



QFCB / QFOB Armoured MUD NEK606 Fire Resistant IEC60331-25, Fire Retardant IEC60332-3-22 Cat.A



Store at : -40 to +70 °C

Install at : -10 to +50 °C, **Bend minimum :** 20 times O.D.

Operate at : -40 to +70 °C, **Bend minimum :** 15 times O.D.

Pull maximum : 2000N

Crush maximum : 3000N/100mm

Impact maximum : 20J

Cable weight : 260 kg/km

Design

Bare fiber : 250µm

Buffer : Loose tube (Ø2.2mm) filled with jelly, housing up to 12 fibers

Colour code : See table

Fire protection : A fire barrier is applied over every single tube housing fibers

Central member : Steel rope with LSZH sheath

Cable core : Loose tubes and fillers (when necessary) are stranded around the central member. The core is wrapped by a tape.

Inner sheath : Black SHF1 material 1.0mm thick. Nominal outer diameter 10.1mm.

Armour : Galvanized steel, bronze or tinned copper wire braid. Coverage ≥85%.

Outer jacket : Black LSZH Fire Retardant material, MUD Resistant 1.5mm thick. Nominal outer diameter 13.5mm.

Marking : APS Finland ww/yy - Fiber Optic Cable QF_B "fiber count and type" - SHF2 MUD RESISTANT NEK606 IEC60332-3-22 Cat A - lot + m

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 : EN50305 9.2

Flame retardant : IEC 60332-1-2

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

Fire resistant : IEC 60331-25

Ozone resistant : IEC60811-2-1, DIN VDE 0472 part 805 B

Weather resistant : ASTM G 154, EN 11507

LSZH SHF2 : IEC 60092-360

Oil resistant : IEC60811, IRM 903

MUD resistant : NEK606:2009, IEC60092-350

Water absorption : IEC60811-1-3

Water penetration : IEC 60794-1-2-F5-B (inner core only)

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

Cold bend & impact : CSA C22.2

Ordering and delivery information

Fiber count	SM	OM1	OM1+	OM2	OM3	OM4	Packaging
2	OQFCI02S2U	OQFCI02M1U	OQFCI02MEU	OQFCI02M2U	OQFCI02M3U	OQFCI02M4U	drum 2000m (+/-5%)
4	OQFCI04S2U	OQFCI04M1U	OQFCI04MEU	OQFCI04M2U	OQFCI04M3U	OQFCI04M4U	drum 2000m (+/-5%)
8	OQFCI08S2U	OQFCI08M1U	OQFCI08MEU	OQFCI08M2U	OQFCI08M3U	OQFCI08M4U	drum 2000m (+/-5%)

Fiber count	SM	OM1	OM1+	OM2	OM3	OM4	Packaging
12	OQFCI12S2U	OQFCI12M1U	OQFCI12MEU	OQFCI12M2U	OQFCI12M3U	OQFCI12M4U	drum 2000m (+/-5%)
24	OQFCI24S2U	OQFCI24M1U	OQFCI24MEU	OQFCI24M2U	OQFCI24M3U	OQFCI24M4U	drum 2000m (+/-5%)
48	OQFCI48S2U	OQFCI48M1U	OQFCI48MEU	OQFCI48M2U	OQFCI48M3U	OQFCI48M4U	drum 2000m (+/-5%)

Note : for tinned copper braid add "T" at the end of the P/N, for bronze braid add "B" at the end of the P/N.

Colour code of fibers

01	02	03	04	05	06	07	08	09	10	11	12
White	Red	Yellow	Green	Blue	Grey	Brown	Black	Violet	Turquoise	Orange	Pink

Colour code of tubes

Tube	Type A	Type B					
		2 fibers	4 fibers	8 fibers	12 fibers	24 fibers	48 fibers
1	Red (12 fibers)	Red (2 fibers)	Red (2 fibers)	Red (4 fibers)	Red (4 fibers)	Red (6 fibers)	Red (12 fibers)
2	Green (24 fibers)	Filler	Green (2 fibers)	Green (4 fibers)	Green (4 fibers)	Green (6 fibers)	Green (12 fibers)
3	Natural (36 fibers)	Filler	Filler	Filler	Natural (4 fibers)	Natural (6 fibers)	Natural (12 fibers)
4	Natural (48 fibers)	Filler	Filler	Filler	Filler	Natural (6 fibers)	Natural (12 fibers)
5	- (*)	- (*)	- (*)	- (*)	- (*)	- (*)	- (*)
6	- (*)	- (*)	- (*)	- (*)	- (*)	- (*)	- (*)
	(*) filler only in case of 6 elements design						

Other standards of reference

IEC 60092-370	Electrical installations in ships: Guidance on the selection of cables for telecommunication and data.
DNV TAP 827.50/1	Type Approval Program - Optical Fibre Cables
ABS SVR	Rules for building and classing. Steel Vessels.
ABS SMR	Rules for building and classing. Steel vessels under 90 meters.
IEC 60793	General specifications for both multimode and single-mode optical fibres
IEC 60794	general specifications for optical fibres cables

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