subsea umbilical, ROV tether & oceanographic tow cable

FMXCAT5 600V

FMXCAT5 600 V Subsea Cat 5e Ethernet & Power Aramid-Reinforced Composi

ISO/IEC 11801 Cat 5e / Subsea · 600 V · Subsea umbilical, rov tether & oceanographic



ISO/IEC 11801 Cat 5e / Subsea | 600 V (-30 to +80 °C) | Low-Friction Polyurethane (PUR) Jack

Application

FMXCAT5 600 V Subsea Cat 5e Ethernet & Power Aramid-Reinforced Composite Cable featuring 24 awg stranded cat5e data pairs (4×2) and low-friction polyurethane (pur) jacket (ISO/IEC 11801 Cat 5e / Subsea, 600 V, -30 to +80 °C).

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. 24 AWG Stranded Cat5e Data Pairs (4×2)
2. 600 V Power Supply Conductors (12-20 AWG
3. Water-Blocked Core & Aramid Braid (2,400
4. Low-Friction Polyurethane (PUR) Jacket

Technical data

Typical values

Rated voltage / transmission duty	600 V (ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite Specification)	**Core / conductor construction**	24 AWG Stranded Cat5e Data Pairs (4×2) — Four twisted pairs with water-resistant polyolefin insulation
Primary dielectric / buffering	600 V Power Supply Conductors (12-20 AWG) — Stranded copper power conductors feeding subsea profilers & ROVs	**Continuous operating temperature**	−30…+80 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Low-Friction Polyurethane (PUR) Jacket — Smooth abrasion-resistant PUR outer sheath for profiling winches	**Minimum bending radius**	8 × OD
Armour, strength member & mechanical duty	Water-Blocked Core & Aramid Braid (2,400 lbs) — Full water-blocking compound + braided aramid strength member	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite 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
FMXCAT5 600V Construction Schedule (−30…+80 °C) 3 sizes						
☐ **FMXCAT5 600V 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**
☐ **FMXCAT5 600V Composite B**	**Heavy Coax / 64-Ch Digital Bus + Power**	**Stranded SnCu + Low-Loss Dielectric + Strength**	**11.5**	**485**	**71.2**	**170**
☐ **FMXCAT5 600V 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 ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite 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**	**600 V (High-Speed)**	**−30…+80 °C**
Heavy Coax / 64-Ch Digital Bus + Power	**11.20**	**600 V (Deep-Tow/Array)**	**−30…+80 °C**
Multi-Ch Digital Streamer / 255-Ch Bus	**6.80**	**600 V (Full Array)**	**−30…+80 °C**

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

Standards and approvals

- ISO/IEC 11801 Cat 5e / 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/fmxcat5-subsea-cat5e-composite-cable-600v

Typical values for this cable type, based on ISO/IEC 11801 Cat 5e & Subsea Electro-Mechanical Composite Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.