



# Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

<b>Manufacturer</b>	<b>Boening Automationstechnologie GmbH &amp; Co. KG</b>	
<b>Address</b>	Am Steenoever 4, Ganderkesee, 27777, Germany	
<b>Type</b>	Control Systems	
<b>Description</b>	Devices of the system "smartbridge 2.0"	
	AHD-CUC V3	CAN-USB converter
	AHD-DC TS	Display-Control panel with trackball
	AHD-EST V3 NO	Emergency stop control unit for diesel engine control system
	AHD-EST V3 NC	Emergency stop control unit for diesel engine control system
	AHD-ORP V2	Override-Panel for diesel engine control
	AHD-SLP V2	Control panel for searchlight
	AHD-TP J V2	Thruster control
	AHD-USP 15	Panel with 15 keys
	AHD-RO 15	Relay station with control and monitoring in CAN bus
<b>Trade Name</b>	smartbridge 2.0	
<b>Application</b>	Marine applications for use in environmental categories ENV1, ENV2 and ENV3 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2021.	
<b>Specified Standard</b>	Manufacturer's specification	

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<b>Ratings</b>	Power supply: 24 VDC
<b>Additional Tests</b>	Compass safe distance Low temperature (-25°C/16h) Enclosure IP56 (front) types AHD-TP J V2, AHD-SLP V2, AHD-USP 15, AHD-EST V3 Vibration test acc. IEC 60945:2002 Damp heat test acc. IEC 60945:2002 Low temperature test acc. IEC 60945:2002 Dry heat test acc. IEC 60945:2002
<b>Other Conditions</b>	The Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.  If the specified standards are amended during the validity of this certificate, the product is to be re- approved prior to it being supplied to vessels to which the amended standards apply.

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

The Design Appraisal Document HPC2362027-24/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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