



(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 0140X**

(4) Product: **Capacitive Level Sensor type DLS-35Xi (XiT, XiM, XiMT)**

(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 0140X 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**

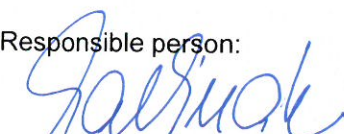
(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to Specific Conditions of Use specified in the schedule to this certificate.

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

**See clause (15)**

(12) This certificate is valid till: **30.09.2027**

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



Date of issue: 20.09.2022

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Physical-Technical Testing Institute  
Ostrava - Radvanice

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(14) **Supplementary EU - Type Examination Certificate No. 1  
to FTZÚ 16 ATEX 0140X**

(15) Description of the variation to the Product:

The subject of this supplementary certificate is:

- Modification of certified apparatus.
- Modification of Ex marking.
- Modification of Technical parameters.
- Extension of special conditions of use.
- Evaluation according actual valid standards.
- Extension of certificate validity.

This supplementary certificate describes the minor constructional changes of product. The certificate validity was prolonged for next five years. The list of updated documents is listed in clause (19) of this supplementary certificate. Technical parameters were modified.

Ex marking of product:

 **II 1G Ex ia IIB T6...T1 Ga**


version Xi, electrode types 10, 13, 20, 21, 22, 25, 30, 31, 40, 41, 50, 52

 **II 1D Ex ia IIIC T<sub>200</sub> 80 °C ... T<sub>200</sub> 305 °C Da**

version Xi, electrode types 10,13, 20, 30, 40, 50

 **II 1/2G Ex ia IIB T6...T1 Ga/Gb**

version XiT, electrode types 10, 13, 20, 21, 22, 25, 30, 31, 40, 41, 50, 52

 **II 1/2D Ex ia IIIC T<sub>200</sub> 80 °C ... T<sub>200</sub> 305 °C Da/Db**

version XiT, electrode types 10, 13, 20, 30, 40, 50

 **I M1 Ex ia I Ma**

version XiM, XiMT

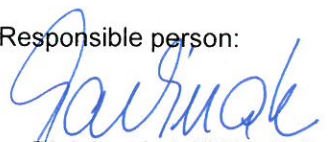
Intrinsically safe parameters:

U<sub>i</sub> = 12 VDC, I<sub>i</sub> = 15 mA, P<sub>i</sub> = 45 mW, L<sub>i</sub> = 10 µH, C<sub>i</sub> = 15 nF

Ambient temperature: -40°C ≤ T<sub>a</sub> ≤ +75°C

Ambient temperature of sensor part of product: T<sub>m</sub> – measured process media temperature

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



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Physical-Technical Testing Institute, s.p., Pikartská 1337/7, 716 07 Ostrava - Radvanice, Czech Republic  
tel.: +420 595 223 111, +420 604 203 525, e-mail: ftzu@ftzu.cz, www.ftzu.cz



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(14) **Supplementary EU - Type Examination Certificate No. 1  
to FTZÚ 16 ATEX 0140X**

(16) Report Number: 16/0140/1

(17) Specific Conditions of Use:

1. Connected intrinsically safe apparatus shall 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 DLS-35Xi can be placed into Zone 0 or Zone 20. For the implementation DLS-35XiT the only sensing electrode can be placed into Zone 0 or Zone 20, the head with electronics can be placed only into Zone 1 or Zone 21. The maximal temperature sensing electrodes is given by temperature of measured material.
3. Temperature class and maximal surface temperature depends on process media temperature.

**Version Xi:**

Temperature class for EPL Ga:

T1 ... for maximal process media temperature  $T_m = 435^{\circ}\text{C}$ .

T2 ... for maximal process media temperature  $T_m = 285^{\circ}\text{C}$ .

T3 ... for maximal process media temperature  $T_m = 190^{\circ}\text{C}$ .

T4 ... for maximal process media temperature  $T_m = 125^{\circ}\text{C}$ .

T5 ... for maximal process media temperature  $T_m = 90^{\circ}\text{C}$ .

T6 ... for maximal process media temperature  $T_m = 75^{\circ}\text{C}$ .

Maximal surface temperature for EPL Da:

Process media temperature range is from  $-40^{\circ}\text{C}$  to  $+300^{\circ}\text{C}$ .

Maximal surface temperature shall be calculated as  $T_{200} = T_m + 5^{\circ}\text{C}$ .

**Version XiT**

Temperature class for EPL Ga/Gb:

T1 ... for maximal process media temperature  $T_m = 435^{\circ}\text{C}$ .

T2 ... for maximal process media temperature  $T_m = 285^{\circ}\text{C}$ .

T3 ... for maximal process media temperature  $T_m = 190^{\circ}\text{C}$ .

T4 ... for maximal process media temperature  $T_m = 125^{\circ}\text{C}$ .

T5 ... for maximal process media temperature  $T_m = 90^{\circ}\text{C}$ .

T6 ... for maximal process media temperature  $T_m = 75^{\circ}\text{C}$ .

Maximal surface temperature for EPL Da/Db:

Process media temperature range is from  $-40^{\circ}\text{C}$  to  $+300^{\circ}\text{C}$ .

Maximal surface temperature of EPL Da/Db: part of product shall be calculated as  $T_{200} = T_m + 5^{\circ}\text{C}$ .

**Version XiM, XiMT**

Maximal temperature of process media is  $145^{\circ}\text{C}$ .

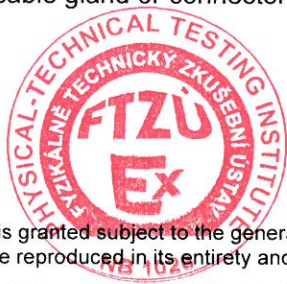
4. Equipment for application in explosive dust atmosphere must be installed in such a manner that the risk of propagating brush discharges is avoided. This restriction applies only to the part of the equipment where the label, cable gland or connector is located.

Responsible person:

Dipl. Ing. Lukáš Martinák  
Head of Certification Body

Date of issue: 20.09.2022

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to FTZÚ 16 ATEX 0140X**

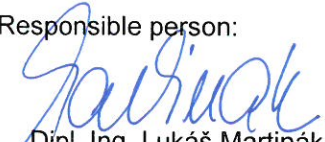
(18) Essential Health and Safety Requirements:

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

(19) Drawings and Documents:

Number	Sheets	Date	Description
--	32	05.2022	User's manual
DLx-35-OD-02	1	06.09.2022	Labels
--	23	06.2022	Technical conditions
DLx-35-SZ-05	1	02.02.2022	Schematic diagram
DLx-35-SS-07	1	02.02.2022	BOM
DLx-35-OS-01	1	19.04.2022	PCB Layout of DLx35E_v4
DLx-35-MO-01	1	19.04.2022	PCB Layout of DLx35E_v4
DLx-35-SS-01	1	02.02.2022	BOM DLx35E_v4
DLX-35-200	1	12.10.2017	Assembly of DL_-35_-20
DLX-35-600	1	02.02.2022	Assembly of DL_-35_-52
DLX-35-230	1	12.10.2017	Assembly of DL_-35_-21,22
DLX-35-280	1	22.07.2021	Assembly of DL_-35_-25
DLX-35-330	1	22.07.2016	Assembly of DL_-35_-31
DLX-35-450	1	22.07.2016	Assembly of DL_-35_-41
DLM-35-203	1	12.10.2017	Insulation inlet type 20
DLX-35-233	1	04.05.2015	Insulation inlet
DLS-35-103	1	26.08.2014	Insulation inlet type 10
DLX-35-333	1	01.06.2016	Insulation inlet type 31
DLX-35-453	1	26.02.2015	Insulation inlet type 41
DLX-35-533	1	24.11.2021	Insulation inlet type 52

Responsible person:

  
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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 0140X

- (4) Product: **Capacitive Level Sensor type DLS-35Xi (XiT, XiM, XiMT)**
- (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:

**16/0140 dated 01.03.2017**

- (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 T6 Ga**



**II 1D Ex ia IIIC T80°C Da**

version Xi



**II 1/2G Ex ia IIB T6 Ga/Gb**

**II 1/2D Ex ia IIIC T80°C Da/Db**


version XiT

**I M1 Ex ia I Ma**

version XiM, XiMT

This certificate is valid till: **01.03.2022**

Responsible person:

  
Dipl. Ing. Lukáš Martinák  
Head of Certification Body



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(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0140X**

(15) Description of Product:

The product Capacitive Level Sensor type DLS-35Xi (XiM, XiT, XiMT) is designed to limit sensing of level of liquids, loose substances in storage tanks, containers, etc. It contains of steel enclosure with electronic and sensing electrode. The level of surface is converted to current signal NAMUR (<1mA, >2,2mA). The level sensors are produced in some modification of sensing electrodes, bars or cables, with insulated electrode or non-insulated electrode, with connection by solid cable with plastic or metallic glands or with connection by connector. All versions are produced in modification for high processing temperature marked DLS-35XiT (XiMT). There are several types with different procedural connection (metric pipe thread, pressure thread NPT).

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:  $-40^\circ\text{C} \leq T_a \leq +75^\circ\text{C}$

(16) Report Number.: 16/0140

(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 (Zener barrier) it is necessary to carry out the equalization of potentials between transducer and the place of barriers.
2. The version DLS-35Xi can be placed into Zone 0 or Zone 20. For the implementation DLS-35XiT the only sensing electrode can be placed into Zone 0 or Zone 20, the head with electronics can be placed only into Zone 1 or Zone 21. The maximal temperature sensing electrodes is given by temperature of measured material.
3. For the implementation DLS-35XiMT must be observed that the temperature of any surface, where coal dust can form a layer, does not exceed  $150^\circ\text{C}$ .

(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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(14) **EU - Type Examination Certificate No. FTZÚ 16 ATEX 0140X**

(19) Drawings and Documents:

Number:	Sheets:	Date:	Description:
DLx-35	11	05.2015	Production Documentation
DLx-35	18	05.2016	Technical Conditions
DLS-35	28	05.2016	User Manual
DLx-35-SV-01	1	04.03.2016	List of Drawings
DLS-35-100	1	22.07.16	Set DLS-35_-10
DLS-35-130	1	22.07.16	Set DLS-35_-11
DLS-35-150	1	22.07.16	Set DLS-35_-13
DLX-35-230	1	22.07.16	Set DL_-35_-20, 21, 22
DLX-35-250	1	22.07.16	Set DL_-35_-23, 25
DLX-35-300	1	22.07.16	Set DL_-35_-30
DLX-35-330	1	22.07.16	Set DL_-35_-31
DLX-35-400	1	22.07.16	Set DL_-35_-40
DLX-35-450	1	22.07.16	Set DL_-35_-41
DLX-35-480	1	22.07.16	Set DL_-35_-43, 45
DLX-35-500	1	22.07.16	Set DL_-35_-50
DLX-35-900	1	22.07.16	Set DL_-35_T

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tel +420 595 223 111, fax +420 596 232 672, ftzu@ftzu.cz, www.ftzu.cz