

MARINE DIVISION

Certificate number: 11554/C0 BV

File number: AP3040

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***SIEMENS AG - I IA AS**

Amberg - GERMANY

*for the type of product***NETWORK COMMUNICATION SYSTEMS**

SIMATIC NET Modules

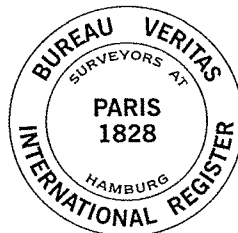
**Requirements:**

Bureau Veritas Rules for the Classification of Steel Ships.

*This certificate is issued to attest that BUREAU VERITAS 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: 23 Jan 2019****For BUREAU VERITAS,**

At BV HAMBURG, on 23 Jan 2014,

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. 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 Division available on the internet site [www.veristar.com](http://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 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.

## **THE SCHEDULE OF APPROVAL**

### **1. PRODUCT DESCRIPTION:**

**SIMATIC NET** comprising the following modules:

Reference	Module name	Mounting on		
		S7-300 profile	DIN Rail	Wall
6GK1 105-.....	OSM (Optical Switching Module)	x	-	x
6GK1 105-.....	ESM (Electrical Switching Module)	x	-	x
6GK1 411-.....	IE/PB Link	x	-	-
6GK1 500-.....	OBT (Optical Bus Terminal)	-	x	x
6GK1 500-.....	BT (Bus Terminal)	-	x	-
6GK1 503-3CB00	OLM (Optical Link Module /G12 V4.0)	-	x	-
6GK1 901-.....	Modular Outlet (IE Fast Connect RJ 45x2)	-	x	x
6GK5 005-.....	Scalance (Industrial Ethernet Switch)	x	x	x
6GK5 101-1B..	Scalance	x	x	x
6GK5 104-2....	Scalance	x	x	x
6GK5 106-1....	Scalance	x	x	x
6GK5 108-.....	Scalance X108PoE	x	x	x
6GK5 112-.....	Scalance	x	x	x
6GK5 116-.....	Scalance	x	x	x
6GK5 124-.....	Scalance	x	x	x
6GK5 204-.....	Scalance XF204	x	x	x
6GK5 206-.....	Scalance	x	x	x
6GK5 208-.....	Scalance	x	x	x
6GK5 212-.....	Scalance	x	x	x
6GK5 216-.....	Scalance	x	x	x
6GK5 224-.....	Scalance	x	x	x
6GK5 302-7....	Scalance X302-7EEC	x	x	x
6GK5 306-1....	Scalance X306-1LD	x	x	x
6GK5 307-2....	Scalance X307-2EEC	x	x	x
6GK5 308-.....	Scalance X308-2M	x	x	x
6GK5 310-.....	Scalance	x	x	x
6GK5 320-.....	Scalance X320	x	x	x
6GK5 324-0....	Scalance XR324-12M	-	-	-
6GK5 324-4....	Scalance XR324-4M	-	-	-
6GK5 408-2F..	Scalance	x	x	-
6GK5 414-.....	Scalance	x	-	x
6GK5 491-.....	Scalance	x	-	x
6GK5 492-.....	Scalance	x	-	x
6GK5 495-.....	Scalance	x	-	x
6GK5 496-.....	Scalance	x	-	x
6GK5 528-0....	Scalance XR528-6M (rack mounting)	-	-	-
6GK5 602-.....	Security module	x	x	x
6GK5 612-.....	Security module	x	x	x
6GK5 613-.....	Security module	x	x	x
6GK5 744-.....	Scalance	x	-	x
6GK5 784-.....	Scalance	x	-	x
6GK5 788-.....	Scalance	x	-	x
6GK5 786-.....	Scalance (W786-.../EAP-..) (Wireless)	x	-	x
6GK5 791-.....	PS (Power Supply)	x	x	x
6GK5 991-.....	Scalance X accessory modules	-	-	-
6GK5 992-....	Scalance X accessory modules	-	-	-
6GK5 993-1....	Scalance X accessory modules	-	-	-
6GK7 242-...	S7 1200 CM modules	-	x	-
6GK7 243-...	S7 1200 CM modules	-	x	-
6GK7 277-...	CSM modules 1277	x	-	-
6GK7 377-...	CSM modules 377	x	-	-
S30122-X8000-xxx	Scalance (EAP-W2-RJ-x2) (Wireless)	-	-	-

**2. DOCUMENTS AND DRAWINGS:**

- A2B00073499A dated 04/2008; A2B00073499E dated 11/07; A2B00079397A dated 04/2009;
- A5E00813159-12 dated 06/2011; A5E01113043-10 dated 10/2010; A5E02630804A dated 02/2012;
- A5E02630805A dated 02/2012; A5E03275845A-02 dated 02/2012; A5E03275846A dated 02/2012;
- C79000-G8900-C245-04 dated 05/2012; C79000-G8900-C246-04 dated 05/2012; C79000-Z8964-C122-04 dated 09/2010;
- A5E00349864 Rev. 7 dated 07/2005; Manufacturer's catalogue CA 01 04 /00 SED; Net Modules MANUALS (CD and Paper)

**3. TEST REPORTS:****SIEMENS AG:**

Specification for Type Tests and Test Report:

- I IA AS RD ST Type Test - 2011-02 dated 06.09.2012; A&D AS E423-0102 dated 28.05.01;
- A&D AS RD ST Type Test - 02/05 dated March 15, 2005; A&D AS RD ST Type Test - 11/2005 dated 24.11.2005;
- A&D AS RD ST Type Test - 0606 dated 23.06.2006; A&D AS RD ST Type Test - 08/07 dated 15.01.2008

Note: Documents filed in AP 3040.

**4. APPLICATION / LIMITATION:**

- 4.1 - Bureau Veritas Rules for the Classification of Steel Ships.
- 4.2 - Approval also valid for ships to be granted with the 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 Zones.
- 4.5 - **Where Scalance, Power supply, Modular Outlet and IE/PB link are used on the bridge or open deck, these modules are to be connected to a filter, which has the following features: C= 2 x 0.47uF + 2 x 4700pF, L= 4 x 4,7mH.**
- 4.6 - Security modules 6GK5 602/612/613 are only to be used with 24 VDC ferrite type 742 712 22 (Würth).
- 4.7 - Scalance modules 6GK5 108/204/302/308/320/324/528 and 6GK7 277/377 are to be equipped with surge protection element (Dehn Blitzductor, Type 918402 or equivalent) in power supply line.
- 4.8 - Each application and configuration is to be submitted to the Society's examination prior to fitting on board.
- 4.9 - Factory Acceptance and On-board Tests are to be performed in accordance with requirements for Category II Equipment.
- 4.10 - The installation shall comply with the Manufacturer's recommendation described in above-referenced documentation.

**5. PRODUCTION SURVEY REQUIREMENTS:**

- 5.1 - The above mentioned products are to be supplied by **SIEMENS AG - I IA AS RD** 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.
- 5.3 - **SIEMENS AG - I IA AS RD** has to make the necessary arrangements to have its works recognised by Bureau Veritas in compliance with the requirements of NR320 for HBV products:

**SIEMENS AG**  
**Elektronikwerk Karlsruhe**  
**Östliche Rheinbrückenstrasse 50**  
**78187 Karlsruhe**  
**GERMANY**

- 5.4 - Equipment is to be supplied with manual(s) for installation, use and maintenance.

**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 - This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the units at any time and that **SIEMENS AG - I IA AS RD - GERMANY**, will accept full responsibility for informing shipbuilders, ship owners or their sub-contractors of the proper methods of use and general maintenance of the units and the conditions of this approval.
- 7.2 - This certificate supersedes the Type Approval Certificate N° 11554/B1 BV issued on 11 Feb 2009 by the Society.

\*\*\* END OF CERTIFICATE \*\*\*