

Profibus PA Marin SHF1

PA BUS cable

Flexible, LSZH

1 pair 1 mm² 18AWG

100 Ω

DNV

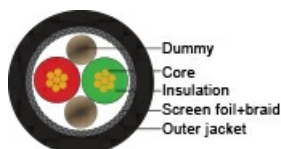
Application

PA BUS, IEC 61158-2, specifically used to connect sensors / actuators in the Process Automation (PA). Suitable for use in ship- and offshore applications, as well in the industry. Low smoke and halogen free. Highly flexible 1 mm² (32 x 0,2 mm).



Construction

Conductor	1.0 [mm ²] Flexible bare or tinned Cu class 5 32 x 0,20 mm IEC 228
Insulation	Foamskin PE Nom. 2.60 [mm]
No. of pairs	1
Colour code	Red, green
Separator	Plastfoil + filler
Screen	Tinned Cu-braid ≥85 [% optical cover]
Jacket	Black SHF1 LSZH
O.D.	7.9 ± 0.2 [mm]
Weight	90 [kg/km]
Jacket marking	NEK Kabel - Marin - cable - Profibus PA - 1x2x1.00mm ² - SHF1 - ****m - DD/MM/YY



Specifications

Operating temperature normal	-30 – +70 [°C]
Temperature @ installation	-10 – +50 [°C]
Operating voltage	125 [V]
Test Voltage	1 [kV-DC]
Loop Resistance / Inductance Ratio	≤ 44 Ω/km
Screen resistance	< 9.5 [mΩ/m]
Characteristic impedance	100 ± 20 [Ω @ 100 MHz]
Insulation resistance	≥ 1 [GΩ x km]
Transfer impedance	< 20 [mΩ/m] @10MHz
Tensile strength	100 [N]
Capacitance	Nom. 50 [pF/m @ 800-1000Hz]
Attenuation	≤ 3.0 dB/100 m at 39 kHz ≤ 6.5 dB/100 m at 100 kHz ≤ 12.0 dB/100 m at 1 MHz
Min. bending radius flexible	12 [x outer diam]
Min. bending radius installed	6 [x outer diam]

Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 and IEC 60754-2 EN 50267
Material properties, insulation and sheath	IEC 60092-360 3582
Design and testing standards	IEC 61158-2 EN 50170
Flame resistance	IEC 60332-3-22 Cat.A
Flame retardant	IEC 60332-1-2
Ozone resistant	300h
Smoke emission	IEC 61034
Oil and fuel resistant	IEC 60811-2-1 IRM 902 23°C / 7 days, 70°C / 4h

Part No.	1091144 bare Cu-conductors 3010008 tinned Cu-conductors
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Also available with SHF2 jacket

Updated

Date	Rev.	Description
05.04.2019	1	DNV Approved
04.06.2019	2	Additional information

