EU Type Examination Certificate CML 23ATEX1064X Issue 0

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

2 Equipment **A Range of Control-Ex 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 IEC 60079-31:2024

10 The equipment shall be marked with the following:

Ex I M2

II 2 G D

Ex db I Mb

Ex db IIC T*°C Gb

Ex tb IIIC T*°C Db

Ta= -**°C to +**°C

11 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

Connector Shell Size	T_{amb} **	Maximum Dissipated Wattage	
		T6 *	T5 *
	-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
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:

- Baseefa12ATEX0014X is superseded by this certificate.
- Where Baseefa12ATEX0014X 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.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	13 Feb 2025	R16170A/00	Issue of prime certificate.

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.

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%.

14 Specific Conditions of Use (Special Conditions)

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.

Certificate Annex

Certificate Number	**CML 23ATEX1064X**
Equipment	**A Range of Control-Ex 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
620220	1 to 12	A	13 Feb 2025	ControlEx MK IV Schedule Drawing