LCP-braided FIST neutrally buoyant work-class ROV tether

RT0136

(RT Series) 3.0–4.5 kV LCP-Braided Buoyant ROV Tether

ISO 13628-5 / DNV-ST-E402 · 3.6/6 kV · Lcp-braided fist neutrally buoyant work-class



ISO 13628-5 / RT Series | 3.0–4.5 kV FIST Tether | LCP-Braided Buoyant

Application

RT Series (RT0084 / RT0127 / RT0133 / RT0136 / RT0137) LCP-Braided FIST Electro-Optical Neutrally Buoyant Work-Class ROV Excursion Tether Cable (ISO 13628-5 / DNV-ST-E402, 3.6/6 kV, -30 to +80 °C, min. bend radius 12 × 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. FIST Optical Core (6 SM + 6 MM)
2. Thin-Wall HV Power Cores (3×6.0 + 2×2.5)
3. Screened Twisted Quad (1×0.5 mm² STQ)
4. Inner Sheath & LCP Braid (130 kN)
5. Dedicated Buoyancy Layer & Outer Sheath

Technical data

Typical values

Rated voltage / transmission duty	3.6/6 kV (ISO 13628-5 / DNV-ST-E402 Work-Class ROV Tether Standard)	**Core / conductor construction**	FIST Optical Core (6 SM + 6 MM) — Laser-welded gel-filled stainless-steel tube housing 12 optical fibres
Primary dielectric / buffering	Thin-Wall HV Power Cores (3×6.0 + 2×2.5) — Dual-head co-extruded HV power conductors (7.4 kV endurance qualified)	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per ISO 13628-5 / DNV-ST-E402 Work-Class ROV Tether Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Dedicated Buoyancy Layer & Outer Sheath — Low-density syntactic buoyancy jacket + yellow abrasion-resistant PUR sheath	**Minimum bending radius**	12 × OD
Hydrostatic, tensile & crush duty	Inner Sheath & LCP Braid (130 kN) — Water-blocked core + black TPE inner sheath + LCP braided strength member	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per ISO 13628-5 / DNV-ST-E402 Work-Class ROV Tether Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per ISO 13628-5 / DNV-ST-E402 Work-Class ROV Tether Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ISO 13628-5 / DNV-ST-E402 Work-Class ROV 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	Tensile rating kN ≈	Min. bend R mm
RT0136 Construction Schedule (−30…+80 °C) 3 sizes						
☐ **RT0136 Type A (Standard Lift)**	3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	25.4	1,680	320.0	380
☐ **RT0136 Type B (Heavy Work-Class)**	3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	Class 5 tinned Cu + 316L FIMT	32.2	2,650	480.0	485
☐ **RT0136 Type C (Ultra-Deep Trencher)**	3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	Class 5 tinned Cu + 316L FIMT	38.1	3,890	680.0	570

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per ISO 13628-5 / DNV-ST-E402 Work-Class ROV Tether Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
3 × 10 mm² HV + 6×2×1.0 + 12F FIMT	1.91	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C
3 × 16 mm² HV + 8×2×1.0 + 12F FIMT	1.21	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C
3 × 25 mm² HV + 12×2×1.0 + 24F FIMT	0.78	3.6/6 kV (≤0.35 dB/km SM)	−30…+80 °C

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

Standards and approvals

- ISO 13628-5 / DNV-ST-E402 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/rt0136

Typical values for this cable type, based on ISO 13628-5 / DNV-ST-E402 Work-Class ROV 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.