subsea umbilical, ROV tether & oceanographic tow cable

COMPASS Thin-Line Array

COMPASS 16-Channel 32-Bit Digital Telemetry & IMU Thin-Line Towed Hydr

Thin-Line Digital Towed Array · 48 V DC / 300 V · Subsea umbilical, rov tether &



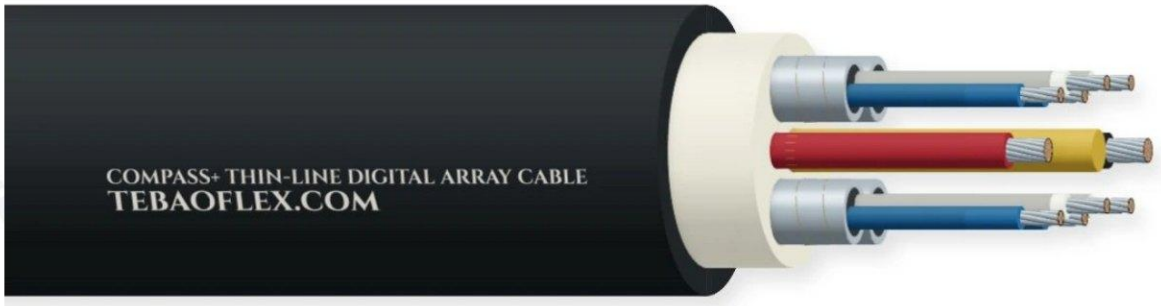
Thin-Line Digital Towed Array | **48 V DC / 300 V (-30 to +75 °C)** | **Low-Drag Thin-Line PUR Array Sheath**

Application

COMPASS 16-Channel 32-Bit Digital Telemetry & IMU Thin-Line Towed Hydrophone Array Cable (Thin-Line Digital Towed Array) engineered for 48 V DC / 300 V service across -30 to +75 °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. 32-Bit Digital Hydrophone & IMU Pairs
2. Low-Voltage DC Array Power Conductors
3. Internal Aramid Tensile Strength Member
4. Low-Drag Thin-Line PUR Array Sheath

Technical data

Typical values

Rated voltage / transmission duty	48 V DC / 300 V (COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed Array Specification)	**Core / conductor construction**	32-Bit Digital Hydrophone & IMU Pairs — Thin-wall insulated twisted pairs for 16 acoustic channels & attitude sensors
Primary dielectric / buffering	Low-Voltage DC Array Power Conductors — Tinned copper power supply cores running along array hose	**Continuous operating temperature**	−30…+75 °C (subsea & offshore duty)
Hydrostatic & thermal stability	Verified thermal and hydrostatic stability per COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed Array Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	Low-Drag Thin-Line PUR Array Sheath — Acoustically transparent polyurethane jacket rated to 300 m depth	**Minimum bending radius**	10 × OD
Armour, strength member & mechanical duty	Internal Aramid Tensile Strength Member — Axial strength member absorbing USV/vessel towing tension	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed Array Specification
Oil, drilling mud & abrasion resistance	Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed Array Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed 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
COMPASS Thin-Line Array Construction Schedule (−30…+75 °C) 3 sizes						
☐ **COMPASS Thin-Line Array 4Pr / 8Ch**	**4×2×24–20 AWG (or 8-Ch Array)**	**Stranded SnCu + Foil/Braid + Aramid**	**11.2**	**175**	**12.5**	**90**
☐ **COMPASS Thin-Line Array 8Pr / 16Ch**	**8×2×22–18 AWG (or 16-Ch Array)**	**Stranded SnCu + Foil/Braid + Aramid**	**16.4**	**340**	**24.0**	**130**
☐ **COMPASS Thin-Line Array 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 COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed Array 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**	**48 V DC / 300 V (≤55 nF/km)**	**−30…+75 °C**
8×2×22–18 AWG (or 16-Ch Array)	**26.00**	**48 V DC / 300 V (≤60 nF/km)**	**−30…+75 °C**
16×2×18–16 AWG (or 24-Ch Array)	**15.20**	**48 V DC / 300 V (≤65 nF/km)**	**−30…+75 °C**

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

Standards and approvals

- ✓ Thin-Line Digital Towed Array 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/compass-thin-line-digital-array-cable

Typical values for this cable type, based on COMPASS 300 m Rated 16-Channel 32-Bit Digital & IMU Thin-Line Towed 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.