

**TYPE APPROVAL CERTIFICATE****This is to certify:****That the Level Switches**with type designation(s)  
**Bilge Level Switch BLS9200**

Issued to

**PSM Instrumentation Ltd**  
**Haywards Heath, West Sussex, United Kingdom**is found to comply with  
**DNV GL rules for classification – Ships, offshore units, and high speed and light craft****Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.****Location classes:**

<b>Temperature</b>	<b>D</b>
<b>Humidity</b>	<b>B</b>
<b>Vibration</b>	<b>A</b>
<b>EMC</b>	<b>N/A</b>
<b>Enclosure</b>	<b>D</b>

Issued at **Høvik** on **2019-07-03**This Certificate is valid until **2024-06-30**.  
DNV GL local station: **Southampton**Approval Engineer: **Nils Jarem**for **DNV GL**

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**Trond Sjøvåg**  
**Head of Section**

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.



Job Id: **262.1-009301-3**  
Certificate No: **TAA00002E6**

## Product description

The Bilge Level Switch Type BLS9200 is designed to be installed in ships bilges and tanks.

Technical data:

Max. rating:	100 Watt AC/DC resistive load
Max. voltage:	500 Vdc / 250 Vac
Max. current:	3 A
Material:	Stainless Steel
Float s.g:	0.62

## Approval conditions

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

## Type Approval documentation

User Manual: Doc Ref Man 45 Issue D  
Specification: DAT40A dated 2008-06-30  
Drawings: S-001311-9200-GO issue C dated 2009-09-09  
S-001311-9200-DD issue H dated 2019-04-02  
Reports: Mariner Systems Ltd. Climatic and Mechanical Test Report No. TL1209A dated 2008-12-03, TL1209M dated 2008-08-14  
Certificate No. SOU 0800311/1 dated 2008-08-22 (IP test according to BS EN 60529:1992 ingress protection category IP68)

Type approval renewal assessment report for A-14303, DNV GL-Southampton 2019-05-20

## Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2016.  
Cold Test carried out for 16h at -25°C.

## Marking of product

The products to be marked with:

- manufacturer name
- model name
- serial number
- power supply ratings

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### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE