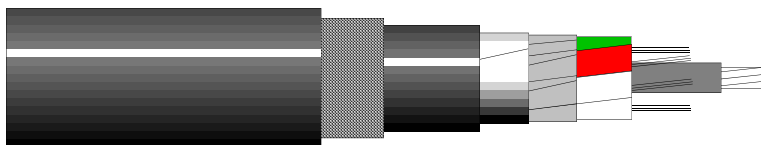




## Fire resistant QFCI-I/O/RM-JM/- F1

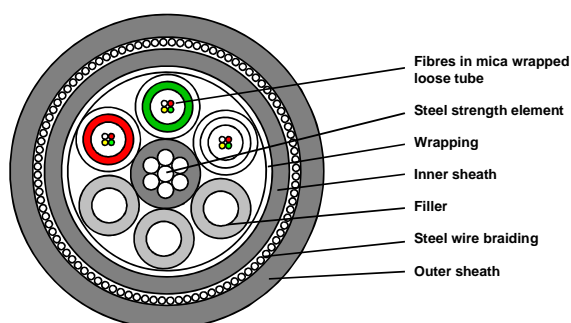


Indoor and outdoor.  
Fire resistant  
Flame retardant halogen-free  
Loose tube

### QFCI-I/O/RM-JM/-

NEK 606 Code F1

Optical cable for indoor and outdoor use in vital communication and emergency systems that need to be operational during fire. The cable has a patented design that ensures operation for more than 3 hours in fires up to 1000°C. 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 IEC60811-2-1. 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.



### Weight and dimensions

Number of fibres	Number of fibres in each tube	Number of tubes + fillers	Loose tube diameter (mm)	Outer diameter (mm)	Weight (kg/km)	Heat release (MJ/km)
8	4	2+4	2.2	13.9	270	1381
12	4	3+3	2.2	13.9	270	1324
24	4	6+0	2.2	13.9	270	1138
48	8	6+0	2.2	13.9	270	1138

Other fibre counts are available on request.

### Cable properties

<b>Tensile strength</b> (IEC 60794-1-2E1)		<b>Chemical resistance</b>	
Max tensile load during installation	1500 N	Mineral oils IRM 902 (IEC60811-2-17)	- 7 days/23°C - 4 hours/70°C
Max tensile load during operation	500 N	Diesel - IRM 903 (IEC60811-2-17)	- 7 days/23°C - 4 hours/70°C
<b>Crush</b> (IEC 60794-1-2E3)	3000 N/10cm	<b>Fire and smoke classifications</b>	
<b>Impact</b> (IEC 60794-1-2E4)	30J	IEC 60331-25 (750°C, 90 minutes)	<1.0 dB excess loss
<b>Torsion</b> (IEC 60794-1-2E7)	±1 turn/1m	Upgraded IEC 60331-25 (1000°C, 3 hours)	<1.5 dB excess loss
<b>Cable bending</b>		BP GS 112-2 Clause7.1	
Minimum bending diameter	250 mm	IEC 61034	
Cable bend (IEC 60794-1-2E11)	<0.1dB/ ±5 turn	IEC 60332-3-22 (Cat. A)	
<b>Temperature window</b>		IEC 60332-3-24 (Cat. C)	
Operation	-40°C to +70°C	IEC 60754-1	
Installation	-10°C to +70°C	IEC 60754-2	
Storage	-40°C to +70°C		



## Fire resistant QFCI-I/O/RM-JM/- F1

### Ordering information

9/125 fibre(SMF652B), Black*		50/125 fibre(MMF50HiCap), Black*		62.5/125 fibre(MMF62HiCap), Black*	
Part no.	Cable code	Part no.	Cable code	Part no.	Cable code
694150	G12-9/125 QFCI-I/O/RM-JM/-	694152	G12-50/125 QFCI-I/O/RM-JM/-	694144	G8-62.5/125 QFCI-I/O/RM-JM/-
694180	G24-9/125 QFCI-I/O/RM-JM/-	694182	G24-50/125 QFCI-I/O/RM-JM/-	694154	G12-62.5/125 QFCI-I/O/RM-JM/-
694139	G48-9/125 QFCI-I/O/RM-JM/-	694169	G48-50/125 QFCI-I/O/RM-JM/-	694184	G24-62.5/125 QFCI-I/O/RM-JM/-
				694189	G48-62.5/125 QFCI-I/O/RM-JM/-

\*)-Standard colour of outer sheath

We reserve the right to alter this specification without notice.

### Optical fibres

Fibre type	9/125	HiCap 50/125	MaxCap 50/125	HiCap 62.5/125
Reference(DNK)	SMF652B	MMF50HiCap	MMF50MaxCap	MMF62HiCap
IEC60793-2 category	B1.1	A1a	A1a.2	A1b
IEC11801 classification	OS1	OM2	OM3	OM1
ITU-T type	G652B	G651	G651	-
Gigabit Ethernet maximum distances SX-serial(850 nm) LX-serial(1310 nm)	5000m	750 m 2000 m	900 m 550 m	500 m 1000 m
10Gigabit Ethernet maximum distances SX-serial(850 nm) LX-serial(1310 nm)	10000 m	110 m	300 m	65 m
Core diameter	8.3 µm (nominal)	50 ± 2.5 µm	50 ± 2.5 µm	62.5 ± 2.5 µm
Mode field diameter	1310 nm 9.2 ± 0.4 µm 1550 nm 10.4 ± 0.8 µm			
Cladding diam. loose tube	125 ± 1.0 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
Cladding diam. tight buffer	125 ± 0.4 µm	125 ± 2.0 µm	125 ± 2.0 µm	125 ± 2.0 µm
Primary coating diameter (nominal)	250 µm	250 µm	250 µm	250 µm
Attenuation (Typical values) 850 nm 1300 nm 1310 nm 1550 nm	≤ 0.37 dB/km ≤ 0.22 dB/km	≤ 2.5 dB/km ≤ 0.7 dB/km	≤ 2.5 dB/km ≤ 0.7 dB/km	≤ 3.0 dB/km ≤ 0.7 dB/km
Attenuation (Maximum values) 850 nm 1300 nm 1310 nm 1550 nm	≤ 0.40 dB/km ≤ 0.25 dB/km	≤ 2.7 dB/km ≤ 0.8 dB/km	≤ 2.7 dB/km ≤ 0.9 dB/km	≤ 3.2 dB/km ≤ 1.0 dB/km
Bandwidth(OFL*) 850 nm 1300 nm		>600 MHz·km >1200 MHz·km	>1500 MHz·km >500 MHz·km	>350 MHz·km >600 MHz·km
Chromatic Dispersion 1285-1330 nm 1550 nm	≤ 3 ps/nm·km ≤ 18 ps/nm·km			
Polarization Mode Disp. 1550 nm	≤ 0.5 ps/(√km)			
Numerical aperture	0.13 ( nominal)	0.200 ± 0.015	0.200 ± 0.015	0.275 ± 0.015
Minimum permanent bending diameter	50 mm	50 mm	50 mm	50 mm

\* -Over Filled Launch methode(OFL). Modal Bandwidth in accordance with IEC60793-1-41.

Other fibre types and qualities are available on request.

Rev: 10/04