

CERTIFICATE NUMBER EFFECTIVE DATE EXPIRY DATE ABS TECHNICAL OFFICE 22-2260040-PDA
18-Jun-2022
17-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: Junction Boxes, Marine

Model: Terminal Box Ranges PL5, PL 6 and PL 7 (Polyester), S and EJB Series (Stainless Steel Grade

316L).

**Endorsements:** 

Tier: 3 - Type Approved, unit certification not required

This Product Design Assessment (PDA) Certificate remains valid until 17/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

\$\sigma Balakan\$

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)

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Tier: 3 - Type Approved, unit certification not required

**Junction Boxes, Marine Product:** 

Model: Terminal Box Ranges PL5, PL 6 and PL 7 (Polyester), S and EJB Series (Stainless Steel

Grade 316L).

#### **Endorsements:**

#### **Intended Service:**

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

#### **Description:**

Exeb enclosures in glass reinforced polyester (PL5, PL6 and PL7 ranges) and stainless steel grade 316L (S and EJB

IEC Zone 1 and 2 Hazardous locations on ships and offshore units.

\*PL and \*S series ranges are also listed (UL/ĈSA)

#### **Rating:**

PL5\*\* Range of Junction Boxes

Increased Safety and Dust Protection by Enclosure,

Certificate No.: IECEx BAS 14.0123X, Marking: Ex eb IIC T (see schedule) Gb and Ex tb IIIC T80°C DbTamb

#### PL6\*\* Range of Junction Boxes

Increased Safety, Dust Protection by Enclosure and Intrinsic Safety

Certificate No.: IECEx BAS 06.0028X, Rev 8, Marking: Ex eb IIC T (see schedule) Gb and Ex tb IIIC T80°C Db

#### PL7\*\* Range of Junction Boxes

Increased Safety, Dust Protection by Enclosure, Intrinsic Safety

Certificate No.: IECEx BAS 08.0091X rev:4, Marking: Ex eb IIC T (see schedule) Gb and Ex tb IIIC T80°C Db

#### S Series and EJB,

Increased Safety, Dust Protection by Enclosure, Intrinsic Safety. When Power Terminal and Optical Fibre

Fusion Splice Cassettes are fitted: Increased Safety and Optical Radiation "op pr" Certificate No.: IECEx BAS 08.0065X rev 10, Ex eb IIC T6 Gb and Ex tb IIIC T80°C Db IP66

Terminal - Cable Acceptance Range 0.5sq mm to 300sq mm Cables

Maximum Current Rating: - 316 Amps Maximum Voltage:- 1100V AC or DC

Ingress Protection:- IP66/IP67

#### **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. Junction boxes are not to be used for propulsion cables as indicated in 4-8-4/21.25 of the ABS Rules for Building and Classing Marine Vessel Rue 2022.
- 3. 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. Type safe certificates in this regard are to be presented to the ABS Surveyor for verification on a case basis.
- 4. 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)
- 5. Compliance with the IMO MODU Code 2009 section 6.6, Reg. II-2/19 /3.2of SOLAS, SOLAS II1/45/10 is to be

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verified by the ABS attending surveyor.

6. More restrictions are to be observed in "Special Conditions for Safe Use" of IECEX BAS 08.0091X, IECEX BAS 06.0028X, IECEX BAS 08.0065X, S Series and EJB, and IECEX BAS 14.0123X.

#### **Comments:**

- 1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
- 2. Junction boxes to be installed in accordance with 4-8-4/21.25 of the Rules for Building and Classing Marine 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 applicable IECEx certificates (IECEX BAS 08.0091X-4, IECEx BAS 06.0028X-8, IECEx BAS 08.0065X, S Series and EJB, and IECEx BAS 14.0123X) are to be complied with.

**Notes/Drawing/Documentation:** 

Drawing No. GB/BAS/ExTR06.0033/00, IECEx Test Report - PL 6 Series Junction Boxes (11.08.2006), Revision: -, Pages: 39

Drawing No. GB/BAS/ExTR08.0131/00, IECEx Ex Test Report - S1 to S9 Stainless & MS1 to MS9 MIld Steel Boxes (08.08.2008), Revision: -, Pages: 29

Drawing No. GB/BAS/ExTR08.0196/00, IECEx Ex Test Report - PL 7 Series Junction Boxes (09.12.2008), Revision: -, Pages: 74

Drawing No. GB/BAS/ExTR10.0096/00, IECEx Ex Test Report - S1 to S9 Stainless & MS1 to MS9 MIld Steel Boxes incl EJB Range (12.05.2010), Revision: -, Pages: 7

Drawing No. GB/BAS/ExTR10.0155/00, IECEx Ex Test Report - PL 6 Series Junction Boxes & ZPL 6 Series Enclosures (06.07.2010), Revision: -, Pages: 7

Drawing No. GB/BAS/ExTR10.0270/00, IECEx Ex Test Report - Misc Junction Boxes (19.11.2010), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR12.0113/00, IECEx Ex Test Report - PL 6 Series Junction Boxes & ZPL 6 Series Enclosures (23.04.2012), Revision: -, Pages: 6

Drawing No. GB/BAS/ExTR12.015600, IECEx Ex Test Report - S1 to S9 Stainless & MS1 to MS9 MIId Steel Boxes (12.06.2012), Revision: -, Pages: 5

Drawing No. GB/BAS/ExTR13.0134/00, IECEx Ex Test Report - S1 to S17 Stainless and MS1 to MS 17 mild steel junction boxes (06.08.2013), Revision: -, Pages: 8

Drawing No. GB/BAS/ExTR14.0135/00, IECEx Ex Test Report - S1 to S9 and S15 & S17 Stainless & MS1 to MS9 Mild Steel Boxes- incl EJB&MEJB (29.04.2014), Revision: -, Pages: 4

Drawing No. GB/BAS/ExTR14.0237/00, IECEx Test Report - PL Range of Enclosures - PL 513 & PL 520 (15.04.2015), Revision: -, Pages: 33

Drawing No. GB/BAS/ExTR15.0222/00, IECEx Test Report - PL Range of Enclosures - PL 642 - PL 644 (28.09.2015), Revision: -, Pages: 3

Drawing No. GB/BAS/ExTR15.0347/00, IECEx Test Report - PL 511 Junction Boxes & ZPL 511 Enclosures (11.12.2015), Revision: -, Pages: 4

Drawing No. GB/BAS/ExTR16.0060/00, IECEX Test Report - S1 to S17 - SFI-SFE-EA EJB Stainless and Mild steel junction boxes inc EJBM GrI (04.10.2016), Revision: -, Pages: 8

Drawing No. GB/BAS/ExTR16.0359.00, IECEx Test Report - PL 5 Series Junction Boxes (15.12.2016), Revision: -, Pages: 5

Drawing No. GB/BAS/ExTR16.0383/00, IECEx Test Report - PL 7 Series Junction Boxes (14.02.2017), Revision: -, Pages: 6

Drawing No. LRQ 0964946, ISO 9001:2008 Certificate, Revision: -, Pages: 1

Drawing No. 9951, PL5, Data Sheet, Revision: G, Pages: 3

Drawing No. C2535, S Series and EJB, Data Sheet, Revision: K, Pages: 6

Drawing No. C2540, PL7, Data Sheet, Revision: E, Pages: 1

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Drawing No. C2542, PL6, Data Sheet, Revision: G, Pages: 2

Drawing No. GB-BAS-ExTR20.0080-00, IECEx Test Report, PL6, PL7, SGS Baseefa Ltd, UK, Date 04.05.2020,

Revision: -, Pages:5

Drawing No. Gb-BAS-ExTR20.0092-00, IECEx Test Report, PL5, SGS Baseefa Ltd, UK, Date 26.05.2020,

Revision: -, Pages:5

Drawing No. GB-BAS-ExTR21.0073-00, IECEx Test Report, S Series and EJB, SGS Baseefa Ltd, UK, Date

08.06.2021, Revision: -, Pages:5

Drawing No. IECEX BAS 08.0091X-4, PL7, Date: 26.03.2019, Revision: 4, Pages: 14

Drawing No. IECEx BAS 06.0028X-8, PL6, Date: 26.05.2020, Revision: 8, Pages: 7

Drawing No. IECEx BAS 08.0065X, S Series and EJB, Date: 09.06.2021, Revision: 10, Pages: 9

Drawing No. IECEx BAS 14.0123X, PL5, Date: 04.05.2020, Revision: 6, Pages: 7

#### **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, 4-8-3/13; 4-8-4-27.5.1;
- 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, 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:**

IEC60079-0 Ed7.0: 2017;

IEC 60079-7 Ed. 5.1 b:2017

IEC60079-11 Ed 6.0: 2011;

EN 60079-0:2018;

EN 60079-7:2015+A11:2018:

EN 60079-11:2012;

EN 60079-31:2014;

#### **Government:**

NA

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#### **EUMED:**

NA

#### **OTHERS:**

NA