marine & offshore instrumentation cable

37-102 Type P Pair Cable

37-102 Series IEEE 1580 Type P 600 V (1–37 Pairs, 16/18 AWG) Individua

IEEE 1580 Type P (37-102 Series) · 600 V (0.6/1 kV) · Marine & offshore



IEEE 1580 Type P (37-102 Series) | **600 V (0.6/1 kV) (-40 to +125 °C)** | **CPE/LSZH Flame-Retardant Outer Sheat**

Application

37-102 Series IEEE 1580 Type P 600 V (1–37 Pairs, 16/18 AWG) Individually Shielded Offshore Pair Cable (IEEE 1580 Type P (37-102 Series)) engineered for 600 V (0.6/1 kV) service across -40 to +125 °C (min. bend radius 6 × OD).

Typical uses: Offshore DCS, ESD & Fire-Gas Systems, Drilling Rig Instrumentation & Mud Logging, Naval Sonar, Radar & Combat Switchboards, Shipboard Bridge & Engine Room Automation

Construction





Cross-section, not to scale

1. 16/18 AWG Flexible Tinned Copper Pairs (
2. Individual Pair Al/PET Foil Shield & Dra
3. Bronze Wire Braid Mechanical Armour
4. CPE/LSZH Flame-Retardant Outer Sheath

Technical data

Typical values

Rated voltage / transmission duty	600 V (0.6/1 kV) (IEEE Std 1580 Type P & UL 1309 (37-102 Series) 600 V Individually & Overall Shielded Pair Specification)	**Core / conductor construction**	16/18 AWG Flexible Tinned Copper Pairs (1-37 Pr) — Finely stranded tinned copper with 110 °C XLPO Black/White insulation
Primary dielectric / buffering	Individual Pair Al/PET Foil Shield & Drain — 100% aluminum-polyester tape and tinned copper drain wire per pair	**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 (37-102 Series) 600 V Individually & Overall Shielded Pair Specification	**Storage & transport temperature**	−40…+80 °C on export wooden/steel winch reel
Outer protection / armouring	CPE/LSZH Flame-Retardant Outer Sheath — Heavy-duty thermoset jacket for winch encoders & lab instrumentation	**Minimum bending radius**	6 × OD
Armour, strength member & mechanical duty	Bronze Wire Braid Mechanical Armour — Corrosion-resistant braided bronze wire armour over inner jacket	**Seawater, hydrostatic & hydrolysis resistance**	Engineered for continuous seawater immersion, pressure cycling and hydrolysis resistance per IEEE Std 1580 Type P & UL 1309 (37-102 Series) 600 V Individually & Overall Shielded Pair 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 (37-102 Series) 600 V Individually & Overall Shielded Pair Specification	**RoHS & REACH compliance**	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	IEEE Std 1580 Type P & UL 1309 (37-102 Series) 600 V Individually & Overall Shielded Pair 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
37-102 Type P Pair Cable Construction Schedule (−40…+125 °C) 3 sizes						
☐ 37-102 Type P Pair Cable 4Pr / 8Ch	4×2×24–20 AWG (or 8-Ch Array)	Stranded SnCu + Foil/Braid + Aramid	11.2	175	12.5	90
☐ 37-102 Type P Pair Cable 8Pr / 16Ch	8×2×22–18 AWG (or 16-Ch Array)	Stranded SnCu + Foil/Braid + Aramid	16.4	340	24.0	130
☐ 37-102 Type P Pair Cable 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 IEEE Std 1580 Type P & UL 1309 (37-102 Series) 600 V Individually & Overall Shielded Pair 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	600 V (0.6/1 kV) (≤55 nF/km)	−40…+125 °C
8×2×22–18 AWG (or 16-Ch Array)	26.00	600 V (0.6/1 kV) (≤60 nF/km)	−40…+125 °C
16×2×18–16 AWG (or 24-Ch Array)	15.20	600 V (0.6/1 kV) (≤65 nF/km)	−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 (37-102 Series) 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/37-102-type-p-individually-shielded-pair-cable

Typical values for this cable type, based on IEEE Std 1580 Type P & UL 1309 (37-102 Series) 600 V Individually & Overall Shielded Pair Specification. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.