subsea umbilical, ROV tether & oceanographic tow cable

UW-FLX 8-Pin

5–12 V DC (RS-232 / RS-485 / SDI-12) Watertight Subsea Se

UW-FLX 8-Pin Subsea Sensor · 300 V (5/12 V DC) · Subsea umbilical, rov tether &



UW-FLX 8-Pin Subsea Sensor | **300 V (5/12 V DC) (-30 to +80 °C)** | **Marine-Grade Polyurethane (PUR) Jack**

Application

UW-FLX 8-Pin 5–12 V DC (RS-232 / RS-485 / SDI-12) Watertight Subsea Sensor Interconnect Cable (UW-FLX 8-Pin Subsea Sensor) engineered for 300 V (5/12 V DC) service across -30 to +80 °C (min. bend radius 6 × OD).

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. 8-Core Stranded Tinned Copper Conductors
2. Color-Coded Polyolefin / PVC Insulation
3. Marine-Grade Polyurethane (PUR) Jacket

Technical data

Typical values

Rated voltage / transmission duty	300 V (5/12 V DC) (UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification)	**Core / conductor construction**	8-Core Stranded Tinned Copper Conductors — Flexible tinned copper cores for 5V, 12V, GND, RS-232, RS-485 & SDI-12
Primary dielectric / buffering	Color-Coded Polyolefin / PVC Insulation — Eight distinct core colors matching 8-pin UW watertight pinout	**Continuous operating temperature**	−30…+80 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Marine-Grade Polyurethane (PUR) Jacket — Black UV- and seawater-resistant PUR sheath for buoy-to-sensor leads	**Minimum bending radius**	6 × OD
Armour, strength member & mechanical duty	Color-Coded Polyolefin / PVC Insulation — Eight distinct core colors matching 8-pin UW watertight pinout	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor 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
UW-FLX 8-Pin Construction Schedule (−30…+80 °C) 3 sizes						
☐ UW-FLX 8-Pin 4Pr / 8Ch	4×2×24–20 AWG (or 8-Ch Array)	Stranded SnCu + Foil/Braid + Aramid	11.2	175	12.5	90
☐ UW-FLX 8-Pin 8Pr / 16Ch	8×2×22–18 AWG (or 16-Ch Array)	Stranded SnCu + Foil/Braid + Aramid	16.4	340	24.0	130
☐ UW-FLX 8-Pin 16Pr / 24Ch	16×2×18–16 AWG (or 24-Ch Array)	Stranded SnCu + Foil/Braid + Aramid	24.8	690	35.0	195

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4×2×24–20 AWG (or 8-Ch Array)	42.00	300 V (5/12 V DC) (≤55 nF/km)	−30…+80 °C
8×2×22–18 AWG (or 16-Ch Array)	26.00	300 V (5/12 V DC) (≤60 nF/km)	−30…+80 °C
16×2×18–16 AWG (or 24-Ch Array)	15.20	300 V (5/12 V DC) (≤65 nF/km)	−30…+80 °C

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

Standards and approvals

- UW-FLX 8-Pin Subsea Sensor 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/uw-flx-8-pin-subsea-sensor-cable

Typical values for this cable type, based on UW-FLX 8-Core Stranded Tinned Copper Foil/Braid Screened Subsea Sensor Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.