



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 11.0032 Issue No.: 1
 Status: Current
 Date of Issue: 2013-01-07 Page 1 of 4
 Certificate history:
 Issue No. 1 (2013-1-7)
 Issue No. 0 (2012-2-8)

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

Electrical Apparatus: **Command, control and signalling units series SA ... and CTB**
 Optional accessory:

Type of Protection: **Increased safety 'e'; Flameproof enclosures 'd', Dust ignition protection "t"**

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

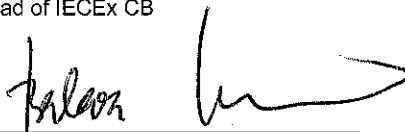
Approved for issue on behalf of the IECEx
 Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
 (for printed version)


 17-1-2013

Date:

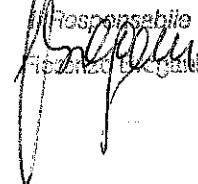
1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the Official IECEx Website.

Certificate issued by:

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

CESI

CESI S.p.A.
 Testing & Certification Division
 Business Area Certification

Responsabile




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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 : 2007-10
Edition: 5 | Explosive atmospheres - Part 0: Equipment - General requirements |
| IEC 60079-1 : 2007-04
Edition: 6 | Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" |
| 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/ExTR11.0033/00

IT/CES/ExTR12.0018/00

Quality Assessment Report:

IT/CES/QAR06.0002/06



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

Command, control and signalling units series SA and CTB, assembled in enclosures made in aluminium or in stainless steel or in polyester resin. It is designed to type of protection Increased Safety "e" or dust protection 'tb' and can be equipped with the following certified components:

- Pilot LED type M-0612 and M-0487
- Contact blocks type M-0530 and M-0531
- Command and signalling actuators series: M-0603; M-0604; M-0605
- Terminal blocks Ex-e
- Instruments series B-0140A (ammeters) and B-0140V (voltmeters)

The cover is fixed to the body with 4 or 6 anti loosening screw. Between body and cover a silicon gasket guarantee the protection degree IP66.

The walls of the boxes can be drilled and taped with maximum size and maximum number of holes as specified in the manufacturer documents. The cable glands or plugs, with separate IECEx certificate, are mounted using locknut and gasket. Each enclosure is provided with internal and external earth screw or bolt (polyester boxes without external earth screw). Each conductor is provided with terminal lugs.

For further information see Annex.

CONDITIONS OF CERTIFICATION: NO



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Variation 1.1 to certificate IECEx CES 11.0032 (IT/CES/ExTR11.0033/00)

The variation concerns:

- upgrade to standards IEC 60079-0:2011;
- added dust protection according to IEC 60079-31:2008;
- upgrade of marking label;- updated degree of protection IP66 for all models;
- changed the height of cover for aluminium and polyester boxes
- updated minimum ambient temperature -40°C;
- added temperature class T6 for ambient temperature +40°C;
- added models of stainless steel junction boxes CTB series;
- added different sizes of aluminium SA and stainless steel SA...SS;
- added installation of Cortem ammeter/voltmeter B-0140 model (IECEX CES 12.0022U);
- new types of silicone gaskets



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Prot: B3002804

Annex to certificate: IECEx CES 11.0032 Issue No.:1 of 2013-01-07
Applicant: CORTEM S.p.A., Via Aquileia 10,
 I - 34070 Villesse (GO), Italy
Electrical Apparatus: Command, control and signalling units series SA ... and CTB

Model Identification:

SA* -

		<p><i>Code of the series:</i> SA: standard boxes. SAG: boxes with walls 7mm thickness.</p>
		<p><i>Size of boxes:</i> see tables 1.</p>
		<p>Material and number of gland plates blank: aluminium alloy boxes. /P: polyester resin boxes. SS: stainless steel boxes without gland plates. SSC: stainless steel boxes with locking devices on cover and without gland plates SSF1, SSF2, SSF3, SSF4: stainless steel boxes with 1, 2, 3 or 4 gland plates. SSFC1, SSFC2, SSFC3, SSFC4: stainless steel boxes with locking devices on cover and 1, 2, 3 or 4 gland plates.</p>

CTB -

		<p><i>Code of the series:</i> CTB: standard boxes.</p>
		<p><i>Size of boxes:</i> see tables 1 .</p>
		<p>Material and number of gland plates S1, S2, S3, S4: stainless steel boxes with 1, 2, 3 or 4 gland plates blank: stainless steel boxes without gland plates. C, CS1, CS2, CS3, CS4: with locking devices on cover M1, M2, M3, M4: for mild steel boxes with 1, 2, 3 or 4 gland plates. M: for mild steel boxes without gland plates.</p>

Electrical characteristics:

Max. rated voltage: 600 Vac/dc
 Max. rated current: 16 A
 Rated frequency: 50 / 60 Hz

PAD B3002804 (1887431) - USO AZIENDALE



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Electrical characteristics (follows):

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 type and number of terminals which can be installed in the various enclosures is indicated in detail, together with the maximum admissible currents in the manufacturer's documentation. When selecting the permitted continuous current for cross section, the maximum permitted electrical current for the terminals and the connecting cable or conductor should be taken into consideration.

Pilot LED type M-0612, contact blocks type M-0530, M-0531 terminals: section 2,5 mm²
Ammeter and voltmeter type B-0140 terminals: section 2,5 mm²

Degree of protection (IEC 60529) IP 66
 Ambient temperature range: From -40°C to +40°C (T6/T85°C)
 From -40°C to +55°C (T5/T100°C)

Installation conditions:

Accessories used for cable entries and for unused holes shall have degree of protection IP 66 and shall be certificate according to the standards IEC 60079-0 and IEC 60079-7.
When selecting the permitted continuous current for cross section, the maximum permitted electrical current for the terminals and the connecting cable or conductor should be taken into consideration.

Warning label:

Do not open when energized.
Use cables suitable for a minimum temperature of 90°C.

Table : list of types

Aluminium boxes	Aluminium boxes reinforced (with walls 7mm thickness)	Polyester resin boxes
SA111108	SAG111108	SA111108/P
SA171108	SAG171108	SA171108/P
SA141410	SAG141410	SA141410/P
SA202012	SAG202012	SA202012/P
SA301410	SAG301410	SA301410/P
SA302310	SAG302310	SA302310/P
SA302318	SAG302318	SA302318/P
SA473018	SAG473018	SA473018/P
/	SAG623018	SA623018/P
/	SAG606018	/



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Table : list of types(follows)

Stainless steel boxes with cover fixed by screws and hinges when requested				
Without gland plate	With 1 gland plate	With 2 gland plates	With 3 gland plates	With 4 gland plates
SA111108SS	/	/	/	/
SA171108SS	/	/	/	/
SA141410SS	/	/	/	/
SA161610SS	/	/	/	/
SA202020SS	/	/	/	/
SA261210SS	/	/	/	/
SA261610SS	/	/	/	/
SA262614SS	/	/	/	/
SA301410SS	/	/	/	/
SA302310SS	/	/	/	/
SA302318SS	SA302318SSF1	SA302318SSF2	SA302318SSF3	SA302318SSF4
SA303020SS	SA303020SSF1	SA303020SSF2	SA303020SSF3	SA303020SSF4
SA303030SS	SA303030SSF1	SA303030SSF2	SA303030SSF3	SA303030SSF4
SA362614SS	SA362614SSF1	SA362614SSF2	SA362614SSF3	SA362614SSF4
SA402618SS	SA402618SSF1	SA402618SSF2	SA402618SSF3	SA402618SSF4
SA403618SS	SA403618SSF1	SA403618SSF2	SA403618SSF3	SA403618SSF4
SA404020SS	SA404020SSF1	SA404020SSF2	SA404020SSF3	SA404020SSF4
SA404030SS	SA404030SSF1	SA404030SSF2	SA404030SSF3	SA404030SSF4
SA473018SS	SA473018SSF1	SA473018SSF2	SA473018SSF3	SA473018SSF4
SA505020SS	SA505020SSF1	SA505020SSF2	SA505020SSF3	SA505020SSF4
SA505030SS	SA505030SSF1	SA505030SSF2	SA505030SSF3	SA505030SSF4
SA602618SS	SA602618SSF1	SA602618SSF2	SA602618SSF3	SA602618SSF4
SA603618SS	SA603618SSF1	SA603618SSF2	SA603618SSF3	SA603618SSF4
SA606020SS	SA606020SSF1	SA606020SSF2	SA606020SSF3	SA606020SSF4
SA606030SS	SA606030SSF1	SA606030SSF2	SA606030SSF3	SA606030SSF4
SA623018SS	SA623018SSF1	SA623018SSF2	SA623018SSF3	SA623018SSF4
SA707030SS	SA707030SSF1	SA707030SSF2	SA707030SSF3	SA707030SSF4
SA1007030SS	SA1007030SSF1	SA1007030SSF2	SA1007030SSF3	SA1007030SSF4
SA10010030SS	SA10010030SSF1	SA10010030SSF2	SA10010030SSF3	SA10010030SSF4

Stainless steel boxes with cover fixed by locking device and hinges				
Without gland plate	With 1 gland plate	With 2 gland plates	With 3 gland plates	With 4 gland plates
SA302318SSC	SA302318SSCF1	SA302318SSCF2	SA302318SSCF3	SA302318SSCF4
SA303020SSC	SA303020SSCF1	SA303020SSCF2	SA303020SSCF3	SA303020SSCF4
SA303030SSC	SA303030SSCF1	SA303030SSCF2	SA303030SSCF3	SA303030SSCF4
SA362614SSC	SA362614SSCF1	SA362614SSCF2	SA362614SSCF3	SA362614SSCF4
SA402618SSC	SA402618SSCF1	SA402618SSCF2	SA402618SSCF3	SA402618SSCF4
SA403618SSC	SA403618SSCF1	SA403618SSCF2	SA403618SSCF3	SA403618SSCF4
SA404020SSC	SA404020SSCF1	SA404020SSCF2	SA404020SSCF3	SA404020SSCF4
SA404030SSC	SA404030SSCF1	SA404030SSCF2	SA404030SSCF3	SA404030SSCF4
SA473018SSC	SA473018SSCF1	SA473018SSCF2	SA473018SSCF3	SA473018SSCF4
SA505020SSC	SA505020SSCF1	SA505020SSCF2	SA505020SSCF3	SA505020SSCF4
SA505030SSC	SA505030SSCF1	SA505030SSCF2	SA505030SSCF3	SA505030SSCF4



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CESI

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Electrical Apparatus: Command, control and signalling units series SA ... and CTB

Table : list of types(follows)

Stainless steel boxes with cover fixed by screws and hinges (CSTB without hinges)				
Without gland plate	With 1 gland plate	With 2 gland plates	With 3 gland plates	With 4 gland plates
CSTB121208	/	/	/	/
CSTB151509	/	/	/	/
CSTB191910	/	/	/	/
CTB221513	CTB221513S1	CTB221513S2	CTB221513S3	CTB221513S4
CTB262616	CTB262616S1	CTB262616S2	CTB262616S3	CTB262616S4
CTB262620	CTB262620S1	CTB262620S2	CTB262620S3	CTB262620S4
CTB303016	CTB303016S1	CTB303016S2	CTB303016S3	CTB303016S4
CTB303020	CTB303020S1	CTB303020S2	CTB303020S3	CTB303020S4
CTB382616	CTB382616S1	CTB382616S2	CTB382616S3	CTB382616S4
CTB382620	CTB382620S1	CTB382620S2	CTB382620S3	CTB382620S4
CTB453816	CTB453816S1	CTB453816S2	CTB453816S3	CTB453816S4
CTB453820	CTB453820S1	CTB453820S2	CTB453820S3	CTB453820S4
CTB484816	CTB484816S1	CTB484816S2	CTB484816S3	CTB484816S4
CTB484820	CTB484820S1	CTB484820S2	CTB484820S3	CTB484820S4
CTB503516	CTB503516S1	CTB503516S2	CTB503516S3	CTB503516S4
CTB503520	CTB503520S1	CTB503520S2	CTB503520S3	CTB503520S4
CTB624516	CTB624516S1	CTB624516S2	CTB624516S3	CTB624516S4
CTB624520	CTB624520S1	CTB624520S2	CTB624520S3	CTB624520S4
CTB745520	CTB745520S1	CTB745520S2	CTB745520S3	CTB745520S4
CTB765020	CTB765020S1	CTB765020S2	CTB765020S3	CTB765020S4
CTB808030	CTB808030S1	CTB808030S2	CTB808030S3	CTB808030S4
CTB866420	CTB866420S1	CTB866420S2	CTB866420S3	CTB866420S4
CTB916120	CTB916120S1	CTB916120S2	CTB916120S3	CTB916120S4
CTB987420	CTB987420S1	CTB987420S2	CTB987420S3	CTB987420S4