EU Type Examination Certificate CML 19ATEX1404X Issue 2

1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

2 Equipment **PowerEX Range of Connectors**

3 Manufacturer **Hubbell Limited t/a Hawke International**

4 Address **Ashton Road**
Bredbury Park Industrial Estate
Bredbury
Stockport SK6 2QN
United Kingdom

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 Eurofins CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

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 conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

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:

Ex II 2 G D	Ex II 2 G D
Ex db IIC T* Gb	Ex db IIB+H_2 T* Gb
Ex tb IIIC T**°C Db	Ex tb IIIC T**°C Db
Ta= -40°C to **°C	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.

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.

Variation 2

This variation introduced the following change:

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

12 Certificate history and evaluation reports

Issue	Date	Associated Report	Notes
0	21 Oct 2019	R12695A/00	The Issue of Prime Certificate
1	01 Jun 2023	R16171A/00	The introduction of Variation 1
2	10 Dec 2024	R17479B/00	The introduction of Variation 2

Note: Drawings that describe the equipment or component 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 (Special Conditions)

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.

Certificate Annex

Certificate Number	**CML 19ATEX1404X Issue 2**
Equipment	**PowerEX Range of Connectors**
Manufacturer	**Hubbell Limited t/a Hawke International**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved Date	Title
620127	1 of 1	A	21 Oct 2019	PowerEx 32 BR 1 x 70mm full assembly
610412	1 of 1	A	21 Oct 2019	Ex63 PowerEx BR Pot Retainer
610411	1 of 1	A	21 Oct 2019	Ex32 PowerEx BR Spigot C2 Size
6473	1 of 1	B	21 Oct 2019	Ex32 PowerEx BR Rear Shell
620128	1 of 1	A	21 Oct 2019	PowerEx 63 BR 1 x 300mm full assembly
610410	1 of 1	A	21 Oct 2019	PowerEx 32 BR Pot Retainer
610413	1 of 1	A	21 Oct 2019	Ex63 PowerEx BR Spigot E Size
6470	1 of 1	B	21 Oct 2019	Ex63 PowerEx BR Shell
610414	1 of 1	A	21 Oct 2019	PowerEx 32/63 BR Label
6303	1 of 1	B	21 Oct 2019	PowerEx CP Assembly
6304	1 of 1	B	21 Oct 2019	PowerEx Ex CR Assembly
6477	1 of 1	C	21 Oct 2019	PowerEx Connector Material Specifications
6491	1 of 1	C	21 Oct 2019	PowerEx RC Flameproof Cap Assembly

Issue 1

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

Issue 2

None.