



IECEX Certificate 4024...A 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 11.0016	Issue No: 1	<u>Certificate history:</u>
Status:	Current	Page 1 of 5	Issue No. 1 (2016-11-30) Issue No. 0 (2011-06-07)
Date of Issue:	2016-11-30		
Applicant:	CORTEM S.p.A. Via Aquileia 10 I - 34070 Villesse (GO) Italy		
Equipment:	Hook release controller type HRC-1, 2, 3 or 4		
Optional accessory:			
Type of Protection:	Flameproof enclosures 'd'; Dust ignition protection 't'		
Marking:	Ex db IIB T5 Gb Ex db IIB+H2 T5 Gb Ex tb IIIC 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)

Date:

30-11-2016

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 S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile

(Roberto Piccin)

PAD B6027470 (2322202) - USO RISERVATO



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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 : 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/ExTR11.0018/00 IT/CES/ExTR11.0018/01

Quality Assessment Report:

IT/CES/QAR06.0002/10



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The hook release controller types HRC-1, HRC-2, HRC-3 and HRC-4, enables mooring operators to release the vessel. It is composed by a controller, 1, 2, 3 or 4 actuators installed into Ex d enclosure, type EJB-45 made in aluminium alloy or stainless steel, having the certificate IECEx TSA 06.0011 and IECEx CES 14.0017U.

The actuators move 1, 2, 3 or 4 push-pull controls, which exit from enclosure by means of actuator cable adaptor type RRC-01 with component certificate IECEx SIM 05.0002U.

Electrical Characteristics

Rated voltage: 230 Vac

Heater: 45 W

Maximum dissipated power: 142 W (with 4 actuators and heater)

Degree of protection (IEC 60529): IP 66

Ambient temperature range: from -20°C to +55°C

Model Identification:

HRC *

* = number of actuators: 1, 2, 3 or 4

CONDITIONS OF CERTIFICATION: NO



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EQUIPMENT (continued):

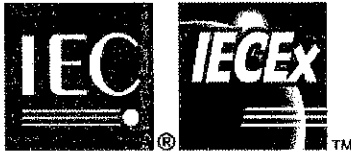
Installation conditions

The condition of the installation of the Hook release controller included within the safety instructions. In any case, the accessories used for cable entries into enclosures shall be subject of separate certification, suitable for type of protection Ex-d and Ex-tb and guarantee a minimum degree of protection IP 66 in compliance with the IEC 60529 Standard.

The coupling between the cable entry, with cylindrical threads, and the enclosure shall be provided with block to prevent loosening according manufacturer instruction.

Warning label

- "Warning: do not open when energized"
- "Use screw of quality A2-70 according UNI 7323"



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

Variation1

Variation 1.1

The Hook release controller originally assessed in compliance with IEC 60079-0: 2004, IEC 60079-1:2007, IEC 61241-0:2004 and IEC 61241-1:2004, have been re-assessed on the basis of the Standards:

- IEC 60079-0: 2011 - Electrical apparatus for explosive atmospheres - Part 0: general requirements.
- IEC 60079-1: 2014 - Part 1: Equipment protection by flameproof enclosures "d"
- IEC 60079-31:2013 - Electrical apparatus for use in the presence of combustible dust - Part 31: protection by enclosures "t".

Variation 1.2

Add possibility of 4 actuators.

Variation 1.3

Add possibility of inspection window.

Variation 1.4

Upgrade new orientation of enclosure.