PRELIMINARY

CESI

CERTIFICATE

CESI
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Capitale sociale 8 550 000 €
interamente versato
Codice fiscale e numero
iscrizione CCIAA 00793580150

Registro Imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

Schema di certificazione CESI-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

[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 02 ATEX 084

[4] Equipment: Gas detector for methane (CH4) type NET/./E

[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-A2/028823.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014: 1997 + A1..A2 EN 50018: 2000 EN 61779-1: 2000 EN 61779-4: 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:

Ex II 2 G EEx d IIC T6

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

Date 16 September 2002 – Translation issued the 16 September 2002

Prepared	**Verified**	**Approved**
Enrico Radaelli	Mirko Balaz	Ulisse Colombo

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione
Il Responsabile

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 084**

[15] **Description of equipment**

Gas detectors type NET/./E are used in atmospheres mainly composed by air to detect methane (CH4) which concentration is expressed as a % LEL (Lower Explosion Limit). The detectors are composed by an industrial catalytic sensor and an electronic circuit contained in an flameproof enclosure. The catalytic sensors are subject of the component certificate CESI 01 ATEX 013U, whereas the detectors complete (sensor, electronic circuit and flameproof enclosure) are subject of certificate CESI 01 ATEX 053.
In the identification code there is a letter to identify the manufacturer of the enclosure (F, C, I).
The identification code is reported on the label fixed on the sensor and on the enclosure.

This certificate covers the essential health and safety requirements of the detectors NET/./E as regards the explosion protection and the functional performances requirements (according to EN 61779-1 and EN 61779-4 standard) of the detector used with methane (CH4).

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 and functional characteristics

Voltage supply:	12 ÷ 24 V -20% +15%
Maximum input current:	500 mA
Maximum power dissipated:	6 W
Measurement range:	0 ÷ 100 % LEL (Lower Explosion Limit)
Proportional output:	4 ÷ 20 mA (on 200 Ω)
Warm-up time:	5 min.
Stabilization time:	< 1 min.
Time of response t(50):	< 20 s
Time of response t(90):	< 60 s
Precision:	±5% of the range or ±10% of the reading
Operating temperature:	-10 ÷ +60 °C
Relative humidity:	20 ÷ 90 % Rh / 40 °C
Operating pressure:	80 ÷ 110 kPa
Alarms:	non latching type

For other functional characteristics see the documents annexed to this certificate.

Warning label

"Do not open when energized"

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Prot. A2/028849 P: 3
Keywords 13010R 27420G 48010M 54250O 66540E

[13] **Schedule**

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 084**

[16] **Report n.** CESI EX-A2/028823

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/E the routine tests prescribed at paragraph 16 of EN 50018 Standard.
The manufacturer is exempted from the overpressure test on the models NET/F/E and NET/C/E 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/E 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).
The manufacturer shall carried out the routine test described in the documents annexed to this certificate to verify the detectors functional performances.

Descriptive documents (prot. EX-A2/028828)

- n. ST1013 Rev. 3	(40 pg.)	dated	12.09.2002
- n. MT1014 Rev. 0	(15 pg.)	dated	06.05.2002
- n. IS896 Rev. 0	(5 pg.)	dated	12.09.2002
- n. ME1119 Rev. 0	(3 pg.)	dated	12.09.2002
- n. NETPEL Rev. 2	(5 pg.)	dated	04.06.2002
- Dichiarazione di conformità		dated	12.09.2002

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.

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