

TYPE APPROVAL CERTIFICATE

Certificate No: **TAE00002XG** Revision No: **1**

This is to certify: That the Circular connector

with type designation(s) **M23 - V4A**

Issued to Hummel AG Denzlingen, Germany

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 2023-06-12

This Certificate is valid until **2028-06-05**. DNV local unit: **Augsburg**

Approval Engineer: Harald Amberger

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invali
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 300,000 USD.



for **DNV**

Marta Alonso Pontes Head of Section



Job Id: Certificate No: Revision No: 262.1-028684-2 TAE00002XG 1

Product description

Type M23 - V4A Cable plug and receptable, inline receptable 6,7,9,12 pole type 150V AC 16,17,19 pole type 100V AC Ingress protection: IP X8 (3bar) EN 60529 (plug) Material body: 1.4404 as per EN 10088-3 Insulation material: PBT, PA6 (UL 95-V0)

Contact size 1 mm diameter 8A Contact size 2 mm diameter 20A

Application/Limitation

Location Classes: Temperature range: -40°C - + 45°C (120°C), Vibration: B

Assembling instruction of the manufacturer to be observed

Type Approval documentation

paconsult report 420-04 dated 1.7.2004 Hummel type test report 04-10 09 dated 5.01.2005 VDE 40029470+Appendix

Tests carried out

DIN EN 60529:2000, Cold, dry heat, vibration

Marking of product

Hummel - Type designation - Main data.

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