

## QFCI Single loose tube metallic armored fiber optic cable

**Application:** The cable is suitable for the oil and offshore industry and other harsh environments. Outer sheath of UV-and weather resistant material. Color-coded optical fibers contained in loose tube. This tube is filled with gel to prevent the ingress of water, and a mica tape is wrapped over the loose tube for fire protection condition, reinforced and protected by water blocking glass strength yarns and encased within an inner jacket A metallic armor is applied over the inner jacket and an outer jacket completes the overall cable design. Good mechanical and environmental performance, high capacity data communication transmission.



**Standards:** IEC 60794, IEC 60754-1/2, IEC 60092-360, IEC 61034-1/2, IEC 60331-25, UL 1581, IEC 60811, IEC 60332-3-22

### Design & Construction

**Fibers:** Loose tube  
**loose tube diameter:** Normal  $\Phi$ 2.8 mm up to 12 fibers  
**Color code:** Normal  $\Phi$ 3.5 mm above 12 fibers  
**Fire resistant layer (Option):** Individually colored fibers  
**Peripheral strength element:** Mica Tape  
**Inner jacket:** Water blocking yarn  
**Armor:** SHF1  
**Outer jacket:** Alt.1: Galvanized steel wire braid – GSWB  
**Outer Jacket Color:** Alt.2: Corrugated steel tape

### Environmental properties and Fire Performances

**Halogen acid gas, degree of acidity of gases:** IEC 60754-1/2  
**Jacket, insulation material:** IEC 60092-360  
**Smoke emission:** IEC 61034-1/2  
**Flame retardant:** IEC 60332-3-22  
**Oil resistance:** IEC 60811  
**Fire resistant:** IEC 60331-25  
**UV-resistant:** UL 1581

### Mechanical environmental performance

**Bending radius(N/10cm)-Long-term:** 20D, 25D (Corrugated armor)  
**Bending radius(N/10cm)-Short-term:** 15D, 15D (Corrugated armor)  
**Temperature(°C)-Operation:** -40°C~70°C (SHF1)  
**Temperature(°C)-Installation:** -10°C~60°C  
**UV-resistant:** Yes

### Mechanical Property

No. of fiber	Outer sheath OD (mm)	Tensile (N)	Crush (N/10 cm)	Cable weight (kg.km)
4	$\Phi$ 10.5 ± 0.5	2000	3000	124
6				
8				
12				
24	12.0±0.5			135

### Transmission Property

Standard Designation				Maximum Attenuation (dB/km)					Fiber Diameter (µm)	OFL Bandwidth		EMB at 850 nm (MHz·km)
IEC 60793-2-50	IEC 60793-2-10	IEC 11801	ITU-T	850 nm	1300 nm	1310 nm	1550 nm	1625 nm		850 nm (MHz·km)	1350 nm (MHz·km)	
B1.3	—	OS2	G652D	—	—	0.4	0.3	0.25	8.6-9.5	—	—	—
B6_a1	—	—	G657A1	—	—	0.4	0.3	0.25	8.6-9.5	—	—	—
B6_a2	—	—	G657A2	—	—	0.35	0.25	0.25	8.2-9.0	—	—	—
B6_b3	—	—	G657B3	—	—	0.35	0.25	0.35	8.0-8.8	—	—	—
—	A1a.3	OM4	—	3.2	1.2	—	—	—	50±2.5	≥3500	≥500	500
—	A1a.2	OM3	—	3	1	—	—	—	50±2.5	≥1500	≥500	2000
—	A1a.1	OM2	—	3	1	—	—	—	50±2.5	≥500	≥500	4700
—	A1b	OM1	—	3.2	1.2	—	—	—	62.5±2.5	≥200	≥500	200

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