DNV·GL

Certificate No:
TAA00000WN

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Network and Communication Components

with type designation(s)
Industrial Ethernet Switches

Issued to
Weidmüller Interface GmbH & Co. KG
Detmold, 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 GL.

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**Required protection according to the Rules**

This Certificate is valid until **2017-12-31**.

Issued at **Hamburg** on **2016-12-05**

for **DNV GL**

DNV GL local station: **Magdeburg**

Approval Engineer: **Andrea Grün**

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.

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Product description

Industrial Ethernet unmnaged/managed Switches - ValueLine/PremiumLine
The units are classed and approved for 12V to 45V DC supply voltage.

Unmanaged Switch – Fast Ethernet

- IE-SW-VL09T-6TX-3SC
- IE-SW-VL16-16TX
- IE-SW-VL16T-16TX
- IE-SW-VL16-14TX-2SC
- IE-SW-VL16T-14TX-2SC
- IE-SW-VL16-14TX-2ST
- IE-SW-VL16T-14TX-2ST

Managed Switch – Fast Ethernet

- IE-SW-VL05M-5TX
- IE-SW-VL05MT-5TX
- IE-SW-VL05M-3TX-2SC
- IE-SW-VL05MT-3TX-2SC
- IE-SW-VL05M-3TX-2ST
- IE-SW-VL05MT-3TX-2ST
- IE-SW-VL08MT-8TX
- IE-SW-VL08MT-6TX-2ST
- IE-SW-VL08MT-6TX-2SCS
- IE-SW-PL08M-8TX
- IE-SW-PL08MT-8TX
- IE-SW-PL08M-6TX-2SC
- IE-SW-PL08MT-6TX-2SC
- IE-SW-PL08M-6TX-2ST
- IE-SW-PL08MT-6TX-2ST
- IE-SW-PL08M-6TX-2SCS
- IE-SW-PL08MT-6TX-2SCS
- IE-SW-PL16M-16TX
- IE-SW-PL16MT-16TX
- IE-SW-PL16M-14TX-2SC
- IE-SW-PL16MT-14TX-2SC
- IE-SW-PL16M-14TX-2ST
- IE-SW-PL16MT-14TX-2ST

Managed Switch – Gigabit

- IE-SW-PL10M-3GT-7TX
- IE-SW-PL10MT-3GT-7TX
- IE-SW-PL10M-1GT-2GS-7TX
- IE-SW-PL10MT-1GT-2GS-7TX
- IE-SW-PL18M-2GC-16TX
- IE-SW-PL18MT-2GC-16TX
- IE-SW-PL18M-2GC14TX2SC
- IE-SW-PL18MT-2GC14TX2SC
- IE-SW-PL18M-2GC14TX2ST
- IE-SW-PL18MT-2GC14TX2ST
- IE-SW-PL18M-2GC14TX2SCS
- IE-SW-PL18MT-2GC14TX2SCS

Job Id:
Certificate No: **TAA00000WN**

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

Type Approval documentation

Product data sheets:

- Industrial Ethernet unmanaged Switch, IE-SW-VL09 series dated 2016-12-07
- Industrial Ethernet unmanaged Switch, IE-SW-VL16 series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-VL05M series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-VL08M series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-PL08M series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-PL10M series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-PL16M series dated 2016-12-07
- Industrial Ethernet managed Switch, IE-SW-PL18M series dated 2016-12-07

Test reports:

- Mariner Systems TL1016 dated 30-10-2006
- Mariner Test File No. TL 1588 EMC MOXA dated 08-02-2012
- Mariner Test File No. TL 1588 ENV MOXA dated 08-02-2012

Tests carried out

Applicable tests according to class guideline DNVGL-CG-0339, November 2015.
For the bridge mounted components the 'Acoustic noise and signals' and the 'Compass safe distance' were measured according to sections 11.1 and 11.2 of IEC 60945, 4th edition (2002).

Marking of product

The products to be marked with:

- Model name
- Applicant name
- Serial number

Place of manufacture

Moxa Inc.
Fl. 8, No. 128, Lane 235, Pao-Chiao Rd.
Shing Tien City, Taipei, Taiwan

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 2.5 year and at renewal of this certificate.

END OF CERTIFICATE