

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Industrial Ethernet Firewall Eagle 20/30

Issued to

Hirschmann Automation and Control GmbH
Neckartenzlingen, Germany

is found to comply with
DNV GL rules for classification – Ships

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

Location classes

Temperature	B
Humidity	B
Vibration	A
EMC	B
Enclosure	A

This Certificate is valid until **2018-10-23**.

Issued at **Hamburg** on **2016-04-27**

for **DNV GL**

DNV GL local station: **Augsburg**

Approval Engineer: **Klaus-Peter Schröder**

Duy Nam Le
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

The EAGLE 20/30 devices support switched ETHERNET networks that conform to the IEEE 802.3 standard. The devices are mounted by snapping them onto the DIN rail.

The product designation of the device is made from combining the desired product characteristics in accordance with the following structure / nomenclature

Nomenclature EAGLEaa-bbccdddeefgghiiijj

Position	Characteristic	Characteristic value	Description
6 ... 7 (aa)	Product	20 30	Router without gigabit ports Router with gigabit ports
8	(hypo)	-	
9 ... 10 (bb)	Number of 10/100 Mbit/s ports	04	4 * 10/100 Mbit/s Ethernet ports
11 ... 12 (cc)	Number of 100/1000 Mbit/s ports	00	0 * 100/1000 Mbit/s Ethernet ports
13 ... 15 (ddd)	Configuration of the uplink ports	02 206	2 * 100/1000 Mbit/s Ethernet ports 2 * SFP slot for 100/1000 Mbit/s F/O connection
16 ... 17 (ee)	Configuration of the other ports	999 TT	Not present All the other port are RJ45 sockets for twisted pairs
18 (f)	Cellular phone interface	9	Not present
19 ... 20 (gg)	WAN port	99	Not present
21 (h)	Temperature range	S T E	Standard 0°C ... 60°C Extended -40°C ... 70°C Extended with conformal coating -40°C ... 70°C
22 ... 23 (ii)	Operating voltage	CC K9	2 voltage inputs for redundant voltage supply Rated voltage range 24 ... 48V DC 1 voltage input Rated voltage range 110 ... 230V AC, 50 ... 60Hz Rated voltage range 60 ... 250V DC
24 ... 25 (jj)	Certifications		Not relevant for this certificate

Software release: 01.x, 02.x, 03.x

Application/Limitation

The Type Approval covers hardware listed under Product description.

When the hardware is used in applications to be classed by DNV GL, documentation for the actual application is to be submitted for approval by the manufacturer of the application system in each case. Reference is made to DNV GL RU SHIP Pt.4 Ch.9 Sec. 1.

Type Approval documentation

Tests carried out

Applicable tests according to Class Guideline DNVGL-CG-0339, Edition November 2015.

Marking of product

The products to be marked with:

- device name
- manufacturer name
- serial number.

Job Id: **262.1-020866-1**
Certificate No: **TAA00000B7**

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed at least every second year and at renewal of this certificate.
END OF CERTIFICATE