Elastic-core aramid-reinforced oceanographic coaxial tow cable

FCE50 / FCE75 TOW

FCE50 / FCE75 50 Ω & 75 Ω Elastic-Core Aramid Sonar Tow Cable



MIL-C-17 / Subsea · 0.6/1 kV · Elastic-core aramid-reinforced oceanographic coaxial

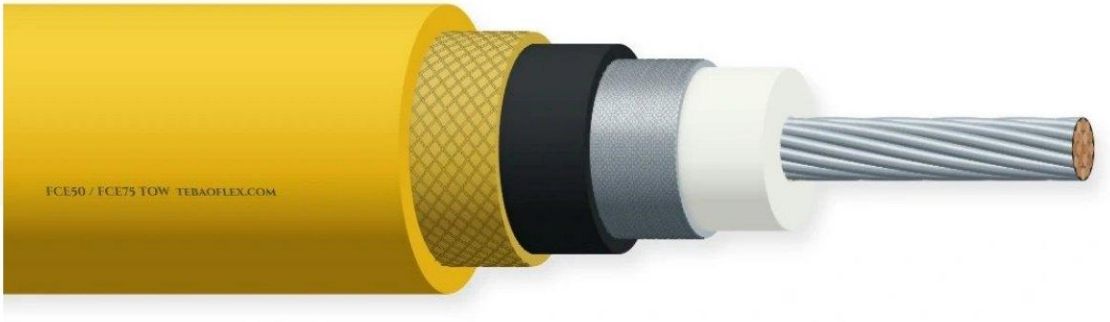
50 Ω FCE50 & 75 Ω FCE75 | **600–1,000 V Elastic Core** | **Up to 20,000 lbs MBL**

Application

FCE50 / FCE75 Series 50-Ohm & 75-Ohm Elastic-Core Aramid-Reinforced Polyurethane Oceanographic Coaxial Tow Cable (MIL-C-17 / Subsea, 0.6/1 kV, -30 to +80 °C, min. bend radius 10 × OD).

Typical uses: Work-Class & Observation ROV Systems, Offshore Wind & Subsea Power Grids, Oceanographic, Sonar & Seismic Survey, Commercial Diving & Subsea Intervention

Construction





Cross-section, not to scale

1. High-Elongation Elastic Center Core
2. 50 Ω / 75 Ω PE Coaxial Dielectric
3. Braided Tinned Copper Shield
4. Elastomer Moisture-Barrier Jacket
5. Aramid Strength Braid & PUR Jacket

Technical data

Typical values

Rated voltage / transmission duty	0.6/1 kV (MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard)	**Core / conductor construction**	High-Elongation Elastic Center Core — Special elastic stranded tinned copper core (2× elongation, prevents Z-kinking)
Primary dielectric / buffering	50 Ω / 75 Ω PE Coaxial Dielectric — Low-dielectric-constant polyethylene insulation (FCE50: 50 Ω, FCE75: 75 Ω)	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Aramid Strength Braid & PUR Jacket — Torque-balanced Aramid braid (2,500–20,000 lbs) + abrasion-resistant PUR jacket	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	Elastomer Moisture-Barrier Jacket — Rubber-based elastomer inner barrier jacket with very low moisture permeability	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard		

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	Tensile rating kN ≈	Min. bend R mm
FCE50 / FCE75 TOW Construction Schedule (−30…+80 °C) 3 sizes						
☐ **FCE50 Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **FCE50 Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **FCE50 Config C (Heavy Hybrid)**	8×2×20 AWG + 4×12 AWG (or 12C)	Stranded tinned Cu (IEC 60228 / ASTM)	16.6	420	18.5	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24 AWG + 2×18 AWG (or 4C)	28.40	0.6/1 kV (45–100 Ω data)	−30…+80 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	0.6/1 kV (45–100 Ω data)	−30…+80 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	0.6/1 kV (High-Power Hybrid)	−30…+80 °C

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

Standards and approvals

- MIL-C-17 / Subsea 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/fce50-fce75-tow

Typical values for this cable type, based on MIL-DTL-17 / Subsea 50 Ω & 75 Ω Sonar Coax Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.