CERTIFICATE NUMBER	26-0762561-PDA
EFFECTIVE DATE	03-Nov-2026
EXPIRY DATE	02-Nov-2031
ABS TECHNICAL OFFICE	London Engineering Department

CERTIFICATE OF

Product Design Assessment

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

DEIF A/S

located at

FRISENBORGVEJ 33, , SKIVE, Denmark, DK-7800

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:	**Panel Instruments**
Model:	**XL/BW/BRW-2 SERIES ILLUMINATED INDICATORS XL 72/96/144/192, BW 144/192, BRW-2**
Endorsements:	
Tier:	**3 - Type Approved, unit certification not required**

This Product Design Assessment (PDA) Certificate remains valid until 02/Nov/2031 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

Amit Gupta,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)

Sensitivity: Internal & Restricted

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Tier: 3 - Type Approved, unit certification not required

Product: **Panel Instruments**
Model: **XL/BW/BRW-2 SERIES ILLUMINATED INDICATORS XL 72/96/144/192, BW 144/192, BRW-2**
Endorsements:

Intended Service:
Display of information such as propeller rpm or pitch, rudder angle or azimuth thruster direction, rate of turn indication or similar on board ABS Class Vessels.

Description:
Illuminated indicators intended for panel (XL) or bridge wing (BW and BRW-2) mounting with analogue DC voltage or current or digital CAN inputs.

Rating:
Typical values 0...1V DC; 0...10V DC; -1...0...1V DC; -5...0...5V DC; -10...0...10V DC; 0...1mA; 0...20mA; 4...20mA/20...4mA; -0.5...0...0.5mA; -10...0...10mA; -20...0...20mA, Limits +/-1...+/-30V DC and +/-1...+/-25mA DC
XL Panel Mount Indicator IP52 (front) IP66 (front with recommended gasket), IP20 (rear).
BW and BRW-2 IP66

Service Restriction:
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.

Comments:
The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.

Notes/Drawing/Documentation:
Previously Submitted Drawing:
Drawing No. EPC 0821-03, Type Test- 02B RF electromagnetic field immunity XL, DEIF A/S, Denmark, Date: 27.05.2020, Revision: A, Pages: 17
Drawing No. EPC 0821-04, Type Test -16A Radiated disturbance XL, DEIF A/S, Denmark, Date: 27.05.2020, Revision: A, Pages: 33
Drawing No. DANAK-1910190, Test Reports, DELTA, Denmark, Revision: -, Date 12.06.2008, Page 16
Drawing No. DANAK-1910191, Test Reports, DELTA, Denmark, Revision: -, Date 12.06.2008, Page 16
Drawing No. DANAK-1910397, Test Reports, DELTA, Denmark, Revision: -, Date 27.01.2009, Page 11
Drawing No. BRW-2 type Test 11A to 14B, DEIF A/S, Denmark, Date:14.09.2009, Revision: -, Page 38
Drawing No. BRW-2 type Test 15A to 31A, DEIF A/S, Denmark, Date:29 16.09.200, Page 29
Drawing No. BRW-2 type Test 1A to 6B, DEIF A/S, Denmark, Date:35 03.05.2009, Revision: -, Page 35
Drawing No. BRW-2 type Test 8A to 9A, DEIF A/S, Denmark, Date:35 03.05.2009, Revision: -, Page 29
Drawing No. XLBW 27A Test 27A, DEIF A/S, Denmark, Date:18.03.2009, Revision: -, Page 5
Drawing No. XL 27A type Test 1A to 18B, DEIF A/S, Denmark, Date: 15.08.2008, Revision: -, Page 23
Drawing No. EPC 0821-01, Manufacturer Statement, Revision: A, Pages: 1
Drawing No. EPC 0821-02, Manufacturer Statement standards, Revision: A, Pages: 1
Drawing No. 0641_02, Illuminated indicators data sheet 4921250057 UK, Revision: 0, Pages: 1
Drawing No. 0641_03, Illuminated indicators, anemometers, TOP 4921240143 UK, Revision: 0, Pages: 1
Drawing No. 0641_04, Illuminated indicators CAN specification 4189350023 UK, Revision: 0, Pages: 1
Drawing No. 0641_05, Illuminated indicators, standard scale designs 4921290030 UK, Revision: 0, Pages: 1
Drawing No. 4921250057S, Illuminated indicators data sheet 4921250057 UK, Revision: -, Pages: 16

Terms of Validity:
This Product Design Assessment (PDA) Certificate remains valid until 02/Nov/2031 or until the Rules and/or

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Tier: 3 - Type Approved, unit certification not required

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.

STANDARDS

ABS Rules:
2026 ABS Rules for Conditions of Classification: 1-1-4/7.7, 1-1-A3, 1-1-A4 which covers the following:
2026 Rules for Building and Classing Marine Vessels:4-8-3/1.11.1, 4-9-9/7, 4-9-9/13.1, 4-9-9/Table 1

2026 Rules for Conditions of Classification - Offshore Units : 1B-1-4/9.7, 1-1-A2, 1-1-A3, which cover the following:
2026 Rules for Building and Classing Offshore Units:4-1-1/7.9; 4-3-1/11, 6-1-1/13

National:
NA

International:
IACS UR E10, Rev.10:2024

Government:
NA

EUMED:
NA

OTHERS:
NA