



Marine & Offshore

Certificate number: 22905/C0 BV

File number: AP 4092

Product code: 4502H

This certificate is not valid when presented without the full attached schedule composed of 7 sections

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TYPE APPROVAL CERTIFICATE

This certificate is issued to

Hirschmann Automation and Control GmbH
Neckartenzlingen - GERMANY

for the type of product

NETWORK COMMUNICATION SYSTEMS

Ethernet Rail Switch
RSR20 series

Requirements:

Bureau Veritas Rules for the Classification of Steel Ships.

EC Code: 31

This certificate is issued to attest that Bureau Veritas Marine & Offshore did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.

This certificate will expire on: 28 Sep 2025

For Bureau Veritas Marine & Offshore,

At BV HAMBURG, on 28 Sep 2020,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with Bureau Veritas Marine & Offshore. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of Bureau Veritas Marine & Offshore available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against Bureau Veritas Marine & Offshore for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 530 June 2017

This certificate consists of 3 page(s)

THE SCHEDULE OF APPROVAL

1. PRODUCT DESCRIPTION:

The **RSR20 Series** are Ethernet Switches for mounting on DIN-Rail.

The product designation is made from combining the desired product characteristics in accordance with the following table:

Digit	Attribute	Identification	Feature
1 to 5	Product Name	RSR20	Rail Switch without Gigabit-Port
6	Hyphen	-	
7 and 8	Number of 100Mbit/s ports	08	8 x Ethernet Ports
9 and 10	Number of 1000Mbit/s ports	00	0 x Ethernet Ports
11 and 12	Port 1 and port 2 or port 1	T1 or M2 or S2	1 x Twisted Pair TX, (RJ45) 1 x Multimode FX (DSC) 1 x Singlemode FX (DSC)
13 and 14	Port 2 or port 3 or port 3 and 4	T1 or M2 or S2	1 x Twisted Pair TX, (RJ45) 1 x Multimode FX (DSC) 1 x Singlemode FX (DSC)
15 and 16	Remaining ports	T1	Twisted Pair TX, (RJ45)
17	Temperature range	S	Standard 0°C to 60°C
18	Voltage range 1*	C	24V DC (-25% to +30%)
19	Voltage range 2*	C	24V DC (-25% to +30%)
20	Specifications	-	
21	Software Version (release: 08.x or 09.x)	P	Professional

* Manufacturer Specification: 18V DC ... 60V DC.

2. DOCUMENTS AND DRAWINGS:

- RSR20/RSR30, Release 04 10/2015; 943-953-999 dated 08.2007; SQP 09.0.00_1v0 dated 25.11.2015

3. TEST REPORTS:

- Hirschmann Automation and Control GmbH: Test Scenario and Monitoring Rev. 2010.01.19.

- PHOENIX Testlab: - U093387 dated 22 Feb. 2010; S081629E1, 2nd vers. dated 20 Nov. 2008;

E093387E1 dated 26 Feb. 2010.

For C0 version:

- Hirschmann Automation and Control GmbH: PTR_94212999_EMCC01_Navy_Add_1.0 dated 2020-07-24

4. APPLICATION / LIMITATION:

4.1 - Bureau Veritas Rules and Regulations for the Classification of Steel Ships

4.2 - Approval valid for ships intended to be granted with the following additional class notations: **AUT-UMS, AUT-CCS, AUT-PORT and AUT-IMS.**

4.3 - Bureau Veritas Environmental Category, **EC Code: 31.**

4.4 - The equipment fulfils the EMC requirements for installation in General Power Distribution Zone.

4.5 - Only Hardware and Firmware successfully tested together in compliance with the regulations as referred to in page one, according to the declaration of the manufacturer is covered by this certificate.

4.6 - Depending on the Application, Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II or III Equipment.

4.7 - The above products have been tested according to IACS UR E10 Rev7.

5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The above mentioned products are to be supplied by **Hirschmann Automation and Control GmbH** in compliance with the type described in this certificate.

5.2 - This type of product is within the category HBV of Bureau Veritas Rule Note NR320 and as such does not require a BV product certificate.

5.3 - **Hirschmann Automation and Control GmbH** has to make the necessary arrangements to have its works recognized by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

Hirschmann Automation and Control GmbH
Stuttgarter Str. 45 - 51
72654 Neckartenzlingen
GERMANY

6. MARKING OF PRODUCT:

- Maker's name or trademark
- Equipment type or model identification
- Date of manufacture and/or serial number

7. OTHERS:

7.1 - It is in the responsibility of **Hirschmann Automation and Control GmbH** to inform shipbuilders or their sub-contractors of the proper methods of fitting, use and general maintenance of the approved equipment and the conditions of this approval.

7.2 - This certificate supersedes the Type Approval Certificate N° 22905/B1 BV issued on 28 Mar 2018 by the Society.

*** END OF CERTIFICATE ***