Certificate no.:
TAE0000516

TYPE APPROVAL CERTIFICATE

This is to certify:

that the Data transmission cables and systems

with type designation(s)
FM45 EL Cat. 6A Plug, s/u Standard, Slim & Angled Version

issued to
Reichle & De-Massari AG
Wetzikon ZH, **Switzerland**

is found to comply with
DNV 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.

Issued at **Hamburg** on **2025-02-27**
This Certificate is valid until **2030-02-26**.
DNV local unit: **Augsburg**

for **DNV**

Approval Engineer: **Carsten Hunsalz**

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.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to USD 300 000.

Product description

Field mountable RJ45 plug connector with an 8-wire connection and Cat. 6A performance

Type: FM45 EL Cat. 6A Plug, s/u Standard, Slim & Angled Version

Pole count:	8
Wire diameter section:	Solid/wire 0,4 mm - 0,61 mm (AWG 26-22)
Wire cross-section:	Stranded/wire 0,12 mm² - 0,32 mm² (AWG 26/7 - 22/7)
Wire insulation cable Ø:	max. 1,6 mm
Overall cable Ø:	5,0 mm – 9,0 mm
Insulation material:	Polycarbonate PC (UL-94-V0)
Housing:	Zinc die cast
Protection rating:	IP20
Rated current:	1,55A (20°C)
Contact-resistance:	< 1 mΩ (solid wire - IDC); < 5 mΩ (stranded wire - IDC)
Contact-resistance Signal contacts and screen (plug-jack):	< 20 mΩ
Input-output resistance:	< 100 mΩ
Product-NO:	888230 for Plug FM45 EL C6A s/u 22-26 m 836543 for Plug FM45 EL C6A s/u 22-26 ms 886069 for Plug FM45 EL C6A s/u 22-26 am

Application/Limitation

Temperature range, operational: -40°C to +85°C

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

Type Approval documentation

Tests carried out

Standard	Release	General description	Limitation
DNV-CG-0339	2021-08	Environmental test specification for electrical, electronic and programmable equipment and systems	partly
IEC 60603-7-51	2010-03	Connectors for electronic equipment – Part 7-51: Detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 500 MHz	
IEC 60603-7	2020-12	Connectors for electronic equipment – Part 7: Detail specification for 8-way, unshielded, free and fixed connectors.	
IEC 60603-7-1	2011-04	Connectors for electronic equipment – Part 7-1: Detail specification for 8-way, shielded, free and fixed connectors.	

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