

# CESI

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Sezione Ordinaria  
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P.I. IT00793580150

Schema di certificazione

# CEX-ATEX

Il CESI è stato autorizzato  
dal governo italiano ad  
operare quale organismo di  
certificazione di apparecchi  
e sistemi destinati a essere  
utilizzati in atmosfera  
potenzialmente esplosiva  
con D.M. 1/3/1983, D.M.  
19/6/1990, D.M. 20/7/1998  
e D.M. 27/9/2000

# CERTIFICATE



## EC-TYPE EXAMINATION CERTIFICATE

- [1] **EC-TYPE EXAMINATION CERTIFICATE**
- [2] **Equipment or Protective System intended for use  
in potentially explosive atmospheres  
Directive 94/9/EC**
- [3] **EC-Type Examination Certificate number:**  
**CESI 01 ATEX 053**
- [4] **Equipment:** Gas detectors type NET/
- [5] **Manufacturer:** SENSITRON S.r.l.
- [6] **Address:** Via A. Manzoni, 19 – 20010 Pogliano Milanese (MI) - Italy
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
- [8] CESI, notified body n. 0722 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, 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-A1/020536.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
- EN 50014: 1997 + A1..A2      EN 50018: 2000**
- [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 EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 94/9/EC. 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:

II 2 G EEx d IIC T6

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

Date 29 June 2001- Translation issued the 29 June 2001

**Prepared**  
Enrico Radaelli

**Verified**  
Mirco Balaz

**Approved**  
Ulisse Colombo

[13]

## Schedule

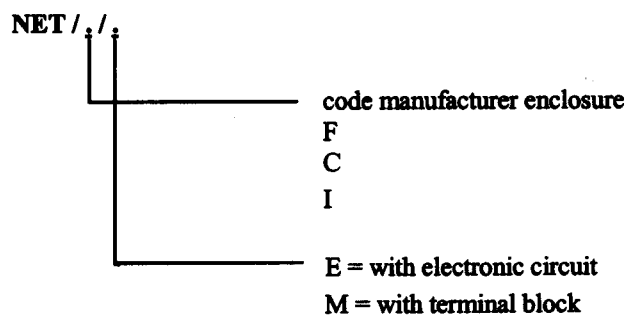
[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 053**

[15] **Description of equipment**

The gas detectors type NET/ are used to detect the concentration of combustible and toxic gases or oxygen.

The detectors are composed by a gas sensor containing the sensitive element (subject of Component Certificate CESI 01 ATEX 013U), coupled with an EEx d IIC enclosure containing the electronic circuit for the elaboration and memorisation of signals and/or the terminal block.

The gas detectors type NET/ are identified by a code as follows:



Complete codes and characteristics of detectors are reported in the documents annexed to this certificate.

The identification code is reported on the label fixed on the sensor and on the enclosure.

The accessories used for cable entries shall be certified according to EN 50014 and EN 50018 Standard.

If cylindrical threads are used, the coupling between the cable gland and the enclosure shall be made according to the requirements indicated in the documents annexed to this certificate.

### Electrical characteristics

Rated supply voltage: 12 + 24 Vdc

Maximum input current: 500 mA

Maximum power dissipated: 6 W

Ambient temperature: -20 + + 60 °C

### Warning label

"Not open when energized"

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[13]

## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 01 ATEX 053**

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[16] **Report n. CESI EX-A1/020536.**

### **Routine tests**

For all models of the detectors the manufacturer shall carry out the routine tests prescribed at paragraph 24 of EN 50014 standard and for the model NET/I/. the routine tests prescribed at paragraph 16 of EN 50018 Standard.

The manufacturer is exempted from the overpressure test on the models NET/F/. and NET/C/. since the relative enclosures have been submitted, with favourable result, to a routine overpressure test with the static method at a value corresponding to four times the reference pressure.

On the model NET/I/. the routine overpressure test shall be carried out at 13,5 bar with the static method (par. 15.1.3.1 of EN 50018 Standard).

### **Descriptive documents (prot. EX-A1/020537)**

- n. ST840 Rev. 3	(4 pg.)	dated	03.04.2001
- n. MT896 Rev. 0	(7 pg.)	dated	03.04.2001
- n. MT251 Rev. 7	(11 pg.)	dated	03.04.2001
- n. CE002 Rev. 0	(3 pg)	dated	03.04.2001
- Conformity declaration		dated	03.04.2001

One copy of all documents is kept in CESI files.

[17] **Special conditions for safe use**  
None.

[18] **Essential Health and Safety Requirements**  
Assured by compliance to the Standards.

## EXTENSION n. 01/04

to EC-Type Examination Certificate CESI 01ATEX053



Equipment: Gas detectors type NET/  
Manufacturer: SENSITRON S.r.l.  
Address: Via A. Manzoni 19 – 20010 Pogliano Milanese (MI) – Italy

### Admitted variation

- constructional modifications;
- new electrical characteristics;
- extension of the temperature ambient range for the gas group IIB;
- new marking for use in the presence of combustible dust.

Details of the constructional modifications are specified in the descriptive documents annexed to this extension.

The conformity to essential health and safety requirements are assured by the conformity to the following Standard:

EN 50014: 1997+A1..A2 EN 50018: 2000+A1 EN 50281-1-1: 1998+A1

The gas detectors type NET/ shall be marked as follows:

II 2GD EEx d IIC T6 or T5 or T4 IP65 T80°C or T100°C or T115°C for Tamb -20 ÷ +60 °C

II 2GD EEx d IIB T5 or T4 IP65 T100°C or T115°C for Tamb -20 ÷ +70 °C

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01ATEX053.

This document may only be reproduced in its entirety and without any change.

date 31 December 2004 - translation issued the 31 December 2004

prepared CERT – Enrico Radaelli

verified CERT – Mirko Balaz

approved CERT – Ulisse Colombo

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO  
Business Unit Certificazione

Il Responsabile

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# CESI

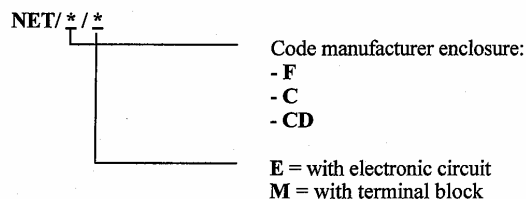
## EXTENSION n. 01/04

to EC-Type Examination Certificate CESI 03ATEX053

### Description of equipment

#### Description of equipment

The various type of gas detector type NET/ are identified by the following code:



### Electrical characteristics

- Maximum supply voltage: 24 Vdc
- Maximum absorbed current: 500 mA
- Maximum absorbed power: 6 W
- Maximum radiant power: < 35mW

### Cable entries

The accessories used for cable entries shall be subject of separate certification according to EN 50014 and EN 50018 standards and shall be used according the instructions reported in the relevant certificate.

Moreover the accessories for cable entries shall be certified according to EN 50281-1-1 and shall guarantee a minimum degree of protection IP 65 according to EN 60529 standard.

### Report n. EX-A4525560

#### Descriptive documents (prot. EX-A4525563)

- ST754	(pg. 3)	dated	22.07.2003
- ME1198		dated	12.03.2003
- ME1695		dated	12.03.2003
- AS1291 rev. 1		dated	22.07.2003
- IS1291 rev. 1		dated	22.07.2003
- ME1354 rev. 1		dated	22.07.2003
- ME1355 rev. 1		dated	22.07.2003
- ME1356 rev. 1		dated	22.07.2003
- ME1357 rev. 1		dated	22.07.2003
- ME1358 rev. 1		dated	22.07.2003
- MT896 rev. 2	(pg. 6)	dated	22.07.2003
- MT1015 rev. 1	(pg. 14)	dated	13.03.2003
- MT1016 rev. 1	(pg. 14)	dated	13.03.2003
- MT1017	(pg. 4)	dated	04.02.2003
- Declaration of Conformity		dated	18.11.2004

One copy of all documents is kept in CESI files.

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## EXTENSION n. 02/08



to EC-Type Examination Certificate CESI 01 ATEX 053

Equipment: Gas detectors series ST

Manufacturer: SENSITRON S.r.l.

Address: Via della Repubblica 48 – 20100 Cornaredo - MI - Italy


### Admitted variation


- change of identification code from NET/ in ST/;
- change of the manufacturer address from *Via A. Manzoni 19 – Pogliano Milanese (MI) ITALY* to *Viale della Repubblica 48 – Cornaredo (MI) ITALY*;
- constructional modification;
- new electrical characteristics;
- minimum operating temperature – 40°C for equipment of category 2G;
- conformity to EN60079-0 (2006), EN60079-1 (2004), EN61241-0 (2006), EN61241-1 (2004) Standards.


Details of the admitted variations are specified in the descriptive documents annexed to this extension.


### Marking

The gas detectors type ST/ shall be marked as follows:

 II 2G Ex d IIC T6 o T5 o T4 for Tamb –40 ÷ +60 °C

 II 2G Ex d IIB T5 o T4 for Tamb –40 ÷ +70 °C

 II 2GD Ex d IIC T6 o T5 o T4 Ex td A21 IP65 T85°C o T100°C o T110°C for Tamb –20 ÷ +60 °C

 II 2GD Ex d IIB T5 o T4 IP65 T100°C o T110°C for Tamb –20 ÷ +70 °C

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01 ATEX 053.

This document may only be reproduced in its entirety and without any change.

date 10 January 2008 - translation issued the 10<sup>th</sup> January 2008

prepared Enrico Radaelli

verified Mirko Balaz

approved Fiorenzo Bregani

**CESI** S.p.A.  
Divisione Energia  
"Area Tecnica Certificazione"  
Il Responsabile

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## EXTENSION n. 02/08

to EC-Type Examination Certificate CESI 01ATEX 053

### Description and identification of the equipment

The gas detectors series ST/ are composed by a gas sensor containing the sensitive element coupled with a flameproof enclosure containing electronic circuits and/or the terminal block. The enclosure may be equipped with the optical device WLPT02 for the infrared (IR) data transmission. Both the gas sensor and the flameproof enclosure are subject of separate certification.

The various type of gas detector type ST/ are identified by the following code that replaces the previous code at the date of the present extension:

ST/ \* / \*

Code of the manufacturer/type of the enclosure:  
**F ; C ; CD ; L ; LD ; LI**

**E** = with electronic circuit  
**M** = with terminal block

The complete code and the detectors characteristics are reported in the document annexed to the certificate. The identification code is reported both on the sensor plate and on the plate of the enclosure containing the electronic circuits and/or the terminal block.

### Electrical characteristics

- Maximum supply voltage: 24 Vdc
- Maximum absorbed current: 500 mA
- Maximum absorbed power: 8 W<sup>[1]</sup>
- Maximum radiant power: < 35mW
- Ambient temperature:
  - 40 ÷ +60/+70°C for detectors of category 2G
  - 20 ÷ +60/+70°C for detectors of category 2GD

[1] The real power absorbed by the equipment is function of the power absorbed by the sensitive element within the head sensor and of the power absorbed by the electric circuits inside of the enclosure. The relevant details to the different conditions of power absorbed, also in function of the maximum ambient temperature, are reported in the descriptive documents annexed to the certificate.

In the following table are reported the temperature class ( for gas "G") and the maximum surface temperature (for dust "D") of the ST/ detectors in function of the maximum ambient temperature, type and maximum power of the NPT\* head sensor containing the sensitive element.

Head type	NET 1				NET 2				NET 3			
	≤ 1W		≤ 3W		≤ 1W		≤ 3W		≤ 1W		≤ 3W	
Max ambient temperature	G	D	G	D	G	D	G	D	G	D	G	D
+ 60 °C	T6	T85°C	T4	T110°C	T6	T85°C	T5	T100°C	T6	T85°C	T5	T100°C
+ 70 °C (only for IIB)	T5	T100°C	T4	T110°C	T5	T100°C	T4	T110°C	T5	T100°C	T4	T110°C

### Warning label

For detectors with Tamb +70°C:

"Use cables with operating temperature ≥ 80°C"

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## EXTENSION n. 02/08

to EC-Type Examination Certificate CESI 01ATEX 053

### Cable entries

The accessories used for the cable entries and to close the unused holes, shall be certified according to the EN60079-0 and EN60079-1 and shall be used according to the instructions reported in the relevant certificate. For the detectors installed in zones with presence of combustible dust the accessories used for the cable entries and to close the unused holes shall be marked 2GD and guarantee a minimum degree of protection IP65 according to the EN60529 Standard.

The accessories used for the cable entries shall be suitable for the operating temperature specified for the cables.

Report n. EX-A8000712

### Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of EN 60079-0 Standard and at par. 24 of EN 61241-0 Standard.

### Descriptive documents (prot. EX-A8000715)

- Technical Note NT 1957	(pg. 5)	dated	07.01.2008
- Safety Instructions MT896 rev.3	(pg. 6)	dated	03.01.2008
- MEEEX1958		dated	07.01.2008
- MEEEX1963		dated	07.01.2008
- MEEEX1939		dated	07.01.2008
- MEEEX1940		dated	07.01.2008
- MEEEX1941		dated	07.01.2008
- Declaration of Conformity 01ATEX053 rev.1		dated	07.01.2008

One copy of all documents is kept in CESI files.

### Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2006 – Electrical apparatus for explosive gas atmosphere -General requirements.
- EN 60079-1: 2004 – Electrical apparatus for explosive gas atmosphere - Flameproof enclosure “d”.
- EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust -General requirements
- EN 61241-1: 2004 - Electrical apparatus for use in the presence of combustible dust – Protection by enclosures “tD”.



## EXTENSION n. 03/11



to EC-Type Examination Certificate CESI 01 ATEX 053

Equipment: Gas detectors series ST

Manufacturer: SENSITRON S.r.l.

Address: Via della Repubblica 48 – 20010 Cornaredo - MI - Italy

### Admitted variation

- new types of enclosures and sensors;
- new types of electronic circuits for supply and signal processing;
- updating of the electrical characteristics and identification code;
- constructional modification: double heads adapter;
- new value for maximum ambient temperature +75°C;
- conformity to EN 60079-0 (2009), EN 60079-1 (2007), CEI EN 60079-1 (2008-11 Annex 1), EN 60079-11 (2007), EN 60079-18 (2009), EN 60079-31(2009) Standards.

Details of the admitted variations are specified in the descriptive documents annexed to this extension.

### Marking

The gas detectors series ST/ shall be marked as follows:

II 2G Ex d IIC T6 or T5 or T4 Gb

II 2GD Ex d IIC T6 or T5 Gb  
Ex tb IIC T85°C Db IP65

II 2G Ex d mb ib IIB or IIC T6 Gb

The detector marking is function of the type of protection of the enclosure and of the sensor head.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01 ATEX 053.

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date 31 October 2011 - translation issued the 31 October 2011

prepared Enrico Radaelli

verified Mirko Balaz

approved Fiorenzo Bregani

**CESI** S.p.A.  
Testing & Certification Division

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## EXTENSION n. 03/11

to EC-Type Examination Certificate CESI 01ATEX 053

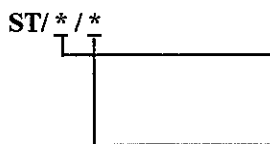
### Description and identification of the equipment

The gas detectors series ST/ are composed by a gas sensor containing the sensing element coupled with a flameproof enclosure containing electronic circuits and/or the terminal block. The enclosure may be coupled with an adapter device for the connection of 2 sensor heads.

The gas sensors used may be flameproof Ex d, or may have a composed type of protection Ex d mb ib.

Both the gas sensors and the flameproof enclosures are subject of a separate certification.

The various type of gas detector series ST/ are identified by the following code:



Code of the manufacturer/type of the enclosure:

**F ; C ; CD ; L ; LD ; LI ; LA ; LB ; LW**

**EC** = with general purpose electronic circuit

**E3** = with electronic circuit "Smart 3"

**ES** = with electronic circuit "Smart S"

**EL** = with electronic circuit "Smart SiL"

**EM** = with electronic circuit "Smart S" and double heads adapter

**EC** = with electronic for CIS sensor

**M** = with terminal block

The complete codes and the detectors characteristics are reported in the documents annexed to the certificate. The identification code is reported both on the sensor plate and/or on the plate of the enclosure containing the electronic circuits and/or the terminal block.

The gas detectors with type of protection **Ex d mb ib** are equipped with an intrinsic safety sensor and shall be installed according to the Manufacturer instructions supplied with the equipment.

### Electrical characteristics

#### For all detector types:

- Maximum supply voltage: 24 Vdc
- Maximum absorbed current: 500 mA
- Maximum absorbed power: 5.5 W <sup>[1]</sup>
- Maximum radiant power: < 35mW
- Ambient temperature: - 40/-20 ÷ +50/+55/+60/+65/+70/+75°C <sup>[2]</sup>

#### For the detectors with intrinsic safety sensor:

- Maximum r.m.s voltage "Um": 30 V

[1] The actual power absorbed by the equipment is function of the power dissipated within the head sensor and of the power absorbed by the electric circuits inside of the enclosure. The relevant details to the different conditions of power absorbed and of the temperature class assigned to the equipment are reported in the descriptive documents annexed to the certificate.

[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 devices that form the equipment, as specified in the descriptive documents annexed to the certificate.

The marking label shows the temperature class and the ambient temperature range assigned to the equipment

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## EXTENSION n. 03/11

to EC-Type Examination Certificate CESI 01ATEX 053

### Temperature class or maximum surface temperature

In the following table are reported the temperature class (column G) or the maximum surface temperature (column D) assigned to the equipment taking into account the maximum ambient temperature and the type of the head sensor used.

Type of head sensor	NET 1	NET 2		NET 3		SIS/CIS
T amb max	G	G	D	G	D	G
50 °C	T6	T6	T85°C	T6	T85°C	T6
55 °C	T6	T6	T85°C	T6	T85°C	--
60 °C	T6	T5	T85°C	T5	T85°C	--
65 °C	T5	T5	--	T5	--	--
70 °C	T5	T5	--	T5	--	--
75 °C	T5	T4	--	T4	--	--

For ambient temperature greater than 60°C are used only heads sensor in stainless steel coupled to specific enclosures as detailed in the descriptive documents annexed to the certificate.

### Warning label

For detectors with  $T_{amb} \geq 70^{\circ}\text{C}$ :

*"Use cables with operating temperature  $\geq 80^{\circ}\text{C}$ "*

### Cable entries

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.

If cylindrical threads are used, the coupling between the accessories and the enclosure shall be made according to the requirements indicated in the documents annexed to this certificate.

Report n. EX-B1024917

### Routine tests

The manufacturer shall carried out the routine tests prescribed at par. 27 of EN 60079-0 Standard and at par. 24 of EN 61241-0 Standard.

## EXTENSION n. 03/11

to EC-Type Examination Certificate CESI 01ATEX 053

### Descriptive documents (prot. EX-B1024923)

- Technical Note NTCX 2562	(pg. 8)	dated	22.06.2010
- Safety Instructions MTCX2235 rev.1	(pg. 9)	dated	08.09.2010
- MECX2802	(pg. 2)	dated	08.09.2010
- NTCX3073	(pg. 4)	dated	28.07.2011
- MECX3041		dated	26.01.2011
- Declaration of Conformity DC2221 rev. 2		dated	08.09.2010
- Declaration of Conformity DC2222 rev. 2		dated	08.09.2010
- Declaration of Conformity DC2804		dated	08.09.2010
- Declaration of Conformity DC3062		dated	08.09.2010

One copy of all documents is kept in CESI files.

### Special conditions for safe use

None.

### Note:

*the installation, the operating, the maintenance and the repair of the ST equipment shall be in according to the safety instructions supplied by the Manufacturer.*

### Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2009 – Explosive atmospheres – Equipment -General requirements.
- EN 60079-1: 2007 – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- CEI EN 60079-1: 2008 (annex 1) – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- EN 60079-11: 2007 – Explosive atmospheres – Equipment protection by intrinsic safety “i”.
- EN 60079-18: 2009 – Explosive atmospheres – Equipment protection by encapsulation “m”.
- EN 60079-31: 2009 – Explosive atmospheres – Equipment dust ignition protection by enclosures “t”.

**EXTENSION n. 04/12**

to EC-Type Examination Certificate CESI 01ATEX053

**Equipment:** Gas detectors series **ST**

**Manufacturer:** SENSITRON S.r.l.

**Address:** Via della Repubblica 48 – 20010 Cornaredo - MI - Italy

**Admitted variation**

New types of enclosures subject of a separate certification and updating of the identification code.

Details of the admitted variations are specified in the descriptive documents annexed to this extension.

**Identification and description of the equipment**

The design and composition of the equipment remains unchanged. New types of stainless steel enclosures subject of separate certification with type of protection Ex d are introduced.

With the addition of new types of enclosures (highlighted in bold) the identification code of the detectors ST is updated as follows:

ST/ \* / \*

Code of the manufacturer/type of the enclosure:

F ; C ; CD ; L ; LD ; LI ; LA ; LB ; LW ; **7B; 7W; 8B; 8W**

EC = with general purpose electronic circuit

E3 = with electronic circuit "Smart 3"

ES = with electronic circuit "Smart S"

EL = with electronic circuit "Smart SiL"

EM = with electronic circuit "Smart S" and double heads adapter

EC = with electronic for CIS sensor

M = with terminal block

The complete codes and the detectors characteristics are reported in the documents annexed to the certificate. The identification code is reported both on the sensor plate and/or on the plate of the enclosure containing the electronic circuits and/or the terminal block.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01ATEX053.

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**Date** 21 December 2012 - Translation issued the 21 December 2012

**Prepared**

Enrico Radaelli

**Verified**

Mirko Balaz

**Approved**

Fiorenzo Bregani

**CESI S.p.A.**Testing & Certification Division  
Business Area Certification

Il Responsabile

Fiorenzo Bredani

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

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Capitale sociale € 8.550.000 interamente versato

C.F. e numero iscrizione Reg. Imprese di Milano 00793580150

P.I. IT00793580150

N. R.E.A. 429222

## EXTENSION n. 04/12

to EC-Type Examination Certificate CESI 01ATEX053

### Electrical characteristics

Unchanged.

### Marking

Unchanged.

### Warning label

Unchanged.

### Cable entries

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 used in the ambient temperature range assigned to the equipment.

If cylindrical threads are used, the coupling between the accessories and the enclosure shall be made according to the requirements indicated in the documents annexed to this certificate.

### Report n. EX-B039917

### Routine tests

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

### Descriptive documents (prot. EX-B2039921)

- Technical Note n. NTCX3318	(pg. 5)	dated	05.12.2012
- drawing ME3264		dated	05.12.2012
- drawing MEEX3287		dated	05.12.2012
- drawing MEEX3288		dated	05.12.2012

One copy of all documents is kept in CESI files.

### Special conditions for safe use (X)

None.

### Note:

*the installation, the operating, the maintenance and the repair of the ST equipment shall be in accordance with the safety instructions supplied by the Manufacturer.*

### Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2009 – Explosive atmospheres – Equipment -General requirements.
- EN 60079-1: 2007 – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- CEI EN 60079-1: 2008 (annex 1) – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- EN 60079-11: 2007 – Explosive atmospheres – Equipment protection by intrinsic safety “i”.
- EN 60079-18: 2009 – Explosive atmospheres – Equipment protection by encapsulation “m”.
- EN 60079-31: 2009 – Explosive atmospheres – Equipment dust ignition protection by enclosures “t”.

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**EXTENSION n. 05/14**

to EC-Type Examination Certificate CESI 01ATEX053

**Equipment:** Gas detectors series ST

**Manufacturer:** SENSITRON S.r.l.

**Address:** Via della Repubblica 48 – 20010 Cornaredo - MI - Italy

**Admitted variation**

New types of enclosures subject of a separate certification and updating of the identification code.

Details of the admitted variations are specified in the descriptive documents annexed to this extension.

**Identification and description of the equipment**

The design and composition of the equipment remains unchanged. New types of stainless steel enclosures subject of separate certification with type of protection Ex d are introduced.

With the addition of new types of enclosures (highlighted in bold) the identification code of the detectors ST is updated as follows:

ST/ \* / \*



Code of the manufacturer/type of the enclosure:

F ; C ; CD ; L ; LD ; LI ; LA ; LB ; LW ; 7B ; 7W ; 8B ; 8W ; **8K ; 8Z**

EC = with general purpose electronic circuit

E3 = with electronic circuit "Smart 3"

ES = with electronic circuit "Smart S"

EL = with electronic circuit "Smart SiL"

EM = with electronic circuit "Smart S" and double heads adapter

EC = with electronic for CIS sensor

M = with terminal block

The complete codes and the detectors characteristics are reported in the documents annexed to the certificate. The identification code is reported both on the sensor plate and/or on the plate of the enclosure containing the electronic circuits and/or the terminal block.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01ATEX053.

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**Date** 01 April 2014 - Translation issued the 01 April 2014

**Prepared**

Enrico Radaelli


**Verified**

Mirko Balaz

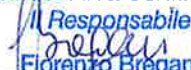

**Approved**

Fiorenzo Bregani

CESI S.p.A.

Testing &amp; Certification Division

Business Area Certification



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PRD N. 018B  
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N. R.E.A. 429222

## EXTENSION n. 05/14

to EC-Type Examination Certificate CESI 01ATEX053

### Electrical characteristics

Unchanged.

### Marking

Unchanged.

### Warning label

Unchanged.

### Cable entries

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 used in the ambient temperature range assigned to the equipment.

If cylindrical threads are used, the coupling between the accessories and the enclosure shall be made according to the requirements indicated in the documents annexed to this certificate.

Report n. EX-B4008744

### Routine tests

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

### Descriptive documents (prot. EX-B4008750)

- Technical Note n.NTCX3494	(pg. 5)	dated	13.03.2014
- Safety Instructions MTCX2235 rev.2	(pg. 9)	dated	13.03.2014

One copy of all documents is kept in CESI files.

### Special conditions for safe use (X)

None.

#### Note:

*the installation, the operating, the maintenance and the repair of the ST equipment shall be in accordance to the safety instructions supplied by the Manufacturer.*

### Essential Health and Safety Requirements

The Essential Health and Safety Requirements are assured by compliance to the following standards:

- EN 60079-0: 2009 – Explosive atmospheres – Equipment -General requirements.
- EN 60079-1: 2007 – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- CEI EN 60079-1: 2008 (annex 1) – Explosive atmospheres – Equipment protection by flameproof enclosures “d”.
- EN 60079-11: 2007 – Explosive atmospheres – Equipment protection by intrinsic safety “i”.
- EN 60079-18: 2009 – Explosive atmospheres – Equipment protection by encapsulation “m”.
- EN 60079-31: 2009 – Explosive atmospheres – Equipment dust ignition protection by enclosures “t”.

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