EU Type Examination Certificate CML 23ATEX1062X Issue 1

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

2 Equipment **Instrum-Ex Range of In-line and Bulkhead Plug & Socket 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 60079-7:2015+A1:2018

EN 60079-31:2014

10 The equipment shall be marked with the following:

Ex II 2 G D

Ex db eb IIC T6 Gb

Ex tb IIIC T80°C Db

Ta= -40°C to +60°C

11 Description

The “Instrum-Ex” Range of Connectors may be manufactured in brass, nickel platted brass or stainless steel, and each comprise a cylindrical body which may take the form of a Type CP (Connector Plug) In-line Connector, a Type CR (Connector Receptacle) In-line Connector or a Type BR Bulkhead Receptacle Connector.

This connector is designed in such a way that the plug and sockets can be disengaged in an explosive atmosphere whilst energised.

CP and CR Connectors consist of the components listed below. All components are common other than the shells which are provided with opposing engaging threads - male (CP) and female (CR). Both CR and CP configurations may be fitted with pin or socket style contacts.

- Cap
- Engaging nut*
- Snap ring*
- Shell
- Deluge boot
- Insert Assembly
- Clamping ring and spigot
- Middle nut
- Backnut Clamp and Seal
- Backnut
- External Clamp (optional)

*These parts are specific to the CP version of the Instrum-Ex.

The Bulkhead BR is to be mounted on enclosure wall to receive a CP Connector and is comprising of following components:

- Cap
- Shell
- O Ring seal
- Continuity Spring Clip
- Insert Assembly
- Skid Washer
- Flameproof Seal
- Compressor Assembly

Retainer The CP and CR Connector rear component, which normally provide cable armour termination and environmental seal; may be replaced with an alternative shell with a threaded entry hole to accept a cable gland. The male and female parts are joined with a threaded locking ring which is fixed to the male half. When separated the connection chambers are fitted with caps in order to maintain the ingress protection, which are secured in the same manner.

The cylindrical body houses a 4-, 8- or 9-way electrical plug and socket arrangement which may be keyed into a range of orientations. The plug and socket assemblies are supported from the rear by cable entry arrangements and optional external mechanical clamp.

The table below defines the electrical ratings of the certified variations:

TRADE SIZE	RATING
4 Way	250 V a.c. 10A/ 60 V d.c 2.5A
8 Way	60 V a.c 1A/ 60 V d.c 0.5A
9 Way	250 V a.c. 10A/ 60 V d.c 2.5A

Variation 1

This variation introduced the following change:

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

11 Certificate history and evaluation reports

Issue	Date	Associated Report	Notes
0	28 Nov 2023	R16172A/00	The issue of Prime Certificate
1	11 Dec 2024	R17149B/00	The issue of Variation 1

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

12 Conditions of Manufacture

None.

13 Specific Conditions of Use (Special Conditions)

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

i. The connector part containing the pin connections shall not be energized once separated.

ii. In a hazardous are environments, the product should be secured with protective caps at all times to maintain IP (ingress Protection) ratings and the relevant Ex protection concepts.

iii. The bulkhead connector is not to be fitted to enclosures/equipment where the interface temperature may exceed 80°C.

iv. When used in dust environments the cable entry, 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.

v. The flameproof joints shall not be repaired.

vi. The cable shall be effectively clamped to prevent pulling and twisting (does not apply when fitted with rear clamping device or Hawke Gland Mounted Clamp (GMC).

Certificate Annex

Certificate Number	**CML 23ATEX1062X Issue 1**
Equipment	**Instrum-Ex Range of In-line and Bulkhead Plug & Socket 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
620222	1 to 4	A	28 Nov 2023	InstrumEx Schedule Drawing

Issue 1

None.