

# TYPE APPROVAL CERTIFICATE

## This is to certify:

**That the Data transmission cables and systems**

with type designation(s)  
**Connection Modul Cat.5e, 1 x RJ45/s**  
**Patch Cord Cat. 5e/s; CP Cable Cat. 5e/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**

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**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. 5e/s consisting of Connection Module Cat.5e, 1xRJ45/s and diverse Patch Cords Cat. 5e

Type: Connection Modul Cat.5e, 1 x RJ45/s  
Patch Cord Cat. 5e/s; CP Cable Cat. 5e/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: < 300 mΩ  
Transfer impedance: 1 MHz < 100 mΩ  
10 MHz < 200 mΩ  
30 MHz < 620 mΩ

### Types/Assecories:

Module Cat.5e 1xRJ45/s  
Module Cat. 5e 1xRJ45/s Snap / in  
Module Cat. 5e 1xRJ45/s Special  
Module Cat. 5e 1xRJ45/s Flap-Jack  
RJ45 Couple module, Cat.5e  
RJ45 Connection module, accessories

Patch Cords Cat. 5e: 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.

Types: Patch Cord Cat. 5e/s  
CP Cable Cat. 5e/s

Lengths: 0,5 m to 75 m

### Patch Cord Characteristics: S-FTP

Inner conductor diameter: Stranded copper AWG26  
Number of pairs: 4  
Screen 1 pair: None  
outer screen: Cu-braid + Al/polyester foil  
Jacket: PVC or LSFROH  
Overall diameter: 5,5 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  
ZT 020.091, dated 26.09.2002

## Tests carried out

Standard	Release	General description	Limitation
		GL Guidelines for the Performance of Type Approvals Part 2, Edition 2012	
IEC 60603-7	2012-08	Connectors for electronic equipment – Part 7: Detail specification for 8-way, unshielded, free and fixed connectors Connectors for electronic equipment – Part 7: Detail specification for 8-way, unshielded, free and fixed connectors	
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