



[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres - Directive 2014/34/EU Annex III - MODULE B: EU-TYPE EXAMINATION**

[3] EU-type Examination Certificate number: **IMQ 20 ATEX 006**

[4] PRODUCT: **Concentration gas transmitter**
TYPE/SERIES: **SW-X Series**

[5] MANUFACTURER: **Seitron S.p.A. a Socio Unico**

[6] ADDRESS: **Via del Commercio, 9/11 – I-36065 Mussolente VI**

[7] This equipment and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

[8] IMQ, notified body N° 0051, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product 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 Report No.:

AT19-0037677-01/1


[9] Compliance with Essential Health and Safety Requirements, except in respect of those listed at item 18 of the annex, has been assured by compliance with:

EN IEC 60079-0:2018 ; EN 60079-1:2014 ; EN 60079-31:2014 ; EN 60079-29-1:2016

[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 EU - TYPE EXAMINATION 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 equipment or protective system shall include the following:

 **II 2G Ex db IIC T6 Gb**
II 2D Ex tb IIIC T85°C Db

This document is composed of 4 pages including 1 annex

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B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER

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[13] **Annex**

[14] EU-type Examination Certificate number: **IMQ 20 ATEX 006**

[15] **Description of product:**

SW-X Series concentration gas transmitters are equipment designed to detect combustible gases, toxic gases or oxygen in industrial environments and classified areas.

They consist of the following components:

- gas sensor, contained in a metallic flameproof enclosure and protected by a sinter metal element,
- metallic flameproof junction box, containing terminals for electric connections and electronic circuits for amplification / conversion / transmission of signals.

The metallic flameproof junction box can be one of the following two options: Limatherm XD-JB85 or Elfit SC26.1. The metallic flameproof junction box has up to three threaded openings for cable entry, and one threaded opening on bottom side where the gas sensor metallic flameproof enclosure is fastened.

The gas concentration transmitters comply with the following standards: EN IEC 60079-0; EN 60079-1 and EN 60079-31; in addition transmitter for Methane (CH4) 50% L.E.L. F.S. complies with EN 60079-29-1.

[15.1] **Models/Series Identification:**

SW-X Series concentration gas transmitters model coding system:

| SW | - | X | * | * | * | * | ** | ** |
|--|---|---|---|---|---|---|----|----|
| <p>Gas detected: A = NH3 (Ammonia) B = C4H10 (Butane) C = CO (Carbon Monoxide) D = H2S (Hydrogen Sulfide) G = GPL (LPG) H = H2 (Hydrogen) L = Cl2 (Chlorine) M = CH4 (Methane) N = NO (Nitrogen Oxide) O = O2 (Oxygen) P = C3H8 (Propane) Q = NO2 (Nitrogen Dioxide) R = CO2 (Carbon Dioxide) S = SO2 (Sulphur Dioxide) V = Petrol Vapors - = Others</p> <p>X = ATEX</p> <p>Gas sensor housing material: 1 = Aluminium AW 2011 3 = Steel AISI 303 6 = Steel AISI 316 7 = Steel AVZ-1 8 = Brass - = Others</p> <p>Full scale: 1 = 0...500 ppm ; 4 = 0...50 % LEL ; 6 = 0...100 % LEL ; - = Others</p> <p>Interface: 1 = Current 4-20 mA / 4 = S-Bus / M = Modbus® / B = Current 4-20 mA + Modbus® / - = Others</p> <p>Junction box and threaded holes: 0 = Elfit, M25x1.5 / 1 = Elfit, 3/4" NPT / 5 = Limatherm, M25x1.5 / 6 = Limatherm, 3/4" NPT</p> <p>Construction variants, not relevant for type of protection</p> <p>S E = Seitron</p> | | | | | | | | |

[13] **Annex**

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[15.2] **Ratings:** $P_{max} = 2 \text{ W}$ (Elfit SC26.1) ; $P_{max} = 3,5 \text{ W}$ (Limatherm XD-JB85)

[15.3] **Safety Ratings:** -

[15.4] **Ambient temperature and temperature classes:**

Ambient temperature: $-20 \text{ °C} \div +55 \text{ °C}$

The **SW-X Series** concentration gas transmitter has temperature class T6

[15.5] **Degree of protection (IP code):** IP65

[15.6] **Warnings:** WARNING – DON NOT OPEN WHEN (ENERGIZED)

[16] **Report:** AT19-0037677-01/1

[16.1] **Routine (factory) tests:**

The manufacturer shall carry out the routine test prescribed at clause 27 of the EN 60079-0.

[16.2] **Conformity with the documentation:**

The manufacturer shall carry out the verifications or tests necessary to ensure that the product complies with the documentation.

Marking the equipment in accordance with Clause 29 of EN 60079-0, the manufacturer attests on his own responsibility that:

- the equipment has been constructed in accordance with the applicable requirements of the relevant standards in safety matters;
- the routine verifications and routine tests in 28.1 of EN 60079-0 have been successfully completed with positive results.

[16.3] **Installation conditions:**

Above referred equipment is foreseen to be installed in locations where there are environmental conditions as clearly specified at clause 1, par. 2 of EN 60079-0.

Installation and use in atmospheric and environmental conditions that are out of above mentioned intervals require special considerations and additional measures by the side of installer or user. These should be specified to the manufacturer by the user.

It is not required by applicable standard listed in [9] that the certification body confirm suitability for the adverse conditions.

This equipment shall be installed and maintained according to installation and maintenance standards EN 60079-14 and EN 60079-17, and strictly in compliance with details listed in manufacturer's use and safety instructions.

SW-X Series concentration gas transmitters must be installed only with gas sensor head pointing downwards.

Cable glands used for entry into the enclosure, as well as blanking elements, shall be certified as Ex

[13] Annex

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Components according to protection “d” and “t”, with degree of protection at least IP65 and suitable for the ambient temperature range $-20\text{ °C} \div +55\text{ °C}$.

Electrical components/devices installed inside the junction box, in order to ensure compliance with the declared maximum temperature rise must not exceed a total power consumption as follows:

- 3,5 W for Limatherm XD-JB85,
- 2 W for Elfit SC26.1.

The gas sensor is considered a mounting component and must be replaced as a single unit.

[17] **Special Condition of use (X):** -

[18] **Essential Health and safety Requirements:**

This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [9].

This Certificate **does not** cover hazards coming from environmental conditions different from those clearly and precisely indicated and covered in clause 1 of EN 60079-0.

ESHR 1.2.7 According Annex VIII of the Directive

ESHR 1.4 Not verified.

ESHR 1.5 Not verified.

ESHR 3 Not applied.

In addition to the Essential Health and Safety Requirements (EHSRs) covered by the standards listed at [9], the following are considered relevant to this product, and conformity is demonstrated in the report:
None

[19] **Descriptive documents:** DL- AT19-0037677-01/1 dated 2020-06-26.

[20] **Certification Validity Conditions:**

The use of this Certificate is subject to the Certification Scheme and to the Regulation applicable to holders of IMQ Certificates.

The validity of this certificate is subject to the condition that the manufacturer complies with the results of the document review and of the pertinent requirement if any included, recorded in the relevant copy of documentation as per 19.

One copy of the mentioned documentation is kept in IMQ file.

[21] **Variations**

2020, March: First issue

2020, July: Second issue

- addition of conformity to EN 60079-29-1 for only concentration gas transmitter for Methane (CH₄)