

# *Certification of*

# EXPLOSION PROTECTED ELECTRICAL EQUIPMENT

Administered by: Standards Australia Quality Assurance Services

## Certificate of Conformity

**Certificate No:** AUS Ex 03.3893      **Issue 0:** Original Issue 27/11/2003

**Date of Expiry:** 27/11/2013

**Certificate Holder:** Cortem SpA  
Via Aquileia 6  
34070 Villesse (Go)  
Italy

**Electrical Equipment:** CCA Series of Enclosures with optional M-0 Series of Command, Control and Signal Operators

**Type of Protection:** Ex d  
DIP

**Marking Code:** Ex d IIC T \* IP\*\* (for all enclosures, operators & polycarbonate lens)  
Ex d I T \* IP\*\* (for s/s enclosures, s/s operators and polycarbonate lens)  
DIP A21 T \* IP\*\*  
AUS Ex 03.3893  
\* (refer to Tables 1 and 2 in Schedule)  
\*\* (refer to description of the equipment in Schedule)

**Manufactured By:** Cortem SpA  
Via Aquileia 6  
34070 Villesse (Go)  
Italy

Issued by:



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Australia

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Accreditation by the Joint Accreditation  
System of Australia and New Zealand,  
Acc No. Z2221100AS



STANDARDS AUSTRALIA

Standards Australia Quality Assurance Services Pty Limited A.B.N. 67 050 611 642

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*This certificate is granted subject to the conditions as set out in Standards Australia Miscellaneous Publication MP69 and the Procedure (Doc Q7134) of the scheme.*

*The electrical equipment and any acceptable variation to it specified in the schedule to this certificate and the identified documents, was found to comply with the following standards:*

IEC 60079-0:1998	Electrical apparatus for explosive gas atmospheres Part 0: General requirements (incorporating Amendment 1)
IEC 60079-1:2001	Electrical apparatus for explosive gas atmospheres Part 1: Flameproof enclosures 'd' (incorporating Corrigendum 1)
IEC 61241-1-1:1999	Electrical apparatus for use in the presence of combustible dust Part 1.1: Electrical apparatus protected by enclosures and surface temperature limitation - Specification for apparatus
IEC 60529:1989	Degrees of protection provided by enclosures (IP Code) (incorporating Amendment 1)

*This certificate does not ensure compliance with electrical safety requirements and performance other than those included in the Standards listed above.*

*The equipment listed successfully met the examination and test requirements as recorded in*

*Test Report No: TestSafe 23455*

*File Reference: TestSafe 2002/030643*



Signed for and on behalf of issuing authority

Laboratory Systems Manager  
Position

27/11/2003  
Date of Issue

Ex 03.3893-0

*This certificate and schedule may not be reproduced except in full.*

*This certificate is not transferable and remains the property of Standards Australia Quality Assurance Services and must be returned in the event of it being revoked or not renewed.*

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## Schedule

**Certificate No:** AUS Ex 03.3893

**Issue:** 0

**Date of Issue:** 27/11/2003

**Certified Equipment:** The CCA series of enclosures are designed to be used as Command, Control and Signalling Units and are manufactured from standard aluminium alloy UNI 4514, UNI 3049, UNI 3051, UNI 3599 or stainless steel AISI 303, 304 or 316. The enclosures are in square form with a threaded joint or cylindrical joint between the cover and body. The body of each enclosure is provided with threaded holes for the entry of rigid metallic conduit systems or cable glands. There is an optional cover fitted with a glass window made in tempered glass sealed with resin type ARALDIT AW106 for instrument equipment.

The M-0 series of operators are components suitable to be mounted on the CCA series enclosures. The external bodies of pushbuttons and signalling buttons are made from aluminium alloy or stainless steel AISI 303,304 or 316. The shafts and bushings are made from stainless steel AISI 303, 304 or 306. The external body of the signalling lamps are made from polycarbonate LEXAN 943A, while the signalling buttons are made from tempered glass sealed at the body with bicomponent resin types CRV-420 (beige colour). The handles are made from plastic materials or aluminium alloy.

The enclosure with operators may be rated at IP65. The enclosure without operators may be rated at IP66/IP67.

The full range of enclosures and operators are summarised in Tables 1, 2, 3 and 4:

**Table 1**

Model	Maximum power dissipation at ambient temperature (W)			
	40 °C		55 °C	
	Class T6	Class T5	Class T6	Class T5
CCA	4	6	3	4
CCAS	6	9	5	6
CCA0	10	16	8	12
CCA01	15	24	13	19
CCA02	32	51	26	39
CCA03	51	74	37	55
CCA04	112	197	84	150

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Addendum to Certificate No. Ex 03.3893-0

Certified Equipment  
continued:

Table 2

Model	Maximum power dissipation at ambient temperature of 40 °C (W)			Maximum power dissipation at ambient temperature of 55 °C (W)		
	Class T6 *	Class T5 **	Class T5 *	Class T6 *	Class T5 **	Class T5 *
CCA-0E	8	9	13	6	7	9
CCA-01E	11	12	17	9	10	13
CCA-02E	23	25	36	20	22	28
CCA-03E	40	44	58	29	32	43
CCA-04E	93	100	164	70	77	125
CCA-0C	8	9	13	6	7	9
CCA-01C	11	12	17	9	10	13
CCA-02C	23	25	36	20	22	28
CCA-03C	40	44	58	29	32	43
CCA-04C	93	100	164	70	77	125
CCAI-2020	30	35	42	25	27	34
CCA1-3020	50	54	68	39	42	53
CCA1-3030	80	85	120	60	65	100
CCA1-4030	105	112	170	90	100	140
CCAI-6040	280	300	360	250	260	320

**Notes:**

\* - Without signalling lamps, only signalling LED is allowed.

\*\* - With signalling lamps and/or signalling LED.

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Certified Equipment  
continued:

Table 3

Type of Equipment	V max (volts)	I max (amps)
Analogic digital instrument	660	5
Electronic gearcase	400	-
PLC, Multiplexer and Amplifier	240	-
Control and gauging device	240	-
Automatic breakers	660	400
Fuses	660	400
Air thermal relays	500	10
Electronic control device	660	-
Air contactors	660	400
Sequence timer	240	10
Photoelectrical cell	240	-
Capacitors	660	-
Transformers	660	-
Resistors	220	-
Terminals	660	-
Ballasts	220	7.5

Table 4

Model	Equipment type	Electrical characteristics of standard equipment
M-0.....	Switches handle	Switches 16 A 600 V
M-0428	Signalling buttons	3 W 6 V/250 V
M-0429	Buttons	Contacts 10 A 600 V
M-0430	Emergency buttons	Contacts 10 A 600 V
M-0457	Signalling lights	3 W 6 V/250 V
M-0427	Double buttons	Contacts 10 A, 600 V
M-093	Key handle	Switches 16 A, 600 V
M-0.....	Emergency buttons	Contacts 10 A, 600 V Switches 16 A, 600 V

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## Conditions of Certification:

1. It is a condition of manufacture that all enclosures and operators shall be subjected to a pressure test in accordance with Clause 15.1.3.1 of IEC 60079-1:2001 at a pressure of 1350 kPa.

## Drawing Schedule

Drawing No.	Drawing Title	Issue	Date
A1-4490	Empty Enclosures – Series CCA.. GUB.. Assembly Drawing	2	21/11/03
A1-4491	Empty Enclosures – Series CCA .. E Assembly Drawing	2	21/11/03
A1-4492	Empty Enclosures – Series CCA .. C Assembly Drawing	2	21/11/03
A1-4493 (Sheet 1 of 2)	Stainless Steel Empty Enclosures – Series CCA1... Assembly Drawing	1	01/10/03
A1-4493 (Sheet 2 of 2)	Stainless Steel Empty Enclosures – Series CCA1... Assembly Drawing	2	21/11/03
A1-4494	Empty Enclosures – Series CCA.. GUB.. Holes on Walls	1	01/10/03
A1-4495	Empty Enclosures – Series CCA.. E.. Holes on Walls CCA...C Holes on Walls and on Cover	1	01/10/03
A1-4496	Empty Enclosures – Series CCA... EH with Glass Windows	2	21/11/03
A1-4498	Empty Enclosures – Series CCA... H GUB...V with Glass Window	2	21/11/03
A2-4487	Operating and Signalling Equipment Series M-0...	2	27/11/03
A4-4488	Detail of internal-external earth terminal on boxes Eex d IIB, IIC	1	01/10/03
A4-4497	Enclosures Series CCA...GUB...for Control and Signalling Equipment	3	27/11/03
A1-4560	Command, Control and Signalling Units – Series CCA..GUB..CCA..E Assembly Drawing	2	21/11/03
A1-4561	Command, Control and Signalling Units – Series CCA..C and CCAI.. Assembly Drawing	1	01/10/03

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