Subsea braided-shield power & Cat.6 underwater LAN cable

4R3501 / 4XM554 & 8A2041

Subsea Screened Power & Cat.6 Cable

IEC 60228 / TIA-568 · 0.6/1 kV · Subsea braided-shield power & cat.6 underwater lan cable



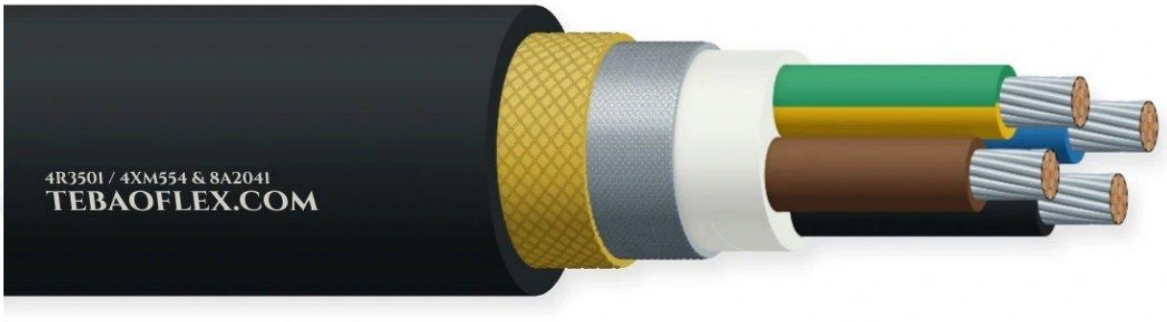
600/1,000 V & Cat.6 | **960 kg Aramid Braid** | **Tinned Cu Braid Shield**

Application

4R3501 & 4XM554 (4×2.50 mm² HDPE-Insulated Tinned-Copper-Braid Shielded Water-Blocked PUR Subsea Power Cable) & 8A2041 (Cat.6 F/UTP PUR Underwater LAN Cable) (IEC 60228 / TIA-568, 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. Power Conductors (4×2.50 mm² / Cat.6 Pairs)
2. Longitudinal Water-Swellable Tape (SWWB)
3. Tinned Copper Braid / Foil Shield (TCWB / OS)
4. Aramid Strength Braid & PUR Jacket

Technical data

Typical values

Rated voltage / transmission duty	0.6/1 kV (IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN)	**Core / conductor construction**	Power Conductors (4×2.50 mm² / Cat.6 Pairs) — Four 2.50 mm² stranded tinned copper conductors with 600/1,000 V HDPE insulation
Primary dielectric / buffering	Longitudinal Water-Swellable Tape (SWWB) — Water-blocking swellable tape preventing longitudinal seawater ingress	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Aramid Strength Braid & PUR Jacket — 960 kg aramid strength braid (4XM554) + black subsea polyurethane jacket (Ø 10.0–13.0 mm)	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	Tinned Copper Braid / Foil Shield (TCWB / OS) — High-coverage tinned copper wire braid (4XM554) or overall foil screen (4R3501 & 8A2041)	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN		

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
4R3501 / 4XM554 & 8A2041 Construction Schedule (−30…+80 °C) 3 sizes						
☐ **4R3501 Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **4R3501 Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **4R3501 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 IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN.

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

- IEC 60228 / TIA-568 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/4r3501-4xm554-8a2041

Typical values for this cable type, based on IEC 60228 / ANSI/TIA-568-C.2 Subsea Power & LAN. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.