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 23.0026X**

Certificate history:

Status: **Current**

Issue No: 0

Date of Issue: 2025-02-13

Applicant: **Hubbell Limited t/a Hawke International**
Ashton Road
Bredbury Park Industrial Estate
Bredbury
Stockport SK6 2QN
United Kingdom

Equipment: **A Range of Control-Ex Connectors**

Optional accessory:

Type of Protection: **Flameproof Ex "db" and Dust Protection Ex "tb"**

Marking: Ex db I Mb
Ex db IIC T*°C Gb
Ex tb IIIC T*°C Db

Ta= -**°C +**°C

*/**See certificate Annex for T Class and Ta options

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

Position: **Assistant Certification Manager**

Signature: (for printed version)



Date: (for printed version) 13 Feb 2025

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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Manufacturer: **Hubbell Limited t/a Hawke International**
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Manufacturing locations: **Hubbell Limited t/a Hawke International**
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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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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 Report:

GB/CML/ExTR23.0026/00

Quality Assessment Report:

GB/SGS/QAR24.0002/00

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

The Range of Control-Ex Connectors is constructed from components which may be manufactured in brass, steel, stainless steel or aluminium bronze,...

See Annex for full description and Conditions of Manufacture.

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

Annex:

Certificate Annex IECEx CML 23.0026X Issue 0_1.pdf

Annexe to: IECEx CML 23.0026X Issue 0

Apparatus: A Range of Control-Ex Connectors

Applicant: Hubbell Limited t/a Hawke International

Description

The Range of Control-Ex Connectors is constructed from components which may be manufactured in brass, steel, stainless steel or aluminium bronze, and each comprise a cylindrical body section which may take the form of a Type connector plug (CP) In-line Connector with a male mating flame path, a Type connector receptacle (CR) In-line Connector with a female mating flamepath or a Type bulkhead receptacle (BR) connector with a female mating flamepath.

The CP and CR connect to form an inline coupling, where the male and female parts are secured with a threaded locking ring which is fixed and locked to the male half with hexagon socket grub screws. When they are separated, the connection chambers are closed and secured with flameproof/IP6X caps.

The cylindrical body sections are used to house a variety of electrical pin and socket arrangements which are keyed into position by a captive pin passing though the side wall of the connector inline housing. The pin and socket arrangement of the inline connector assembly is supported from the rear by a non-metallic ferrule.

The Type BR is connected to the Type CP In-line connector to form a plug and receptacle when the Type BR is mounted to an enclosure. The Type BR is comprising of a compound pot to form a barrier between the CP connector and the enclosure and when separated the connection chambers are closed and secured with flameproof/IP6X caps.

The connectors are available in a range of seven sizes, based on the size of the in-line connectors metric rear entry thread i.e. Ex 16, Ex 25, Ex 32, Ex 40, Ex 50, and Ex 63. The entry thread of the equivalent size bulkhead connector (BR) is one or two size larger i.e. M25 to M75, the Ex 16 has entry thread size two sizes larger.

The Ex 32 and Ex 40 can be alternatively fitted with Hawke international's component certified 49* swivel elbows

The gland entry at the end of the connector can be fitted with any suitably equipment approved Ex db/tb cable gland.

The equipment's temperature class is dependent on maximum load. The assigned ambient temperature and T Class rating is in accordance with the following options:

Connector Shell Size	**T_{amb} ****	**Maximum Dissipated Wattage**	
		T6 *	**T5 ***
Ex 16	-40°C to 40°C	5W	7W
	-40°C to 50°C	4W	6W
	-40°C to 60°C	2.6W	4.6W
Ex 25	-40°C to 40°C	8W	11W
	-40°C to 50°C	6W	10W
	-40°C to 60°C	4W	7W
Ex 32	-40°C to 40°C	10.5W	14.5W
	-40°C to 50°C	8W	12W
	-40°C to 60°C	5.4W	9W
Ex 40	-40°C to 40°C	12W	17W
	-40°C to 50°C	9W	14W
	-40°C to 60°C	5.5W	10.5W
Ex 50	-40°C to 40°C	13W	20W
	-40°C to 50°C	10W	17W
	-40°C to 60°C	6.5W	12.5W

Eurofins E&E CML Limited
Newport Business Park, New Port Road
Ellesmere Port, CH65 4LZ, UK

Connector Shell Size	T_{amb} **	Maximum Dissipated Wattage	
		T6 *	T5 *
Ex 63	-40°C to 40°C	17W	29W
	-40°C to 50°C	13W	24W
	-40°C to 60°C	8.5W	17W

Notes:

- IECEx BAS 12.0006X is superseded by this certificate.
- Where IECEx BAS 12.0006X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

Conditions of Manufacture

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

i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.

ii. When the equipment is marked for IIC and the components are constructed of material that includes copper or copper alloy, the equipment's external surfaces shall be electroplated or have a maximum copper alloy limitation of 65%.

Specific Conditions of Use

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

i. These connectors shall be electrically isolated before any attempt is made to remove the covers or join or separate the two halves.

ii. When separated the flameproof caps shall be fitted and locked before any associated supply cables are energised.

iii. The cable entry device selected for use with the in-line connectors shall provide a mechanical cable retention facility appropriate to the cable type and conditions of service.

iv. The gland entry at the end of the connector shall be fitted with any suitably equipment approved Ex db cable gland.

v. The cable terminated within the bulkhead connector shall be mechanically protected from pulling and twisting, and the potted ferrule shall not be subjected to temperatures exceeding 100°C.

vi. When used in dust environments the cable entry threads, or bulkhead mounting, shall be sealed in accordance with the installation code of practice to ensure that a minimum ingress protection of level IP6X is maintained.

vii. The flameproof joints are not intended to be repaired.

viii. The BR version shall not be connected to a flameproof (Ex db) rated enclosure with a maximum end application volume of more than 100L i.e. 100 000cm³.

ix. The user must ensure that the maximum working voltage used is suitable for the type of connector used and installation is in accordance with the requirements of IEC 60079-14.

Components used which are covered by Ex Certificates issued to older editions of Standards

None