



(1) **Supplementary EU - Type Examination Certificate No.1**

(2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 14 ATEX 0160X

(4) Product: **The induction sensor type IS X.1XXEx with terminal plate Ex**

(5) Manufacturer: **ELIS PLZEŇ a. s.**

(6) Address: **Luční 425/15, P.O.BOX 126, 304 26 Plzeň, Czech Republic**

(7) This supplementary certificate extends EC - Type Examination Certificate No. FTZÚ 14 ATEX 0160X to apply to products designed and constructed in accordance with the specification set out in the Schedule of the said certificate but having any variations specified in the Schedule attached 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, as modified by this supplementary certificate, 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.

(9) In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20.04.2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary Certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20.04.2016.

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

**EN 60079-0:2012+A11:2013; EN 60079-7:2015; EN 60079-11:2012;
EN 60079-31:2014**

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

Ex II 2G Ex eb ia IIC T6 ... T3 Gb

Ex II 2D Ex tb IIIC T 80°C ... T 155°C Db

(12) This certificate is valid till: **31.10.2024**

Responsible person:

Lukáš Martinák
Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 29.10.2019

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Annex: 1 (1 sheet)

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Physical-Technical Testing Institute
Ostrava - Radvanice

Schedule

(13)

(14) **Supplementary EU - Type Examination Certificate No. 1
to FTZÚ 14 ATEX 0160X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Evaluation according to the newest standards EN 602079-7:2015 and EN 60079-31:2014.
- Prolongation of certificate validity.

Technical parameters and construction remain unchanged.

(16) Report Number.: 14/0160/1

(17) Specific Conditions of Use:

1. The intrinsically safe sensing electrode circuit shall be connected to other intrinsically safe systems whose output parameters shall be within the specified sensor input parameters (the green and white conductors); $U_i \leq 30$ V, $I_i \leq 100$ 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 1).
3. The induction sensor shall be fully flooded at all times.
4. The maximum coil excitation current is 200 mA.
5. Range of temperature: $-35^\circ\text{C} \leq T_{amb} \leq +60^\circ\text{C}$.
6. Cable glands have to be certified according to the standards mentioned in (10) of this supplementary certificate.

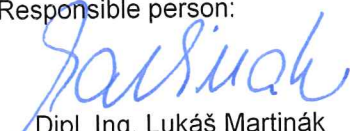
(18) Essential Health and Safety Requirements:

Compliance with the Essential Health and Safety Requirements is covered by standards mentioned in clause (10) of this supplementary certificate.

(19) Drawings and Documents:

Number	Sheets	Revision	Date	Description
Es 90 586 K	20	1	--	Technical description
Es 402080/a	2	a	18.01.2018	Drawing

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 29.10.2019

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Physical-Technical Testing Institute
Ostrava - Radvanice

Annex No. 1

to Supplementary EU - Type Examination Certificate No. 1
to FTZÚ 14 ATEX 0160X

For DN 15 and DN 25

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

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 29.10.2019

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EC-Type Examination Certificate

- (1)
(2) **Equipment or Protective Systems Intended for use
in Potentially Explosive Atmospheres
Directive 94/9/EC**

(3) EC-Type Examination Certificate Number:

FTZÚ 14 ATEX 0160X

(4) Component: **The induction sensor type IS X.1XXEx with terminal plate Ex**

(5) Manufacturer: **ELIS PLZEŇ a. s.**

(6) Address: **Luční 425/15, P.O.BOX 126, 304 26 Plzeň, Czech Republic**

- (7) This equipment or protective system and any of 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 Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 Report N°

14/0160 dated 28th August 2014

(9) Compliance with 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) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system 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 testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.
- (12) The marking of the equipment or protective system shall include following:

 **II 2G Ex e ia IIC T6 ... T3 Gb**

 **II 2D Ex tb IIIC T 80°C ... T 155°C Db**

This EC-Type Examination Certificate is valid till: **31.08.2019**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of certification body



Date of issue: 29.08.2014

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Annexes: 1 and 2 (1 page)

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Physical Technical Testing Institute
Ostrava-Radvanice

Schedule

(13)

(14) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0160X**

(15) Description of Equipment or Protective System:

Induction sensor of the type designation IS X.1XXEx approved by certificate FTZÚ 12 ATEX 0139U consists of a measuring 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 attached to which is a terminal box providing electrical connections to the electronic unit of the induction flow meter. The terminal box includes 7 connecting terminals separated from one another by partitions (3 terminals of the type designation 264-120 approved by certificate PTB 98 ATEX 3129U and marked SP+, SP- and PE, and 4 type-264 terminals intended for intrinsically safe circuits and marked 2, 2, 1 and 3).

(16) Report No. : 14/0160

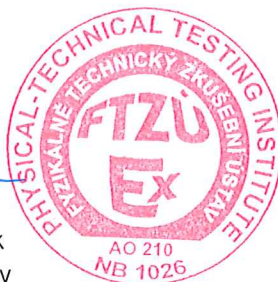
dated 28.08.2014

(17) Special conditions for safe use:

- 17.1 The intrinsically safe sensing electrode circuit shall be connected to other intrinsically safe systems whose output parameters shall be within the specified sensor input parameters (the green and white conductors); $U_i \leq 30$ V, $I_i \leq 100$ mA, C_i and L_i negligible.
- 17.2 The maximum permitted fluid temperature depends on the pipe lining material; the temperature class and the maximum permitted surface temperature (see Annex 1).
- 17.3 The induction sensor shall be fully flooded at all times.
- 17.4 The maximum coil excitation current is 200mA.
- 17.5 $-35^\circ\text{C} \leq T_{\text{amb}} \leq +60^\circ\text{C}$.
- 17.6 Cable glands have to be certified according to the standards mentioned in (9) of this certificate.

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of certification body



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Physical Technical Testing Institute
Ostrava-Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0160X**

(18) Essential Health and Safety Requirements:

18.1 Covered by standards mentioned in (9) of this document.

18.2 At installation and operation of induction sensor observe requirements of manual No. Es 90 586 K (20 pages).

(19) List of Documentation

- Manual for designing, application and service No. Es 90 586 K (20 pages)
- Drawings No.: Es 301469 date of issued 21.08.2014
- Es 301467 date of issued 09.07.2014
- Es 301471 date of issued 21.08.2014
- Es 402080 date of issued 08.08.2014
- Es 402083 date of issued 21.08.2014

Responsible person:

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Dipl. Ing. Lukáš Martinák
Head of certification body



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Physical Technical Testing Institute
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ANNEXES

to EC-Type Examination Certificate N° FTZÚ 14 ATEX 0160X

Annex No. 1

For DN 15 and DN 25

Type of lining	Maximum temperature of measured medium	Temperature class for 2G	Surface temperature for 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 for 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

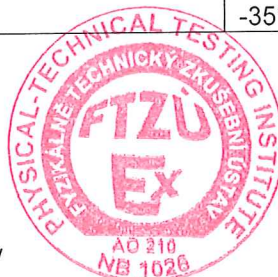
Annex No. 2

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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