



## Confirmation of Product Type Approval

**Company Name:** DEIF A/S

**Address:** FRISENBORGVEJ 33, SKIVE, Denmark, DK-7800

**Product:** Panel Instruments

**Model(s):** XL/BW/BRW-2 SERIES ILLUMINATED INDICATORS XL 72/96/144/192, BW 144/192, BRW-2

**Endorsements:**

Certificate Type	Certificate Number	Issue Date	Expiry Date
Product Design Assessment (PDA)	21-2138041-PDA	09-JUL-2021	08-JUL-2026
Manufacturing Assessment (MA)	18-EG3574567	25-OCT-2018	27-NOV-2023
Product Quality Assurance (PQA)	NA	NA	NA

### Tier

3 - Type Approved, unit certification not required

### 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.

### Ratings

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 Restrictions

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, Drawings and Documentation

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

### Term of Validity

This Product Design Assessment (PDA) Certificate remains valid until 08/Jul/2026 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.

### ABS Rules

- Marine Vessels Rules (2021): 1-1-4/7.7, 1-1-A3, 1-1-A4; 4-1-1/7.15; 4-8-3/1.11; 4-9-9/3, 4-9-9/7, 4-9-9/13.1, 4-9-9/Table 1;

- Facilities on Offshore Installations (2021): 1-1-4/9.7, 1-1-A2, 1-1-A3;

- Steel Vessels for Service on Rivers and Intracoastal Waterways (2021): 1-1-4/7.7, 1-1-A3, 1-1-A4;
- High Speed Crafts (2021): 1-1-4/11.9, 1-1-A2, 1-1-A3, 4-1-1/37; 4-6-1/15; 4-7-9/3, 4-7-9/15.1, 4-7-9/Table 9;
- Steel Barge Rules (2021): 1-1-4/7.9, 1-1-A3, 1-1-A4; 4-1-3/5;
- Mobile Offshore Units (2021): 1-1-4/9.7, 1-1-A3, 1-1-A4; 4-1-1/7.9; 4-3-1/15; 6-1-1/9, 6-1-1/13;

**International Standards**

IACS UR E10 Rev 7: 2018

**EU-MED Standards**

NA

**National Standards**

NA

**Government Standards**

NA

**Other Standards**

NA



A handwritten signature in black ink, appearing to read "Joseph W. Wilson".

Corporate ABS Programs  
American Bureau of Shipping  
Print Date and Time: 30-Sep-2021 8:13

ABS has used due diligence in the preparation of this certificate, and it represents the information on the product in the ABS Records as of the date and time the certificate is printed.

If the Rules and/or standards used in the PDA evaluation are revised or if there is a design modification (whichever occurs first), a PDA revalidation may be necessary.

The continued validity of the MA is dependent on completion of satisfactory audits as required by the ABS Rules. The validity of both PDA and MA entitles the product to receive a **Confirmation of Product Type Approval**.

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 prior to the effective date of the ABS Rules and standards applied at the time of PDA issuance. ABS makes no representations regarding Type Approval of the Product for use on vessels, MODUs or facilities built after the date of the ABS Rules used for this evaluation.

Type Approval requires Drawing Assessment, Prototype Testing and assessment of the manufacturer's quality assurance and quality control arrangements. The manufacturer is responsible to maintain compliance with all specifications applicable to the product design assessment. Unless specifically indicated in the description of the product, certification under type approval does not waive requirements for witnessed inspection or additional survey for product use on a vessel, MODU or facility intended to be ABS classed or that is presently in class with ABS.

Due to wide variety of specifications used in the products ABS has evaluated for Type Approval, it is part of our contract that; whether the standard is an ABS Rule or a non-ABS Rule, the Client has full responsibility for continued compliance with the standard.

Questions regarding the validity of ABS Rules or the need for supplemental testing or inspection of such products should, in all cases, be addressed to ABS.