

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Data transmission cables and systems

with type designation(s)
Connection Modul Cat.6, 1 x RJ45/s
Patch Cord Cat. 6, S/FTP, 4P, LSFRZH, RJ45/s-RJ45/s

Issued to
Reichle & De-Massari AG Hauptsitz
Wetzikon ZH, ZH, Switzerland

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.

Issued at **Hamburg** on **2018-05-09**

for **DNV GL**

This Certificate is valid until **2023-05-08**.
DNV GL local station: **Augsburg**

Approval Engineer: **Carsten Hunsalz**

.....
Arne Schaarmann
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

Connection System RJ45 Cat. 6 consisting of Connection Module Cat.6, 1xRJ45/s and diverse Patch Cords Cat. 6

Types: Connection Modul Cat.6, 1 x RJ45/s
Patch Cord Cat. 6, S/FTP, 4P, LSFRZH, RJ45/s-RJ45/s

Mechanical data:

Pole count: 8
Operating temperature: -10° C to 60° C
Humidity: 95 % (non condensing)
Housing material: Polycarbonate (UL-94-V0)
Admissible wire: 0,5 mm (AWG24) - 0,65 mm (AWG22)
Admissible insulation: 0,8 mm - 1,6 mm

Electrical data:

Contact resistance: < 200 mΩ
Transfer impedance:
1 MHz < 100 mΩ
10 MHz < 200 mΩ
30 MHz < 620 mΩ
80 MHz < 1600 mΩ
100 MHz < 2000 mΩ

Types/Assecories:

Module Real 10 Cat.6; 1xRJ45/s
Module Real 10 Cat. 6; 1xRJ45/s Snap / in
Module Real 10 Cat. 6; 1xRJ45/s Special
Module Real 10 Cat. 6; 1xRJ45/s Flap-Jack

Patch Cords Cat. 6:

The patch cords are used for connecting the network equipment to patch panels and telecommunications outlets, and cross connection between various applications and end users. They are suitable for transmission frequencies of up to 250 MHz.

Types:

Patch Cord, Real 10 Cat. 6, S/FTP, 4P, LSFRZH, RJ45/s-RJ45/s
CP Cable Real 10 Cat. 6, SF/FTP, 4p, LSFRZH, RJ45/s-RJ45/s

Lengths:

0,5 m to 75 m

Patch Cord Characteristics: S-STP

Inner conductor diameter: Stranded copper 0,14 mm
Number of pairs: 4
Screen 1 pair: None
Outer screen: Cu-braid + Al/polyester foil
Jacket: PVC or LSFROH
Overall diameter: 5,5 mm / 6 mm
Bend Radius: 30 mm

Application/Limitation

Only shielded patch cordes shall be used.

To be installed in accordance with the manufacturer's instructions and DNV GL rules.

Type Approval documentation

Test report : TL020.291_b, dated 21.06.2007
TL020291_c, dated 21.06.2007
TE020.161, dated 03.01.2001

Tests carried out

Standard	Release	General description	Limitation
		GL Guidelines for the Performance of Type Approvals Part 2, Edition 2012	
IEC 60603-7-4/5	2010-04	Connectors for electronic equipment – Part 7-4/5: Detail specification for 8-way, unshielded, free and fixed connectors, for data transmissions with frequencies up to 250 MHz	
ISO/TEC 11801	2002-09	Information technology- Generic cabling for customer premises	
EN 50173-1	2011-05	Information technology Generic cabling systems Part 1: General requirements	

Marking of product

Manufacturer – Type designation

Additional Place of Production

Reichle & De-Massari Produkcja
Sp. z o. o. Poland

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine Tests (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer's product type marking and 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