



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.

Manufacturer	Kongsberg Maritime AS
Address	Skonnertvegen 1, Ranheim, 7053, Norway
Type	Control Units
Description	High Speed I/O Module
Trade Name	HSIO-100-A, HSIO-100-B, HSIO-100-C
Application	Marine, offshore and industrial application for use in environmental categories ENV1, ENV2, ENV3 and ENV4 as defined in Lloyd's Register's Type Approval System, Test Specification Number 1, July 2015.
Specified Standard	EN 60945: 2002 IEC 60533: 2015 EN IEC 61000-6-1: 2019 EN IEC 61000-6-2: 2019 EN IEC 61000-6-3: 2021 EN IEC 61000-6-4: 2019 EN IEC 61326-1: 2021 IACS unified requirements E10 (Rev.9 Aug 2023)
Ratings	Power supply: 24 VDC

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Enclosure: IP 21

Other Conditions

Type Approval does not eliminate the need (as required by LR Rules) the requirements for further review or for the product to be further inspected and/or surveyed to be installed in ships classed or intended to be classed with LR.

If the specified standards are amended during the validity of this certificate, the product is to be reapproved 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.

Previous Version: LR2002494TA

The Design Appraisal Document TSO/25-031432/CW/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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