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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 14.0017U Issue No.:1	Certificate history: Issue No. 1 (2016-3-15) Issue No. 0 (2014-5-30)
Status:	**Current**	
Date of Issue:	**2016-03-15**	Page 1 of 4

Applicant: **CORTEM S.p.A.**
Via Aquileia, 10
I – 34070 Villesse (Gorizia)
Italy

Equipment: **Empty enclosure, Series EJB-.. , EJBX.. , EJBT-.. and AQS-1**
Optional accessory:

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

Marking: **Ex db I Mb**
Ex db IIB Gb or Ex db IIB+H2 Gb
Ex tb IIIC Db
IP66 or IP66/67

Approved for issue on behalf of the IECEx Certification Body: Mirko Balaz

Position: Head of IECEx CB

Signature:
(for printed version)

Date: 15-3-2016

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
Il Responsabile
(Roberto Piccin)

IECEx Certificate of Conformity

Certificate No.: IECEx CES 14.0017U

Date of Issue: **2016-03-15** Issue No.: **1**

Manufacturer: **CORTEM S.p.A.**
Via Aquileia, 10
I – 34070 Villesse (Gorizia)
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 60079-31 : 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/ExTR15.0025/00

Quality Assessment Report:

IT/CES/QAR06.0002/09

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Schedule

EQUIPMENT:
Equipment and systems covered by this certificate are as follows:

The empty enclosures series EJB-.. , EJBX.. , EJBT-.. and AQS-1 are made in aluminium alloy or stainless steel. They are intended to be used for the mounting of electrical apparatus such as switching-, control-, regulating-, measuring and indicating devices. The light alloys enclosures, are allowed for Group II and Group III only, while the enclosure in stainless steel are suitable for all Group I, II and III.
The cover and side walls of the enclosure may be provided with flameproof operating axes-, lamp caps and window. On the enclosures subject of this certificate, type M-0.. command and signalling operators as indicated in the separate component certificate, can be installed.
As regards the protection against combustible dusts, the EJB enclosures are made with sealing gasket placed between body and cover to guarantee degree of protection IP 66/67. If the command and signalling operators type M-. are mounted on the units subject of this certificate, the degree of protection of the enclosures will be IP 66.

The empty enclosures series EJB-.. , EJBX.. , EJBT-.. and AQS-1 characteristics and a Schedule of Limitations are further described in the Annexe of this certificate.

CONDITIONS OF CERTIFICATION: NO

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

Variation 1
- General revision and updating of manufacturer documentation in function of last edition of applicable Standards.
- Consolidated CoC variation:
a) With upgrade drawings EJB (including new series 2015) and EJBX series
b) With new EJBX-01 model
c) With new EJBT... series
d) With extension at new minimum ambient temperature of -60°C.

Annex: Cortem IECEx CES 14.0017U Issue 1 - ANNEX - Empty EJB and EJBX.pdf

IECEx Certificate of Conformity

Prot: B6007586

Annex to certificate: **IECEx CES 14.0017U Issue No.:1** of 2016-03-15

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

Electrical Apparatus: **Empty enclosures, series EJB-.. , EJBX.. , EJBT-.. and AQS-1**

General product information:

The **EJB-..** empty enclosures series have the body and the cover made in aluminium alloy or stainless steel and are in Ex db I (stainless steel only), Ex db IIB, Ex db IIB+H_2 and Ex tb IIIC execution.

The **EJB-..** series is available in two particular execution:

- with external flange for type **EJB-..**;
- with internal flange for type **AQS-1**.

They can be equipped with command and signalling operators series M-0.. certified as components with separate certificate, mounted on the cover or on the enclosure wall and with circular or rectangular transparent tempered glass windows sealed on the cover.
Gaskets between cover and body flanged joint and for all other accessories are made in silicon and they guarantee the protection degree IP66 while IP67 for enclosures without operators only.
The flanged joint between the body of **EJB-..** empty enclosures series and the covers 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 and an internal bottom plate for equipment mounting.

Model Identification:

Aluminium alloy enclosures		Stainless steel enclosures
EJB series	**EJBT series**	**EJBX series**
AQS-1	-	-
EJB-01	EJBT0	EJBX-01
-	-	EJBX-01B
EJB-1	EJBT1	EJBX-1
EJB-2	EJBT2	EJBX-2
-	EJBT2CB	-
-	EJBT2C	-
EJB-3	EJBT3	EJBX-3
EJB-3B	EJBT3B	EJBX-3B
EJB-4	EJBT4	EJBX-4
EJB-4B	EJBT4B	EJBX-4B
EJB-45	EJBT45	EJBX-45
EJB-45B	EJBT45B	EJBX-45B
EJB-48BA	-	-
EJB-5	EJBT5	EJBX-5
EJB-5B	EJBT5B	EJBX-5B
EJB-55	EJBT55	EJBX-55
EJB-55B	EJBT55B	EJBX-55B
EJB-503	-	-
EJB-55C	-	-
EJB-6	EJBT6	EJBX-6
EJB-6B	EJBT6B	EJBX-6B
EJB-7	EJBT7	EJBX-7
EJB-7B	-	-

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Applicant: **CORTEM S.p.A.**
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Electrical Apparatus: **Empty enclosures, series EJB-.. , EJBX.. , EJBT-.. and AQS-1**

Ambient temperature:

The empty enclosures shall be used in the ambient temperature range:

from -20°C to +60°C : all enclosures for group I (made in stainless steel only), group II and group III;

from -40°C to +60°C : all enclosures for Group IIB, IIB+H2 and Group IIIC with polycarbonate pilot light;

from -60°C to +60°C : all enclosures for Group IIB, IIB+H2 and Group IIIC without polycarbonate pilot light.

from -60°C to +100°C : all enclosures for Group IIB and Group IIIC empty enclosures (EJB-01 and ACQ-1 types excluded) with or without glass windows sealed on the cover and without control-signal operators.

Ingress protection:

IP66 (with operators installed)

IP66/67 (without operators installed)

"Scheduled of Limitations" for Ex Components:

- 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/IP67 shall be guaranteed according to IEC 60529 standard.

- The empty enclosures shall be used in the ambient temperature range:
  - from -20°C up to +60°C: all versions of empty enclosures for group I (made in stainless steel only), group IIB, IIB+H_2 and group IIIC;
  - from -40°C up to +60°C: all versions of empty enclosures for group IIB, IIB+H_2 and group IIIC with polycarbonate pilot lights;
  - from -60°C up to +60°C all versions of empty enclosures for group IIB, IIB+H_2 and group IIIC without polycarbonate pilot lights.
  - from -60°C up to +100°C: all versions of empty enclosures (types EJB-01 and AQS-1 excluded) for group IIB and group IIIC with or without glass windows sealed on the cover and without control-signal operators.

- Maximum service temperature of the empty enclosures:
  - +100 °C for all versions of empty enclosures.
  - +150 °C for empty enclosures of group II and III, without control-signal operators and windows.

- The service temperature range of the components installed on the enclosures shall be take into account.

- The minimum distance between flameproof flanged joint of the enclosure and external obstacle should be:
  - 20 mm for IIB execution:
  - 30 mm for IIB+H2 execution.

- According to IEC 60079-1 annex D, the content of the Ex component enclosure equipment may be placed in any arrangement, provided that:
  - for group I an area of at least 20% of each cross-sectional area remains free;
  - for group IIB and IIB+H_2 an area of at least 40% of each cross-sectional area remains free.

Warning label:

"Empty enclosure with component certificate"

"Use screws of quality A2-70 with tensile strength of at least 700 N/mm^2."