



MOG CAN Bus 1&2 pairs stranded conductor 0.75mm, SHF2



Store at: -40 to +70 °C

Install at: -40 to +50 °C, **Bend minimum:** 15 times O.D.

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

Pull maximum: 100N

Design

Conductor : Stranded bare copper 24×0.20 (0.75mm²)

Insulation : Cellular polyolefin Ø2.95mm

1 Pair : No 2 insulated conductors stranded together into a pair (Colour code : White/blue)

2 Pairs : No 4 insulated conductors stranded together into a star quad

Screen : Aluminium/polyester tape (100%)

Grounding wire : Tinned copper 24×0.20 (0.75mm²) polyolefin insulated (nominal Ø2.40mm). Colour yellow/green.

Assembling : One screened pair or quad with one grounding wire with fillers, wrapped with fire barrier tape

Overall screen : tinned copper braid (coverage ≥80%)

Outer jacket : Grey Fire Retardant and UV Resistant SHF1 material, LSZH (Ø 11.1mm)

Marking : APS Finland - ww/yy - CAN BUS Marine 1x2x0.75mm² SHF2 - IEC60332-3-22 Cat A - TK/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 $\leq 10\mu\text{S/mm}$)

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 – NEK 606:2009

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	OCB1P075F2	11.0	210	500 m (+/-5%)
2 pairs (1 quad)	OCB2P075F2	11.0	240	500 m (+/-5%)

Electrical characteristics

Operation voltage : 100V

Test voltage : 1kV d.c. for 1 minute

Resistance of the conductor @ 20°C : $\leq 26.0 \Omega/\text{km}$ for bare copper / $\leq 26.7 \Omega/\text{km}$ for bare copper

Insulation resistance @ 20°C : $\geq 1\text{G}\Omega\text{xkm}$ (BUS conductor) / $\geq 10\text{M}\Omega\text{xkm}$ (earth conductor)

Nominal Capacitance @ 800Hz : 40 pF/m

Average characteristic impedance : $120 \pm 10\%$ @ 1MHz

Nominal attenuation : 13.2 dB/km @ 1MHz

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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