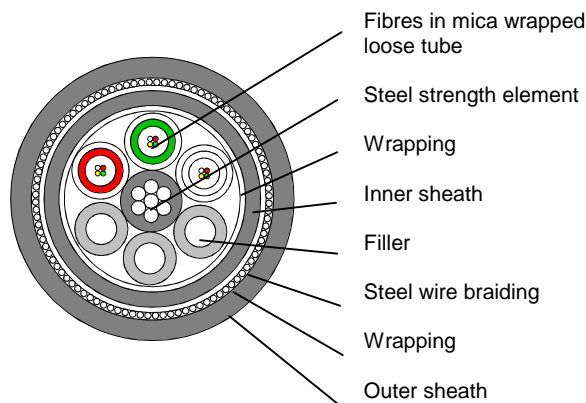


Fire resistant cable QFCI

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

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, petrol, glycol, ethanol, white spirit and ASTM oil 2. The resistance to these fluids is according to DOD-STD-1678, method 8030. 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)
2	2	1+5	2.2	13.9	244
4	4	1+5	2.2	13.9	244
6	2	3+3	2.2	13.9	244
8	4	2+4	2.2	13.9	244
10	2	5+1	2.2	13.9	244
12	4	3+3	2.2	13.9	244
16	4	4+2	2.2	13.9	244
20	4	5+1	2.2	13.9	244
24	4	6+0	2.2	13.9	244
32	8	4+2	2.2	13.9	244
40	8	5+1	2.2	13.9	244
48	8	6+0	2.2	13.9	244

Other fibre counts are available on request.

Cable properties

Tensile strength (IEC 60794-1-E1)		Temperature window	
Max tensile load during installation	1500 N	Operation	-30°C to +60°C
Max tensile load during operation	500 N	Installation	-10°C to +60°C
		Storage	-40°C to +70°C
Crush (IEC 60794-1-E3)	3000 N/10cm	Fire and smoke classifications	
Impact (IEC 60794-1-E4)	20 impacts, 5J	IEC 60331(750°C, 3 hours)	<1 dB excess loss
Torsion (IEC 60794-1-E7)	±1 turn/1m	Upgraded IEC 331(1000°C, 3 hours)	
Cable bending		BP-236	
Minimum bending diameter	250 mm	IEC 61034	
Cable bend (IEC 60794-1-E11)	<0.1dB/ ±5 turn	IEC 60332-3C	
		IEC 60754-1	
		IEC 60754-2	

Optical fibres

Fibre type	9/125 ITU-T G652	50/125 ITU-T G651	62.5/125 FDDI
Core diameter	8.3 μm (typical)	50 \pm 3.0 μm	62.5 \pm 3.0 μm
Mode field diameter	1310 nm 9.3 \pm 0.5 μm 1550 nm 10.5 \pm 1.0 μm		
Cladding diameter	125 \pm 1.0 μm	125 \pm 2.0 μm	125 \pm 2.0 μm
Primary coating diameter (nominal)	250 μm	250 μm	250 μm
Attenuation			
850 nm		\leq 2.7 dB/km	\leq 3.2 dB/km
1300 nm		\leq 0.9 dB/km	\leq 0.9 dB/km
1310 nm	\leq 0.40 dB/km		
1550 nm	\leq 0.25 dB/km		
Bandwidth			
850 nm		>500 MHz·km	>200 MHz·km
1300 nm		>500 MHz·km	>500 MHz·km
Dispersion			
1285-1330 nm	< 3.5 ps/nm·km		
1550 nm	< 18 ps/nm·km		
Numerical aperture	0.13 (typical)	0.200 \pm 0.015	0.275 \pm 0.015
Minimum permanent bending diameter	50 mm	50 mm	50 mm

Other fibre types and qualities are available on request.

Rev: 04/01

Ordering information

9/125 fibre		50/125 fibre		62.5/125 fibre	
Part no.	Cable code	Part no.	Cable code	Part no.	Cable code
694110	G2-9/125 QFCI	694112	G2-50/125 QFCI	694114	G2-62.5/125 QFCI
694120	G4-9/125 QFCI	694122	G4-50/125 QFCI	694124	G4-62.5/125 QFCI
694130	G6-9/125 QFCI	694132	G6-50/125 QFCI	694134	G6-62.5/125 QFCI
694140	G8-9/125 QFCI	694142	G8-50/125 QFCI	694144	G8-62.5/125 QFCI
694105	G10-9/125 QFCI	694125	G10-50/125 QFCI	694145	G10-62.5/125 QFCI
694150	G12-9/125 QFCI	694152	G12-50/125 QFCI	694154	G12-62.5/125 QFCI
694160	G16-9/125 QFCI	694162	G16-50/125 QFCI	694164	G16-62.5/125 QFCI
694170	G20-9/125 QFCI	694172	G20-50/125 QFCI	694174	G20-62.5/125 QFCI
694180	G24-9/125 QFCI	694182	G24-50/125 QFCI	694184	G24-62.5/125 QFCI
694157	G32-9/125 QFCI	694177	G32-50/125 QFCI	694197	G32-62.5/125 QFCI
694138	G40-9/125 QFCI	694168	G40-50/125 QFCI	694188	G40-62.5/125 QFCI
694139	G48-9/125 QFCI	694169	G48-50/125 QFCI	694189	G48-62.5/125 QFCI

We reserve the right to alter this specification without notice.