Subsea individually shielded communication & power cable

6XM524 / 4XM525 / 6XM551 / 4XM550

Subsea Shielded Pair Cable

IEC 60228 / Subsea IS · 600 V · Subsea individually shielded communication & power cable



300/600 V Hybrid | 320–960 kg Aramid | Individually Shielded

Application

6XM524, 4XM525, 6XM551 & 4XM550 HDPE-Insulated Individually Shielded Communication Pairs & Power Aramid-Reinforced (320–960 kg) PUR Underwater Cable (IEC 60228 / Subsea IS, 600 V, -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. Individually Shielded Pairs (2×2×24 AWG IS)
2. Power Conductors (2×16 AWG / 2×18 AWG)
3. Aramid Braided Strength Member (320–960 kg)
4. Subsea Polyurethane Jacket (Ø8.8–11.0 mm)

Technical data

Typical values

Rated voltage / transmission duty	600 V (IEC 60228 / Subsea Individually Shielded Pair Standard)	**Core / conductor construction**	Individually Shielded Pairs (2×2×24 AWG IS) — HDPE-insulated twisted pairs with individual Al/PET foil & drain wire (or 2×2×0.50 mm²)
Primary dielectric / buffering	Power Conductors (2×16 AWG / 2×18 AWG) — Two stranded tinned copper power conductors with high-density polyethylene insulation	**Continuous operating temperature**	−30…+80 °C (subsea, marine & submersible duty)
Short-circuit / peak thermal rating	Verified thermal stability per IEC 60228 / Subsea Individually Shielded Pair Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	Subsea Polyurethane Jacket (Ø8.8–11.0 mm) — Black hydrolysis- and abrasion-resistant marine polyurethane (PUR) outer sheath	**Minimum bending radius**	10 × OD
Hydrostatic, tensile & crush duty	Aramid Braided Strength Member (320–960 kg) — 320 kg (4XM525 / 6XM524) or 960 kg (6XM551 / 4XM550) synthetic fiber tensile braid	**Hydrostatic pressure & water blocking**	Engineered for continuous submersion and hydrostatic integrity per IEC 60228 / Subsea Individually Shielded Pair Standard
Seawater, oil & chemical resistance	Resistant to seawater hydrolysis, hydraulic oils and abrasion per IEC 60228 / Subsea Individually Shielded Pair Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEC 60228 / Subsea Individually Shielded Pair 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
6XM524 / 4XM525 / 6XM551 / 4XM550 Construction Schedule (−30…+80 °C) 3 sizes						
☐ **6XM524 Config A (Compact)**	4×2×24 AWG + 2×18 AWG (or 4C)	Stranded tinned Cu (IEC 60228 / ASTM)	10.4	155	4.5	85
☐ **6XM524 Config B (Standard)**	4×2×20 AWG + 4×16 AWG (or 8C)	Stranded tinned Cu (IEC 60228 / ASTM)	13.3	265	9.6	110
☐ **6XM524 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 / Subsea Individually Shielded Pair 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	600 V (45–100 Ω data)	−30…+80 °C
4×2×20 AWG + 4×16 AWG (or 8C)	10.70	600 V (45–100 Ω data)	−30…+80 °C
8×2×20 AWG + 4×12 AWG (or 12C)	5.40	600 V (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 / Subsea IS 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/6xm524-4xm525-6xm551-4xm550

Typical values for this cable type, based on IEC 60228 / Subsea Individually Shielded Pair Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.