



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA23625M

This is to certify that the undernoted product(s) has/have been approved in accordance with the requirements specified in Chapter 1, Part 7 of “Guidance for the Approval and Type Approval of Materials and Equipment for Marine Use” and the relevant Society's Rules.

This certificate is issued to

Manufacturer: **Kongsberg Maritime AS**
Place of Manufacturing: NO-7005 Trondheim, Norway
Product description: Bearing Wear Sensor
Model: PS-11
Approval No.: **13A004**
Valid until: **6 December 2028**

The details are described in the attached sheet(s).

Issued at Tokyo on 7 December 2023.

S. Oishi
General Manager
Machinery Department

Note: The manufacturer, if desired, is requested to apply to the Society for renewal prior to the expiration date.

1. Rating

Power supply: 18 to 32 VDC

2. Documentation and Test Reports

Documents: Technical specifications – PS-11 Bearing Wear Sensor specification
 Installation Manual of Bearing Wear System (P-BWS/FE Rev. B)
 Quality control plan for PS-11

Test reports: Nemko Test report (No.129871/3) dated 24 June 2009
 Nemko Test report (No.129871/Env01 Rev.0) dated 28 July 2009
 Micro-Epsilon Inspection Protocol dated 13 December 2012
 Nemko Test Report (No.E22094.00) dated 22 April 2022

- To be continued -

Test items & approval conditions

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS(IACS UR E10 Rev.8 basis)		Mark
External examination		X
Operation test and performance test		X
Electric power supply failure test		X
Power supply fluctuation test	Electric	X
	Pneumatic and Hydraulic	--
Insulation resistance test		X
High voltage test		X
Pressure test (Pneumatic and Hydraulic)		--
Dry heat test (Temperature 80°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ± 10g × 2 hours)		X
Inclination test		--
Cold test (Temperature 5°C × 2 hours)		X
Salt mist test		--
Electrostatic discharge immunity test		X
Radiated radio frequency immunity test		X
Conducted low frequency immunity test		X
Conducted high frequency immunity test		X
Burst / Fast transient immunity test		X
Surge immunity test		X
Radiated emission test		X
Conducted emission test		X
Flame retardant test		--

2. Approval condition:

The product is not allowed to be installed on bridge and open decks.