[1]

TYPE EXAMINATION STATEMENT
CATEGORY 3 EQUIPMENT

[2] **Equipment intended for use in potentially explosive atmospheres**

[3] Type Examination Statement number: **IMQ 26 ATEX 001 X**

[4] PRODUCT: **Gas Sensor**

TYPE/SERIES: **SMART3G-C3 Series** **Models "AT-EN / RD / ▮ / ▮ "**

SMART3G-D3 Series **Models "AT-EN / RC / ▮ / ▮ "**

[5] MANUFACTURER: **Sensitron S.r.l.**

[6] ADDRESS: **Via della Repubblica, 48 – 20007 Cornaredo (MI) - Italy**

[7] IMQ states that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of Category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive 2014/34/EU with reference to the requirements covered by the standards below defined.

[8] Compliance with EHSRs given in the Directive 2014/34/EU, except for those listed at item 17 of the annex, has been assured by compliance with the requirements of the following standard:

EN IEC 60079-0:2018; EN 60079-1 :2014 ; EN 60079-7:2015;EN IEC 60079-7:2015/A1:2018; EN 60079-31 :2014 ; EN 60079-15:2010;

Other reference standard: EN IEC 60079-0:2018/A11: 2024; EN IEC 60079-31:2024; EN IEC 60079-15:2019;

[9] If the sign "X" is placed after the statement number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this statement

[10] This TYPE EXAMINATION STATEMENT relates only to the design and construction of the specified equipment. Further requirements of the Directive are **not covered** by this statement.

[11] The marking of the equipment shall include at least one of the following:

II 3G	**Ex db ec nC IIC T6…T5 Gc**	**For Models "AT-EN / ▮ / E3R / ▮ " and "AT-EN / ▮ / E3D / ▮ "**
II 3G	**Ex db ec IIC T6…T5 Gc**	**For Models "AT-EN / ▮ / E3 / ▮ "**
II 3D	**Ex tc IIIC T85°C…T100°C Dc**	**For Models "AT-EN / ▮ / ▮ / ..GD"**

This document is composed of 4 pages including 1 annex

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B.U. PRODUCT CONFORMITY ASSESSMENT
CERTIFICATION SECTOR – MANAGER

Mod. 3681/4

[12] # ANNEX

[13] Type Examination Statement number: **IMQ 26 ATEX 001 X**

[14] Description of product:

The gas detectors, Series AT-EN, are suitable to be installed in Zone 2 and or Zone 22.
The equipment is composed of the following parts:
- Flameproof metallic gas sensor head (which contains sensing element and electronics) - Already ATEX Certified (Cert. no. CESI 01 ATEX 013U);
- Terminal box enclosure (which contains electronic boards);

The coupling between the sensor head and the enclosure consist of a tapered joint ¾" NPT coupled with a zamak locking nut and an o-ring, while cable passage is obtained via sealed cable bushing (which is cemented directly into the internal wall of the gas sensor head enclosure).
The sensor head has "Ex db" and "Ex tc" (only when provided with dust filter) execution while the terminal box enclosure has "Ex ec" and "Ex tc" execution.
When the terminal box enclosure includes relay board (with one or three sealed relays) the type of protection includes also the marking "Ex nC".
Models "**AT-EN / RC / ■ / ■** " (commercial name "SMART3G-C3") have a blind aluminum terminal box enclosure, while models "**AT-EN / RD / E3D / ■** " (commercial name "SMART3G-D3") have a polycarbonate window on the cover where is placed the display.
Both models can be provided with dust filter on the sensor head (in this case the code will be "AT-EN / ■ / ■ /..GD").

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

The gas detectors are identified by a code as follows:

AT-EN /	**■**	**/■**	**/■**
Enclosure model			
Blind	**RC**		
With display window	**RD**		
Contents			
Without display board and without relay board		**E3**	
With relay board and without display board		**E3R**	
With display board and with relay board		**E3D**	
Head model			
NET2/3 (for Gas application)			**S2/S3**
NET2/3 with dust filter (for Gas and dust application)			**S2GD/S3GD**

[14.2] **Ratings:**

Rated voltage: 12 - 24 Vdc (-20 / +10%)
Maximum absorbed current: 500 mA
Maximum absorbed power: 4 W

[14.3] **Safety Ratings: -**

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

Tamb ranges:

from -20°C to +55°C/+60°C when compound Type 1 used
from -40°C to +55°C/+60°C when compound Type 2 is used

Version with relays board has maximum ambient temperature of 45°C.

[12] # ANNEX

[13] Type Examination Statement number: **IMQ 26 ATEX 001 X**

Temperature class and Maximum surface temperature:

T6 and **T85°C**	*for Tamb of 55°C (or 45°C)*
T5 and **T100°C**	*for Tamb of 60°C*

[14.5] **Degree of protection (IP code):**

Models "AT-EN / ▉ /▉ /..GD"	IP65 (according to IEC 60079-0 and IEC 60529)
Other models	IP55 (according to IEC 60079-0 and IEC 60529)

[14.6] **Warnings:**

Warning - Do not open when an explosive atmosphere is present or when energized

Warning – Potential electrostatic charging hazard. Clean only with a damp cloth

[15] **Report:** AT23-0090544-01

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

The manufacturer shall carry out the routine test prescribed at clauses 27 of the EN 60079-0.
The manufacturer shall carry out the routine test prescribed at clauses […] of the EN 60079-[…].

[15.2] **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.

[15.3] **Installation conditions:**

The equipment is foreseen to be installed in locations where there are environmental conditions, as specified at clause 1 of EN 60079-0. Installation and use at environmental conditions outside of above-mentioned intervals request special considerations and additional measures by the side of installer or user.
Installation of equipment shall be done according to EN 60079-14.

Entry cable devices have to be selected according to EN 60079-14.

The accessories used for cable entries shall be certified according to EN 60079-0, EN 60079-7 and EN 60079-31 standards, with Gc and Dc minimum EPLs, and installed according to EN 60079-14.

They shall guarantee the declared protection degree of the equipment and their operative temperature range shall include the minimum ambient temperature declared.

Their entry thread shall have a nominal diameter not more than 0.7 mm smaller than the entry holes of enclosure.

[12] # ANNEX

[13] Type Examination Statement number: **IMQ 26 ATEX 001 X**

[16] Specific condition of use (X):

The installation, use, maintenance and restoration must be done following the Safety Instructions supplied by Sensitron.

The gas detector installation must guarantee the equipotential connection of the enclosure.

Only the models equipped with dust filter can be installed in Zone 22 (EPL Dc).

The dust filter has a membrane, this must not be damaged or removed. Moreover, the membrane cannot be touched with bare hands to avoid filter damage.

For models with window or varnished aluminium enclosures, there' s the risk of electrostatic charges accumulation. The equipment must be cleaned with a damp cloth or antistatic products.

The equipment shall only be used in an area of at least pollution degree 2, as defined in IEC 60664-1.

Flameproof joints are not intended to be repaired.

[17] Essential Health and safety Requirements:

This Statement **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed in [8].

This Statement **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 to be fulfilled by manufacturer 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 [8], the following are considered relevant to this equipment, and conformity is demonstrated in the report:

N/A

[18] Descriptive documents: DL-AT23-0090544-01, rev.0, dated 2026-01-14.

[19] Certification Validity Conditions:

This Statement is subject to general rules for the issuing of products type certificates and to special requirement for equipment intended for use in potentially explosive atmospheres.

This Statement is issued according to product certification system 1a of EN ISO/IEC 17067; therefore, it does not imply any judgment on the production and it does not permit the use of a mark of conformity.

This statement does not replace the conformity assessment procedure, to be carried out by the Manufacturer, referred to in Annex VIII of Directive 2014/34/EU.

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[20] Variations

Issue 0