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 19.0145X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2023-06-01) Issue 0 (2019-10-21)
Date of Issue:	2024-10-24		

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

Equipment: **PowerEX Range of Connectors**

Optional accessory:

Type of Protection: **Flameproof "db", Dust Ignition "tb"**

Marking: Ex db IIC T* Gb

Ex db IIB+H_2 T* Gb

Ex tb IIIC T*°C Db

T_{amb} = -40°C to **°C

*See description for *Temperature Class and **Ambient Temperature*

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)

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 60079-31:2013 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/ExTR19.0158/00 GB/CML/ExTR23.0018/00 GB/CML/ExTR24.0241/00

Quality Assessment Report:

GB/BAS/QAR06.0061/10

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

The PowerEx Range of Connectors may be manufactured in brass, steel, stainless steel or bronze (all of which can be plated).

Refer to Certificate Annex for full description and Conditions of Manufacture.

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

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

This issue introduces the following changes:

1. Introduction of CP and CR models in all sizes Ex32 up to and including Ex 75.
2. Revising and updating of the marking code.
3. Revising of the specific conditions of safe use.
4. Amending of the voltage rating.
5. Clarification of the flamepath details.
6. Editorial changes and modification of the General Arrangement drawing.
7. Modification of the equipment name.

Issue 2

This issue introduces the following change:

1. To recognise a change to the applicant's and manufacturer's name and address.

Annex:

Certificate Annex IECEx CML 19.0145X, Iss 2.pdf

Annexe to: IECEx CML 19.0145X, Issue 2

Apparatus: PowerEX Range of Connectors

Applicant: Hubbell Limited t/a Hawke International

Description

The PowerEX Range of Connectors may be manufactured in brass, steel, stainless steel or bronze (all of which can be plated). The connectors comprise a cylindrical body section which may take the form of the following types.

- Type CP in line connector with an external mating flame path
- Type CR in line connector with an internal mating flame path
- Type BR in line connector with an internal mating flame path

A threaded locking ring is used to secure the coupling parts. The cylindrical bodies house plug and sockets arrangements for one and up to four poles. These are keyed in position by a spigot pin. The plug and socket arrangement of the inline connector assembly is supported from the rear by a non-metallic ferrule.

At the rear of the inline units is a compression element and securing ring arrangement, the securing ring is locked with two hexagon socket grub screws. The compression element includes internal entry thread for the accommodation of flameproof cable entry devices. The entry device shall be suitable for the cable together with the conditions of use.

The type BR is designed to be mounted on enclosures' external walls from one end, to accept cable input and from the other end, to be coupled with type CP plug. In this form, the In-line connection is made via CP key and BR Keyway, secured together by an engaging nut.

The BR Type connector is comprised of a compound pot and a retaining nut to form a barrier seal at the enclosure wall. The equipment in this form is rated for IP66/67 and is provided with an internal and external earth connection.

The temperature classification and maximum ambient temperatures vary depending on the maximum power dissipated within the connector and are detailed below:

Connector Size CP/CR/BR**	***Recommended maximum Voltage (V)**	**Maximum Current Range Amp (A)**	**Maximum Permitted Wattage**					
			Ambient temperature +40°C		**Ambient temperature +50°C**		**Ambient temperature +60°C**	
			T6	T5	T6	T5	T6	T5
Ex 32**	750	120 – 368	20.5W	27.5W	15.75W	26W	7.5W	15.75W
Ex 40	750	226-460	22.5W	30.5W	17.5W	28W	8.7W	17.5W
Ex 50	750	69-495	25.8W	35.3W	20W	32.25W	10W	20W
Ex 63**	750	101-670	30.2W	41.5W	23.5W	37.7W	11.7W	23.5W
Ex 75	750	165-780	36.3W	49.5W	28.25W	45.25W	14W	28.25W

*In some cases the recommended maximum voltage may be higher, contact the manufacturer for details.
**BR connector sizes.

The associated temperature classes are maintained by ensuring that the maximum power rating is not exceeded. The maximum power rating is obtained from the current and resistance values of each contact size.

Internal and external earth continuity facilities are provided.

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.

Specific Conditions of Use

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

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

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

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

iv. When used in dust environments the cable entry threads shall be sealed in accordance with the installation code of practice to ensure that an ingress protection level of IP6X is maintained.

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

vi. The connectors shall be mechanically secured as per manufacturer's instructions.

Components covered by Ex Certificates issued to older editions of Standards

None.

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