



# 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](http://www.iecex.com)

Certificate No.:

IECEx TSA 06.0011

issue No.:1

Certificate history:

Issue No. 1 (2009-5-7)

Issue No. 0 (2006-8-14)

Status:

Current

Date of Issue:

2009-05-07

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Applicant:

Cortem SpA  
Via Aquileia 10  
34070 VILLESSE (GO)  
Italy

Electrical Apparatus:  
Optional accessory:

CCFE/EJB Series of Command, Control and Signalling Units

Type of Protection:

Ex d, tD

Marking:

Cortem  
Model Number: \*  
Ex d I - 20 °C ≤ Ta ≤ 55 °C \* (stainless steel enclosures only)  
Ex d IIB + H2 T\* - 20 °C ≤ Ta ≤ 55 °C \*  
Ex tD A21 IP\*\* T 85 °C / 100 °C / 135 °C / 150 °C - 20 °C ≤ Ta ≤ 55 °C \*  
Serial Number:  
IECEx TSA 06.0011  
\* Refer to Instruction Manual F-276-AUS  
\*\* IP65 (silicon grease on flange) or IP66/IP67 ('O' ring seal on flange)

Approved for issue on behalf of the IECEx  
Certification Body:

Ajay Maira

Position:

for Quality & Certification Manager

Signature:  
(for printed version)

Date:

Ajay Maira  
07 May 2009

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:

TestSafe Australia  
919 Londonderry Road  
Londonderry NSW 2753  
Australia





# IECEx Certificate of Conformity

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Manufacturer: **Cortem SpA**  
Via Aquileia 10  
34070 VILLESSE (GO)  
Italy

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 identity documents, was found to comply with the following standards:

<b>IEC 60079-0 : 2004</b> Edition: 4.0	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
<b>IEC 60079-1 : 2003</b> Edition: 5	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosure 'd'
<b>IEC 61241-0 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 0: General requirements
<b>IEC 61241-1 : 2004</b> Edition: 1	Electrical apparatus for use in the presence of combustible dust - Part 1: Protection by enclosures "tD"

*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:

AU/TSA/ExTR06.0017/00  
AU/TSA/ExTR06.0017/01

Quality Assessment Report:  
IT/CES/QAR06.0002/03



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## Schedule

### EQUIPMENT:

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

The equipment description is provided in the Annexe to this certificate.

Table 1 specifies gas grouping of enclosures.

Table 1 – Specifies gas grouping of enclosures			
Enclosure type	Group	Enclosure type	Group
EJB-01 (CCFE-01)	IIB + H <sub>2</sub>	EJB-45 (CCFE-45)	IIB + H <sub>2</sub>
EJB-1 (CCFE-1)	IIB + H <sub>2</sub>	EJB-45B (CCFE-45B)	IIB + H <sub>2</sub>
EJB-2 (CCFE-2)	IIB + H <sub>2</sub>	EJB-5 (CCFE-5)	IIB + H <sub>2</sub>
EJB-3 (CCFE-3)	IIB + H <sub>2</sub>	EJB-5B (CCFE-5B)	IIB + H <sub>2</sub>
EJB-3B (CCFE-3B)	IIB + H <sub>2</sub>	EJB-503 (CCFE-503)	IIB + H <sub>2</sub>
EJB-4 (CCFE-4)	IIB + H <sub>2</sub>	EJB-6 (CCFE-6)	IIB + H <sub>2</sub>
EJB-4B (CCFE-4B)	IIB + H <sub>2</sub>	EJB-6B (CCFE-6B)	IIB + H <sub>2</sub>

CONDITIONS OF CERTIFICATION: NO



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

The details of certificate changes for Issue 1:

- 1) Update from DIP to Ex tD.
- 2) Amend Technical Note A4-4489 to include a table on paragraph 6 listing all the commercial codes covered by this certificate.

The conditions of certification and the drawing list are provided in the Annexe to this certificate.



## IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 06.0011	Issue No.:	1
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### Equipment (continues):

The CCFE/EJB command, control and signalling units are assemblies of enclosure, certified operators, viewing windows and enclosed electrical equipment.

Enclosure has a body and cover part attached by stainless steel socket head cap screws via a flange joint. Both parts are cast from either aluminium silicon alloy CA401, CB401, CC401, GAISI 13 or AISI 12 or fabricated from stainless steel AISI 303, 304 or 316. The body of the enclosure may be provided with threaded entries for cable glands, stopping boxes or operators. The cover may have threaded holes for operators or for a circular tempered glass window mounting frame assembly. The enclosure is protected from entry of dust and water by an application of silicon grease or by Bluetech- Italy NBR "O" ring gasket between cover and body.

Operators are designated as M-O series from the same manufacturer and are covered by AU/TSA/ExTR06.0022.

Circular viewing windows consist of a tempered glass part cemented into an aluminium or stainless steel frame and secured by a threaded ring as an inseparable assembly. Mounting to the enclosure is by a thread on the mounting frame.

The rectangular glass window is retained by means of 4 x M5 x 10 screws or No. 4 rivets with retaining clips and EPDM gasket. Additional seal is provided by means of Dow Corning R816 High Temperature Silicone Sealant Red.

Enclosed electrical equipment is a general arrangement of supply, switching and control devices with total power dissipation not exceeding the limits given by drawing A1-4566.

The CCFE/EJB command, control and signalling units are specified for gas Group I and Group IIB + H<sub>2</sub>.

### Conditions of Certification:

1. It is a condition of manufacture that all enclosures shall be subjected to a routine overpressure test in accordance with Clause 16.1 of IEC 60079-1:2003 at a pressure of 1190 kPa.
2. It is a condition of manufacture that each apparatus shall be supplied with an instruction manual.

Certificate issued by:

	<b>TestSafe Australia</b> 919 Londonderry Road Londonderry NSW 2753 Australia
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## IECEx Certificate of Conformity Annexe

Annexe for Certificate No.:	IECEx TSA 06.0011	Issue No.:	1
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### Drawing list pertaining to Issue 0 of this Certificate:

Drawing/ Document No.:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
A1-4480	1	Empty Enclosures – Series CCFE...EJB... Assembly Drawing	4	2006/06/12
A1-4481	1	Empty Enclosures – Holes Through Enclosure Walls	3	2006/06/12
A1-4482	1	CCFE/EJB Empty Enclosures – Lids: Holes for Fasteners Constraints for Machining Holes for M-0...Series Components	3	2006/06/12
A1-4483	1	CCFE/EJB Enclosures – Lid Machining Constraints for Fitting Circular Windows and M- 0.... Components	4	2006/06/12
A1-4484	1	CCFE/EJB Enclosures – Lid Machining Constraints for Fitting Rectangular Windows and M-0... Components	3	2006/06/12
A1-4485	1	CCFE-...SS/EJBX...Stainless Steel Enclosures	3	2006/06/12
A1-4486	1	Series EJB...CCFE... Enclosures Joints with Gasket or with Silicon Grease	4	2006/06/12
A4-4488	1	Internal and External Earth Bonding Facilities	2	2006/06/12
A4-4489	3	Technical Note	3	2006/06/12
A1-4566	1	Command, Control and Signalling Units – Series CCFE.../EJB... Assembly Drawing	4	2006/06/12
TAB-383.1	1	CCFE-SS EJBX - Stainless Steel Lids Details	0	2004/01/09
TAB-384.1	1	CCFE-SS EJBX-SS Enclosure Details	0	2004/01/09
TAB-384-1a	1	CCFE-SS EJBX-SS Enclosures Details	0	2004/01/09
F-276-AUS	12	Control and Signalling Equipment Enclosures Series CCFE/EJB Safety Instructions Use and Maintenance	0	2006/06/12


### Schedule of Variations

#### Variations Permitted by Issue 1:

The following variations to the design of the CCFE/EJB Series of Command, Control and Signalling Units are permitted:

1. Update from DIP to Ex tD.
2. Amend Technical Note A4-4489 to include a table on paragraph 6 listing all the commercial codes covered by this certificate.

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**Conditions of Certification pertaining to Issue 1 of this Certificate:**

All previous conditions still apply.

**Drawing list pertaining to Issue 1 of this Certificate:**

Drawing/ Document No.:	Page/s:	Title:	Revision Level:	Date: (yyyy-mm-dd)
A1-4482	1	-EJB/CCFE Empty Enclosures – Holes on Cover for Accessories Mounting M-0...Series	4	2008-05-20
A1-4486	1	Series EJB...CCFE... Enclosures Joints with Gasket or with Silicon Grease	5	2008-05-20
A4-4489	5	Technical Note	4	2008-05-20
F-276-AUS	12	Control and Signalling Equipment Enclosures Series CCFE/EJB Safety Instructions Use and Maintenance	1	2008-05-20

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