subsea umbilical, ROV tether & oceanographic tow cable

4C OBC Seismic Array

48–300 V DC 4-Component (4C: 3-Axis Geophone + Hydrophone) Aramid Ocea

4C Ocean Bottom Cable (OBC) · 48–300 V DC · Subsea umbilical, rov tether &



4C Ocean Bottom Cable (OBC) **48–300 V DC (-30 to +80 °C)**

Abrasion-Resistant Orange PUR Jacket

Application

48–300 V DC 4-Component (4C: 3-Axis Geophone + Hydrophone) Aramid Ocean Bottom Seismic OBC Cable (4C Ocean Bottom Cable (OBC)) engineered for 48–300 V DC service across -30 to +80 °C (min. bend radius 10 × 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. Single-Mode Optical & 4C Digital Bus
2. 48-300 V DC Tinned Copper Power Buses
3. Water-Blocked Core & Aramid/Steel Armour
4. Abrasion-Resistant Orange PUR Jacket

Technical data

Typical values

Rated voltage / transmission duty	48–300 V DC (4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification)	**Core / conductor construction**	Single-Mode Optical & 4C Digital Bus — Central SMF tube + screened digital pairs for 3C geophone & 1C hydrophone
Primary dielectric / buffering	48-300 V DC Tinned Copper Power Buses — High-pressure PE/PP insulated power conductors feeding seabed nodes	**Continuous operating temperature**	−30…+80 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per 4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Abrasion-Resistant Orange PUR Jacket — Cut- and rock-abrasion-resistant polyurethane outer sheath	**Minimum bending radius**	10 × OD
Armour, strength member & mechanical duty	Water-Blocked Core & Aramid/Steel Armour — Full water-blocking compound + high-tensile seabed retrieval armour	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per 4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per 4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array 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
4C OBC Seismic Array Construction Schedule (−30…+80 °C) 3 sizes						
☐ 4C OBC Seismic Array 4–12F EOM/Sub	4–12 × ITU-T G.652D / G.654E SM (+ Power)	Laser-welded SS FIMT + Steel/Aramid Armour	8.2	260	48.0	125
☐ 4C OBC Seismic Array 24–48F EOM/Sub	24–48 × ITU-T G.652D / G.654E SM (+ Power)	Laser-welded SS FIMT + Contra-Helical Steel	17.5	680	120.0	260
☐ 4C OBC Seismic Array 96–192F Trunk	96–192 × ITU-T G.654E / G.652D Submarine	SS Tube + Steel Vault + Cu Tube + DA Armour	28.0	1,650	300.0	420

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per 4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4–12 × ITU-T G.652D / G.654E SM (+ Power)	0.35	≤0.35 dB/km @ 1310 nm	−30…+80 °C
24–48 × ITU-T G.652D / G.654E SM (+ Power)	0.21	≤0.21 dB/km @ 1550 nm	−30…+80 °C
96–192 × ITU-T G.654E / G.652D Submarine	0.18	≤0.18 dB/km @ 1550 nm	−30…+80 °C

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

Standards and approvals

- ✓ 4C Ocean Bottom Cable (OBC) 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/4c-ocean-bottom-seismic-obc-array-cable

Typical values for this cable type, based on 4-Component (4C) Ocean Bottom Seismic Optical + Power + Aramid PUR Array Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.