submarine & offshore armoured optical cable

Double-Armoured FO

1–24F OS2 / OM3 / OM4 Double Stainless-Steel Tube & Braid Armoured Tac

IEC 60794 / Double-SS Armoured FO · Optical · Submarine & offshore armoured optical cable



IEC 60794 / Double-SS Armoured FO | **Optical (-45 to +85 °C)** | **Low-Temperature TPU Outer Sheath**

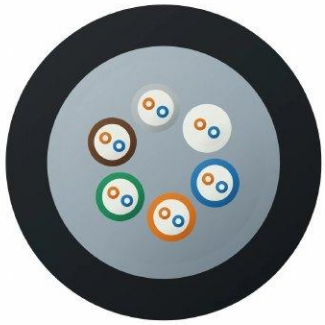
Application

1–24F OS2 / OM3 / OM4 Double Stainless-Steel Tube & Braid Armoured Tactical & Marine FO Cable (IEC 60794 / Double-SS Armoured FO) engineered for Optical service across -45 to +85 °C (min. bend radius 10 × OD).

Typical uses: Submarine Telecom & Cabled Ocean Observatories, Island, Coastal & Inter-Platform Subsea Optical Links, Offshore Platform & FPSO Fire-Safe Optical Backbones, Tactical Marine & Harsh-Environment Optical Deployment

Construction





Cross-section, not to scale

1. 900 µm Tight-Buffered Optical Fibers (1-
2. Helical Stainless-Steel Armour Tube
3. Stainless-Steel Wire Braid & Aramid Yarn
4. Low-Temperature TPU Outer Sheath

Technical data

Typical values

Rated voltage / transmission duty	Optical (IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification)	**Core / conductor construction**	900 µm Tight-Buffered Optical Fibers (1-24F) — Single-mode OS2 or multi-mode OM1—OM4 tight-buffered fibers
Primary dielectric / buffering	Helical Stainless-Steel Armour Tube — Flexible interlocking stainless-steel tube resisting severe crush loads	**Continuous operating temperature**	−45…+85 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Low-Temperature TPU Outer Sheath — Cut-, oil- and cold-resistant black thermoplastic polyurethane jacket	**Minimum bending radius**	10 × OD
Armour, strength member & mechanical duty	Stainless-Steel Wire Braid & Aramid Yarns — Secondary stainless-steel braid + high-modulus aramid tensile yarns	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification		

Sizes

3 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Configuration	Core / stranding	Outer Ø ≈ mm	Net weight ≈ kg/km	Breaking / tensile kN ≈	Min. bend R mm
Double-Armoured FO Construction Schedule (−45…+85 °C) 3 sizes						
☐ **Double-Armoured FO 4–12F EOM/Sub**	4–12 × ITU-T G.652D / G.654E SM (+ Power)	Laser-welded SS FIMT + Steel/Aramid Armour	8.2	260	48.0	125
☐ **Double-Armoured FO 24–48F EOM/Sub**	24–48 × ITU-T G.652D / G.654E SM (+ Power)	Laser-welded SS FIMT + Contra-Helical Steel	17.5	680	120.0	260
☐ **Double-Armoured FO 96–192F Trunk**	96–192 × ITU-T G.654E / G.652D Submarine	SS Tube + Steel Vault + Cu Tube + DA Armour	28.0	1,650	300.0	420

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4–12 × ITU-T G.652D / G.654E SM (+ Power)	0.35	≤0.35 dB/km @ 1310 nm	−45…+85 °C
24–48 × ITU-T G.652D / G.654E SM (+ Power)	0.21	≤0.21 dB/km @ 1550 nm	−45…+85 °C
96–192 × ITU-T G.654E / G.652D Submarine	0.18	≤0.18 dB/km @ 1550 nm	−45…+85 °C

– Every production length undergoes routine conductor DC resistance, high-voltage dielectric or OTDR continuity and dimensional verification.

Standards and approvals

- IEC 60794 / Double-SS Armoured FO Compliant
- EN 10204 3.1 Factory Test Certificate
- CE, RoHS 2 (2011/65/EU) & REACH

Certifications

Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone
+86 185 9591 3361

Email
info@tebaoflex.com

Web
tebaoflex.com/cables/double-armoured-exploration-fo-cable

Typical values for this cable type, based on IEC 60794-1-2 Double Stainless-Steel Armoured Harsh-Environment Optical Cable Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.