Draka

QFCI

New upgraded version

A brand of the

Prysmian Group

Never learn safety by accident

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, and can withstand a water spray and jet during fire. QFCI could be your life saver!

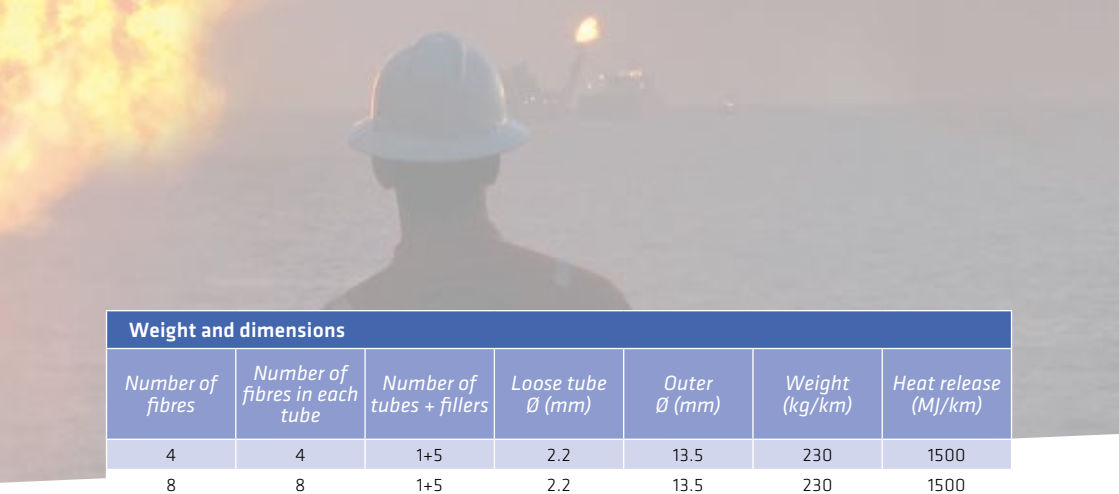
QFCI

The unique design for QFCI has been upgraded and improved. Previous design already secured operation during fire test with bending and impact from a hammer shock. The upgraded version will withstand a water spray and jet during fire, which will be the new improved standard for the complete range. The outer sheath is made from UV-stabilized and weather resistant material and may be exposed for shorter periods to fluids such as diesel and mineral oils.

In addition, the new standard range of QFCI is now available with up to 12 fibers per tube, which increases the maximum amount of fibers to 72. Furthermore, the central strength member is non-metalic FRP type reducing the possibility for damage when handling. The cable is reinforced with a steel wire braiding. The fibres are protected in jelly filled loose tubes stranded around a 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.

The design has been tested to the most demanding fire and mechanical testing and is DNV-GL certified. The new design is in accordance with the NEK TS 606:2016 (ed.5), cable type F101. Please note that the QFCI is also available with an extra MUD protection sheath.

The upgraded and improved QFCI range is a result of research and development, which is considered as a continuous process within Draka Norsk Kabel, a part of Prysmian Group.



Weight and dimensions						
Number of fibres	*Number of fibres in each tube*	*Number of tubes + fillers*	*Loose tube Ø (mm)*	*Outer Ø (mm)*	*Weight (kg/km)*	*Heat 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+0	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.

Cable properties

Tensile strength (IEC 60794-1-2E1)

Max tensile load during installation 1500 N
Max tensile load during operation 500 N

Crush (IEC 60794-1-2E3) 3000 N/10cm

Impact (IEC 60794-1-2E4) 30J

Torsion (IEC 60794-1-2E7) ±1 turn/1m

Cable bending

Minimum bending diameter 250 mm
Cable bend (IEC 60794-1-2E11) <0.1dB/ ±5 turn

Temperature window

Operation -40 °C to +70°C
Installation -10 °C to +70°C
Storage -40 °C to +70°C

Chemical resistance

Mineral oils IRM 902 (IEC60811-404) - 7 days/23 °C
- 4 hours/70 °C
Diesel - IRM 903 (IEC60811-404) - 7 days/23 °C
- 4 hours/70 °C
Mud resistance – NEK TS 606:2016 Optional

Fire and smoke classifications

IEC 60331-25
(750 °C, 90 minutes)
<1.0 dB excess loss

Upgraded IEC 60331-25
(1000 °C, 3 Hours)
<1.5 dB excess loss

IEC 60331-1
(830 °C, 120 minutes incl. hammer shock, followed by water jet acc. to BS 8491:2008)
<1.5 dB excess loss

IEC 60331-2
(830 °C, 90 minutes incl. hammer shock, followed by water spray acc. to EN 50200)
<1.5 dB excess loss

IEC 60331-2
(830 °C, 90 minutes incl. hammer shock)
<1.5 dB excess loss

IEC 61034
IEC 60332-3-22 (Cat. A)
IEC 60332-3-24 (Cat. C)
IEC 60754-1
IEC 60754-2

NEVER LEARN SAFETY BY ACCIDENT

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