



NIPPON KAIJI KYOKAI

TYPE APPROVAL CERTIFICATE FOR AUTOMATIC DEVICES AND EQUIPMENT

Certificate No. TA19590M

This is to certify that the undernoted products 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: **BEDIA Motorentechnik GmbH**
Place of Manufacturing: **Gewerbepark an der A6 Im Erlet 1 D-90518 Altdorf**
Product description: **Oil and Water Level Sensors**
Model: **CLS50, CLS55**

Approval No.: **09A030**
Valid until: **20 December 2024**

This certificate is subject to the conditions specified in the attached sheets.

Issued at Tokyo on 25 October 2019.

T. Shimada
General Manager
Machinery Department

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

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Attached sheet -1/2 to the Certificate No. TA19590M

Specification & documents:

1. Particulars: Power supply: HV 12V/24V (9V DC..36V DC)
LV 5V/12V (4.5V DC..18V DC)

2. Components and reference drawings:

Component	Drawing
CLS 50/55	Description of CLS50/55, CLS_007_001V2, CLS_006_001V2,

3. Documentation and Test Reports:

- ECL-EMC Test Report No. 08-192, Test Report No. E 4.964-I

- To be continued -

Test items & approval condition:

1. Test items:

(Applied testing items are marked with X.)

ENVIRONMENTAL TESTS		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 (3bar, 30min)		X
Dry heat test (Temperature 125°C × 16 hours)		X
Damp heat test		X
Vibration test (Acceleration ±4.0g)		X
Inclination test		--
Cold test (Temperature -40°C × 16 hours)		X
Salt mist test		X
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		X

2. Approval condition:

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