



Arctic Grade CAN Bus cable 1&2 pairs 0.75mm SHF2



Store at : -20 to +70 °C

Install at : -20 to +70 °C, **Bend minimum :** 20 times O.D.

Operate at : -65 to +80 °C, **Bend minimum :** 20 times O.D.

Pull maximum : 50N

Design

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

Insulation : Cellular polyolefin Ø2.95mm

Pair : No 2 insulated conductors stranded together into a pair

Colour code : 1.White/blue

Screen on pair : 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 with one grounding wire with fillers, wrapped with fire barrier tape

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

Outer jacket : black Fire Retardant and UV Resistant SHF2 material, LSZH (Ø 12.0mm)

Marking : APS Finland - ww/yy - ARCTIC GRADE CAN BUS Marine 1x2x0.75 +0.75mm 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 $\leq 10\mu\text{S}/\text{mm}$)

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 : EN 50305 9.2

Flame retardant : IEC 60332-1-2

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

Ozone resistant : IEC 60811-2-1

LSZH SHF2 : IEC 60092-360

Oil resistant : IEC 60811, IRM 903

MUD resistant : upon request

Water absorption : IEC60811-1-3

UV resistant : IEC60811-2-1, ASTM-D-2565-92A

Cold Bend : CSA C22.2 (-65°C)

Cold Impact : CSA C22.2 (-55°C)

Electrical characteristics (IEC60092-350, IEC61784, IEC61158)

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 coppe

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

Nominal Capacitance @ 800Hz : 40 pF/m

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

Nominal attenuation : 13.2 dB/km @ 1MHz

Ordering and delivery information

Pair count	P/N	O.D [mm]	Weight [kg/km]	Packaging
1 pair	OCBA1P075F2	12.0	225	drum 500m (+/-5%)
2 pairs	OCBA2P075F2	12.0	255	drum 500m (+/-5%)

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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