DNV·GL

Certificate No:
TAA000000R

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Peripheral Equipment

with type designation(s)
Lynx and Lynx DSS

Issued to
Westermo Teleindustri AB
STORA SUNDBY, Sweden

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.

Location classes:

Temperature	**D**
Humidity	**B**
Vibration	**A**
EMC	**B**
Enclosure	**A / IP40**

This Certificate is valid until **2019-06-30**.

Issued at **Høvik** on **2015-06-24**

for **DNV GL**

DNV GL local station: **Stockholm**

Approval Engineer: **Ståle Sneen**

Odd Magne Nesvåg
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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Job Id: **262.1-011281-4**
Certificate No: **TAA000000R**

Product description

Lynx Industrial Ethernet 10-port Switch and Lynx DSS Industrial Ethernet Device Server Switch for DIN-rail mounting, comprising the following models:

	Model key[1]	Rated voltage	Rated current @ 24/48 VDC	Compass safe distance	
				Standard	Steering
Lynx	Lx10-F2G-y	24-48 VDC	240/120 mA	10 cm	5 cm
Lynx	Lx06-F2G-y	24-48 VDC	180/90 mA	15 cm	10 cm
Lynx DSS	Lx08-F2G-S2-y	24-48 VDC	250/120 mA	15 cm	10 cm
Lynx DSS	Lx06-S2-y	24-48 VDC	150/80 mA	15 cm	10 cm
Lynx DSS	Lx05-S1-y	24-48 VDC	140/70 mA	15 cm	10 cm

1) Model key:
x = 1 or 2 and indicates software version
y = optional and may indicate customer specific models.

Application/Limitation

The Type Approval covers hardware listed under Product description. When the hardware is used in applications to be classed by DNV, 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 Rules for Ships Pt.4 Ch.9 Control and Monitoring Systems.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification**/** Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body.

Type Approval documentation

Tests carried out

Applicable tests according to Standard for Certification No. 2.4, April 2006.
Low temperature test performed down to -40°C for 16h.
For the bridge mounted components the 'Compass safe distance' was measured according to section 11.2 of IEC 60945 4th edition (2002).

Marking of product

Manufacturer: Westermo
Model key as listed under Product description
Unique 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 at least every second year and at renewal of this certificate.

END OF CERTIFICATE