



# LanMarin® Cat 7 MUD

S/FTP

AWG 23/7 Flexible

SHF2, MUD

DNV

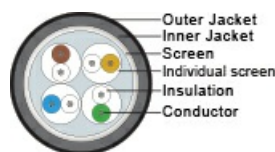
## Application

LAN cable designed and tested for ship- and offshore applications. In-door/out-door installation. Resistant to chemicals, MUD, UV radiation and harsh weather conditions. Flame retardant. An extra inner sheath provides additional fire protection. Tested for class F-link high frequencies transmission. Ethernet IEEE 802.3at-2009 Type 4 (PoE++). This cable can be used in rough environments.



## Construction

|                         |                                                                                                                                      |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Conductor               | 0.28 [mm <sup>2</sup> ] Stranded Plain Cu AWG 23/7                                                                                   |
| Insulation              | Foam PE Ø = 1.55 [mm]                                                                                                                |
| No. of pairs            | 4                                                                                                                                    |
| Colour code             | Pair 1: Blue - White/Blue<br>Pair 2: Orange - White/Orange<br>Pair 3: Green - White/Green<br>Pair 4: Brown - White/Brown             |
| Individual Screen pairs | Al/Mylar tape                                                                                                                        |
| Screen                  | Tinned Cu-braid                                                                                                                      |
| Inner jacket            | SHF1 Ø = 8.50 ± 0.50 [mm] Grey (similar to RAL7035)                                                                                  |
| Jacket                  | Black SHF2 MUD (similar to RAL9004)                                                                                                  |
| O.D.                    | 10.00 ± 0.50 [mm]                                                                                                                    |
| Weight                  | 120 [kg/km]                                                                                                                          |
| Jacket marking          | NEK Kabel – LanMarin® Cat 7 S/FTP - 4x2xAWG23 –<br>SHF2 MUD – IEC61156-5 – IEC 60332-3-22 – DNV –<br><batch no> – dd/mm/yyyy – ****m |





## Specifications

|                               |                                  |
|-------------------------------|----------------------------------|
| Operating temperature normal  | -40 to +80 [°C]                  |
| Characteristic impedance      | 100 ± 5 [Ω]                      |
| Conductor DC resistance       | ≤ 73.2 [Ω/km]                    |
| Insulation resistance         | ≥ 5000 [MΩ x km]                 |
| Power over Ethernet           | IEEE 802.3at-2009 Type 4 (PoE++) |
| Rated voltage                 | ≥ 80 [V]                         |
| Test voltage                  | 1 [kV-1min.]                     |
| Capacitance                   | 55 [pF/m]                        |
| Capacitance unbalance         | 1600 [pF/km]                     |
| Min. bending radius installed | 100 [mm]                         |

## Norms

|                                                    |                                                        |
|----------------------------------------------------|--------------------------------------------------------|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1 & IEC 60754-2                              |
| Design and testing standards                       | DNV TAP 6-800 App.A;827.50-2 IEC 61156-6 IEC 60092-360 |
| Flame resistance                                   | IEC 60332-3-22 Cat.A                                   |
| Flame retardant                                    | IEC 60332-1-2                                          |
| Smoke emission                                     | IEC 61034-1 & IEC 61034-2                              |
| MUD resistant                                      | NEK TS 606 IEC 60092-360 Annex C & D                   |
| UV-resistant                                       | UL 1581 (300h)                                         |
| Certification                                      | DNV                                                    |

|          |         |
|----------|---------|
| Prod.no. | 1089699 |
|----------|---------|



| Frequency (MHz) | Attenuation Max.(acc.EN) (dB/100m) | NEXT (dB/100m) |
|-----------------|------------------------------------|----------------|
| 1               | 3.02                               | 78             |
| 4               | 5.61                               | 78             |
| 10              | 8.78                               | 78             |
| 16              | 11.12                              | 78             |
| 20              | 12.44                              | 78             |
| 31.25           | 15.62                              | 78             |
| 62.5            | 22.32                              | 75.46          |
| 100             | 28.53                              | 72.40          |
| 155             | 35.96                              | 69.55          |
| 200             | 41.20                              | 67.88          |
| 300             | 51.28                              | 65.24          |
| 600             | 75.15                              | 60.73          |



## Updated

| Date       | Rev. | Description                    |
|------------|------|--------------------------------|
| 24.04.2018 | 1    | Name change from SSTP to S/FTP |
| 16.03.2021 | 2    | Norms and attenuation          |
| 03.10.2023 | 3    | Power over Ethernet            |
| 13.01.2025 | 4    | additional info                |