marine, polar & offshore control cable

# IEEE 1580 Type P Control

## IEEE 1580 Type P & UL 1309 600 V (2–60 Cores) Bronze-Armoured Polar Ve

IEEE 1580 Type P / UL 1309 · 600 V (0.6/1 kV) · Marine, polar & offshore control cable




**IEEE 1580 Type P / UL 1309** | **600 V (0.6/1 kV) (-40 to +125 °C)** | **-40 °C Mud & Oil-Resistant Thermoset**

## Application

IEEE 1580 Type P & UL 1309 600 V (2–60 Cores) Bronze-Armoured Polar Vessel & A-Frame Control Cable (IEEE 1580 Type P / UL 1309) engineered for 600 V (0.6/1 kV) service across -40 to +125 °C (min. bend radius 6 × OD).

**Typical uses:** Polar Research Vessel & Icebreaker Deck Controls, Offshore Drilling Rig & Production Control Rooms, A-Frame, Crane & Winch Control Pedestals, Marine Switchgear & Console Interconnects

## Construction






Cross-section, not to scale

1. Stranded Tinned Copper Cores (2-60 Cores
2. 125°C Thermoset EPR Core Insulation
3. Bronze Wire Braid Mechanical Armour
4. -40 °C Mud & Oil-Resistant Thermoset Jac

## Technical data

Typical values

| | | | |
|---|---|---|---|
| **Rated voltage / transmission duty** | 600 V (0.6/1 kV) (IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification) | **Core / conductor construction** | Stranded Tinned Copper Cores (2-60 Cores) — Soft annealed tinned copper conductors (18 AWG to 10 AWG) |
| **Primary dielectric / buffering** | 125°C Thermoset EPR Core Insulation — High-temperature ethylene-propylene rubber with number coding | **Continuous operating temperature** | −40...+125 °C (subsea & offshore duty) |
| **Hydrostatic & thermal stability** | Verified thermal and hydrostatic stability per IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification | **Storage & transport temperature** | −40...+80 °C on export wooden/steel winch reel |
| **Outer protection / armouring** | -40 °C Mud & Oil-Resistant Thermoset Jacket — Arctic-grade flame-retardant CPCS outer sheath | **Minimum bending radius** | 6 × OD |
| **Armour, strength member & mechanical duty** | Bronze Wire Braid Mechanical Armour — Corrosion-resistant bronze wire braid over inner bedding jacket | **Seawater, hydrostatic & hydrolysis resistance** | Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification |
| **Oil, drilling mud & abrasion resistance** | Resistant to marine hydraulic oils, salt mist, winch sheave wear and seabed abrasion per IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification | **RoHS & REACH compliance** | RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant |
| **Standards** | IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control 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 |
|---|---|---|---|---|---|---|
| **IEEE 1580 Type P Control Construction Schedule (−40...+125 °C)** 3 sizes | | | | | | |
| ☐ **IEEE 1580 Type P Control Type I** | **Standard oceanographic / offshore build** | **Stranded SnCu / Double Steel or UHMWPE** | **8.2** | **265** | **54.3** | **125** |
| ☐ **IEEE 1580 Type P Control Type II** | **Medium-duty deepwater / offshore build** | **Stranded SnCu / Double Steel or UHMWPE** | **9.5** | **355** | **64.9** | **145** |
| ☐ **IEEE 1580 Type P Control Type III** | **Heavy-duty deep-tow / offshore build** | **Stranded SnCu / Double Steel or UHMWPE** | **10.5** | **440** | **79.2** | **160** |

– Custom core cross-sections, pair/fibre counts, armour breaking loads and continuous winch/seabed lengths available per IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification.

## Electrical, optical & thermal parameters

3 sizes

| Configuration | Max. DC $R_{20}$ / Atten. Ω/km or dB/km | Rating / Impedance | Operating temp. |
|---|---|---|---|
| **Standard oceanographic / offshore build** | **11.50** | **600 V (0.6/1 kV) (Std Duty)** | **−40...+125 °C** |
| **Medium-duty deepwater / offshore build** | **8.20** | **600 V (0.6/1 kV) (Med Duty)** | **−40...+125 °C** |
| **Heavy-duty deep-tow / offshore build** | **6.50** | **600 V (0.6/1 kV) (Heavy Duty)** | **−40...+125 °C** |

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

## Standards and approvals

- IEEE 1580 Type P / UL 1309 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/ieee-1580-type-p-armoured-control-cable-600v**

Typical values for this cable type, based on IEEE Std 1580 Type P & UL 1309 Bronze-Armoured −40 °C Mud-Resistant Multi-Core Control Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.