IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx IMQ 26.0001X** Page 1 of 3 Certificate history:

Status: **Current** Issue No: 0

Date of Issue: 2026-02-19

Applicant: **SENSITRON S.r.l.**
Viale della Repubblica, 48
Cornaredo (MI) 20007
Italy

Equipment: **Gas detector - SMART3G-C3 Series and SMART3G-D3 Series**

Optional accessory:

Type of Protection: **Flameproof Ex db; Increased safety Ex ec; Dust tight Ex tc; Sealed Ex nC**

Marking:

Ex db ec nC IIC T6…T5 Gc	Models “AT-EN / RC / E3R / [redacted] ” and “AT-EN / RD / E3D / [redacted] ”
Ex db ec IIC T6…T5 Gc	Models “AT-EN / RC / E3 / [redacted] ”
Ex tc IIIC T85°C…T100°C Dc	Models “AT-EN / [redacted] / [redacted] /..GD”

Approved for issue on behalf of the IECEx Certification Body: **Mr. Mauro CASARI**

Position: **IMQ ExCB Manager**

Signature:
(for printed version)

Date:
(for printed version)

1. This certificate and schedule may only be reproduced in full.
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Istituto Italiano del Marchio di Qualità S.p.A
Via Quintiliano 43
20138 Milano
Italy

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Manufacturer: **SENSITRON S.r.l.**
Viale della Repubblica, 48
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Manufacturing locations: **SENSITRON S.r.l.**
Viale della Repubblica, 48
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This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:5.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

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

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

IT/IMQ/ExTR26.0001/00

Quality Assessment Report:

IT/CES/QAR07.0006/18

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

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; Aluminum enclosure can be used only for ATEX Certification;
- 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 / [redacted] / [redacted] " (commercial name "SMART3G-C3") have a blind aluminum terminal box enclosure, while models "AT-EN / RD / E3D / [redacted] " (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 / [redacted] / [redacted] /..GD").

Full details in Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:
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.

Annex:

IECEx IMQ 26.0001 X issue No. 0 Annex 1.pdf

Annex n.1 to: **IECEx IMQ 26.0001 X issue No. 0**
Applicant: **Sensitron S.r.l.**
Apparatus: **Gas detector**
Series **AT-EN**

General description

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; Aluminum enclosure can be used only for ATEX Certification;
- 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").

Ratings:

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

Ambient temperature and Maximum surface temperature:

Tamb ranges:

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

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

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*

Model Identification

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**

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”

Routine tests:

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

The manufacturer shall carry out the dielectric routine test prescribed at clause 7.1 of the IEC 60079-7 standard on the terminal box, the applied voltage (between galvanically isolated parts) shall be at least at 500 Vac.

Alternatively, the test shall be carried out at 1.2 times the test voltage, but maintained for at least 100 ms.

Specific conditions 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.

Installation conditions:

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

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