subsea umbilical, ROV tether & oceanographic tow cable

USBL Transducer Cable

250 V / 0.6/1 kV Low-Cap Coax/Triax, Screened Pairs & Dual-Fiber USBL

IEC 60092 / USBL Transducer Composite · 250 V / 0.6/1 kV · Subsea umbilical, rov



IEC 60092 / USBL Transducer Composit | **250 V / 0.6/1 kV (-30 to +85 °C)** | **Heavy Watertight Molded PUR / SHF2 J**

Application

250 V / 0.6/1 kV Low-Cap Coax/Triax, Screened Pairs & Dual-Fiber USBL Acoustic Transducer Subsea Cable (IEC 60092 / USBL Transducer Composite) engineered for 250 V / 0.6/1 kV service across -30 to +85 °C (min. bend radius 8 × OD).

Typical uses: Oceanographic CTD, ADCP & Deep-Tow Surveys, Work-Class & Observation ROV / AUV Systems, Side-Scan Sonar, SAS & Towed Hydrophone Arrays, Marine 2D/3D/UHR Seismic Streamers & OBC

Construction





Cross-section, not to scale

1. Dual High-Speed Optical & Low-Cap Coax/T
2. Individually Screened Transducer Array P
3. Tinned Copper Wire Braid Armour (TCWB)
4. Heavy Watertight Molded PUR / SHF2 Jacke

Technical data

Typical values

Rated voltage / transmission duty	250 V / 0.6/1 kV (250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification)	**Core / conductor construction**	Dual High-Speed Optical & Low-Cap Coax/Triax — Central optical unit + 2 low-capacitance coaxial/triaxial cores
Primary dielectric / buffering	Individually Screened Transducer Array Pairs — Tinned copper XLPE/EPR twisted pairs with individual foil shields	**Continuous operating temperature**	−30…+85 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per 250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Heavy Watertight Molded PUR / SHF2 Jacket — Watertight polyurethane (wet-end gate valve) / SHF2 (dry-end) sheath	**Minimum bending radius**	8 × OD
Armour, strength member & mechanical duty	Tinned Copper Wire Braid Armour (TCWB) — High-coverage tinned copper braid for dry-end SHF2 & EMC protection	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per 250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per 250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea 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
USBL Transducer Cable Construction Schedule (−30…+85 °C) 3 sizes						
☐ **USBL Transducer Cable Coax / Cat5e**	Coax (39/40/50/75 Ω) or 4Pr Cat5e + Power	Stranded SnCu + Foam PE/FEP + Armour/Aramid	8.2	245	42.7	120
☐ **USBL Transducer Cable Composite B**	Heavy Coax / 64-Ch Digital Bus + Power	Stranded SnCu + Low-Loss Dielectric + Strength	11.5	485	71.2	170
☐ **USBL Transducer Cable Array / Trunk C**	Multi-Ch Digital Streamer / 255-Ch Bus	Redundant Telemetry + Aramid + PUR Jacket	44.5	1,620	95.0	445

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per 250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
Coax (39/40/50/75 Ω) or 4Pr Cat5e + Power	18.50	250 V / 0.6/1 kV (High-Speed)	−30…+85 °C
Heavy Coax / 64-Ch Digital Bus + Power	11.20	250 V / 0.6/1 kV (Deep-Tow/Array)	−30…+85 °C
Multi-Ch Digital Streamer / 255-Ch Bus	6.80	250 V / 0.6/1 kV (Full Array)	−30…+85 °C

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

Standards and approvals

- IEC 60092 / USBL Transducer Composite 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/usbl-transducer-watertight-composite-cable

Typical values for this cable type, based on 250 V / 0.6/1 kV USBL Acoustic Positioning Transducer Coax/Triax + Pairs + Dual-FO Subsea Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.