

# CESI

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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

ATEX C-02

# 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 02 ATEX 080**

[4] Equipment: Thermometric assemblies series CTB, CTT, CTS.

[5] Manufacturer: **EL.FIT S.p.A.**

[6] Address: Via Aquileia 12, Villesse (Gorizia - 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-A2/027973.

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

**EN 50014: 1997 + A1..A2    EN 50018: 2000    EN 50284:1999    EN 50281-1-1:1999**

[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 1/2 GD EEx d IIC T6    IP 66    T85 °C**  
 **II 2 GD EEx d IIC T6    IP 66    T85 °C**

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

**Date** September 16<sup>th</sup>, 2002    translation issued on September 16<sup>th</sup>, 2002

**Prepared**  
Mirko Balaz

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**Approved**  
Ulisse Colombo

**CESI**  
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO  
Business Unit Certificazione

Il Responsabile

[13]

## Schedule

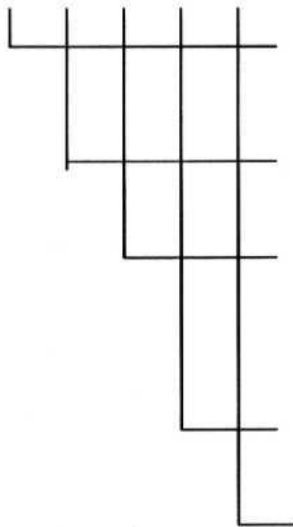
[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 080**

[15] **Description of equipment**

The thermometric assemblies subject of this certificate are made by a sensor (thermocouple or thermoresistance), a thermowell and an enclosure in which free conductors or a terminal box or a transmitter can be installed.

The thermometric assemblies are identified by a code as follows:

CT . . . . .



B: with bar thermowell  
T: with conduit thermowell  
S: without thermowell

S: enclosure series S.1  
G: enclosure series GUA

Type of electrical connection:

B: with printed board  
T: with transmitter  
M: with terminal box  
F: free conductors

Type of extension and sensor fixing

(A, B, C, D, E, F, G: see documents annexed to this certificate)

thermometric insert:

A: extractable thermometric insert with thermocouple  
B: extractable thermometric insert with thermoresistance  
C: fixed thermometric insert with thermocouple  
D: fixed thermometric insert with thermoresistance

The detailed description of the thermometric assemblies and their constructional characteristics are reported in the documents annexed to this certificate.

The models of category 1/2 and those of category 2 are identified in the technical note A4-842 and in the safety instructions annexed.

### Electrical characteristics

Max. voltage	50 V with transmitter; 250 V with terminal box
Max. current	30 mA
Ambient temperature	- 40 ÷ + 60 °C
Temperature class	T6
Max. surface temperature of the enclosure	T85°C

The accessories used for cable entries and for closing unused apertures shall have a degree of protection IP 66 and shall be certified according to the standards EN 50014, EN 50018 and EN 50281-1-1.

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



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## Schedule

[14] EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 080

[16] Report n. EX-A2/027973

### Routine tests

The manufacturer shall carry out the routine tests prescribed at clause 24 of the EN 50014 standard.

The manufacturer is exempted from the routine overpressure test on the enclosure of the thermometric assembly since the enclosures have passed the type overpressure test carried out with the static method at 35.5 bar, equal to 4 times the reference pressure.

The routine overpressure test shall be carried out on each thermowell with the static method (par.15.1.3.1 of EN 50018 standard) at a pressure equal to 1.5 times the service pressure of the plant and in any case not lower than 20 bar.

### Descriptive documents (prot. EX-A2/027975)

- n° A4-842 Rev. 0 (6 pag.)	del	15.02.2002
- n° A3-284 Rev. 0	del	10.12.2001
- n° A3-285 Rev. 0	del	10.12.2001
- n° A3-286 Rev. 0	del	10.12.2001
- n° A3-287 Rev. 0	del	10.12.2001
- n° A3-288 Rev. 0	del	10.12.2001
- n° A3-289 Rev. 0	del	10.12.2001
- n° A3-290 Rev. 0	del	10.12.2001
- n° A3-291 Rev. 0	del	10.12.2001
- n° A4-851 Rev. 0	del	04.06.2002
- n° A4-852 Rev. 0	del	04.06.2002
- n° A4-853 Rev. 0	del	04.06.2002
- n° A4-854 Rev. 0	del	04.06.2002
- n° A4-855 Rev. 0	del	04.06.2002
- n° A4-856 Rev. 0	del	04.06.2002
- n° A4-857 Rev. 0	del	17.04.2002
- n° A3-279 Rev. 0	del	26.04.2002
- n° A3-280 Rev. 0	del	26.04.2002
- n° A3-281 Rev. 0	del	15.05.2002
- n° A3-282 Rev. 0	del	15.05.2002
- n° A3-296 Rev. 0	del	29.07.2002
- n° A3-294 Rev. 0	del	20.06.2002
- n° A3-277 Rev. 0	del	26.04.2002
- n° A3-276 Rev. 0	del	15.03.2002
- n° A3-278 Rev. 0	del	14.05.2002
- n° A4-847 Rev. 0	del	23.04.2002
- n° A4-848 Rev. 0	del	13.05.2002
- n° A4-849 Rev. 0	del	13.05.2002
- n° A4-850 Rev. 0	del	13.05.2002
- n° A4-858 Rev. 0	del	20.05.1999
- n° A4-859 Rev. 0	del	18.01.1999
- n° A4-860 Rev. 0	del	21.01.1999
- n° A3-258 Rev. 0	del	15.02.2002

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## Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 02 ATEX 080**

### Descriptive documents (follows)

- n° A3-263 Rev. 0	dated	15.02.2002
- n° A3-264 Rev. 0	dated	15.02.2002
- n° A3-265 Rev. 0	dated	15.02.2002
- n° A3-292 Rev. 0	dated	03.06.2002
- n° A3-293 Rev. 0	dated	10.06.2002
- n° A3-283 Rev. 0	dated	03.06.2002
- n° A3-266 Rev. 0	dated	15.02.2002
- n° A3-275 Rev. 0	dated	08.05.2002
- n° A3-259 Rev. 0	dated	15.02.2002
- n° A4-843 Rev. 0	dated	15.02.2002
- n° A3-260 Rev. 0	dated	15.02.2002
- Technical specification elastomer EPDM 70 black	dated	29.11.2001
- Technical specification elastomer NBR 70 black	dated	03.11.2000
- Technical specification elastomer Silicone 70 red	dated	04.02.2002
- Technical specification elastomer FKM (VITON) 70 black	dated	29.11.2001
- Annexe 1 (5 p.)	dated	04.06.2002
- Annexe 2 (12 p.)	dated	04.06.2002
- Safety instructions Annexe A/23 Rev. 0 (8 p.)	dated	15.02.2002
- EC declaration of conformity n° CE/008	dated	15.02.2002

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

[17] **Special conditions for safe use**

None.

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

Covered by standards.

## EXTENSION n. 01/07



to EC-Type Examination Certificate CESI 02ATEX 080

Equipment: Thermometric assemblies series CTB, CTT, CTS.

Manufacturer: EL.FIT S.p.A.

Address: Via Aquileia 12, Villesse (GO)

### Admitted variation

- Upgrade to EN 60079-0 (2006), EN 60079-1 (2004), EN 60079-26 (2004), EN 61241-0 (2006), EN 61241-1 (2004) Standards
- Upgrade of nameplate

### Equipments identification

the equipment shall include the following markings:

 II 1/2GD Ex d IIC T6, Ex tD A21 IP66 T 85 °C

or

 II 2GD Ex d IIC T6, Ex tD A21 IP66 T 85 °C

### Cable entries

The accessory used for cable entries and for closing unused aperture shall guarantee a degree of protection IP 66 and shall be certified according to the Standards: EN 60079-0, EN 60079-1, EN 61241-0, EN 61241-1

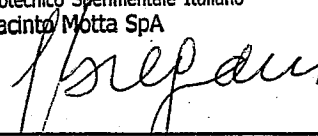
This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 02ATEX080.

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date: 21/05/2007 - translation issued the 21/05/2007

prepared: Sergio Mezzetti 

verified: Mirko Balaz 

approved: Fiorenzo Bregani 

**CESI**  
Centro Elettrotecnico Sperimentale Italiano  
Giacinto Motta SpA

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## EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 02ATEX 080

Report n. EX-A7013910

### Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2006) and at par. 24 of the EN 61241-0 (2006) Standards.

The routine overpressure test shall be carried out, on each protection tube, with the static method according to the par. 15.1.3.1 of EN 60079-1 (2004) Standard, at the pressure of 20 bar.

### Descriptive documents (prot. EX-A7013911)

- Technical Note A4-842( 5 pg.)	Rev. 01	dated	14/03/2007
- Drawing n°. A3-259	Rev. 01	dated	14/03/2007
- Drawing n°. A4-1130	Rev. 00	dated	06/04/2007
- Drawing n°. A4-1131	Rev. 00	dated	06/04/2007
- EC Declaration of Conformity		dated	14/03/2007
- Safety Instruction A23 (8 pg.)	Rev. 01	dated	14/03/2007

One copy of all documents is kept in CESI files.

### Essential Health and Safety Requirements

The Health and Safety Requirements are assured by compliance with the following Standards:

- EN 60079-0 : 2006: Electrical apparatus for explosive gas atmospheres.  
General requirements
- EN 60079-1 : 2004 Flamoproof enclosures "d".
- EN 60079-26:2004 Construction, test and marking of Group II, Category 1G electrical apparatus
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.  
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"