



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 16.0015X issue No.: 0 Certificate history:

Status: **Current**

Date of Issue: 2016-06-01 Page 1 of 3

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

Equipment: **Command, control and interface units, Series GUB-.. and CCA...**
Optional accessory:

Type of Protection: **Flameproof enclosures 'd'; Intrinsic Safety 'i'; Dust ignition protection 't'**

Marking: **Ex db [ia Ma] I Mb (for stainless steel enclosures)**
Ex db [ia Ga] IIC T6 or T5 Gb
Ex db [ia Ga] IIC T6 or T5 Gb
Ex tb [ia Da] IIIC T85°C or T100°C Db
IP66

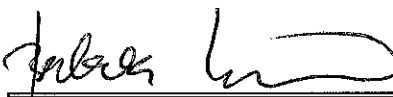
Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)



1-6-2016

Date:

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

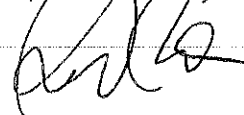
CESI S.p.A.

Testing & Certification Division

Business Area Certification

Il Responsabile

(Roberto Piccini)





IECEX Certificate of Conformity

Certificate No.: IECEX CES 16.0015X

Date of Issue: 2016-06-01

Issue No.: 0

Page 2 of 3

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 : 2014-06 Edition: 7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition: 2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*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/ExTR16.0009/00

Quality Assessment Report:

IT/CES/QAR06.0002/09



IECEX Certificate of Conformity

Certificate No.: IECEx CES 16.0015X

Date of Issue: 2016-06-01

Issue No.: 0

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The GUB-... and CCA.. command, control and interface units series are equipments composed by an Ex db or Ex tb enclosure covered by IECEx CES 14.0012U used to install common electrical devices such as contactors, switches, measuring instruments, programmable logic controllers, contact blocks. Pilot lights, maneuvers and push button covered by IECEx certificates can be mounted on the cover or on the enclosure walls. Furthermore, circular or rectangular transparent glass windows sealed on the cover can be installed to permit instrument reading and extension for the covers to increase the instruments available volume.

The GUB-... and CCA.. command, control and interface units series can incorporate associated apparatus for interface with intrinsic safety circuits. These associated apparatus are subject of separate certification.

The GUB-... and CCA.. command, control and interface units series have the body and the cover made in aluminium alloy or stainless steel and are in Ex db [ia Ma] I Mb (stainless steel only), Ex db [ia Ga] IIC Gb and Ex tb [ia Da] IIIC Db execution.

The command, control and interface units, Series GUB-.. and CCA... characteristics are further described in the Annexe of this certificate.

CONDITIONS OF CERTIFICATION: YES as shown below:

The accessories used for cable entries and for closing unused openings shall be certified according to IEC 60079-0, IEC 60079-1 and IEC 60079-31. A minimum degree of protection IP66 shall be guaranteed according to IEC 60529 standard.



IECEX Certificate of Conformity



Prot: B6019396

Annex to certificate:

IECEX CES 16.0015X Issue No.:0 of 2016-06-01

Applicant:

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

Electrical Apparatus:

Command, control and interface units, Series GUB-.. and CCA..

Description of the equipment

The **GUB-...** and **CCA..** command, control and interface units series are equipment's composed by an Ex db or Ex tb enclosure covered by IECEX CES 14.0012U used to install common electrical devices such as contactors, switches, measuring instruments, programmable logic controllers, contact blocks. Pilot lights, manoeuvres and push button covered by IECEX CES 14.0030U, IECEX TSA 06.0015U and IECEX CES 11.0030U certificates can be mounted on the walls or on the cover (for the version CCAI-C..). Furthermore, circular transparent glass windows sealed on the cover can be installed to permit instrument reading and extension for the covers to increase the instruments available volume.

The **GUB-...** and **CCA..** Command, control and interface unit's series can incorporate associated apparatus for interface with intrinsic safety circuits. These associated apparatus are subject of separate certification with type of protection [Ex ia] IIC.

The **GUB-...** and **CCA..** command, control and interface units series have the body and the cover made in aluminium alloy or stainless steel and are in Ex db [ja Ma] I Mb (stainless steel only), Ex db [ja Ga] IIC Gb and Ex tb [ja Da] IIIC Db execution.

Gaskets between cover and body and for all other accessories are made in silicon to guarantee the protection degree IP66.

The covers of **CCA..C** and **CCAI..** versions have a cylindrical joint and are fixed with quality A2-70 stainless steel screws.

The walls of the enclosures can be drilled and threaded with maximum size and maximum number of hubs as specified in the manufacturer documents annexed. Each enclosure is provided with internal and external earthing screw or bolt.

Model identification:

Aluminium alloy enclosures			Aluminium alloy enclosures with glass window	
GUB series	CCA series		GUB series	CCA series
GUB	-	-	-	-
GUB-S	-	-	-	-
GUB-0	CCA-0E	CCA-0C	GUB-0V	CCA-0EH
GUB-01	CCA-01E	CCA-01C	GUB-01V	CCA-01EH
-	CCA-01PF	-	-	-
GUB-02	CCA-02E	CCA-02C	GUB-02V	CCA-02EH
GUB-03	CCA-03E	CCA-03C	GUB-03V	CCA-03EH
GUB-04	CCA-04E	CCA-04C	GUB-04V	CCA-04EH
GUB-05	-	-	-	-

Stainless steel enclosures				Stainless steel enclosures with glass window	
GUB series	CCA series			CCAI series	CCAIF series
GUBSS	-	-	-	-	-
GUB-SSS	-	-	-	-	-
GUB-0SS	CCA-0ESS	CCAI2020	CCAIF-2020	CCAI2020H	CCAIF-2020H
GUB-01SS	CCA-01ESS	CCAI3020	CCAIF-3020	CCAI3020H	CCAIF-3020H
GUB-02SS	CCA-02ESS	CCAI3030	-	CCAI3030H	-
GUB-03SS	CCA-03ESS	CCAI4030	CCAIF-4030	CCAI4030H	CCAIF-4030H
GUB-04SS	CCA-04ESS	-	-	-	-
GUB-05SS	-	-	-	-	-

PAD B6019396 (2276217) - USO RISERVATO



IECEx Certificate of Conformity



Prot: B6019396

Annex to certificate:

IECEx CES 16.0015X Issue No.:0 of 2016-06-01

Applicant:

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

Electrical Apparatus:

Command, control and interface units, Series GUB-... and CCA...

Electrical characteristics

Rated voltage:	12 + 250 Vdc
	24 + 1000 Vac
Nominal frequency:	50/60 Hz
Max. rated current:	312 A
Maximum power for lamps:	3W with T _{amb.} +55°C

Electrical characteristics for Associated Apparatus max. Voltage Um ≤ 250V.

Intrinsic safety circuits:

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

When Ex i circuits are present the distances between Intrinsic Safety circuits and Non-Intrinsic Safety circuits or between separate intrinsic safety circuits shall be according to IEC 60079-11 Standard. Intrinsically safe circuits shall be clearly identified. Where a colour is used for this purpose, it shall be light blue for the intrinsically safe connections.

The associated apparatus shall be certified according to IEC 60079-0 and IEC 60079-11 standards and with suitable service temperatures.

Table of typical electrical and electronic equipment inside the boxes:

DESCRIPTION	[V]	DISSIPATED POWER (W)	[A]
analogical digital instruments	660	10	5
electronic gear case	400	10	-
PLC, multiplexer, amplifier	240	80	-
control and gauging device	240	100	-
automatic breakers	660	-	400
fuses	660	-	400
air thermal relays	500	12	10
electronic control device	660	100	-
air contactors	660	30	650
sequence timer	240	5	10
photoelectrical cell	240	2	-
capacitors (discharge time 30sec)	660	-	-
transformers	660	200	-
resistors	240	300	-
terminals	660	-	-
ballasts	277	40	7,5

The ratings specified are maximum values; actual values will be subject to the electrical equipment/component used from case to case. Depending on the system conditions, the mode of operation, the utilisation category, etc., the manufacturer will define ratings which will be within the range of these limiting values and will comply with the relevant Standards. The maximum power dissipation for each model at ambient temperature up to Ta 40 °C or Ta 55 °C given in Table 1 bellow, for the temperature class of T5 or T6, T 85 °C or T 100 °C, shall not be exceed.

Degree of protection (IEC 60529): IP66

Ambient temperature:

The Command, control and interface units shall be used in the following ambient temperature ranges:

- from -20°C up to +55°C: all versions of Command, control and interface units for group I (made in stainless steel only), group IIC and group IIIC;
- from -40°C up to +55°C: all versions of Command, control and interface units for group IIC and group IIIC with polycarbonate pilot lights;
- from -60°C up to +55°C all versions of Command, control and interface units for group IIC and group IIIC without polycarbonate pilot lights.



IECEX Certificate of Conformity



Prot: B6019396

Annex to certificate:

IECEX CES 16.0015X Issue No.:0 of 2016-06-01

Applicant:

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

Electrical Apparatus:

Command, control and interface units, Series GUB-.. and CCA...

Maximum dissipated power:

Table 1.

Maximum dissipated power inside enclosures					
Enclosure type		Tamb. = +40°C		Tamb. = +55°C	
		T6 / T85 °C	T5 / T100 °C	T5 / T100 °C	T4 / T135 °C
GUB	-	4 W	6 W	3 W	4 W
GUB-S	-	6 W	9 W	5 W	6 W
GUB-0	GUB-0V	10 W	16 W	8 W	12 W
GUB-01	GUB-01V	15 W	24 W	13 W	19 W
GUB-02	GUB-02V	32 W	51 W	26 W	39 W
GUB-03	GUB-03V	51 W	74 W	37 W	55 W
GUB-04	GUB-04V	112 W	197 W	84 W	150 W
GUB-05	-	165 W	250 W	125 W	190 W

Table 2.

Maximum dissipated power inside enclosures							
Enclosure type		Tamb. = +40°C			Tamb. = +55°C		
		No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.	No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.
		T6 / T85 °C	T5 / T100 °C	T5 / T100 °C	T6 / T85 °C	T5 / T100 °C	T5 / T100 °C
CCA-0E	CCA-0EH	8 W	9 W	13 W	6 W	7 W	9 W
CCA-01E	CCA-01EH	11 W	12 W	17 W	9 W	10 W	13 W
CCA-02E	CCA-02EH	23 W	25 W	36 W	20 W	22 W	28 W
CCA-03E	CCA-03EH	40 W	44 W	58 W	29 W	32 W	43 W
CCA-04E	CCA-04EH	93 W	100 W	164 W	70 W	77 W	125 W



Prot: B6019396

IECEX Certificate of Conformity



Annex to certificate:
Applicant:

IECEX CES 16.0015X Issue No.:0 of 2016-06-01
CORTEM S.p.A., Via Aquileia 10,
I - 34070 Villesse (GO), Italy

Electrical Apparatus:

Command, control and interface units, Series GUB-.. and CCA...

Maximum dissipated power (follows):

Table 3.

Maximum dissipated power inside enclosures						
Enclosure type	Tamb. = +40°C			Tamb. = +55°C		
	No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.	No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.
	T6 / T85 °C	T5 / T100 °C	T5 / T100 °C	T6 / T85 °C	T5 / T100 °C	T5 / T100 °C
CCA-0C	8 W	9 W	13 W	6 W	7 W	9 W
CCA-01C	11 W	12 W	17 W	9 W	10 W	13 W
CCA-02C	23 W	25 W	36 W	20 W	22 W	28 W
CCA-03C	40 W	44 W	58 W	29 W	32 W	43 W
CCA-04C	93 W	100 W	164 W	70 W	77 W	125 W

Table 4.

Maximum dissipated power inside enclosures						
Enclosure type	Tamb. = +40°C			Tamb. = +55°C		
	No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.	No interface lamps, only LED are allowed.	With interface lamps and/or LED	No interface lamps, only LED are allowed.
	T6 / T85 °C	T5 / T100 °C	T5 / T100 °C	T6 / T85 °C	T5 / T100 °C	T5 / T100 °C
CCAI2020	30 W	35 W	42 W	25 W	27 W	34 W
CCAI3020	50 W	54 W	68 W	39 W	42 W	53 W
CCAI3030	80 W	85 W	120 W	60 W	65 W	100 W
CCAI4030	105 W	112 W	170 W	90 W	100 W	140 W



IECEx Certificate of Conformity

CESI ¹⁹⁵⁶ ~~2016~~

Prot: B6019396

Annex to certificate:

IECEx CES 16.0015X Issue No.:0 of 2016-06-01

Applicant:

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

Electrical Apparatus:

Command, control and interface units, Series GUB-.. and CCA...

Warning labels:

- *"Use screws of quality A2-70 with tensile strength of at least 700 N/mm²" (for covers with cylindrical joint CCA-..C and CCAI.. models).*

- For enclosures with capacitors:

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

- For enclosures with temperature class T5:

"Use cables suitable for temperatures of 90°C" ..