

CESI**CERTIFICATE**

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Schema di certificazione

CESI-ATEX

ACCREDIA
CENTRO ITALIANO DI ACCREDITAMENTO

PRD N. 018B
Membro degli Accordi di Mutuo
Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC
Mutual Recognition Agreements

[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 12 ATEX 027

[4] **Equipment:** Control panels series GUBE... ..

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

[6] **Address:** Via Aquileia 10, 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-B2017660.

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

EN 60079: 2009 EN 60079-1: 2007 EN 60079-7: 2007 EN 60079-31: 2009

[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 2GD Ex de IIC T6, T5 Gb
Ex tb IIIC T85°C, T100°C Db
IP66**

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

Date 25.01.2013 - Translation issued the 25th January 2013

Prepared
Mirko Balaz

Approved

CESI S.p.A.

Testing & Certification Division
Business Area Certification

Responsabile

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Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 027**

[15] **Description of equipment**

The control panels series GUBE-.. are command, control and signalling units realized in execution Ex de. They are systems composed by an Ex d flameproof enclosure and an Ex e increased safety enclosure.

The Ex d enclosure (CCAI series with certificate CESI 01ATEX034U) is used to install common electrical devices such as contactors, switches, measuring instruments, programmable logic controllers etc.

The Ex e increased safety enclosure (CTB series with certificate CESI 03ATEX333) is used as terminal compartment for cables connections.

The control panel series GUBE -.. is composed by the Ex d enclosure CCAI made in cast stainless steel or stainless steel blended and welded, and the Ex e enclosure CTB made in stainless steel sheet.

On the common face between the Ex d enclosure and the Ex e enclosure a plane gasket guarantee the degree of protection IP66. The connections between the enclosures are made by means of conductor sealed bushings type TP (with certificate CESI 01ATEX080U).

In the Ex d enclosure can be mounted inspection glass windows for the visualization of indicators or displays.

Model identification:

GUBE -	<input type="text"/>	<input type="text"/>	
			Code of the series
			Size: 2020 3020 4030
			Other particular description (if required)

Electrical characteristics

Ex d flameproof enclosure

Max. rated voltage: 690V

Rated current: 50A

Ex e terminal box

Max. rated voltage: 690V

Rated current: 50A

Terminal section: from 1,5mm² up to 16mm²

Degree of protection (EN 60529): IP 66

Ambient temperature: -20 ÷ +40 °C, -20 ÷ +55 °C,
-50 ÷ +40 °C, -50 ÷ +55 °C

The specified ratings are the maximum values; actual values will be subject to the electrical equipment/component used from case to case.

The maximum number of the terminals, the permissible rated current and/or maximum dissipated power depends of the size of the enclosure, the range of ambient temperature and the temperature class. These parameters are described in the descriptive documents.

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Schedule

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Maximum dissipated power:

Type	Maximum dissipated power in the Ex d enclosure (CAI)			
	Tamb. = +40°C		Tamb. = +55°C	
	T6/T85°C	T5/T100°C	T6/T85°C	T5/T100°C
GUBE-2020	30 W	42 W	25 W	34 W
GUBE-3020	50 W	68 W	39 W	53 W
GUBE-4030	105 W	170 W	90 W	140 W

Type	Maximum dissipated power in the Ex e enclosure (CTB)		
	Tamb. = +40°C	Tamb. = +55°C	
	T6/T85°C	T6/T85°C	T5/T100°C
GUBE-2020	8.0 W	2.9 W	8.0 W
GUBE-3020	18.5 W	4.1 W	18.5 W
GUBE-4030	34.0 W	5.8 W	34.0 W

Installation conditions

The accessories used for cable entries and for closing unused openings on Ex e enclosure shall be certified according to EN 60079-0, EN 60079-7 and EN 60079-31 standards. A minimum degree of protection IP66 shall be guaranteed according to EN 60529 standard.

Warning label

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

"Warning - do not open when energized"

For boxes with capacitors

"After de-energizing. Wait 10 minutes before opening"

For boxes with temperature class T5

"Use cables suitable for temperature of 90°C"

[16] Report n. EX-B2017660

[13]

Schedule

[14] **EC-TYPE EXAMINATION CERTIFICATE n. CESI 12 ATEX 027**

Routine tests

The manufacturer shall carry out the routine tests prescribed at paragraph 27 of EN 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 GUBE enclosure with the static method (paragraph 15.1.3.1 of EN 60079-1 standard), at:

- 16.5 bar on all GUBE Ex d enclosure for minimum ambient temperature until -50 °C;
- 13.5 bar on all GUBE Ex d enclosure for minimum ambient temperature until -20 °C;

For the Ex e junction box the dielectric test with applied voltage shall be performed (according to clause 7.1 of the EN 60079-7) at $2U + 1000$ V with a minimum value of 1500 V where working voltages in excess of 90V between the Ex e supply terminals and earth.

Descriptive documents (prot. EX-B2017664)

- n. A4-5618	Technical note	(4 pages)	Rev. 0	dated	03.02.2012
- n. F-377	Safety, maintenance and mounting instructions	(11 pages)	Rev. 0	dated	03.02.2012
- n. N°0131	Example of declaration of conformity		Rev. 0	dated	03.02.2012
- n. A3-5619	Drawing – Series GUBE-...	(10 pages)	Rev. 0	dated	03.02.2012
- n. Annex	Datasheets of materials	(5 pages)	Rev. 0	dated	03.02.2012

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 EN standards mentioned at page 1.