



EU - Type Examination Certificate

- (1) **EU - Type Examination Certificate**
- (2) **Component Intended for use on/in an Equipment or Protective System
Intended for use in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 16 ATEX 0064U

- (4) Product: **Induction sensor type EPx-....**
- (5) Manufacturer: **HEINRICHS Messtechnik GmbH**
- (6) Address: **Robert-Perthel-Straße 9 , D50739 Köln, Germany**
- (7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- (8) The Physical-Technical Testing Institute, Notified Body number 1026, in accordance with Articles 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26.02.2014, 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 Report number:
- 16/0064 dated 03.06.2016**
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 60079-0:2012; EN 60079-7:2007; EN 60079-11:2012; EN 60079-31:2009**
- (10) The sign „U“ is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.
- (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 2G Ex e ia IIC Gb**

 **II 2D Ex tb IIIC Db**

This certificate is valid till: **31.08.2019**

Responsible person:


Dípl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 08.06.2016

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Annexes: 2 (2 sheets)

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Physical-Technical Testing Institute
Ostrava - Radvanice

(13) **Schedule**

(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0064U**

(15) Description of Product:

The induction sensor of the type designation EPx-.... consists of a measurement pipe section of nominal inner diameter DN 15 ... DN 300, measuring electrodes, electromagnetic excitation coils and the so-called "chimney" - a steel pipe with a stainless-steel flange used to provide mechanical connection to the electronic unit of the induction flow meter or a terminal box.

The internal surface of the measurement pipe section is lined with materials of different thermal conductivity - see Annex No. 2. The measuring electrodes (white and green conductors) shall be connected to intrinsic safety circuits "ia". The electromagnetic coils (brown and blue conductors) are attached onto the pipe section and protected with a cover; the coil design meets the safety standards referred to as "e".

(16) Report Number.: 16/0064 dated 03.06.2016

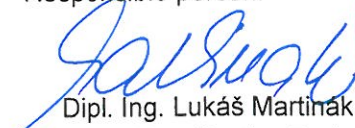
(17) Schedule of Limitations:

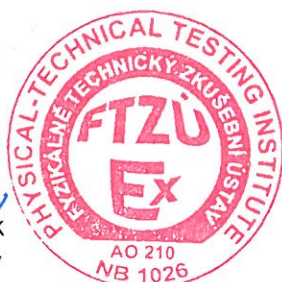
1. The intrinsic safety circuits sensing electrode circuit shall be connected to other intrinsic safety systems whose output parameters shall be within the sensor input parameters (green and white conductors); $U_i \leq 30 \text{ V}$, $I_i \leq 100 \text{ mA}$, C_i and L_i negligible.
2. The maximum permitted fluid temperature depends on the pipe lining material; the temperature class and the maximum permitted surface temperature (see Annex No. 1).
3. The induction sensor shall be fully flooded at all times.
4. Excitation of coils max. 200 mA.
5. $-35^\circ\text{C} \leq T_{\text{amb}} \leq +60^\circ\text{C}$.

(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (9) of this certificate.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



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(13)

Schedule

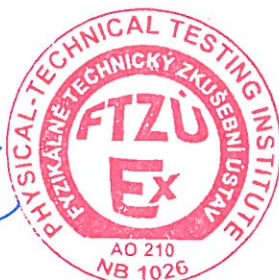
(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0064U**

(19) Drawings and Documents:

Number	Issue	Sheet	Date	Description
EPX-EX_BA_01-EN		22	19.06.2015	Operating manual
Es 301449			13.03.2014	
Es 301453			29.04.2014	
Es 301454			19.07.2014	
Es 402077			16.07.2014	
LOGO - 162	a		30.03.2016	
LOGO - 163	a		30.03.2016	
Es 402082			08.08.2014	

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ANNEX

to EU - Type Examination Certificate No. FTZÚ 16 ATEX 0064U

Annex No. 1

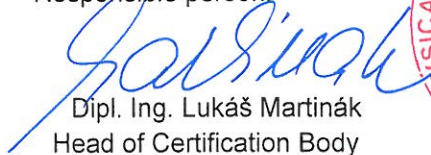
For DN 15 and DN 25

Type of lining	Maximum temperature of measured medium	Temperature class for 2G	Surface temperature 2D
MG	-35°C ÷ +48°C	T6	80°C
NG	+5°C ÷ +48°C	T6	80°C
E-CTFE a PTFE	-35°C ÷ +48°C	T6	80°C
E-CTFE a PTFE	-35°C ÷ +63°C	T5	95°C
E-CTFE a PTFE	-35°C ÷ +98°C	T4	130°C
E-CTFE a PTFE	-35°C ÷ +123°C	T3	155°C

For DN 32-300

Type of lining	Maximum temperature of measured medium	Temperature class for 2G	Surface temperature 2D
MG	-35°C ÷ +64°C	T6	80°C
NG	+5°C ÷ +64°C	T6	80°C
E-CTFE a PTFE	-35°C ÷ +64°C	T6	80°C
E-CTFE a PTFE	-35°C ÷ +79°C	T5	95°C
E-CTFE a PTFE	-35°C ÷ +114°C	T4	130°C
E-CTFE a PTFE	-35°C ÷ +139°C	T3	155°C

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Annex No. 2

The temperature of measured medium according to lining of sensor:

Type of lining:	Operating temperature of measured medium:
Soft rubber (MG)	-35°C ÷ +80°C
Hard rubber for drinking water (NG)	+5°C ÷ +80°C
E-CTFE	-35°C ÷ +130°C
PTFE (Teflon)	-35°C ÷ +230°C

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