subsea ROV umbilical, AUV tether & sonar tow cable

SPE-7225 Buoyant Copper Coax Tether

MIL-C-17 / DNV Subsea · 300/600 V · Subsea rov umbilical, auv tether & sonar tow cable



MIL-C-17 / DNV Subsea | 300/600 V (-40 to +80 °C) | Subsea / Marine Outer Protective She

Application

SPE-7225 Buoyant Copper Coax Tether featuring coaxial center conductor and subsea / marine outer protective sheath (MIL-C-17 / DNV Subsea, 300/600 V, -40 to +80 °C, min. bend radius 5 × OD).

Typical uses: Work-Class & Observation ROV Umbilicals and TMS Tethers, Offshore Aquaculture Net Cleaners & Subsea Cage Inspection, AUV, Ocean Glider & Expendable Spool-Payoff Micro-Tethers, USV Towed Sonar Arrays, Seabed Crawlers & Subsea Trenchers

Construction





Cross-section, not to scale

1. Coaxial Center Conductor
2. Low-Loss Coaxial Dielectric & Braid Shie
3. Copper Wire Braid EMC Screen
4. Aramid / LCP Braided Strength Member
5. Subsea / Marine Outer Protective Sheath

Technical data

Typical values

Rated voltage / operating system	300/600 V (MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard)	**Core / conductor construction**	Coaxial Center Conductor — High-conductivity stranded copper (or steel-core on CB 1900) center conductor
Primary dielectric / optical buffer	Low-Loss Coaxial Dielectric & Braid Shield — Fluoropolymer (FEP/ETFE) high-dielectric insulation + braided copper outer conductor	**Continuous operating temperature**	−40…+80 °C (submerged seawater & topside deck service)
Hydrostatic & thermal cycling endurance	Verified cold-bend and wet dielectric stability across −40…+80 °C per MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Subsea / Marine Outer Protective Sheath — Blue neutrally buoyant cellular foamed Polyurethane (Foamed PUR) outer sheath	**Minimum bending radius**	5 × OD
Reinforcement / screen / bedding layer	Aramid / LCP Braided Strength Member — High-tenacity synthetic fiber braid absorbing dynamic tension	**Seawater, hydrolysis & oil resistance**	Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard
Hydrostatic pressure & water blocking	Radial and longitudinal water-blocking integrity verified per MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether 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	Max. pulling kN ≈	Min. bend R mm
SPE-7225 Buoyant Copper Coax Construction Schedule (−40…+80 °C) 3 sizes						
☐ **SPE-7225 Buoyant Copper Coax RG59/75Ω + 4C**	1×75 Ω Coax + 4×0.75 mm² (18 AWG)	SnCu Center + Foam PE + TCWB + Subsea PUR	10.8	165	8.5	65
☐ **SPE-7225 Buoyant Copper Coax RG213/50Ω + 6C**	1×50/75 Ω Coax + 6×1.5 mm² + 1×TP	SnCu + Dual Braid Shield + Aramid/GSWA	14.4	340	22.0	90
☐ **SPE-7225 Buoyant Copper Coax 3×Coax + 6C**	3×75 Ω Video Coax + 6×1.5 mm² Power	Multi-Coax Bundle + Armour + Subsea Jacket	18.6	620	48.0	125

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance / Load	Operating temp.
1×75 Ω Coax + 4×0.75 mm² (18 AWG)	26.00	300/600 V · 75 Ω ±3 Ω	−40…+80 °C
1×50/75 Ω Coax + 6×1.5 mm² + 1×TP	13.30	300/600 V · 50/75 Ω Sonar	−40…+80 °C
3×75 Ω Video Coax + 6×1.5 mm² Power	13.30	300/600 V · 3-Ch 75 Ω Coax	−40…+80 °C

– Every production length undergoes routine conductor DC resistance / OTDR optical attenuation, AC dielectric and dimensional verification.

Standards and approvals

- MIL-C-17 / DNV 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/spe-7225-buoyant-copper-coax-tether

Typical values for this cable type, based on MIL-C-17 & DNV SPE-7225 Buoyant Aramid-Braided Copper Coax Tether Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.