

CESI

CESI
 Centro Elettrotecnico
 Sperimentale Italiano
 Giacinto Motta SpA

Via R. Rubattino 54
 20134 Milano - Italia
 Telefono +39 022125.1
 Fax +39 0221255440
 www.cesi.it

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

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

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 04 ATEX 129

[4] Equipment: Grounding system type GRD-4200

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

[6] Address: Via Aquileia 10, Villesse (Gorizia)

[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-A4/517285.


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

EN 50014: 1997 + A1..A2 EN 50018: 2000+A1 EN 50020:2002 EN 50281-1-1:1998+A1

[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.

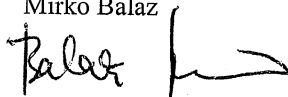
[12] The marking of the equipment or protective system shall include the following:

 **II 2(1)GD EEx d [ia] ia IIB T6 IP 66 or IP 65 T85°C**

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

Date October 27th, 2004 translation issued on October 27th, 2004

Prepared
 Mirko Balaz

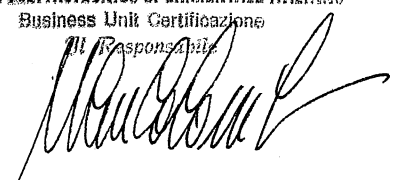


Approved
 Ulisse Colombo

CESI

CENTRO ELETTROTECNICO SPERIMENTALE ITALIANO
 Business Unit Certificazione

Il Responsabile



Page 1/3

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

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 04 ATEX 129**

[15] **Description of equipment**

The grounding system GRD-4200 comprises an explosion-proof measuring and control unit, and either grounding cable with clamp or a cable dispenser with cable and clamp.

In the explosion-proof control unit both electrical and electronic components with command and control functions and associated apparatus for interface with intrinsic safety circuits are installed.

The associated apparatus are subject of separate certification with type of protection [EEx ia] IIC.

The types of electrical components installed in the control unit are reported in the documents annexed to this certificate together with the relevant electric parameters. The explosion-proof enclosure EEx d IIB, is subject of the component certificate CESI 00 ATEX 036 U.

As regards the protection against combustible dusts, the enclosures are made in two versions with different degree of protection IP:

- enclosures with silicone grease placed between body and cover: IP 65
- enclosures with sealing gasket placed between body and cover: IP 66

Electrical characteristics

Rated voltage	24; 110; 230 V a.c.	24 V d.c.
Rated frequency	50 ÷ 60 Hz	----
Ambient temperature	- 20 ÷ + 50 °C	

Temperature class for category 2G. units: T6

Maximum surface temperature for category 2.D units: T 85 °C

Degree of protection IP 65 or IP 66 (EN 60529 – 1991)

Intrinsic safety circuits

The electrical characteristics of the intrinsic safety circuits are reported on the label of the associated apparatus used.

The accessories used for cable entries and for closing unused apertures in the units of category II 2(1) GD shall be certified according to the standards EN 50014, EN 50018 and EN 50281-1-1 and shall guarantee a degree of protection IP at least equal to that of the enclosure.

Warning labels

“Use screws of quality A2-70 according UNI 7323 with ultimate tensile strength of at least 700 N/mm²”.

[16] **Report n. EX-A4/517285**

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 24 of the standard EN 50014 and at paragraph 16 of the standard EN 50018.

The routine overpressure test shall be carried out with the static method (paragraphs 15.1.3. of the standard EN 50018) at the pressure of 11.9 bar.

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[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 04 ATEX 129**

Descriptive documents (prot. EX-A4/517289)

- Technical note n. A4-4792 Rev. 0	dated	06.09.2004
- Drawing n. A1-4669 Rev. 0 (2 sheets)	dated	06.09.2004
- Safety instructions F-293 Rev. 0 (5 pages)	dated	06.09.2004
- EC declaration of conformity CE/0050	dated	06.09.2004

One copy of all the documents is kept in CESI files.

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

None.

[18] **Essential health and safety requirements**

Covered by standard fulfilments.

EXTENSION n. 01/08



to EC-Type Examination Certificate CESI 04ATEX129

Equipment: Grounding system type GRD-4200

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


Address: Via Aquileia 10, Villesse (Gorizia)


Admitted variation

- Conformity to EN 60079-0: 2006, EN60079-1: 2004, EN 60079-11: 2007, EN 61241-0: 2006, EN 61241-1: 2004, EN 61241-11: 2006 Standards.
- Update of nameplate
- New ambient temperature range -20°C +55°C
- New intrinsic safety barrier
- Execution IIB+H₂

Identification of component

The marking of the component shall include the following:

 II 2(1)GD Ex d [ia] ia IIB T6 Ex tD [iaD] A21 IP 65 (IP 66) T85°C

 II 2(1)GD Ex d [ia] ia IIB+H₂ T6 Ex tD [iaD] A21 IP 65 (IP 66) T85°C

Electrical characteristics

Unchanged.

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 04ATEX129.

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date 16/05/2008 - translation issued the 16/05/2008

prepared Pierluigi Molinari

verified Mirko Balaz

approved Fiorenzo Bregani



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



page 1/2

EXTENSION n. 01/08

to EC-Type Examination Certificate CESI 04ATEX129

Cable entries

The accessories used for cable entries and for unused holes shall be subject of separate certification:
- in the unit with the execution Ex d IIB (or Ex d IIB+H2) and Ex tD A21 shall be certified according to the standards: EN 60079-0; EN 60079-1; EN 61241-0 and EN 61241-1 and shall guarantee a degree of protection IP equal to that of the enclosure according to EN 60529 Standard.

Report n. EX-A8/014186

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of the EN 60079-0, at par. 24 of the EN 61241-0 and at paragraph 16 of the EN 60079-1 Standards.

The routine overpressure test shall be carried out with the static method (paragraphs 15.1.3. of the standard EN 60079-1) at the pressure of 11.9 bar.

Descriptive documents (prot. EX-A8/014193)

Technical n. A4-4993 Rev. 1 (2 pages)	dated	04.04.2007
Drawing n. A1-4951 Rev. 0	dated	02.04.2007
Drawing n. A1-4952 Rev. 0	dated	02.04.2007
Data sheet of barrier and BASEEFA certificate (29 pages)	dated	26.06.2001
Safety instructions F-293 Rev. 1 (5 pages)	dated	04.04.2007
Declaration of conformity EC CE/0050	dated	04.04.2007

One copy of all the documents is kept in CESI files.

Special condition for safe use

None.

Essential health and safety requirements

Compliance with the Health and Safety Requirements has been assured by compliance with the following standards:

EN 60079-0: 2006 - Electrical apparatus for explosive gas atmospheres. Part 0: General requirements

EN 60079-1: 2004 - Electrical apparatus for explosive gas atmospheres. Part 1: Flameproof enclosure

EN 60079-11: 2007 - Electrical apparatus for explosive gas atmospheres. Part 1: Equipment protection by intrinsic safety "i".

EN 61241-0: 2006 - Electrical apparatus for use in the presence of combustible dust. Part 0: General requirements

EN 61241-1: 2004 - Electrical apparatus for use in the presence of combustible dust. Part 1: Protection by enclosures "tD"

EN 61241-11: 2006 - Electrical apparatus for use in the presence of combustible dust. Part 1: Equipment protection by intrinsic safety "iD".

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EXTENSION n. 02/14

to EC-Type Examination Certificate CESI 04 ATEX 129

Equipment: Grounding System type **GRD-4200**
Manufacturer: **COR.TEM S.p.A.**
Address: Via Aquileia 10, 34070 Villesse (Gorizia) - Italy

Admitted variation

- New components and materials
- Updating to the standards EN 60079-0:2012, EN 60079-1:2007; EN 60079-11:2012; EN 60079-31:2009
- Update marking with EPL

Description of equipment

The Grounding System **GRD-4200** includes an explosion-proof measurement and control device, 8 meters of ground cable terminated with a clamp; the System can be equipped, as accessory on request, with cable reel. Inside of the explosion-proof control unit, are installed electric and electronic components with the command and control functions and associated apparatus for interfacing with intrinsically safe circuits. This extension is related to the use new components for command and control (*COR.TEM mod. M-0457 and M0553L*), a new cable and a new diode safety barrier (*COR.TEM mod. CA-8.2-50*). The Grounding System **GRD-4200** have been previously, assessed and marked in compliance with the following standards: EN 60079-0:2006, EN 60079-1:2004, EN 60079-11:2007, EN 61241-0:2006, EN 61241-1:2004 and EN 61241-11:2006. With this extension the System have been re-assessed and marked on the basis of the new edition of the following standards: : EN 60079-0:2012, EN60079-1:2007, EN60079-11:2012, EN 60079-31:2009.

Marking

The System grounding **GRD-4200** shall be marked as follows:

- II 2(1)G Ex d [ia Ga] ia IIB T6 Gb Ex d [ia Ga] ia IIB+H₂ T6 Gb
- II 2(1)D Ex tb [ia Da] ia IIIC T85°C Db

This extension and annexed descriptive documents must be annexed to the EC-Type Examination Certificate CESI 04 ATEX 129.

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Date 10.11.2014 - Translation issued the 10th November 2014

Prepared
Guido Prazzoli

Verified
Mirko Balaz

Approved
Eugenio Bregani
CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile Page 1/2

EST-CE-ING-0



CESI S.p.A.
Via Rubattino 54
I-20134 Milano - Italy
Tel: +39 02 21251
Fax: +39 02 21255440
e-mail: info@cesi.it
www.cesi.it

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. 02/14

to EC-Type Examination Certificate CESI 04 ATEX 129

Identification of component

The Grounding System **GRD-4200** is manufactured in the following versions:

GRD-4200: 230Vac 50/60Hz
GRD-4200/110: 110Vac 50/60Hz
GRD-4200/24: 24Vac/dc GRD-4200A/24: 24Vac/dc with cable reel

Electrical characteristics

Rated voltage: 24; 110; 230 Vca 24 Vdc
Rated frequency: 50 + 60 Hz
Ambient temperature: from -20°C up to +55°C

Intrinsic safety circuit:

Uo: 9.8 V Co: 3 µF
Io: 0.12 A Lo: 2.5 mH
Po: 0.296 W Lo/Ro: 30 µH/Ω

Cable entries

The accessories used for cable entries and for unused holes shall be subject of separate certification. Those accessories shall be certified according to the standards: EN 60079-0; EN 60079-1; EN 60079-31 and shall guarantee a degree of protection IP equal to that of the enclosure according to EN 60529 standard.

Warning labels

“Use screws of quality A2-70 UNI 7323 R 700 N/mm²”

Report n. EX-B4026473

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 16 of the EN 60079-1 standard.

The routine overpressure test shall be carried out with the static method (*paragraph 15.1.3. of the standard EN 60079-1*) at the pressure of 11.9 bar.

Descriptive documents (prot. EX-B4026479)

- Technical Note n. A4-5968, Rev. 0; (pg.4)	dated	28.06.2013
- Drawing n. A1-5969 Rev. 0; (pg.2)	dated	28.06.2013
- Safety instructions n. F-293/C Rev. 2; (pg.5)	dated	28.06.2013
- FAC-SIMILE EC Declaration of conformity N°0050;(pg.1)	dated	28.06.2013

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: 2012 - Explosive atmospheres – Part 0: Equipment – General requirements.
- EN 60079-1: 2007 - Explosive atmospheres – Part 1: Equipment protection by flameproof enclosures "d".
- EN 60079-11: 2012 - Explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i".
- EN 60079-31: 2009 - Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"

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