
| **IEC 60079-26 : 2006**<br>Edition: 2 | Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga |

*This Certificate **does not** indicate compliance with electrical 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/ExTR13.0021/00

Quality Assessment Report:

DE/TUN/QAR06.0003/03

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**Schedule**

**EQUIPMENT:**
*Equipment and systems covered by this certificate are as follows:*

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.

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

**CONDITIONS OF CERTIFICATION: YES as shown below:**

Electrostatic charges on the Compact ultrasonic level transmitter Prosonic T Model FMU 30 shall be avoided

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**EQUIPMENT(continued):**

**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, for connection to a certified intrinsically safe circuit, 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; $L_i$ = 0 µH.