

CESI



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Schema di certificazione

CESI-ATEX



PRD N. 018B
Membro degli Accordi di Mutuo
Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

CERTIFICATE



[1] SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE

[2] **Equipment or Protective System intended for use
in potentially explosive atmospheres
Directive 2014/34/EU**

[3] Supplementary EU-Type Examination Certificate number:

CESI 14 ATEX 034 /01

[4] Product: **Gas detectors series ST/*/*/***

[5] Manufacturer: **SENSITRON S.r.l.**

[6] Address: **Via della Repubblica, 48 – 20010 Cornaredo (MI) - Italia**

[7] This supplementary certificate extends EC-Type Examination Certificate CESI 14 ATEX 034 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] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the Parliament and Council of 26 February 2014, certifies that this equipment or protective system 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 confidential report n. EX-C2003348.

[9] In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Supplementary certificates to such EC-Type Examination Certificates, and new issues of such certificates, may continue to bear the original certificate number issued prior to 20 April 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, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

[12] The marking of the equipment or protective system shall include the following:

 I M2 Ex db I Mb

This certificate may only be reproduced in its entirety and without any change, schedule included.

Date 26/04/2022 - Translation issued the 26/04/2022

Prepared
Adrián Lucas Vagní

Verified
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Approved
Roberto Piccin

[13]

Schedule

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 034 /01**

[15] **Description of the variation**

Variation 1.1: The Gas detectors series ST/**/**, previously assessed in compliance to the standards EN 60079-0:2012 and EN 60079-1:2007 were re-assessed on the basis of the Standards bring in the paragraph [18].

Variation 1.2: Addition of new sensor types NET1 and NET2 in execution for Group I.

Variation 1.3: Update of temperature range and the electronics maintaining the same dissipated power.

Description of equipment

The Gas detectors series ST/**/** are devices used to detect (sampling by diffusion) the concentration of flammable and toxic gases. They are composed by a stainless-steel sensor head containing the sensing element (pellistor, infrared or electrochemical cell) coupled to a stainless-steel enclosure (with or without window) containing the electronic circuits for elaboration and memorisation of signals and/or the terminal blocks.

Both the sensor head and the main enclosure are subject of separate certifications as Component for Group I with type of protection Ex db. This supplement covers the essential safety requirements against the risk of explosion of the complete equipment, made of sensor head and enclosure.

Models identification

ST / ** / ** *

Main enclosure type:

LI = XD-SI (blind)

LA = XD-SIwin (with display window)

Content of the enclosure:

E3 = with electronics "SMART3G"

ES = with electronics "SMART S"

M = No electronics, only terminal block

Sensor head type:

S1 = Type head NET1

S2 = Type head NET2

S3 = Type head NET3

Electrical characteristics

The specific electrical and functional characteristics of the various devices are detailed in the descriptive documents supplied with the equipment.

Rated supply voltage: 12 ÷ 24 V

Maximum absorbed current: 500 mA

Maximum absorbed power^[1]: NET1 ≤ 4.7 W

NET2 ≤ 4.7 W

NET3 ≤ 5.4 W

Ambient temperature^[2]: -40/-20 ÷ +40/+45/+50/+55/+60/+65/+70/+75 °C

[1] The actual power absorbed by the equipment is function of the power dissipated within the sensor head and of the power absorbed by the electric circuits inside of the enclosure.

[2] The ambient temperature values above reported represent the upper and lower limits of the applicable temperature range, taking into account the constructional and functional characteristics of the gas detectors.

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[13] **Schedule**

[14] **SUPPLEMENTARY EU-TYPE EXAMINATION CERTIFICATE n. CESI 14 ATEX 034 /01**

Installation conditions

The accessories used for the cable entries and to close the unused holes, shall be subject of a separate certification, shall be used according to the instructions reported in the relevant certificate and shall guarantee the same type/degree of protection assigned to the equipment. Moreover, the accessories shall be suitable to be use in the ambient temperature range assigned to the equipment.

Warning labels

“DO NOT OPEN WHEN ENERGIZED”

Furthermore, for detectors with ambient temperature $\geq 70^\circ \text{C}$:

“CABLE WITH AN OPERATING TEMPERATURE $>80^\circ \text{C}$ MUST BE USED”

[16] **Report n. EX-C2003348.**

Routine tests

None.

[18] **Essential Health and Safety Requirements**

Compliance with the Essential Health and Safety Requirements is assured by compliance to the following harmonized standards:

EN IEC 60079-0:2018 Explosive atmospheres – Part 0: Equipment - General requirements;

EN 60079-1:2014 Part 1: Equipment protection by flameproof enclosure “d”

[19] **Descriptive documents (prot. EX-C2003392)**

*MTEX3525 ATEX safety instructions (pg. 6) Rev.1	dated	02/02/2022
*MEEEX3522 ATEX marking (pg. 3) Rev.1	dated	26/01/2022
*NTEX3526 Technical Note (pg. 8) Rev.2	dated	26/01/2022
*DBAS5111 (pg. 7) Rev.1	dated	09/12/2021
*SE5110 (pg. 6) Rev.1	dated	24/11/2021
*DBAS3752 (pg. 7) Rev.19	dated	01/09/2021
*SE3750 (pg. 6) Rev.12	dated	27/08/2021
*DBAS4369 (pg. 3) Rev.10	dated	22/07/2020
*DBAS4372 (pg. 2) Rev.10	dated	22/07/2020
*SE3818 (pg. 5) Rev.2	dated	28/05/2019
*DBAS1436 Rev.3	dated	05/11/2018
*DBAS3584 (pg. 2) Rev.5	dated	22/02/2016
*SE3580 (pg. 3) Rev.2	dated	05/11/2015
-Drawing NTCX3520	dated	26/06/2014
-Drawing NTCX3523	dated	26/06/2014
-Drawing MECX3522	dated	26/06/2014
*SE1071 Rev.0	dated	23/11/2009
*DBAS1178 Rev.1	dated	09/01/2003
*SE341 Rev.0	dated	04/12/1997

*Note: an * is included before the title of documents that are new or revised.*

One copy of all documents mentioned above is kept in CESI files.

Certificate history

Issue nr	Issue Date	Summary description of variation
00	01/07/2014	First Issue of the Certificate.
01	26/04/2022	Update of the standard EN IEC 60079-0:2018 and EN 60079-1:2014. Addition of NET1 and NET2 type heads. Update of ambient temperature and the electronics maintaining the same dissipated power

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