



Oil & Gas - Cable Solutions

Exploration & Production - Offshore

Fiber Optic Cables

QFCI Fire Resistant

Fire resistant optical fibre cable, QFCI - code F101 NEK TS 606:2016 (available also in MUD protected version).

Indoor and outdoor. Fire Resistant. Flame Retardant halogen free. Loose Tube.

APPLICATION

Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a design that ensures operation for more than 3 hours in fires up to 1000 °C. The unique design features extended Fire Resistant properties (XFR) which secure operation during fire test with bending and impact from hammer shock. In addition, also with water spray and water jet (BS 84911) during and directly after the fire. The cable is halogen free and flame retardant to protect against secondary damage to electronic equipment during and after fire. Outer sheath is made from black UV-stabilized and

weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils. The resistance to these fluids is according to IEC60811-404. The cable is reinforced with a steel wire braiding. The fibres are protected in jelly filled loose tubes stranded around a FRP central strength member to ensure optimum performance and long life. Each fibre and loose tube is colour coded for easy identification during splicing and termination. The outer sheath is marked to show fibre type and cable type. Also available in Mud Resistant version: in this case, an additional outer sheath is added to improve protection.

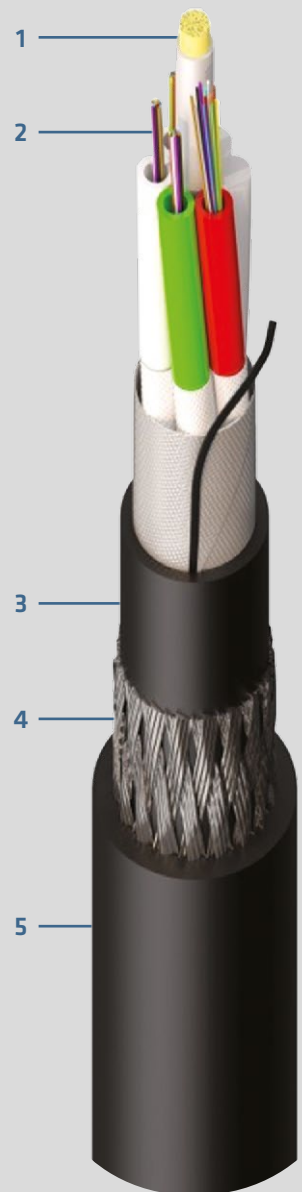
STANDARDS & APPROVALS

- IEC/EN 60794** Optical Fibre Cables (test procedures)
- IEC 60794-1-2-E1** Tensile Performance
- IEC 60794-1-2-E3** Abrasion
- IEC 60794-1-2-E4** Crush
- IEC 60794-1-2-E7** Torsion
- IEC 60794-1-2-E11** Bend
- IEC 60794-1-2-F1** Temperature Cycling
- IEC 60331-1, 2, 25** Fire Resistance
- BS 8491:2008** Fire Resistance
- EN 50200 annex E** - Fire Resistance
- IEC 60332-1** Flame Retardance
- IEC 60332-3-22 or 24** Fire retardance
- IEC 60811-404** Electrical and optical fibre cables - Test methods for materials - Test in oil
- NEK 606:2016** Design guidelines for Mud Resistant cables for offshore installations
- IEC 60754-1 & 60754-2** Halogen free properties
- IEC 61034-1 & 61034-2** Smoke emission properties

Det Norske Veritas (DNV)
American Bureau of Shippings (ABS)

DESIGN & CONSTRUCTION

- 1 CENTRAL STRENGTH MEMBER**
Fiber Reinforced Plastic (FRP)
- 2 FIBERS**
Fibers are protected in gel-filled loose tubes stranded around the central strength member to ensure optimum performance and long life. Tubes are wrapped with fire resistant tape
- 3 INNER JACKET**
Inner LSHF sheath
- 4 ARMOURING**
Galvanized steel wire braid (GSWB)
- 5 SHEATH**
SHF1



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PERFORMANCES/RATINGS

FIRE BEHAVIOUR



IEC 60332-1
IEC 60332-3-22 or 24
IEC 60331-1, 2, 25
BS 8491:2008
EN 50200 annex E

CHEMICAL RESISTANCE



VERY GOOD
EXCELLENT (MUD RES)

IMPACTS



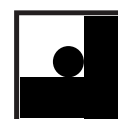
GOOD

SMOKE DENSITY, CORROSIVITY AND TOXICITY



LOW EMISSION

INSTALLATION METHOD



Above Ground

QUALITY & TESTING

Prysmian has a built-in multi-step quality assurance program, covering the production process from cable design and raw material purchases to final inspection and testing documentation.

The ISO 9001 quality system of Prysmian Group (together with ISO 14001 and OHSAS 18001) has been assessed, approved and is currently audited by SGS.

This product information sheet is provided for reference only.
Please consult the factory or your representative to confirm all engineering information or refer to the related catalogues available in the local countries website.

CONTACT INFO:
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Prysmian
Group



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TECHNICAL DATA

Weight and dimensions

F101 type

NUMBER OF FIBRES	NUMBER OF FIBRES IN EACH TUBE	NUMBER OF TUBES+FILLERS	LOOSE TUBE DIAMETER	OUTER DIAMETER (mm)	WEIGHT (kg/km)	HEATH RELEASE (MJ/km)
4	4	1+5	2,2	13,5	230	1500
8	8	1+5	2,2	13,5	230	1500
12	12	1+5	2,2	13,5	230	1500
24	12	2+4	2,2	13,5	230	1500
36	12	3+3	2,2	13,5	230	1500
48	12	4+2	2,2	13,5	230	1500
60	12	5+1	2,2	13,5	230	1500
72	12	6+0	2,2	13,5	230	1500

Other fibre counts are available on request.

MUD Protected version

NUMBER OF FIBRES	NUMBER OF FIBRES IN EACH TUBE	NUMBER OF TUBES+FILLERS	LOOSE TUBE DIAMETER	OUTER DIAMETER (mm)	WEIGHT (kg/km)	HEATH RELEASE (MJ/km)
4	4	1+5	2,2	15,5	330	2000
8	8	1+5	2,2	15,5	330	2000
12	12	1+5	2,2	15,5	330	2000
24	12	2+4	2,2	15,5	330	2000
36	12	3+3	2,2	15,5	330	2000
48	12	4+0	2,2	15,5	330	2000
60	12	5+1	2,2	15,5	330	2000
72	12	6+0	2,2	15,5	330	2000

Other fibre counts are available on request.

FIBRE NO.	COLOUR	FIBRE NO.	COLOUR	TUBE NO.	COLOUR
1	White	7	Brown	1	Red
2	Red	8	Black	2	Green
3	Yellow	9	Violet	3	White
4	Green	10	Turquoise	4	White
5	Blue	11	Orange	5	White
6	Grey	12	Pink	6	White

Standard colour of outer sheath is black. Other fibre types and qualities are available on request.

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