

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Network and Communication Components

with type designation(s)

Switch 0852-1106; 0852-1102; 0852-1505/0000-0001

Issued to

WAGO Kontakttechnik GmbH & Co. KG
Minden, Nordrhein-Westfalen, Germany

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft

Application :

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

Location classes:

Temperature	D
Humidity	B
Vibration	B
EMC	B
Enclosure	A

Issued at **Hamburg** on **2021-03-23**

This Certificate is valid until **2025-11-22**.

for **DNV**

DNV local station: **Hamburg – CMC North/East**

Approval Engineer: **Heinz Scheffler**

Joannis Papanuskas
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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Product description

Industrial Ethernet Switch conform to the IEEE 802.3 standard

852-1505/000-001: Managed Switch; 8 Ports 1000BASE-T; 4 Slots 1000BASE-SX/LX;

- Web-based/SNMP management
- Redundant DC power supply
- Power supply range: 24 ... 57 VDC
- Power over Ethernet (PoE+) at 30 W
- Diagnostics via Modbus® and SNMP
- DIP switches to set alarm functions
- Auto-negotiation at all 10/100/1000BASE-T ports
- Auto-MDI/MDIX (crossover) at all 10/100/1000BASE-T ports
- IGMP snooping for multicast filtering
- Port configuration, status, statistics
- Port trunking
- SNMP v1/v2c and RMON
- Approval (IEC 61850-3) for the energy market
- Firmware update and switch configuration via USB storage medium

852 - 1102: Switch 8-port 10/100/1000BASE - T Ethernet

- Redundant DC power supply
- Large supply voltage range: 9 ... 57 V
- DIP switches to set alarm functions
- Full compliance with IEEE802.3, 802.3u, 802.3ab standards
- Non - blocking, store - and - forward switching
- Autonegotiation at all 10/100/1000Base T ports
- Auto-MDI/MDIX (crossover) at all 10/100/1000Base T ports
- Integrated address look-up table, supports 8,000 absolute MAC addresses
- Overvoltage protection
- Prioritization of Profinet Ethernet data packets (EtherType=0x8892) per IEEE802.1p

852 - 1106: Switch 16-port 10/100/1000BASE - T ETHERNET

- Redundant DC power supply
- Wide supply voltage range: 12 ... 60 VDC
- DIP switches to set alarm functions
- Full compliance with IEEE 802.3, 802.3u and 802.3ab standards
- Non-blocking, store-and-forward switching
- Auto-negotiation at all 10/100/1000BASE-T ports
- Auto-MDI/MDIX (crossover) at all 10/100/1000BASE-T ports
- Integrated address look-up table, supports up to 8,000 absolute MAC addresses
- Overvoltage protection
- Prioritization of Profinet Ethernet data packets (EtherType=0x8892) per IEEE802.1p

Application/Limitation

Each delivery to be provided with installation instruction or later approved version including safe distance to compass and communication cable shielded type.

Compass safe distance

Device Name	0852-1505/0000-0001	0852-1102	0852-1106
Steering:	300 mm	250 mm	250 mm
Standard:	400 mm	400 mm	400 mm

Approval conditions

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 rules for classification of ships Pt.4 Ch.9 Control and monitoring systems.

Type Approval documentation

TAA00002YN_Test_Report_and_Document_List_rev0

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, December 2019
IEC 60945:2002: Section 11.1 & 11.2

Marking of product

The products to be marked with:

- Model name
- Supplier name
- Serial number

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 after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE