

Electromagnetic Compatibility (EMC) Directive 2014/30/EU, Directive 2014/34/EU on equipment and protective systems intended for use in potentially explosive atmospheres (ATEX) and Directive (RoHS) 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

a) The manufacturer

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b) The Products Covered by this Declaration

Capacity Level Meter

DLS-35Xi(XiT, XiM, XiMT)

c) Product brief

The capacitive level sensor type DLS-35Xi(XiT, XiM, XiMT) is designed to bistable level indication in tanks or containers. It allows level sensing and indication of electric conductive and non-conductive liquids, bulky materials, granulate and grain.

d) The Basis on which Conformity is being Declared

Intrinsic safety: EN IEC 60079-0:2018
EN 60079-11:2012
EN 50303:2000

Electromagnetic compatibility: EN 61326-1
EN 55011
EN 61000-4-2 class A
EN 61000-4-3 class A
EN 61000-4-4 class A
EN 61000-4-5 class B
EN 61000-4-6 class A
EN 61000-4-8 class A

e) Details of accredited person

Intrinsic safety: Notified Body No. NB 1026, FTZÚ (Physical-Technical Testing Institute),
Pikartská 1337/7, 716 07 Ostrava-Radvanice, Czech Republic.
EC-Type Examination Certificate No. FTZÚ 16 ATEX 0140X from 01. 03. 2017 and Supplement No. 1 from 20. 9. 2022.

Electromagnetic compatibility: Accredited testing laboratory No. 1004.3, Institute for testing and certification, a.s.,
Sokolovská 573, 686 01 Uherské Hradiště, Czech Republic, ID: 47910381.
EMC protocol No. 414102770AE1 from 10. 3. 2015.

f) Special conditions for safe use

Version Xi, electrode types 10, 13, 20, 21, 22, 25, 30, 31, 40, 41, 50, 52: II 1G Ex ia IIB T6...T1 Ga
Version Xi, electrode types 10, 13, 20, 30, 40, 50: II 1D Ex ia IIIC T₂₀₀ 80°C ... T₂₀₀ 305 °C Da
Version XiT, electrode types 10, 13, 20, 21, 22, 25, 30, 31, 40, 41, 50, 52: II 1/2G Ex ia IIB T6...T1 Ga/Gb
Version XiT, electrode types 10, 13, 20, 30, 40, 50: II 1/2D Ex ia IIIC T₂₀₀ 80 °C ... T₂₀₀ 305 °C Da/Db
Version XiM, XiMT: I M1 Ex ia I Ma

Connected intrinsically safe apparatus shall 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.

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.

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°C.
T2 ... for maximal process media temperature T_m = 285°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°C to 300°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°C to 300°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°C .

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.

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

Ambient temperature range:
 $-40^\circ\text{C} \leq T_a \leq +75^\circ\text{C}$
Ambient temperature of sensor part of product: T_m - measured process media temperature

g) Ensure production quality

Manufacturer's quality management system was found conform with the requirements of EN ISO 9001: 2016. The company is holder of the certificate of quality management system, reg. number CQS 2201/2021 dated 13.10.2021 and valid until 12. 10. 2024, issued by certification body CQS (IQNet). The certificate is valid for the development, manufacture and sales of electronic components and systems for measurement, control

For products in potentially explosive atmospheres are to quality management system according to ISO 9001 applied special requirements according to EN ISO/IEC 80079-34:2020. The manufacturer got QUALITY ASSURANCE NOTIFICATION No. "FTZÚ 02 ATEX Q 016", issued by the Notified Body NB 1026 FTZÚ Ostrava-Radvanice. The notification is issued for protective systems intended for use in potentially explosive atmospheres acc. to Directive 2014/34/EU. The notice applies to a group of products with the type of explosion protection – Intrinsic safety "i" Protection with enclosure "t" and was issued on the basis of the audit protocol No. FTZÚ 02/ATEXQ/016 issued on 16. 6. 2023 and valid until 30. 6. 2026.

h) Manufacturer confirmation

The manufacturer identified in paragraph a) of this statement confirms that the properties of the product identified in point b) and c) of this declaration, meet the requirements, concretized in European technical standards identified in paragraph d) of this statement.

The product is under manufacturer's intended use safe. The manufacturer confirms that he has taken actions to ensure conformity of all products out on the market with technical documentation and the basic requirements.

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