marine & offshore instrumentation cable

TCX (C) / TCX (I) & MPRXCX 150/250 V

IEC 60092-376 Copper-Braided Ship



IEC 60092-376 · 150/250 V · Marine & offshore instrumentation cable

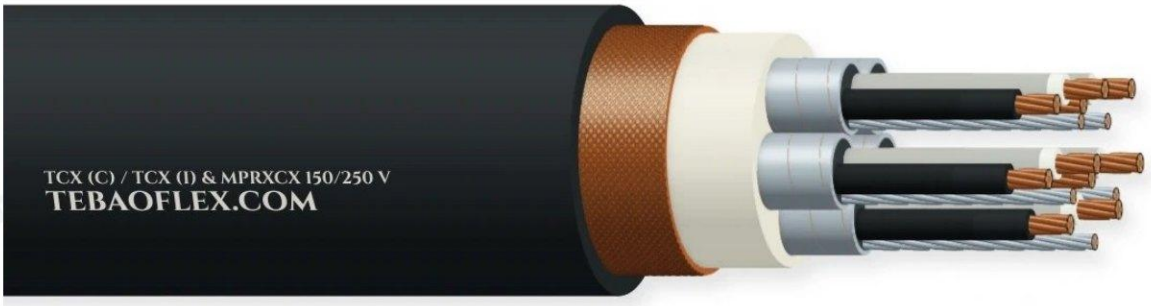
IEC 60092-376 | **150/250 V (-40 to +90 °C)** | **SHF1 Zero-Halogen Outer Jacket**

Application

TCX (C), TCX (I), TX (C/I) & MPRXCX 150/250 (300) V IEC 60092-376 XLPE-Insulated Individually/Collectively Screened & Copper-Braid Armoured SHF1 Shipboard Instrumentation Cable (IEC 60092-376, 150/250 V, -40 to +90 °C).

Typical uses: Offshore DCS, ESD & Fire-Gas Systems, Shipboard Bridge & Engine Room Automation, Drilling Rig Instrumentation & Mud Logging, Naval Radar, Sonar & Combat Switchboards

Construction





Cross-section, not to scale

1. XLPE Twisted Pairs (5×2×1.0 mm²)
2. Individual Pair Foil Screen (TCX (I))
3. Halogen-Free Inner Covering
4. Bare Copper Wire Braid (TCX / MPRXCX)
5. SHF1 Zero-Halogen Outer Jacket

Technical data

Typical values

Rated voltage / transmission duty	150/250 V (IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A)
Primary dielectric / buffering	Individual Pair Foil Screen (TCX (I)) — Al/PET laminated tape + tinned copper drain wire on each pair
Short-circuit / peak thermal rating	Verified thermal stability per IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A
Outer protection / armouring	SHF1 Zero-Halogen Outer Jacket — Black low-smoke zero-halogen polyolefin jacket (IEC 60092-360)
Armour, screen & mechanical duty	Bare Copper Wire Braid (TCX / MPRXCX) — High-coverage annealed bare copper wire braid screen and armour
Oil, drilling mud & seawater resistance	Resistant to marine fuel/lube oils, salt mist and offshore fluids per IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A
Standards	IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A
Core / conductor construction	XLPE Twisted Pairs (5×2×1.0 mm²) — Stranded copper conductors with numbered Black/White XLPE insulation
Continuous operating temperature	−40…+90 °C (shipboard & offshore duty)
Storage & transport temperature	−40…+80 °C on export wooden/steel drum
Minimum bending radius	6 × OD
Flame, fire & smoke performance	Qualified for marine flame-retardance and low-smoke zero-halogen / fire safety per IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A
RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant

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
TCX (C) / TCX (I) & MPRXCX 150/250 V Construction Schedule (−40…+90 °C) 3 sizes						
☐ TCX 2×2×0.75 mm²	2 × 2 × 0.75 mm² (2Pr)	Stranded Cu/SnCu (IEC 60228 Class 2/5)	11.4	195	1.2	70
☐ TCX 4×2×1.0 mm²	4 × 2 × 1.0 mm² (4Pr)	Stranded Cu/SnCu (IEC 60228 Class 2/5)	15.6	365	2.4	95
☐ TCX 8×2×1.5 mm²	8 × 2 × 1.5 mm² (8Pr)	Stranded Cu/SnCu (IEC 60228 Class 2/5)	22.8	760	4.8	140

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
2 × 2 × 0.75 mm² (2Pr)	26.00	150/250 V (≤60 nF/km)	−40…+90 °C
4 × 2 × 1.0 mm² (4Pr)	19.50	150/250 V (≤65 nF/km)	−40…+90 °C
8 × 2 × 1.5 mm² (8Pr)	13.30	150/250 V (≤75 nF/km)	−40…+90 °C

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

Standards and approvals

- IEC 60092-376 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/tcx-c-tcx-i-mprxcx-150-250-v

Typical values for this cable type, based on IEC 60092-376 / IEC 60092-360 SHF1 / IEC 60332-3-22 Cat. A. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.