



# Profibus DP Marin ARM SHF2

Flexible type A

1 pair 0.35 mm<sup>2</sup> (AWG 22/7)

Armoured

SHF2, UV

DNV

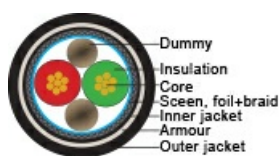
## Application

Armoured Profibus data cable for industrial field bus systems of automation and communication, designed for ship and offshore use, for fixed applications such as process control and automation.



## Construction

|                |                                                                                               |
|----------------|-----------------------------------------------------------------------------------------------|
| Conductor      | Stranded bare or tinned Cu 7 x 0,254 [mm] AWG 22/7 (0.35 mm <sup>2</sup> )                    |
| Screen         | Al/Mylar                                                                                      |
| Insulation     | Foamskin PE Ø = 2.55 [mm]                                                                     |
| No. of pairs   | 1                                                                                             |
| Colour code    | Red, green                                                                                    |
| Filler         | PP                                                                                            |
| Screen         | Tinned Cu-braid                                                                               |
| Inner jacket   | SHF1 black                                                                                    |
| Armour         | Galvanised steel wire braid ≥65% [% optical cover]                                            |
| Outer Jacket   | Black SHF2                                                                                    |
| O.D.           | 11.0 [mm]                                                                                     |
| Weight         | 190 [kg/km]                                                                                   |
| Jacket marking | NEK KABEL – PROFIBUS DP MARIN Armoured – 1x2x22AWG – SHF2 – IEC 60332-3-22 – ****M – DD/MM/YY |





## Specifications

|                              |                                                                                                                  |
|------------------------------|------------------------------------------------------------------------------------------------------------------|
| Operating temperature normal | -40 – +80 [°C]                                                                                                   |
| Temperature @ installation   | -20 - +60 [°C]                                                                                                   |
| Test Voltage                 | DC 1kV/1min, no break down                                                                                       |
| Characteristic impedance     | 270 ± 27Ω @ 9,6kHz<br>185 ± 18.5Ω @ 38.4kHz<br>150 ± 15Ω @ 3-20MHz                                               |
| Conductor resistance         | ≤ 55 [Ω/km]                                                                                                      |
| Insulation resistance        | ≤ 1 [GΩ x km]                                                                                                    |
| Capacitance                  | 30 [pF/m] at 800 - 1000 Hz                                                                                       |
| Velocity factor              | 78 [%]                                                                                                           |
| Attenuation                  | ≤ 2.5dB/km @ 9.6kHz<br>≤ 3.8dB/km @ 38.4kHz<br>≤ 11.0dB/km @ 200kHz<br>≤ 22.0dB/km @ 4MHz<br>≤ 42.0dB/km @ 16MHz |
| Min. bending radius          | 10 [x outer diam]                                                                                                |
| Min. bending radius flexible | 20 [x outer diam]                                                                                                |

## Norms

|                                                    |                                   |
|----------------------------------------------------|-----------------------------------|
| Halogenfree, max content corrosive and toxic gases | IEC 60754-1 & IEC 60754-2 NES 713 |
| Material properties, insulation and sheath         | IEC 60092-360                     |
| Flame resistance                                   | IEC 60332-3-22 Cat.A              |
| Flame retardant                                    | IEC 60332-1                       |
| Smoke emission                                     | IEC 61034-2                       |
| UV-resistant                                       | UL 1581 (300H) ASTM D 4587        |
| Certification                                      | DNV                               |

|          |                                                                                  |
|----------|----------------------------------------------------------------------------------|
| Prod.no. | 1087370- (Steel wire armour)<br>1091063- (Cu wire armour)<br>3010007 (tinned Cu) |
|----------|----------------------------------------------------------------------------------|



Alternative armour available, tinned copper braid or bronze braid.  
Also available with MUD resistant jacket, Part.no. 1091035





## Attenuation nominal, max 105%

| Frequency MHz | Attenuation dB/100m |
|---------------|---------------------|
| 16            | < 4.5               |
| 4             | < 2.2               |
| 0.0384        | < 0.5               |
| 0.0096        | < 0.3               |

## Updated

| Date       | Rev. | Description     |
|------------|------|-----------------|
| 05.04.2019 | 1    | DNV-GL Approved |
| 13.06.2019 | 2    | Added info.     |