subsea Ethernet, RS-485 & sonar coaxial data cable

Water-Blocking RS-485 Direct Burial

Water-Blocking Direct Burial RS-485 Data Cable

TIA/EIA-485 / IEC 60529 AD8 · 300 V · Subsea ethernet, rs-485 & sonar coaxial data cable



TIA/EIA-485 / IEC 60529 AD8 | 300 V (-40 to +80 °C) | Subsea / Marine Outer Protective She

Application

Water-Blocking Direct Burial RS-485 Data Cable featuring stranded copper twisted pairs (2×2) and subsea / marine outer protective sheath (TIA/EIA-485 / IEC 60529 AD8, 300 V, -40 to +80 °C, min. bend radius 8 × OD).

Typical uses: 6,000 m Full-Ocean-Depth ROV Gigabit Ethernet & HD Video, Aquaculture Cage RS-485 / Modbus Environmental Telemetry, Multibeam Sonar, CTD & Hydrophone Coaxial Signal Links, NEK 606 Offshore Platform & Vessel Data Networks

Construction





Cross-section, not to scale

1. Stranded Copper Twisted Pairs (2×2)
2. 100% Al/PET Foil Electrostatic Shield
3. Subsea / Marine Outer Protective Sheath

Technical data

Typical values

Rated voltage / operating system	300 V (TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard)	**Core / conductor construction**	Stranded Copper Twisted Pairs (2×2) — Twisted pairs with Low-capacitance cellular Foam-Skin PE insulation
Primary dielectric / optical buffer	100% Al/PET Foil Electrostatic Shield — Laminated aluminum-polyester foil tape with drain wire	**Continuous operating temperature**	−40…+80 °C (submerged seawater & topside deck service)
Hydrostatic & thermal cycling endurance	Verified cold-bend and wet dielectric stability across −40…+80 °C per TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard	**Storage & transport temperature**	−40…+80 °C on export wooden/steel cable drum
Outer jacket / sheath protection	Subsea / Marine Outer Protective Sheath — Black high-density polyethylene (HDPE) waterproof outer sheath	**Minimum bending radius**	8 × OD
Reinforcement / screen / bedding layer	100% Al/PET Foil Electrostatic Shield — Laminated aluminum-polyester foil tape with drain wire	**Seawater, hydrolysis & oil resistance**	Resistant to permanent seawater immersion, hydrolysis, hydraulic oil and bio-fouling per TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard
Hydrostatic pressure & water blocking	Radial and longitudinal water-blocking integrity verified per TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard		

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	Max. pulling kN ≈	Min. bend R mm
Water-Blocking RS-485 Direct Burial Construction Schedule (−40…+80 °C) 3 sizes						
☐ **Water-Blocking RS-485 Direct Burial 1×2×22AWG RS**	1 × 2 × 0.34 mm² (22 AWG) + Power Pair	Stranded SnCu + Foam PE + Foil/Braid	8.2	92	2.0	50
☐ **Water-Blocking RS-485 Direct Burial 4×2×24AWG Ca**	4 × 2 × 24 AWG Subsea Gigabit Ethernet	Stranded SnCu + High-Pressure PE + SF/UTP	9.6	125	3.5	60
☐ **Water-Blocking RS-485 Direct Burial 4×2×23AWG Ca**	4 × 2 × 23 AWG Cat6 + 2 × 1.5 mm² Power	Stranded SnCu + 600-Bar Matrix + PUR	12.8	215	6.8	78

– Custom core counts, optical fiber channels, wet-mate terminations and continuous winch lengths available per TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} Ω/km	Rating / Impedance / Load	Operating temp.
1 × 2 × 0.34 mm² (22 AWG) + Power Pair	55.00	300 V (120 Ω RS-485)	−40…+80 °C
4 × 2 × 24 AWG Subsea Gigabit Ethernet	84.00	300 V (100 Ω 1000BASE-T)	−40…+80 °C
4 × 2 × 23 AWG Cat6 + 2 × 1.5 mm² Power	72.00	300 V (100 Ω Cat6 6000m)	−40…+80 °C

– Every production length undergoes routine conductor DC resistance / OTDR optical attenuation, AC dielectric and dimensional verification.

Standards and approvals

- TIA/EIA-485 / IEC 60529 AD8 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/water-blocking-direct-burial-rs-485-data-cable

Typical values for this cable type, based on TIA/EIA-485 Water-Blocking Direct-Burial & Submersible RS-485 Standard. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.