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interamente versato
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Registro imprese di Milano
Sezione Ordinaria
N. R.E.A. 429222
P.I. IT00793580150

[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 03 ATEX 018

[4] Equipment: **Pressure switches series BA and
Thermal switches series TA**

[5] Manufacturer: **Ettore Cella S.p.A.**

[6] Address: **Via De Gasperi, 48 - Bareggio (MI) - Italia**

[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-A3/005010.

[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 February 6, 2003 - Translation issued the February 6, 2003

Prepared
Francesco A. Esposito
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Verified
Mirko Balaz
Mirko Balaz

Approved
Ulisse Colombo

CESI
CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
Business Unit Certificazione

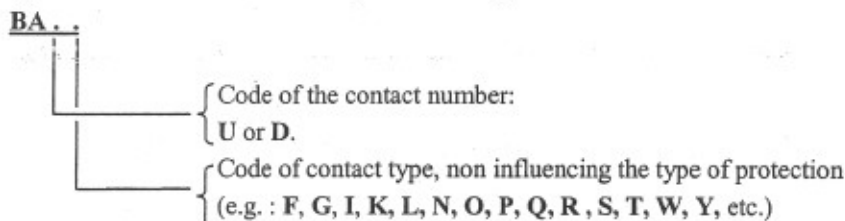
Il Responsabile
Ulisse Colombo



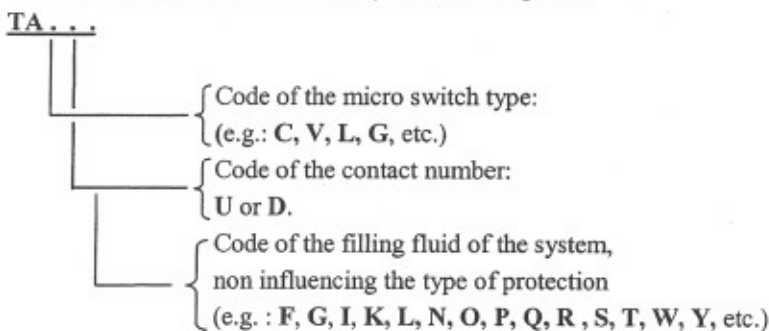
[15] Description of equipment

The pressure switch series **BA** and thermal switch series **TA** are made of an enclosure suitable to fill one or two electrical micro switches with a cell for the pressure measurement or with thermometric system and with terminal blocks for the connection to the command circuits. The pressure sensing element is installed internally at the enclosure.

I pressure switch are identified by the following code:



The thermal switch are identified by the following code:

**Electrical characteristics** (depending on the maximum contact rating)

Rated voltage	:	125 ÷ 380 Vac	24 ÷ 220 Vdc
Rated current	:	1 ÷ 20 A	0,25 ÷ 2 A
Ambient temperature	:	-40°C ÷ 60°C	

Installation conditions

The accessories used for the cable entries into the enclosures shall be certified according to the standards EN 50014 and EN 50018.

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

- [13] **Schedule**
- [14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 03 ATEX 018**
-

[16] **Report n. EX-A3/005010**

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, because the differential switch series DE have been submitted with positive result to the overpressure type test with the static method prescribed at clause 15.1.3.1 of the EN 50018 standard at 50 bar, that is 4 times the reference pressure.

Degree of Protection

The pressure and temperature switches, assembled as indicated in the documents annexed to this certificate, have been submitted to the tests specified by EN 60529 (1991) standard for the degree of protection IP 65. The tests have shown that the pressure and temperature switches comply with the EN 60529 (1991) standard for the degree of protection IP 65.

Descriptive documents (prot. EX-A3/005011)

- SP-TC.797	dated	31.01.2003
- CCE06D rev. 0	dated	20.01.2003
- CCE06U rev. 0	dated	20.01.2003
- Declaration of conformity	dated	31.01.2003

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 the conformity the standards listed on page 1.

EXTENSION n. 01/07



to EC-Type Examination Certificate CESI 03ATEX018

Equipment: Pressure switches series BA and temperature switches series TA

Manufacturer: **ETTORE CELLA SPA**

Address: Via de Gasperi , 48 – 20010 Bareggio (MI)

Admitted variation

- Application of EN 60079-0 (2004), EN 60079-1 (2004), EN 61241-0 (2006), EN 61241-1 (2004) Standards
- New category **2GD**: protection against the risk of explosion from gas and combustible dusts
- New max. ambient temperature + 85°C

Equipment identification and description

The Pressure switches series BA and temperature switches series TA, according to the category, the type of protection mode and the temperature class, shall include the following markings:



II 2GD

Ex d IIC T6; Ex tD A21 IP65 T85 °C

Ex d IIC T4; Ex tD A21 IP65 T 135 °C

Electrical characteristics

- | | | |
|------------------------|--|---------|
| - Rated voltage max. | 380 Vac | 220 Vdc |
| - Rated current max. | 20 A | 2 A |
| - Ambient temperature: | -40 °C ÷ +60 °C (for temperature class T6) | |
| | -40 °C ÷ +85 °C (for temperature class T4) | |

Cable entries

The accessories used for cable entries and for unused holes shall be subject of separate certification in compliance to the following standards: EN 60079-0 (2004); EN 60079-1 (2004); EN 61241-0 (2006); EN 61241-1 (2004) and they shall guarantee a minimum degree of protection IP 65 according to EN 60529 (1991) Standards.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 03ATEX018.

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date 15/02/2007 - translation issued the 15/02/2007

prepared GEN – Sergio Mezzetti
GEN – Nicoletta Penati

verified GEN – Mirko Balaz

approved GEN – Fiorenzo Bregani

CESI

Centro Elettrotecnico Sperimentale Italiano
Giacinto Motta SpA
Business Unit GENERAZIONE
Il Responsabile

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EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 03ATEX018

Warning

In case of equipment of class T4 or T135°C,
"use cables suitable for an operating temperature not less than 90 °C "

Report n. EX-A7004656

Routine tests

The manufacturer shall carry out the routine tests prescribed at par. 27 of the EN 60079-0 (2004) and at par. 24 of the EN 61241-0 (2006) Standards.

The manufacturer is exempted from the overpressure routine test prescribed at par. 15.1.3.1 of the EN 60079-1 Standard, since the equipment have been submitted, with good outcome, to the overpressure test (static method) at a pressure of 50 bar, corresponding to 4 (four) time the reference pressure:

Descriptive documents (prot. EX-A7004657)

- | | | | |
|---|--------|-------|----------------|
| - Technical Note SP-TC-797 including the Safety Instructions (11 pg.) | Rev. 1 | dated | January 2007 |
| - Drawing n°. CCE06U | Rev. 1 | dated | 29/01/2007 |
| - Drawing n°. CCE06D | Rev. 1 | dated | 29/01/2007 |
| - EC Declaration of Conformity | | dated | 06/02/2007 |
| - Data sheets of Loctite 542 (3 pg). | | | dated May 2004 |
| - Data sheets of silicon gasket VMQ, PVMQ | | | |

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 : 2004: Electrical apparatus for explosive gas atmospheres.
General requirements
- EN 60079-1 : 2004 Flamoproof enclosures "d".
- EN 61241-0 : 2006 Electrical apparatus for use in the presence of combustible dust.
General requirements
- EN 61241-1 : 2004 Protection by enclosures "tD"

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EXTENSION n. 02/09



to Type Examination Certificate CESI 03 ATEX 018

Equipment: Pressure switches series BA and Thermal switches series TA

Manufacturer: **ETTORE CELLA S.p.A.**

Address: Viale De Gasperi – 20010 Bareggio (MI) - Italy

Admitted variation

- Conformity to new edition of the harmonized European standard
- New minimum ambient temperature: -60 °C
- Constructional modifications.

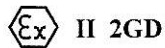
Conformity to new edition of the harmonized European standard

The components subject of the certificate CESI 03 ATEX 018 and annexed extension are conform to the standards:

EN 60079-0: 2006 EN 60079-1: 2007

EN 61241-0: 2006 EN 61241-1: 2004

The equipment shall be marked as follows:



II 2GD

Ex d IIC T6 Ex tD A21 IP65 T85 °C

Ex d IIC T4 Ex tD A21 IP65 T135 °C

This extension and annexed descriptive documents must be annexed to the Type Examination Certificate CESI 03 ATEX 018.

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

date 20th July 2009 - translation issued the 20th July 2009

prepared Damiano Cavanna

verified Mirko Balaz

approved Fiorenzo Bregani

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

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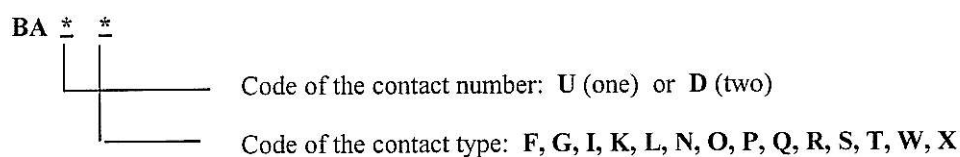
EXTENSION n. 02/09

to Type Examination Certificate CESI 03 ATEX 018

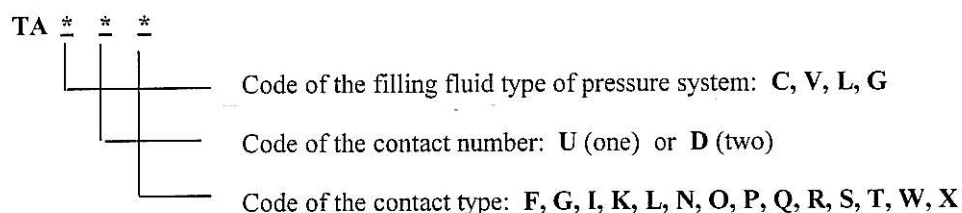
Identification and description of the equipment

The pressure switches series BA and thermal switches series TA are made, as regard to the safety aspect, of an Ex-d enclosure suitable to contain one or two electrical micro switches controlled by pressure sensing element and terminal blocks for the connection to the external circuits. The pressure sensing element is installed internally at the enclosure. The pressure switches series BA shall be coupled only to pipe-lines which shall not contain any flammable substance.

The pressure switches are identified by the following code:



The thermal switches are identified by the following code:



Admitted constructional modifications

Reduction of the capillary's internal diameter connected to pressure sensing element.

Cable entries

The accessories used for cable entries shall be certified according to EN 60079-0, EN 60079-1, EN 61241-0, and 61241-1 standards and shall guarantee a minimum degree of protection IP65.

Electrical characteristics

- Maximum rated voltage: 380 Vac 220 Vdc
- Maximum rated current: 20 A 0,5 A
- Ambient temperature: -60 ÷ 60 °C for temperature class or maximum surface temperature: T6, T85 °C
-60 ÷ 85 °C for temperature class or maximum surface temperature: T4, T135 °C

Warning

For ambient temperature above 80 °C use connecting cable suitable for a minimum operating temperature of 90 °C.

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EXTENSION n. 02/09

to Type Examination Certificate CESI 03 ATEX 018

Report n. EX-A9021182

Routine tests

The manufacturer shall carried out the routine tests prescribed at paragraph 27 of EN 60079-0 (2006) standard and paragraph 24 of EN 61241-0 (2006) standard.

The Ex-d enclosure are exempted from overpressure routine test since they have been submitted, with the static method and favourable result, to an overpressure test at a pressure of 60 bar, corresponding to more 4 times the reference pressure refer to minimum ambient temperature of -60 °C.

Descriptive documents (prot. A9021185)

- Technical note SP-TC.797 rev 2 + annex (pg. 8+12)	dated	04.2009
- CCE06U rev. 2	dated	25.05.2009
- CCE06D rev. 2	dated	25.05.2009
- Declaration of Conformity CE DC-SQ.008 rev. 3	dated	07.2008

One copy of all documents is kept in CESI files.

Special conditions for safe use (X)

None.

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: 2007 - Equipment protection by flameproof enclosure "d"
- EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust - General requirements
- EN 61241-1: 2004 - Protection by enclosures "tD"

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