



MOG Profibus DP 1 & 2 pairs stranded conductor 0.35mm², SHF2



Store at: -40 to +70 °C

Install at: -40 to +50 °C, **Bend minimum:** 20 times O.D.

Operate at: -40 to +90 °C, **Bend minimum:** 10 times O.D.

Pull maximum: 100N

Design

Conductor : Stranded bare copper 7×0.25 (0.35mm²)

Insulation : Polyolefin Ø2.75mm

Pair : No 2 insulated conductors stranded together into a pair

Colour code : 1.Green/red 2.Blue/brown

Assembling : No 1 pair with fillers or no 2 pairs stranded together into a compact core

Screen : Aluminium/polyester tape (100%) with tinned copper braid (coverage ≥60%)

Outer jacket : Black Fire Retardant and UV Resistant SHF2 material, LSZH (Ø 8.6mm)

Marking : APS Finland - PROFIBUS MARINE ...x2x0.35mm² SHF2 - IEC60332-3-22 Cat.A - lot + meter

Environmental properties and Fire Performances

Degree of acidity of gases : IEC 60754-1, IEC 60754-2 (pH value $\geq 4,3$ and Conductivity $\leq 10\mu S/mm$)

Halogen acid gas : IEC 60754-1, IEC 60754-2 (Halogen acid gas emission $\leq 0.5\%$)

Smoke Emission : IEC 61034-2, EN 50268-2 (Transmittance) $\geq 60\%$

Toxicity of evolved gas : YES – NES 713, CEI 20-37/7

Flame retardant : YES – IEC 60332-1-2

Fire retardant : YES – IEC 60332-3-22 Cat.A

Fire resistant : NO – IEC 60331-25

Ozone resistant : YES – DIN VDE 0472 part 805 B

Weather resistant : YES – ASTM G 154, EN 11507

LSZH SHF2 : YES – IEC 60092-359:1987-03

Oil resistant : YES (oil, fuels and hydrocarbons) – IEC60811

MUD resistant : NO

Water resistant : YES – IEC60502

Water penetration : NO – IEC 60794-1-2-F5-B

UV resistant : YES – ASTM-D-2565-92A

Ordering and delivery information

Pair count	P/N	O.D [mm]	Weight [kg/km]	Packaging
1 pair	OPB1P035F2	8.6	95	500 m (+/-5%)
2 pairs	OPB2P035F2	8.6	110	500 m (+/-5%)

Electrical characteristics (IEC60092-350, IEC61784, IEC61158)

Operation voltage : 100V

Test voltage : 1500V a.c. for 1 minute

Resistance of the conductor @ 20°C : $\leq 55.0\Omega/\text{km}$

Insulation resistance @ 20°C : $\geq 1\text{G}\Omega\text{xkm}$

Nominal Capacitance @ 800Hz : 30 pF/m

Characteristic impedance : $150\Omega \pm 15$ @ 1MHz

Nominal attenuation :	45 dB/km	@ 16MHz
	22 dB/km	@ 4MHz
	5 dB/km	@ 38,4 KHz
	3 dB/km	@ 9,6 KHz
Baudrate :	9.6 kBits/s	@ Max. 1200m
	19.2 kBits /	@ Max. 1200m
	93.75 kBits/s	@ Max. 1200m
	187.5 kBits /s	@ Max. 1000m
	500 kBits /s	@ Max. 400m
	1.5 MBits /s	@ Max. 200m
	12 MBits /s	@ Max. 100m

Other standards of reference

IEC 60092-370	Electrical installations in ships: Guidance on the selection of cables for telecommunication and data.
IEC 60092-360	Electrical installations in ships: Insulating and sheathing materials for shipboard and offshore units.
DNV TAP 827.50/2	Type Approval Program
ABS SVR	Rules for building and classing. Steel Vessels.
ABS SMR	Rules for building and classing. Steel vessels under 90 meters.
IEC 60811	Insulating and sheathing materials of electric cables - Test method

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