

# 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>Hirschmann Automation and Control GmbH</b>
<b>Address</b>	45-51 Stuttgarter Str., Neckartenzlingen, 72654, Germany
<b>Type</b>	Control Units
<b>Description</b>	ETHERNET Local Area Network Data Communication Equipment Industrial ETHERNET Rail Switch Rugged RSR20
<b>Trade Name</b>	RSR20-0800T1T1T1SCCHP, RSR20-0800M2M2T1SCCHP, RSR20-0800S2S2T1SCCHP
<b>Application</b>	Marine applications for use in environmental categories ENV 1, ENV 2, ENV 3 (General Power Distribution Zones) as defined in Lloyd's Register's Type Approval System, Test Specification Number 1 – 2015.
<b>Specified Standard</b>	Manufacturer's specification IEEE 1613:2009
<b>Ratings</b>	RSR20-0800T1T1T1SCCHP 8x100Mbit/s TX Twisted Pair ports RJ45 connectors  RSR20-0800M2M2T1SCCHP 2x100Mbit/s Multimode FX ports DSC connectors 6x100Mbit/s TX Twisted Pair ports RJ45 connectors

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RSR20-0800S2S2T1SCCHP  
2x100Mbit/s Singlemode FX ports  
DSC connectors  
6x100Mbit/s TX Twisted Pair ports RJ45 connectors

### Other Conditions

Equipment has to comply with IACS E10 Rev.7 when intended to be installed on ships contracted for construction on or after 1 January 2022.  
Compliance with IEC 61850-3:2013 has not been verified by documentary evidences.

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 No. HTS/ETS 39876-20/TW and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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