IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.:	**IECEx FTZU 20.0004X**	Page 1 of 3	Certificate history:
Status:	**Current**	Issue No: 0	
Date of Issue:	2020-05-29		
Applicant:	**ELIS Plzeň, a.s.** Luční 425/15 Plzeň 301 00 **Czech Republic**		
Equipment:	**Induction sensor with terminal box Ex type IS X.1XXEx**		
Optional accessory:			
Type of Protection:	**increased safety "e", intrinsic safety "i", dust protection "t"**		
Marking:	Ex eb ia IIC T6 …T3 Gb Ex tb IIIC 80°C …155°C Db		

Approved for issue on behalf of the IECEx Certification Body: **Dlpl. Ing. Lukáš Martinák**

Position: **Head of the Certification Body**

Signature: (for printed version)

Date:

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 www.iecex.com or use of this QR Code.

Certificate issued by:

Fyzikalne technicky zkusebni ustav
(Physical -Technical Testing Institute)
Pikartska 7, 71607 Ostrava - Radvanice
Czech Republic

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Certificate No.: **IECEx FTZU 20.0004X**

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Manufacturer: **ELIS Plzeň, a.s.**
Luční 425/15
Plzeň 301 00
Czech Republic

Additional manufacturing locations:

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 equipment 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 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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:

CZ/FTZU/ExTR20.0012/00

Quality Assessment Report:

CZ/FTZU/QAR19.0004/01

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The equipment is used for measuring liquid or fluids and their parameters in the pipes.

The equipment consists from two parts. The first part is the Induction sensor type IS X.1XXEx which is Ex component approved by certificate IECEx FTZU 20.0012U. The second part is the Connection head type XD-JBA which is Ex component approved by certificate IECEx FTZU 12.0018U.

The first part is fully applied in this Ex equipment.

The second part is equiped by seven inner terminals and one barrier type WAGO 264 which are Ex components approved by certificate IECEx PTB 04.0003U. There is used one suitable "eb", "tb" cable gland mounted on the Connection head.

The three terminals marked SP+, SP- and PE are "eb" or "tb". Parameters: Un ≤ 30 V, In ≤ 200 mA

The four terminals marked 2, 2, 1 and 3 are "ia" or "tb". Parameters for "ia": Ui = 30 V, Ii = 100 mA, Li and Ci negligible. Parameters for "tb": Un ≤ 30 V, In ≤ 100 mA

The equipment fulfills the requirement for IP67.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. The maximum permitted fluid temperature depends on the pipe lining material, temperature class and maximum permitted surface temperature as described in the Annex to this certificate.

2. The induction sensor shall be fully flooded at all times.

3. The sum of current for excitation of coils shall be max. 200 mA.

4. -35°C ≤ Tamb ≤ +60°C

5. The suitable cable gland shall be used only with Ex protection Ex eb IIC and/or Ex tb IIIC with minimally IP 67.

Annex:

Annex_to_IECEx_FTZU_20_0004X_00.pdf

Temperature tables:

For DN 15 and DN 25:

Type of lining	Measured medium temperature range	Temperature class for Gb	Maximum surface temperature for Db
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 – DN 300:

Type of lining	Measured medium temperature range	Temperature class for Gb	Maximum surface temperature for Db
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
PTFE	-35°C ÷ +139°C	T3	155°C

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