

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Data transmission cables and systems**with type designation(s)  
**Maritime LAN 7S S/FTP**

Issued to

**Sohome AS**  
**Søreidgrend, Norway**is found to comply with  
**DNV GL rules for classification – Ships, offshore units, and high speed and light craft****Application :****Data communication cable, cat. 7. Installation / Horizontal cable.**  
**Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-11-13**This Certificate is valid until **2022-09-28**.DNV GL local station: **Bergen**Approval Engineer: **Ivar Bull**for **DNV GL**

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**Trond Sjøvåg**  
**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.



Job Id: **262.1-010028-7**  
Certificate No: **TAE0000009**  
Revision No: **1**

## Product description

Type(s): **Maritime LAN 7S S/FTP**  
Conductors: Solid Copper (Class 1 / AWG23)  
Core insulation: Polyethylene foamskin  
Screen: Al/polyester tape  
Metal covering: Tinned, Copper wire braid  
Outer sheath: SHF1

### Electrical data at 20°C

Frequency	Attenuation, nom	NEXT
MHz	[dB/100m]	[dB]
1	1,8	100
4	3,4	100
10	5,4	100
16	6,8	100
20	7,7	100
31,25	9,6	100
62,5	13,7	100

Frequency	Attenuation, nom	NEXT
MHz	[dB/100m]	[dB]
100	17,4	100
155	21,9	94
200	25,0	92
250	28,1	90
300	30,9	89
600	44,8	85

Characteristic impedance :100 Ohm  
DC-loop resistance:  $\leq 150 \Omega/\text{km}$

## Manufacturer place

DNV GL reference no. 10082991

## Application/Limitation

Temperature window

Operation: - 40°C to +85°C

Installation: - 15°C to +50°C

The information related to EN certification from recognised test institution is taken as information only

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bunches of Cables or Wires) are fulfilled without any additional measures.

## Type Approval documentation

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### Tests carried out

Standard	Release	General description	Limitation
DNVGL-CP-0403	2019-07	Data communication cables - category Cables.	
IEC 61156-5	2013-01	Symmetrical pair/quad cables for digital communications – Symmetrical pair/quad cables with transmission characteristics up to 1000MHz horizontal floor wiring.	Cat. 7 – 600MHz
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	Charred portion of sample does not exceed 2,5m above bottom edge of burner.
IEC 60754-1	2011-11	Test on gases evolved during combustion of materials from cables – Determination of the amount of halogen acid gas	Low Halogen: <0,5% Halogen
IEC 60754-2	2011-11	Test on gases evolved during combustion of materials from cables – Determination of the degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity	Halogen free: pH > 4,3 Conductivity < 10µS
IEC 61034-1/2	2013-07/09	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke
ISO/IEC 11801	2010-04	Information technology – Generic cabling for customer premises, incl. Amd 1 and 2.	Ref. to requirements for category cable: 7 (600MHz)
EN 50173-1	2011-06	Information technology – Generic cabling systems – Part 1. General requirements.	
EN 50288-4-1	2013-06	Multi-element metallic cables used in analogue and digital communication and control - Part 4-1: Sectional specification for screened cables characterised up to 600MHz – Horizontal and building backbone cables	

### Marking of product


Bergen Cabling Maritime LAN - Cat.7 IEC 60332-3-24 -factory code - <part no > - order no - date – meter marking

### 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) and selected type tests (ref. to applicable class programs) checked (if not available these tests shall be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance



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- 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