



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres
 for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CES 12.0023 Issue No.:0 Certificate history:

Status: Current

Date of Issue: 2013-02-25 Page 1 of 3

Applicant: **CORTEM S.p.A.**
 Via Aquileia 10
 I - 34070 Villesse (GO)
 Italy

Electrical Apparatus: Control panels series GUBE
 Optional accessory:

Type of Protection: Flameproof enclosures 'd'; increased safety 'e'; Dust ignition protection 't'

Marking: Ex de IIC T6 or T5 Gb
 Ex tb IIIC T85°C or T100°C Db
 IP66

Approved for issue on behalf of the IECEx
 Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
 (for printed version)

Date:

25-02-2013

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

CESI
 Centro Elettrotecnico
 Sperimentale Italiano S.p.A.
 Via Rubattino 54
 20134 Milano
 Italy

CESI

CESI S.p.A.

Testing & Certification Division
 Business Area Certification

III Responsabile

F. Brogiani
 Firenze Brogiani



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Manufacturer: **CORTEM S.p.A.**
Via Aquileia 10
I - 34070 Villesse (GO)
Italy

Additional Manufacturing location
(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

The electrical apparatus and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards:

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

This Certificate does not indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:
IT/CES/ExTR12.0017/00

Quality Assessment Report:

IT/CES/QAR06.0002/06



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 is used to install common electrical devices such as contactors, measuring instruments, programmable logic controllers etc. without external components. The Ex e increased safety enclosure is used as terminal compartment for cables connections.

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

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

The incoming and outgoing cables arrive in the Ex e enclosure via cable glands.

See annex for further description.

CONDITIONS OF CERTIFICATION: NO



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Prot: B3008926

Annex to certificate: **IECEX CES 12.0023 Issue No.:0 of 2013-02-25**
 Applicant: **CORTEM S.p.A., Via Aquileia 10,
 I - 34070 Villesse (GO), Italy**
 Electrical Apparatus: **Control panels series GUBE-**

Model Identification:

GUBE -

		Code of the series
		Size: 2020 3020 4030
		Other particular description (if required)

Ex d enclosure can be equipped with inspection glass windows.

Ex e enclosure is used as terminal compartment contains:

Terminal blocks type SAK 2.5 and 4.0 with certificate IECEX KEM 06.0014U or
Terminal blocks type WDU 1.5 ÷ 10 with certificate IECEX ULD 05.0008U.

PAD B3008926 (1835023) - USO RISERVATO

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 (see Table 1, below). These parameters are described in the descriptive documents.



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Table 1 - Maximum dissipated power:

Type	Maximum dissipated power in the Ex d enclosure			
	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		
	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 suitably certified according to IEC 60079-0, IEC 60079-7 and IEC 60079-31 standards. A minimum degree of protection IP66 shall be guaranteed according to IEC 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"