



(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 16 ATEX 0139X

(4) Product: **High Frequency Limit Level Sensor type RFLS-35Xi (XiM)**

(5) Manufacturer: **Dinel, s.r.o.**

(6) Address: **U Tescomy 249, 760 01 Zlín, Czech Republic**

(7) This supplementary certificate extends EU - Type Examination Certificate No. FTZÚ 16 ATEX 139X 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) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-11:2012, EN 50303:2000

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

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

 **II 1G Ex ia IIB T5 Ga** version Xi
I M1 Ex ia I Ma version XiM

(12) This certificate is valid till: **30.11.2025**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 27.11.2020

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(14) **Supplementary EU - Type Examination Certificate No. 1
to FTZÚ 16 ATEX 0139X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Modification of certified apparatus;
- Extension of product line;
- Evaluation according the newest standards;
- Prolongation of certificate validity.

This supplementary certificate describes the modification of electric schema of product and extends product line

The product is now made in these modifications:

- type 1: current product, minor changes in used components;
- type 11: the product is electrically and mechanically identical with type 1, the only difference is in mechanical construction of measuring head;
- type 2: new product, there are minor changes in electrical schema in comparison with type 1, reworked PCB and new construction of measuring head
- type 21: the product is electrically and mechanically identical with type 2, the only difference is in mechanical construction of measuring head

Intrinsically safe parameters are identical for all four types of product:

$U_i = 12 \text{ VDC}$, $I_i = 15 \text{ mA}$, $P_i = 45 \text{ mW}$, $L_i = 10 \text{ } \mu\text{H}$, $C_i = 15 \text{ nF}$

Ambient temperature: $-40^\circ\text{C} \leq T_a \leq +80^\circ\text{C}$

(16) Report Number: 16/0139/1

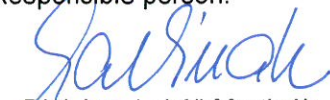
(17) Specific Conditions of Use:

None additional to those listed previously.

(18) Essential Health and Safety Requirements:

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

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



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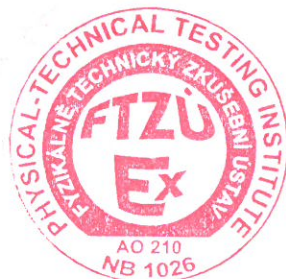
(14) **Supplementary EU - Type Examination Certificate No. 1
to FTZÚ 16 ATEX 0139X**

(19) Drawings and Documents:

Number:	Sheets:	Date:	Description:
RFLS-35	12	01.2016	Production Documentation – electrical part
RFLS-35	12	05.2020	Technical Conditions
RFLS-35	24	05.2020	User Manual
RFLS-35-SZ-02	1	03.06.2020	Wiring diagram
RFLS-35-OS-01	1	15.01.2016	Assembly diagram
RFLS-35-OS-03	1	04.03.2016	Assembly diagram
RFLS-35-OS-04	1	15.08.2018	Assembly diagram
RFLS-35-MO-01	1	15.01.2016	PCB diagram
RFLS-35-MO-03	1	04.03.2016	PCB diagram
RFLS-35-MO-04	1	15.08.2018	PCB diagram
RFLS-35-SS-01	1	20.06.2019	List of components
RFLS-35-SS-03	1	15.01.2016	List of components
RFLS-35-SS-04	1	03.06.2020	List of components
RFLS-35-SS-05	1	15.08.2020	List of components
RFLS-35-OD-01	1	15.01.2016	Labels RFLS-35
RFLS-35-100	1	18.05.2020	Assembly set RFLS-35_-1_
RFLS-35-200	1	15.08.2018	Assembly set RFLS-35_-2_
RFLS-35-300	1	02.04.2019	Assembly set RFLS-35_-11_
RFLS-35-400	1	02.04.2019	Assembly set RFLS-35_-21_
RFLS-35-PV-100.1	1	20.05.2020	Head assembly - electrode type 1
RFLS-35-PV-101.1	1	20.05.2020	Enclosure assembly with head electronics
RFLS-35-PV-200.1	1	15.08.2018	Head assembly – electrode type 2
RFLS-35-PV-300.1	1	12.06.2019	Head assembly – electrode type 11
RFLS-35-PV-400.1	1	12.06.2019	Head assembly – electrode type 21

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



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EU - Type Examination Certificate

- (1)
- (2) **Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 2014/34/EU)**

(3) EU - Type Examination Certificate number:

FTZÚ 16 ATEX 0139X

- (4) Product: **High Frequency Limit Level Sensor type RFLS-35Xi (XiM)**
- (5) Manufacturer: **Dinel, s.r.o.**
- (6) Address: **U Tescomy 249, 760 01 Zlín, Czech Republic**
- (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:
16/0139 dated 16.03.2017
- (9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2012, EN 60079-11:2012, EN 50303:2000
- (10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.
- (11) This 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 1G Ex ia IIB T5 Ga version Xi

I M1 Ex ia I Ma version XiM

This certificate is valid till: **16.03.2022**

Responsible person:

Lukáš Martinák
Dipl. Ing. Lukáš Martinák

Head of Certification Body



Date of issue: 16.03.2017

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(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0139X**

(15) Description of Product:

The product High Frequency Limit Level Sensor type RFLS-35Xi (XiM) is designed to limit sensing of level of liquid and paste mediums. It is designed for installation in the vessel wall or pipe, where runs level detection. The sensor operates at a high frequency band, which allows him to eliminate sediments, foam and the like. It contains of steel enclosure with electronic and sensing electrode. The level of surface is convert to current signal NAMUR (<1mA, >2,2mA). The level sensors are producing in some modification of connection by solid cable with plastic or metallic glands or with connection by connector. There is a process connection with pipe thread.

Intrinsically safe parameters:

$U_i = 12 \text{ VDC}$, $I_i = 15 \text{ mA}$, $P_i = 45 \text{ mW}$, $L_i = 10 \text{ } \mu\text{H}$, $C_i = 15 \text{ nF}$

Ambient temperature: $-40^\circ\text{C} \leq T_a \leq +80^\circ\text{C}$

(16) Report Number.: 16/0139

(17) Specific Conditions of Use:

1. Connected intrinsically safe apparatus must be galvanically separated or in the case of using the apparatus without galvanic separation (Zenner barrier) it is necessary to carry out the equalization of potentials between transducer and the place of barriers.
2. The version RFLS-35Xi can be placed into Zone 0
3. For the implementation RFLS-35XiM must be observed that the temperature of any surface, where coal dust can form a layer, does not exceed 100°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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This certificate is granted subject to the general conditions of the FTZÚ, s.p.
This certificate may only be reproduced in its entirety and without any change, schedule included.

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Physical-Technical Testing Institute
Ostrava - Radvanice

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(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0139X**

(19) Drawings and Documents:

Number:	Sheets:	Date:	Description:
RFLS-35	10	01.2015	Production Documentation –electrical part
RFLS-35	4	01.2015	Production Documentation –mechanical part
RFLS-35	11	05.2016	Technical Conditions
RFLS-35	20	12.2016	User Manual
RFLS-35-SV-01	1	19.02.2016	List of Drawings
RFLS-35-100	1	15.06.16	Set RFLS-35_-1_

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 16.03.2017

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