DNV·GL

Certificate No:
TAE0000411

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Low Voltage Cable

with type designation(s)
PRYSMIAN - Navy Cable LFMGSSGO/LFMGSGO, LFMSGSGO, LFMSGSSGO

Issued to
Prysmian Kabel und Systeme GmbH
Neustadt b. Coburg, Bayern, Germany

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.
Rated voltage (V) 250
Temp. class (°C) 90

Issued at **Hamburg** on **2020-09-30**
This Certificate is valid until **2025-09-29**.
DNV GL local station: **Augsburg**

for **DNV GL**

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

Light communication cables for marine with screen according to VG 95218 part 64, 65, 66.
Halogen-free based on DIN VDE 0472-815 with improved behaviour in case of fire.

Type PRYSMIAN – Navy Cable LFMGSSGO/LFMGSGO, LFMSGSGO, LFMSGSSGO

Rated voltage: 250 V
Maximum operating conductor temperature: 90 °C
Conductor: Copper, plain, round stranded, in accordance with VG 95218 part 64, 65, 66
Insulation: Polyalkene compound
Individual screen: Plain copper wire braid (for cables of Part 65 and Part 66)
Screen: Plain copper wire braid (double screen for cables of Part 64 Axxx and Part 66)
Outer sheath: Compound from crosslinked olefine compound

Number of cores and Cross-sectional area

Part 64 A001 to A006:	2, 4, 7, 12, 19, 27	x2x0,4mm²
Part 64 B001 to B002:	30, 45	x2x0,4mm²
Part 65 A001 to A006:	2, 4, 7, 12, 19, 27	x2x0,4mm²
Part 66 A001 to A002:	5, 12	x3x0,4mm²

Application/Limitation

The cables have been approved for firm laying, preferable on ships of the Federal Armed Forces.

Type Approval documentation

Test Report: VDE Certificate of conformity with factory surveillance
Certificate No. 40050432 / Ref. No. 2306700-5970-0064 / 256884, dated 2019-07-19

BAAINBw Certificate of Approval No. U3.3h/19078, dated 23.08.2019

VDE Certificate of conformity with factory surveillance
Certificate No. 40050589 / Ref. No. 2306700-5970-0065 / 256883, dated 2019-08-21

BAAINBw Certificate of Approval No. U3.3h/19079, dated 23.08.2019

VDE Certificate of conformity with factory surveillance
Certificate No. 40050244 / Ref. No. 2306700-5970-0066 / 256885, dated 2019-06-24

BAAINBw Certificate of Approval No. U3.3h/19080, dated 23.08.2019

Specification: VG 95218-64,65,66:2016-12

Tests carried out

Standard	Issued	General description	Limitation
VG 95218-64	2016-12	Cables and insulated wires - Part 64: Cable with single and double screen, with sheath, pair and triple formation, not screened, halogenfree, low fire hazard	
VG 95218-65	2016-12	Cables and insulated wires - Part 65: Cable with screen and sheath, cabled single elements, screened, halogenfree, low fire hazard	
VG 95218-66	2016-12	Cables and insulated wires - Part 65: Cable with screen and sheath, cabled single elements, screened, halogenfree, low fire hazard	
VG 95218-2	2017-12	Cables and insulated wires - Part 2: Generic specification	
IEC 60332-1-2	2015-07	Tests on electric and optical fibre cables under fire conditions – Part 1-2: Test for vertical flame propagation for a single insulated wire or cable –Procedure for 1 kW pre-mixed flame	
IEC 60332-3-24	2018-07	Tests on electric and optical fibre cables under fire conditions – Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category C	
IEC 60754-2	2011-11	Test on gases evolved during combustion of materials from cables - Part 2: Determination of acidity (by pH measurement) and conductivity	Halogen free: pH > 4,3 Conductivity < 10µS/mm
IEC 61034-1/2	2013-06	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke Light transmittance >60%
DIN VDE 0472-815	1989-03	Halogen free properties	

Marking of product

Example:

Prysmian Kabel und Systeme GmbH - LFMGSSGO - size - voltage rating - VDE-REG-Nr

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