

# QFXI

**Loose tube  
SHF1, UV  
DNV**

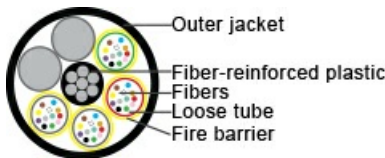
## Application

Fiberoptical cable for the oil- and offshore industry and other harsh environments, with Mica-tape for use in vital communication and emergency systems, which needs to be operational during a fire situation, this cable is Fire resistant acc. to (IEC 60331-25), operational up to 830°C, 180 min. The cable has excellent communication properties and is tested to be operative in high temperatures which means that it can maintain vital communication in case of a fire situation. The fibers are protected in jelly filled loose tubes stranded around a central strength member to ensure optimum performance and long life. Each fiber and loose tube is color coded for easy identification during splicing and termination.



## Construction Fiber

Fibertype	MM or SM
Colorcode fiber	(EIA 598) 1 - Blue    5 - Grey    9 - Yellow 2 - Orange    6 - White    10 - Violet 3 - Green    7 - Red    11 - Pink 4 - Brown    8 - Black    12 -Turquoise
Fiber tube	Lose tube jelly filled, each tube reinforced by fire barrier
Colorcode fiber tube	1 - Blue 2 - Orange 3 - Green 4 - Brown
Fire resistant barrier	Mica tape over each active tube
Strength member	Reinforced fibreglass yarns (WB)
Jacket	Black SHF1
Diameter	10.8 ± 0.5 [mm]
Weight	130 [kg/km]





## Specifications fiber

Temperature range	-40 – +90 [°C]
Temperaturerange at inst.	-20 – +60 [°C]
Temperaturrange storage	-40 – +90 [C°]
Tensile strength	1500 [N] (IEC 60794-1)
Crush resistance	1000 [N/10cm] (IEC 60794-1)
Impact resistance	1 [ J ] 20 times (IEC 60794-1)
Torsion	@ 50N, 20 cycles (IEC 60794-1)
Note	Cable bend (IEC 60794-1): Mandrel 5 turn, 3 cycles, T:-15°C
Bending radius flexible	25 [x outer diam.] (IEC 60794-1)
Bending radius installed	12.5 [x outer diam.] (IEC 60794-1)

## Norms

Halogenfree, max content corrosive and toxic gases	IEC 60754-1 & IEC 60754-2
Flame resistance	IEC 60332-3-22 and IEC 60332-1-2
Fire resistant	IEC 60331-25 (Up to 830°C, 180 min.)
Smoke emission	IEC 61034-1 & IEC 61034-2
UV-resistant	ISO 4892-2-A: 720hours
Euroclass	Eca
DoP No.:	DOP01050
Certification	DNV





## Fiber Optical Cable Data Table

Standard designation	Unit	MM 62.5/125 OM1	MM 50/125 OM2	MM 50/125 OM3	MM 50/125 OM4	SM 9/125 OS2
ANSI/TIA/EIA		AAAA	AAAB	AAAC	AAAD	CAAB
IEC 60793-2-10,50		A1-OM1	A1-OM2	A1-OM3	A1-OM4	B-652.D
ITU-T type		-	G651.1	G651.1	G651.1	G652.D
Core diameter	µm	62.5 ± 2.5	50 ± 2.5	50 ± 2.5	50 ± 2.5	See mode field diameter
MFD@1310 nm	µm	-	-	-	-	9.2 ± 0.4
MFD@1550 nm	µm	-	-	-	-	10.4 ± 0.5
Cladding diameter	µm	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 1.0	125 ± 0.7
Primary coating diameter(nominal)	µm	242 ± 7	242 ± 7	242 ± 7	242 ± 7	245 ± 7
Attenuation	dB/km	≤ 3.5 @ 850nm	≤ 3.0 @ 850nm	≤ 3.0 @ 850nm	≤ 3.5 @ 850nm	≤ 0.4 @1310nm
Attenuation	dB/km	≤ 1.0 @1300nm	≤ 1.0 @1300nm	≤ 1.0 @1300nm	≤ 1.0 @1300nm	≤ 0.3 @1550nm
Bandwidth (OFL) 850nm	MHz.km	≥ 200	≥ 500	≥ 1500	≥ 3500	-
Bandwidth (OFL) 1300nm	MHz.km	≥ 500	≥ 500	≥ 500	≥ 500	-
Chromatic dispersion 1285-1330 nm	-	-	-	-	-	3 ps/nm.km
Chromatic dispersion1550 nm	-	-	-	-	-	18 ps/nm.km
Chromatic dispersion1625 nm	-	-	-	-	-	22 ps/nm.km

Prod.no.

12 core SM : 5400100  
48 core SM : 5400101  
12 core OM3 : 5400102  
48 core OM3 : 5400103

## Updated

Date	Rev.	Description
25.09.2023	1	Colourcode (EIA 598)
13.12.2024	2	Additional info