

## AICI Tight buffered, metallic armored fiber optic cable

**Application:** Optical fiber cable for industry environments. The cable is suitable for both indoor and outdoor use. Continuous submergence in water is not recommended. Outer sheath of UV-oil- and weather resistant material. The 0.9mm tight buffer is enforced by water block glass yarn and encased within a inner jacket. A metallic armor is applied over the inner sheath and an outer jacket completes the overall cable design. Good mechanical and environmental performance, high capacity data communication transmission. Small diameter, multi core number, high compressive, light weight, convenient operation, simple construction, conducive to the comprehensive wiring.



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

### Design & Construction

**Fibers:** Tight-buffered 0.9 mm  
**Bedding:** Water blocking material  
**Color code:** Individually colored fibers  
**Inner-jacket:** SHF1  
**Armor:** Alt.1: Galvanized steel wire braid – GSWB  
 Alt.2: Corrugated steel tape  
**Outer jacket:** SHF1  
**Outer jacket color:** Black (As per request)

### 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  
**Fire retardant:** IEC 60332-3-22  
**Oil resistance:** IEC 60811  
**UV-resistant:** UL 1581

### Mechanical environmental performance

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

### Mechanical Property

No. of fiber	Inner sheath OD (mm)	Outer sheath OD (mm)	Tensile (N)	Crush (N/10cm)	Cable weight (kg.km)
4	4.8 ± 0.2	8.5 ± 0.5	700	2000	100
8	5.0 ± 0.3	9.5 ± 0.5	800		122
12	5.5 ± 0.4	10.5 ± 0.5	1200		146
24	7.5 ± 0.5	12.0 ± 0.5	1700		183

### Transmission Property

Standard Designation				Maximum Attenuation (dB/km)					Fiber Diameter (µm)	OFL Bandwidth		EMB at 850nm (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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