[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 035

[4] Equipment: Terminal boxes series CCA..., GUB..., CCAI...

[5] Manufacturer: **COR.TEM S.p.A.**

[6] Address: Via Aquileia 6, 34070 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-A1/015453.

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

EN 50014: 1997 + A1...A2 EN 50018: 2000 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 2 GD EEx d IIC T6 or T5 IP 66 T85 or T100°C

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

date November 9th, 2001 - translation issued on November 15th, 2001

prepared CERT – M. Balaz

approved CERT – U. Colombo

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[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE N. CESI 01 ATEX 035**

[15] **Description of equipment**

Terminal boxes series CCA..., GUB..., CCAI...

The enclosures of these terminal boxes are made in aluminium or in stainless steel (see technical note A4-4117 annexed to this certificate).

The CCA... and GUB... series are identical in every detail. The code CCA or GUB refers only to the firm which puts the product into the market.

The various items of the code show the size of the enclosure (volumes from 0.5 to 32 dm^3), constructional types, the type of material used.

The complete codes of all the units subject of this certificate are reported in the drawing A1-4114 annexed to this certificate.

The enclosures of the terminal boxes are subject of the certificate of component CESI 01 ATEX 034 U. All the constructional details of the enclosures are reported in the drawings annexed to this certificate of component.

Electrical characteristics

Rated voltage	24 ÷ 800 [V]
Rated frequency	50 ÷ 60 [Hz]

Terminals

Terminal section	2.5; 4; 6; 10; 16; 25; 35; 70; 95; 120; 185; 240 [mm^2]
Rated current	12.5 ÷ 400 [A]
Max. current density	1.65 ÷ 7 [A/mm^2]

Terminal blocks

Terminal section	3x16; 4x16; 3x25; 4x25; 3x40; 4x40; 3x70; 4x70; 3x125; 4x125; 3x200; 4x200; 3x315 [mm^2]
Rated current	48 ÷ 252 [A]
Max. current density	0.8 ÷ 3 [A/mm^2]

The type and number of terminals which can be installed in the various enclosures is indicated in detail, together with the maximum admissible currents and current densities, in the drawing A1-4114 and in the safety instructions mod. F-255 annexed to this certificate.

Ambient temperature - 20 ÷ + 40 °C
- 20 ÷ + 55 °C

Temperature class for category 2G terminal boxes:
T6 for ambient temperature - 20 ÷ + 40 °C
T5 for ambient temperature - 20 ÷ + 55 °C

Maximum surface temperature for category 2D terminal boxes:
T85°C for ambient temperature - 20 ÷ + 40 °C
T100°C for ambient temperature - 20 ÷ + 55 °C

Prot. A1/015461 P: 3
Keywords 13010R 24030K 48010M 54250O 66540E

[13] # Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE N. CESI 01 ATEX 035**

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

Warning label
"Use screws of quality A2-70 according UNI 7323 with ultimate tensile strength of at least 700 N/mm^2".

Additional warnings
In case of enclosures of temperature class T5 :
"Use cables suitable for a temperature of 90 °C"

[16] **Report n. EX-A1/015453**

Routine tests
The manufacturer shall carry out the routine tests prescribed at clause 24 of the EN 50014 standard.
The routine overpressure test shall be carried out with the static method (clause 15.1.3.1 of EN 50018 standard) at the pressure of 13.5 bar.

Descriptive documents (prot. EX-A1/015456)

- n. A4-4117 Rev. 0 (2 p.)	dated 28.08.2000
- n. A1-4114 Rev. 1 (3 p.)	dated 03.08.2000
- n. A4-4129 Rev. 0	dated 26.06.2000
- Safety instructions mod. F-255 Rev. 0 (5 p.)	dated 28.08.2000
- EC declaration of conformity n° CE/0021	dated 28.08.2000

One copy of all 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 01ATEX 035

Equipment: Terminal boxes series CCA..., GUB..., CCAI...

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

Admitted variation

- Updating to new standards EN 60079-0 (2006), EN 60079-1 (2004), EN 61241-0 (2006), EN 61241-1 (2004) Standards
- Updating of nameplate

Equipment identification

The equipment shall include the following markings:

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

or

II 2GD Ex d IIC T5 ; Ex tD A21 IP66 T 100 °C

The accessories used for cable entry and for closing unused apertures shall be certified according to EN 60079-0, EN 60079-1, EN61241-0, EN 61241-1 Standards and shall guarantee a degree of protection IP 66

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01ATEX035.

date 22/06/2007 - translation issued the 22/06/2007

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

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01

EXTENSION n. 01/07

to EC-Type Examination Certificate CESI 01ATEX 035

Electrical characteristics

Unchanged

Report n. EX-A7017295

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, with the static method (par. 15.1.3.1 of EN 60079-1 Standard), at the pressure of 13.5 bar

Descriptive documents (prot. EX-A7017297)

- Technical Note A4-4976 (2 pg.)	Rev. 00	dated	02/04/2007
- Drawing n°. A4-4951	Rev. 00	dated	02/04/2007
- Drawing n°. A4-4952	Rev. 00	dated	02/04/2007
- Drawing n°. A1-4469	Rev. 00	dated	02/04/2007
- EC Declaration of Conformity		dated	02/04/2007
- Safety Instruction mod. F- 255 (9 pg.)	Rev. 01	dated	02/04/2007

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 61241-0 : 2006 — Electrical apparatus for use in the presence of combustible dust. General requirements
- EN 61241-1 : 2004 — Protection by enclosures "tD"

EXTENSION n. 02/10

to EC-Type Examination Certificate CESI 01ATEX 035

Equipment: Terminal boxes series CCA..., GUB..., CCAI...

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia 10, Villesse (GO)

Admitted variation

- Use of new enclosure type GUB-05
- New minimum ambient temperature limit Ta – 50 °C
- Execution IM2 Ex d I (for stainless steel enclosure only)

Equipment identification

The equipment shall include the following markings:

II 2GD Ex d IIC T6 ; Ex tD A21 IP66 T 85 °C for Ta + 40 °C

or

II 2GD Ex d IIC T5 ; Ex tD A21 IP66 T 100 °C for Ta +55 °C

or

I M2 Ex d I

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01ATEX035.

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date 14/04/2011 – Revision 01 and the translation of Extension 02/10 issued the 12/04/2010

prepared Sergio Mezzetti

verified Mirko Balaz

approved Fiorenzo Bregani

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EXTENSION n. 02/10

to EC-Type Examination Certificate CESI 01ATEX 035

Electrical characteristics

Max. Voltage	800	V
Terminal blocks		
Max. Section	240	mm^2
Max. Current	400	A
Max. Density current	7	A / mm^2
Terminals		
Number of terminals x section max.	3x315	mm^2
Max. Current	252	A
Max. Density current	3	A / mm^2

Ambient temperature: Ta -20 ÷ +40 °C ; Ta – 50 ÷ +40 °C
Ta -20 ÷ +55 °C ; Ta – 50 ÷ +55 °C

The accessories used for cable entries and for closing unused apertures shall be separately certified:
- For II 2GD units the accessories must be certified in compliance with the EN 60079-0 (2006), EN 60079-1(2007), EN 60079-14 (2003), EN 61241-0(2006), EN 61241-1(2004) standards and must ensure a degree of protection IP66 in compliance with the EN 60529 (1991) standard.
- For I M2 units the accessories must be certified in compliance with the EN 60079-0 (2006), EN 60079-1 (2007), standards.

Warning label
"Screws of quality A2-70 must be used"
" Use cables with an operating temperature not less than 90 °C (for enclosure with temperature class T5)

Report n. EX-B0009887

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, with the static method (par. 15.1.3.1 of EN 60079-1 Standard), at the pressure of 13.5 bar for min. ambient temperature of - 20 °C and at the pressure of 16.5 bar for min. ambient temperature of – 50 °C.

Descriptive documents (prot. EX-B0009889)

- Technical Note A4-5300 (4 pg.)	Rev. 00	dated	10/06/2009
- Drawing n°. A1-5299	Rev. 00	dated	15/06/2009
- Safety Instruction mod. F- 255 (9 pg.)	Rev. 02	dated	15/06/2009

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 : 2007 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"
- EN 60529: 1991 Degree of protection IP

EXTENSION n. 03/12

to EC-Type Examination Certificate CESI 01 ATEX 035

Equipment: Terminal boxes series **CCA-..** and **GUB-..** and **CCAI-..**

Manufacturer: **COR.TEM S.p.A.**

Address: Via Aquileia, 10 – 34070 Villesse (GO) – Italy.

Admitted variation
- Update to new edition of EN60079-0: 2009, EN 60079-1: 2007, EN 60079-31: 2009 standards.

Conformity to new edition of the harmonized European standard
The equipment subject of the certificate CESI 01 ATEX 035 and annexed extension are conform to the standards:

EN 60079-0: 2009 EN 60079-1: 2007 EN 60079-31: 2009

The equipment shall be marked as follows:

I M2	**Ex d I Mb**	*(Stainless Steel enclosures only)*
II2GD	**Ex d IIC T6, T5 Gb** **Ex tb IIIC T85°C, T100°C Db** **IP66**	

Ambient temperature marked on all Group II equipments: T_{amb} **–20°C ÷ +40°C** *or* **–50°C ÷ +40°C** for **T6/ T85°C**
T_{amb} **–20°C ÷ +55°C** *or* **–50°C ÷ +55°C** for **T5/ T100°C**

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 01 ATEX 035.

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Date 10th April 2012 - translation issued the 10th April 2012

Prepared
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EXTENSION n. 03/12

to EC-Type Examination Certificate CESI 01 ATEX 035

Description of equipment
The CCA-.. and GUB-.. and CCAI-.. flameproof enclosures series employed as terminal boxes, are subject of the component certificate CESI 01 ATEX 034U. The certificate annexed documents contains all constructional details of enclosures.
The CCA-.. and GUB-.. and CCAI-.. terminal boxes series have unchanged characteristics respect to those indicated into CESI 01 ATEX 035 certificate and relatives extensions.

Admitted constructional modifications
All types of terminal boards are supplied with red Silicon gasket with service temperature range of -60°C ÷ +200°C.

Electrical characteristics
Unchanged.

Ambient temperature
- 20 ÷ + 40°C.
- 20 ÷ + 55°C.
- 50 ÷ + 40°C.
- 50 ÷ + 55°C.

Cable entries
The accessories used for cable entries and plugs for not used holes shall be subject of separate certification, suitable for type of enclosure execution, according to the applicable standards.

Temperature class
For category 2G apparatus: T6 or T5 is a function of the enclosure dimension, ambient temperature and power dissipated inside the enclosure.

Maximum surface temperature
For category 2D apparatus: T85 °C or T100°C is a function of the enclosure dimension, ambient temperature and power dissipated inside the enclosure.

Warning label
- *"Use screws of quality A2-70 according UNI 7323 with ultimate tensile strength of at least 700 N/mm^2"*.

- For enclosures with temperature class T5 and/or Tamb. max +55°C, when the temperature under rated condition is higher than 70°C at the cable entry point or 80°C at the branching point of the conductors, an additional warning label shall be report:
"Use cables suitable for temperatures of 90°C".

EXTENSION n. 03/12

to EC-Type Examination Certificate CESI 01 ATEX 035

Report n. EX-B2011741

Routine tests
The manufacturer shall carry out the routine tests prescribed at paragraph 27 of 60079-0 standard, at paragraph 16 of the EN 60079-1 standard and paragraph 6 of EN 60079-31 standard.
The routine overpressure test shall be carried out on empty enclosure with the static method (paragraph 15.1.3.1 of EN 60079-1 standard), at:

- 13.5 bar for minimum ambient temperature until –20 °C;
- 16.5 bar for minimum ambient temperature until –50 °C.

Descriptive documents (prot. EX- B2011744)

- Technical note A4-5650 (pg. 2)	rev.0	dated	30.03.2012
- Safety Instruction F-255 (pg. 10)	rev.3	dated	30.03.2012
- EC Declaration of Conformity no. 0021 (pg. 1)	rev.0	dated	30.03.2012

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: 2009	Explosive atmospheres – Part 0: Equipment - General requirements;
EN 60079-1: 2007	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure "d";
EN 60079-31: 2009	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t".