

UK Type Examination Certificate CML 21UKEX1165X Issue 1

United Kingdom Conformity Assessment

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended) – Schedule 3A, Part 1
- 2 Equipment **PowerEX Range of Connectors**
- 3 Manufacturer **Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell Group of Companies)**
- 4 Address **Oxford Street West,
Ashton-under-Lyne,
Lancashire, OL7 0NA,
United Kingdom**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.

The examination and test results are recorded in the confidential reports listed in Section 12.


- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to specific conditions of use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN 60079-1:2014

EN 60079-31:2014


- 10 The equipment shall be marked with the following:

 II 2 G D

Ex db IIC T* Gb

Ex tb IIIC T**°C Db

Ta= -40°C to **°C

 II 2 G D

Ex db IIB+H₂ T* Gb

Ex tb IIIC T**°C Db

Ta= -40°C to **°C

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





11 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.



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Internal and external earth continuity facilities are provided.

Variation 1:

This variation introduced the following changes:

- i. Introduction of CP and CR models in all sizes Ex32 up to and including Ex 75.
- ii. Revising and updating of the marking code.
- iii. Revising of the specific conditions of safe use.
- iv. Amending of the voltage rating.
- v. Clarification of the flamepath details.
- vi. Editorial changes and modification of the General Arrangement drawing.
- vii. Modification of the equipment name.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	14 July 2021	R13593J/00	Issue of the prime certificate. CML 19ATEX1404X, Issue 0 is attached and shall be referred to in conjunction with this certificate.
1	01 Jun 2023	R16171A/00	The introduction of Variation 1.

Note: Drawings that describe the equipment are listed in the Annex.

13 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.

14 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.



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- v. The flameproof joints are not intended to be repaired.
- vi. The connectors shall be mechanically secured as per manufacturer's instructions.

Certificate Annex

Certificate Number CML 21UKEX1165X
Equipment PowerEX Range of Connectors
Manufacturer Hawke International (A Division of Hubbell Limited) (A Member of the Hubbell Group of Companies)



The following documents describe the equipment defined in this certificate:

Issue 0

For drawings describing the equipment, refer to certificate CML 19ATEX1404X, Issue 0. In addition to the drawings listed on CML 19ATEX1404X, Issue 0, the following drawings include the additional marking required for this UK Type Examination certification:

Drawing No	Sheets	Rev	Approved date	Title
610414	1 of 1	C	14 July 2021	PowerEx 32/63 BR Label

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Drawing No.	Sheets	Rev	Approved /issued date	Title
620223	1 to 9	A	25 May 2023	PowerEx MKIV Certification Drawing