



CERTIFICATE NUMBER  
EFFECTIVE DATE  
EXPIRY DATE  
ABS TECHNICAL OFFICE

22-2260041-PDA  
24-Jun-2022  
23-Jun-2027  
London Engineering Department

## CERTIFICATE OF Product Design Assessment

This is to certify that a representative of this Bureau did, at the request of

**HAWKE INTERNATIONAL**

located at

**OXFORD STREET WEST, ASHTON-UNDER-LYNE, , LANCASHIRE,  
United Kingdom, OL7 0NA**

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

**Product:** Cable, Connector System  
**Model:** ControlEx, ControlEx Mk IV, PowerEx and InstrumEx.  
**Endorsements:**  
**Tier:** 2 - PDA Issued

This Product Design Assessment (PDA) Certificate remains valid until 23/Jun/2027 or until the Rules and/or Standards used in the assessment are revised or until there is a design modification warranting design reassessment (whichever occurs first).

Acceptance of product is limited to the "Intended Service" details prescribed in the certificate and as per applicable Rules and Standards.

This Certificate is valid for installation of the listed product on ABS units which exist or are under contract for construction on or previous to the effective date of the ABS Rules and standards applied at the time of PDA issuance. Use of the Product for non-ABS units is subject to agreement between the manufacturer and intended client.

American Bureau Of Shipping

*SBalakan*

Serkan Balakan,Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010)

## HAWKE INTERNATIONAL

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**Product:** Cable, Connector System  
**Model:** ControlEx, ControlEx Mk IV, PowerEx and InstrumEx.  
**Endorsements:**

### Intended Service:

ABS classed vessels and offshore facilities in accordance with the listed ABS Rules and International standards.

### Description:

Control, power and instrumentation connectors and receptacles as listed on accompanying product listin.  
IEC Zone 1 and 2 Hazardous locations on ships and offshore units

### Rating:

Flameproof, Increased Safety and Dust Protected InstrumEx: 250V AC, 10 Amps Max, 60V DC, 0.5 Amps Max, IP66/67;

Type CP In-line Connector, a Type CR In-line Connector or a Type BR Bulkhead connector

IEC Ex Certificate: IECEX BAS 06.0018X, Marking; Ex db e IIC Gb, Ex tb III C Db T85°C (Tamb = -40°C to +60°C) IP66/67)

ControlEx: 660V AC/DC, 125 Amps Max, IP66/67;

Mark IV Range of ControlEx Connectors (Type CP In-line Connector with a male mating flame path, a Type CR In-line Connector with a female mating flamepath or a Type BR Bulkhead Connector)

IEC Ex Certificate: IECEX BAS 12.0006X, Marking; Ex db IIC T\* Gb/ Ex tb III C T\*\*C Db (Tamb -40°C to +\*\*°C), Ex db IIB+H2 T\* Gb/ Ex tb III C T\*\*°C Db (Tamb -40°C to +\*\*°C)

Flame Proof PowerEx: 750V AC/DC, 780 Amps Max, IP66/67;

The PowerEx Range Of In-line Plug & Socket Connectors: Type CP In-line Connector with a male mating flame path, Type CR In-line Connector with afemale mating flamepath

IEC Ex Certificate: IECEX BAS 06.0019X, Marking; Ex db IIC T\* Gb Ex tb III C T\* °C Db (Tamb -40 °C to +\*\* °C) Ex db IIB+H2 T\* Gb Ex tb III C T\* °C Db (Tamb -40 °C to +\*\* °C)

Power-Ex Range of Bulkhead Receptacle Connectors (Type BR, integrated with a single pin connection in two connector sizes M32 and M63

IECEX CML 19.0145X, Marking; Ex db IIC T\* Gb, Ex db IIB+H2 T\* Gb, Ex tb IIIC T\*°C Db)

### Service Restriction:

1. Unit Certification is not required for this product. If the manufacturer or purchaser request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.
2. All electrical equipment intended for installation in hazardous areas is to be Ex rated based on the class of the hazardous area at its location of installation. Certificates in this regard are to be presented to the ABS Surveyor for verification on a case basis.
3. ATEX certified equipment is not to be installed in hazardous areas on US vessels unless it can be prove to have been tested to the applicable IEC 60079 series standards by an independent laboratory accepted by the U.S Coast Guard. USCG notice 01-12 (February 7, 2012)
4. Compliance with the IMO MODU Code 2009 section 6.6, Reg. II-2/19 /3.2of SOLAS, SOLAS III/45/10 is to be verified by the ABS attending surveyor.
5. More restrictions are to be observed in "Special Conditions for Safe Use" all applicable IECEX certificates: IECEX BAS 06.0018X, IECEX BAS 12.0006X, IECEX BAS 08.0065X, IECEX BAS 06.0019X and IECEX CML 19.0145X.

### Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Glands/connectors to be installed in accordance with 4-8-3/9.1 of the Rules for Building and Classing Marine

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Vessels 2022.

3. Installation in hazardous areas is to comply with 4-8-4/27.5.1 of the ABS Rules for Building and Classing Marine Vessels 2022.

4. Please refer to manufacturer instruction manual for equipment installation and maintenance - to prevent static charge build up.

5. Installation requirements as these are detailed on all applicable IECEx certificates IECEx BAS 06.0018X, IECEx BAS 12.0006X, IECEx BAS 08.0065X, IECEx BAS 06.0019X and IECEx CML 19.0145X) are to be complied with.

**Notes/Drawing/Documentation:**

Drawing No. 2633583, Certificate of Compliance - Connectors (09.01.15), Revision: -, Pages: 8

Drawing No. GB/BA/ExTR07.0015/00, IECEx Test Report - InstrumEx Connector (15.02.2007), Revision: -, Pages: 5

Drawing No. GB/BAS/ExTR06.0017/00, IECEx Test Report - InstrumEx Connector (27.06.2006), Revision: -, Pages: 27

Drawing No. GB/BAS/ExTR06.0018/00, IECEx Test Report - PowerEx Connector (20.02.2006), Revision: -, Pages: 23

Drawing No. GB/BAS/ExTR06.0124/00, IECEx Test Report - InstrumEx Connector (20.09.2006), Revision: -, Pages: 4

Drawing No. GB/BAS/ExTR07.0139/00, IECEx Test Report - InstrumEx Connector (18.09.2007), Revision: -, Pages: 4

Drawing No. GB/BAS/ExTR08.0094/00, IECEx Test Report - InstrumEx Connector (24.04.2008), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR08.0129/00, IECEx Ex Test Report - ControlEx Connector (21.07.2008), Revision: -, Pages: 20

Drawing No. GB/BAS/ExTR09.0016/00, IECEx Test Report - InstrumEx Connector (27.05.2009), Revision: -, Pages: 6

Drawing No. GB/BAS/ExTR09.0120/00, IECEx Test Report - Range of Controlex Connectors (10.06.2009), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR1.0014/00, IECEx Test Report - ControlEx Connector (10.06.2009), Revision: -, Pages: 26

Drawing No. GB/BAS/ExTR11.0054/00, IECEx Test Report - InstrumEx Connector (03.03.2011), Revision: -, Pages: 4

Drawing No. GB/BAS/ExTR11/0273/00, IECEx Test Report - InstrumEx Connector (26.03.2012), Revision: -, Pages: 5

Drawing No. GB/BAS/ExTR12.0168/00, IECEx Test Report - PowerEx Connector (02.07.2012), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR12.0222/00, IECEx Test Report - PowerEx Connector (22.08.12), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR12/0094/00, IECEx Test Report - InstrumEx Connector (12.04.12), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR12/0313/00, IECEx Test Report - ControlEx Connector - incl MKIV (14.12.12), Revision: -, Pages: 5

Drawing No. GB/BAS/ExTR13.0215/00, IECEx Test Report - ControlEx MKIV Connector (23.09.2013), Revision: -, Pages: 6

Drawing No. GB/BAS/ExTR13.0218/00, IECEx Test Report - ControlEx Connector (25.09.2013), Revision: -, Pages: 7

Drawing No. GB/BAS/ExTR13.0219/00, IECEx Test Report - PowerEx Connector (25.09.2013), Revision: -, Pages: 7

Drawing No. GB/BAS/ExTR13.0220/00, IECEx Test Report - ControlEx MKIV Connector (25.09.13), Revision: -, Pages: 8

Drawing No. GB/BAS/ExTR14.0034/00, IECEx Test Report - ControlEx Connector - incl MKIV (22.01.2014), Revision: -, Pages: 6

Drawing No. GB/BAS/ExTR14.0183/00, IECEx Test Report - ControlEx MKIV Connector (10.09.2014), Revision: -, Pages: 8

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Drawing No. GB/BAS/ExTR14.0303/00, IECEx Test Report - ControlEx MKIV Connector (23.10.2014), Revision: -, Pages: 4  
Drawing No. GB/BAS/ExTR14.0307/00, IECEx Test Report - InstrumEx Connector (26.01.2015), Revision: -, Pages: 43  
Drawing No. GB/BAS/ExTR15.0018/00, IECEx Test Report - PowerEx Connector (09.02.2015), Revision: -, Pages: 5  
Drawing No. GB/BAS/ExTR15.0019/00, IECEx Test Report - ControlEx MKIV Connector (09.02.2015), Revision: -, Pages: 6  
Drawing No. GB/BAS/ExTR15.0115/00, IECEx Test Report - PowerEx Connector (18.06.2015), Revision: -, Pages: 4  
Drawing No. GB/BAS/ExTR16.0034/00, IECEx Test Report - InstrumEx Connector (01.02.2016), Revision: -, Pages: 5  
Drawing No. Hazardous Area Connectors, Selection Overview, Revision: -, Pages: 7  
Drawing No. LRQ 0964946, ISO 9001:2008 Certificate, Revision: -, Pages: 1  
Drawing No. 6303, PowerEx, Revision: B, Pages: 1  
Drawing No. 6304, PowerEx, Revision: B, Pages: 1  
Drawing No. 6356, InstrumEx, Revision: E, Pages: 2  
Drawing No. 6357, InstrumEx, Revision: F, Pages: 2  
Drawing No. 6907, ControlEx, Revision: D, Pages: 1  
Drawing No. 6908, ControlEx, Revision: E, Pages: 1  
Drawing No. 7097, InstrumEx, Revision: D, Pages: 2  
Drawing No. 7098, InstrumEx, Revision: D, Pages: 2  
Drawing No. GB-BAS-ExTR18.0301/00, InstrumEx, SGS Baseefa Ltd, UK, Date 21.11.2018, Revision: 01, Pages:6  
Drawing No. GB-BAS-ExTR19.0038/00, ControlEx, SGS Baseefa Ltd, UK, Date 21.02.2019, Revision: 01, Pages: 5  
Drawing No. GB-BAS-ExTR21.0230/00, PowerEx, SGS Baseefa Ltd, UK, Date 27.01.2022, Revision: 01, Pages: 13  
Drawing No. GB-CML-ExTR19.0158/00, PowerEx, Eurofins E&E CML, UK, Date 21.10.2019, Revision: 0, Pages: 21  
Drawing No. IECEx BAS 06.0018X-15, InstrumEx, Instrumex Bulkhead Plug - Socket Connector, Date: 01.12.2021, Revision: 15, Pages: 14  
Drawing No. IECEx BAS 12.0006X-11, ControlEx, Date: 23.03.2022, Revision: 11, Pages: 8  
Drawing No. IECEx BAS 06.0019X-7, PowerEx In-line Plug - Socket Connectors, Date: 22.03.2022, Revision: 7, Pages: 5  
Drawing No. IECEx CML 19.0145X-0, PowerEx, Date: 22.03.2022, Revision: 7, Pages: 5

**Terms of Validity:**

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**STANDARDS**

**ABS Rules:**

- Marine Vessel Rules (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/7.15; 4-8-3 /1.7, 4-8-3/1.11, 4-8-3/9.1, 4-8-3/13, 4-8-

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4-27.5.1;

- Facilities on Offshore Installations (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3;
- Mobile Offshore Units (2022): 1-1-4/9.7, 1-1-A2, 1-1-A3, 4-1-1/7.9, 4-3-3/9.1.2, 4-3-3/9.1.3; 6-1-1/9, 6-1-1/13;
- Steel Vessels for Service on Rivers and Intracoastal Waterways (2022): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/21, 4-5-3/11.1.1;
- High Speed Crafts (2022): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-1-1/37, 4-6-3/9.1.1;
- Steel Barge Rules (2022): 1-1-4/7.9, 1-1-A3, 1-1-A4;

**National:**

NA

**International:**

IEC 60079-1 Ed. 7.0 b:2014, InstrumEx” Range of Connectors

IEC 60079-1 Ed. 7.0 b:2014, Mark IV Range of ControlEx Connectors

IEC 60079-0 Ed. 7.0 b:2017, IEC 60079-1 Ed. 7.0 b:2014 The PowerEx Range Of In-line Plug & Socket Connectors

IEC 60079-0 Ed. 7.0 b:2017, IEC 60079-1 Ed. 7.0 b:2014 Power-Ex Range of Bulkhead Receptacle Connectors

**Government:**

NA

**EUMED:**

NA

**OTHERS:**

NA