DNV·GL

Certificate No:
TAE00002UZ

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Data transmission cables and systems

with type designation(s)
FM45 connector 1 x RJ45/s Cat.5e, IP 20
FM45 connector 1 x RJ45/s Cat.5e, IP67

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

Approval Engineer: **Carsten Hunsalz**

for **DNV GL**

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.

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Product description

Flexible use RJ45 connector with an 8-wire connection and Cat. 5e performance

Type: FM45 connector 1 x RJ45/s Cat.5e, IP 20
FM45 connector 1 x RJ45/s Cat.5e, IP67

Pole count:	8
Wire diameter section:	Solid/wire 0,4 mm - 0,5 mm (AWG26-23)
Wire cross-section:	Stranded/wire 0,12 mm² - 0,26 mm² (AWG 26/7 - 23/7)
Insulation material:	Polycarbonate PC (UL-94-V0)
Contact durability:	> 1000
Cable strain relief:	> 50 N
Rated current:	1,75 A 20° C
Contact-resistance:	< 1 mΩ (wire-IDC); < 5 mΩ (braid-IDC)
Plug contact:	< 10 mΩ
Plug schieded:	< 20 mΩ
Product code:	R 312231 for FM45 connector 1xRJ45/s Cat.5e, IP 20 R 314686 for FM45 connector 1xRJ45/s Cat.5e, IP67

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_a, dated 21.06.2007
TL020291_c, dated 21.06.2007
TL020230, dated 22.07.2005

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	
IEC 60603-7-1/2/3	2010-04 2011-04	Connectors for electronic equipment – Part 7-1/2/3: Detail specification for 8-way, unshielded, free and fixed connectors, for data transmissions with frequencies up to 100 MHz	
EIA/TIA-568B	2001-04	Telecommunications Industry Association (TIA). Commercial Building Telecommunications Cabling Standard	

Marking of product

Manufacturer – Type designation

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