IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 17.0162X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2018-05-10)
Date of Issue:	2022-06-02		

Applicant: **Cortem S.p.A.**
Via Aquileia 10
34070 Villesse
Gorizia
Italy

Equipment: **Command, Control and Signalling Units: SA..., CTB..., CSTB... and CTBE... Series or SA...H, CTB...H, CSTB... H and CTBE...H Series**

Optional accessory:

Type of Protection: **Dust Protection by Enclosure Ex "t", Intrinsic Safety Ex "i"**

Marking: Ex tb IIIC T...°C Db

Ta = -20°C or -40°C* to +40°C, +55°C or +60°C**

or

Ex tc [Ex ia Da] IIIC T...°C Dc

Ex tc IIIC T...°C Dc

Ta=-30°C* to +60°C**

(used only when the relay and HMI are installed on the enclosure, "..H" suffix models only)

* The minimum ambient depends on the parts fitted, as defined in the manufacturer's documentation and this certificate.

*** The maximum ambient depends on the power dissipation limit assigned to the enclosure and the parts fitted, as defined in the manufacturer's documentation and this certificate.*

Approved for issue on behalf of the IECEx Certification Body: **L A Brisk**

Position: **Certification Officer**

Signature: (for printed version)

Date: 2022-06-02
(for printed version)

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 www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 17.0162X**

Issue No: 1

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Manufacturer: **Cortem S.p.A.**
Via Aquileia 10
34070 Villesse
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Manufacturing locations: **Cortem S.p.A.**
Via Aquileia 10
34070 Villesse
Gorizia
Italy

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 equipment 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 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with 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 Reports:

GB/CML/ExTR17.0204/00 GB/CML/ExTR22.0076/00

Quality Assessment Report:

IT/CES/QAR06.0002/16

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

The SA..., CTB..., CSTB... and CTBE... Series Command, Control and Signalling Units comprise a range of enclosures covered by type of protection 'Ex tb', 'Ex tc' and 'Ex tc [Ex ia Da]' and are manufactured from aluminium, polyester, or stainless steel.

Refer to Annex for full Description.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Annex for Specific Conditions of Use.

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

This variation introduces the following modifcations:

1. Update of 60079-0 from 6th edition to 7th edition
2. Increase the power limits of the enclosures
3. Addition of Stahl relay modules
4. Addition of Siemens HMI

Annex:

Certificate Annex IECEx CML 17.0162X issue 1.pdf

Annexe to:	IECEx CML 17.0162X Issue 1
Applicant:	Cortem S.p.A.
Apparatus:	Command, Control and Signalling Units: SA..., CTB..., CSTB... and CTBE... Series

Description

The SA..., CTB..., CSTB... and CTBE... Series Command, Control and Signalling Units comprise a range of enclosures covered by type of protection 'Ex tb', 'Ex tc' and 'Ex tc [Ex ia Da]' and are manufactured from aluminium, polyester, or stainless steel.

A special version of the Command, Control and Signalling Units may be manufactured; this is identified by the suffix "..H". This version of the equipment may use additional equipment certified parts with alternative temperature characteristics. These are Sthal relay modules and a Siemens HMI.

The enclosures are manufactured in various sizes, with each size and material option having three assigned maximum power limits which correspond with each of the three maximum ambient temperature options; +40°C, +55°C and +60°C.

There are various IECEx/ATEX component certified devices which may be mounted externally, to the enclosure walls. A glass or polycarbonate window may also be fitted to the enclosure cover.

Internally, various electrical devices may be mounted, which have a total power dissipation within the power limits defined for each enclosure. Examples of parts which may be fitted within the enclosures are terminals, analogue and digital instruments, measuring and controlling devices, automatic switches, etc. IECEx/ATEX component certified battery packs may also be installed internally, and some of the electrical devices fitted may include 'button cell' type batteries.

There are several options of enclosure gasket/seal materials. The temperature and power limits for each enclosure type are defined in the manufacturer's documentation.

The equipment uses the following intrinsically safe parts (for category 3 equipment only):

Ex Auxiliary Equipment	Manufacturer	Certificate Number	Marking
I.S. Relay Module type 9172/**-11-00	R. STAHL Schaltgeräte GmbH	IECEx BVS 09.0002X Issue 3 BVS 04 ATEX E 097X Supplement 3	[Ex ia Da] IIIC

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Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. The product incorporates previously certified parts and/or safety critical components. The manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate. This includes monitoring the status of the general-purpose junction box certification (certificate IECEx CES 13.0001 / CESI 03ATEX333).

ii. The total maximum power dissipation of any arrangement of parts fitted into the enclosures shall not exceed the maximum power figure assigned to the particular enclosure size and material, taking into account the maximum ambient temperature/surface temperature option assigned. The maximum power dissipation figures are as defined in the manufacturer's document 'A4-7849'.

iii. The IECEx/ATEX certificate and instruction manual for each previously certified part used with the equipment shall be provided with the equipment to the end-user.

iv. The minimum ambient temperature marked on the equipment shall be no lower than the minimum ambient or service temperature assigned to any of the previously certified parts fitted.

v. Information shall be provided to the end-user which determines the supply ratings of each part installed within the enclosure, as well as the power dissipation limit defined for the enclosure.

vi. The electrical supply ratings of the enclosure shall be marked on the equipment.

vii. Regarding the externally mounted parts, sufficient space between any other power dissipating parts shall be allowed to allow heat dissipation such that their own temperature rise, in addition to the temperature rise of surrounding parts, is not capable of exceeding their rated service temperature or the assigned maximum surface temperature.

viii. All previously certified parts shall be installed in accordance with their IECEx/ATEX certificate, their instruction manual and in accordance with IEC/EN 60079-14.

ix. Information detailing the thread type and size of all threaded entries into the enclosures shall be provided to the end-user with the instruction manual.

x. When ammeters and/or voltmeters are installed (certificates IECEx CES 12.0022U & CESI 04ATEX128U), the equipment enclosures shall be marked with a maximum ambient no higher than +40°C, and the maximum power dissipation, as defined in document 'A4-7849' for a +40°C ambient shall be reduced by 31.25 %.

xi. The certificates of equipment and component certified parts must be supplied with the Command, Control and Signalling Units: SA..., CTB..., CSTB... and CTBE... Series equipment.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

i. The limits of the supply ratings of each previously certified part installed and the power limit defined for the enclosure shall be observed during installation and operation.

ii. Cable glands and entry devices, whether selected by the equipment manufacturer or end user, shall be suitably IECEx/ATEX certified, suitable for the service temperature range and shall be installed in accordance with IEC/EN 60079-14. All wiring shall also be conducted in accordance with IEC/EN 60079-14.

iii. When a polycarbonate window is fitted, and/or voltmeters/ammeters with windows are installed, these parts present a potential electrostatic charging hazard and shall therefore be cleaned only with a damp cloth.

iv. When Stahl relay type 9172/*1-11-00 is used: The short-circuit current of the supplying source may not exceed 80 A

v. When the Siemens HMI panel is used, to avoid an electrostatic charge, wipe the enclosure surface with a damp cloth only.

vi. When the Siemens HMI panel is used, provisions shall be made to prevent the rated voltage from being exceeded by transient disturbances of more than 119 V.

vii. The lower ambient of the equipment will either be -30°C, -20°C or 0°C, depending on the combination and models of relays and HMI's used. Where the relays are not used, the lower ambient may be as low as -30°C depending on the model of HMI and other parts fitted. If the outdoor model of the HMI is not fitted the lower ambient is 0°C. Where stahl relays are used, the lower ambient may not be below -20°C.

viii. When the Siemens HMI panel is used, the user shall ensure that the equipment is protected from mechanical impact in service, by location or suitable guarding.