subsea umbilical, ROV tether & oceanographic tow cable

# TS210 Thermistor

## TS210 4–28 V DC Aramid-Core Subsea Profiling Thermistor String & RS-48

TS210 Subsea Thermistor Array · 4–28 V DC (300 V) · Subsea umbilical, rov tether &



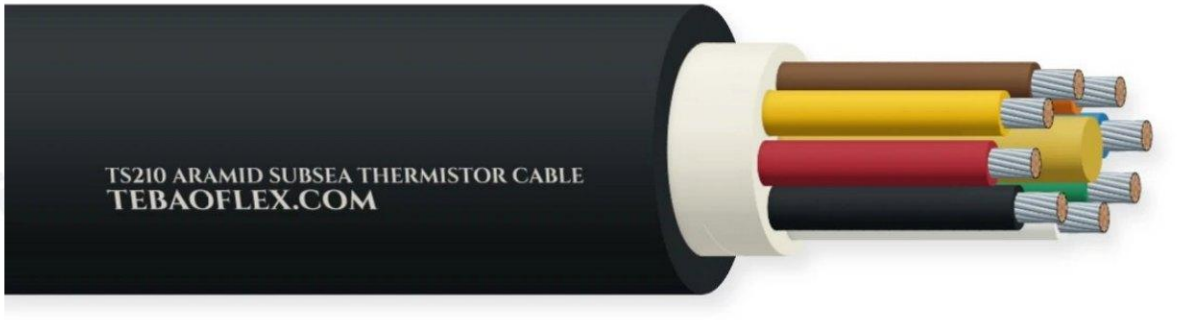

**TS210 Subsea Thermistor Array** | **4–28 V DC (300 V) (-30 to +80 °C)** | **Marine Hydrolysis-Resistant PUR Shea**

## Application

TS210 4–28 V DC Aramid-Core Subsea Profiling Thermistor String & RS-485 Array Cable (TS210 Subsea Thermistor Array) engineered for 4–28 V DC (300 V) 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. Central Braided Aramid Strength Core
2. 8-Core Power & RS-485 Bus Conductors
3. Marine Hydrolysis-Resistant PUR Sheath

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / transmission duty** | 4–28 V DC (300 V) (TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus Specification) | **Core / conductor construction** | Central Braided Aramid Strength Core — Load-bearing aramid core supporting vertical buoy suspension |
| **Primary dielectric / buffering** | 8-Core Power & RS-485 Bus Conductors — Tinned copper cores for 12 V DC, GND, RS-485 A/B and node pass-through | **Continuous operating temperature** | −30…+80 °C (subsea & offshore duty) |
| **Hydrostatic & thermal stability** | Verified thermal and hydrostatic stability per TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus Specification | **Storage & transport temperature** | −40…+80 °C on export wooden/steel winch reel |
| **Outer protection / armouring** | Marine Hydrolysis-Resistant PUR Sheath — Black polyurethane jacket molded to titanium thermistor nodes | **Minimum bending radius** | 6 × OD |
| **Armour, strength member & mechanical duty** | 8-Core Power & RS-485 Bus Conductors — Tinned copper cores for 12 V DC, GND, RS-485 A/B and node pass-through | **Seawater, hydrostatic & hydrolysis resistance** | Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus Specification |
| **Oil, drilling mud & abrasion resistance** | Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus Specification | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus 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 |
|---|---|---|---|---|---|---|
| **TS210 Thermistor Construction Schedule (−30…+80 °C)** 3 sizes | | | | | | |
| ☐ **TS210 Thermistor 4Pr / 8Ch** | 4×2×24–20 AWG (or 8-Ch Array) | Stranded SnCu + Foil/Braid + Aramid | 11.2 | 175 | 12.5 | 90 |
| ☐ **TS210 Thermistor 8Pr / 16Ch** | 8×2×22–18 AWG (or 16-Ch Array) | Stranded SnCu + Foil/Braid + Aramid | 16.4 | 340 | 24.0 | 130 |
| ☐ **TS210 Thermistor 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 TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus 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 | 4–28 V DC (300 V) (≤55 nF/km) | −30…+80 °C |
| 8×2×22–18 AWG (or 16-Ch Array) | 26.00 | 4–28 V DC (300 V) (≤60 nF/km) | −30…+80 °C |
| 16×2×18–16 AWG (or 24-Ch Array) | 15.20 | 4–28 V DC (300 V) (≤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

- TS210 Subsea Thermistor 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/ts210-aramid-subsea-thermistor-cable**

Typical values for this cable type, based on TS210 Central-Aramid Subsea Profiling Thermistor String & RS-485 Bus Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.