



Multi-electrode ERT &amp; IP geophysical cable

# ERT Resistivity Takeout Assembly

24, 32, 48 &amp; 64-takeout polyaramid-reinforced ERT &amp; IP resistivity spread cable



1,000 V DC Rated

 $\geq 1,000 \text{ M}\Omega\cdot\text{km IR}$ 

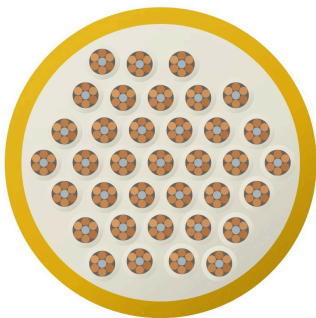
24 / 32 / 48 / 64 Takeouts

## Application

Multi-electrode Electrical Resistivity Tomography (ERT) and Induced Polarization (IP) spread cable rated to 1,000 V DC with IP68 stainless-steel takeouts at 1–10 m spacing for 24-, 32-, 48- and 64-channel resistivity imaging receivers.

**Typical uses:** Groundwater & Hydrogeological Mapping, Mineral Exploration (Gold / Copper IP-ERT), Karst Void & Geotechnical Site Investigation, Dam Embankment Seepage Monitoring, Environmental Contamination Plume Tracking

## Construction



Cross-section, not to scale

- 1 Stranded tinned copper electrode conductors
- 2 High-dielectric PE / FEP core insulation
- 3 Central polyaramid tensile core
- 4 Water-swellable barrier wrap
- 5 Cut-resistant field polyurethane (PUR) jacket

## Technical data

Typical values

|                               |                                                                                                         |                                    |                                                          |
|-------------------------------|---------------------------------------------------------------------------------------------------------|------------------------------------|----------------------------------------------------------|
| Max. working voltage          | 1,000 V DC / peak commutated square wave                                                                | Max. injection current             | 2.5 A per electrode takeout                              |
| Conductor resistance          | $\leq 55 \Omega/\text{km}$ (0.35 mm <sup>2</sup> ) · $\leq 39 \Omega/\text{km}$ (0.50 mm <sup>2</sup> ) | Core-to-core insulation resistance | $\geq 2,000 \text{ M}\Omega\cdot\text{km}$ at 1,000 V DC |
| Dielectric withstand test     | 3,000 V DC for 1 min between all cores and water bath                                                   | Field operating temperature        | -40 °C to +80 °C                                         |
| Cold-bend flexibility         | No cracking at -40 °C (IEC 60811-504)                                                                   | Takeouts per cable section         | 12, 21, 24, 32, 48 or 64 takeouts                        |
| Standard takeout intervals    | 1 m, 2 m, 3 m, 5 m, 10 m (custom spacing available)                                                     | Tensile breaking strength          | 2.5 kN (standard) · 4.5 kN (heavy-duty polyaramid)       |
| Takeout electrode interface   | 316L stainless cylinder ring, Mueller clip or banana jack                                               | Min. bend radius                   | 8 × OD                                                   |
| Takeout ingress protection    | IP68 (10 m water immersion for 72 h)                                                                    | Abrasion resistance                | DIN ISO 4649 $\leq 35 \text{ mm}^3$ polyether PUR        |
| Mud, oil & acid-mine drainage | Resistant to pH 2-12 groundwater and hydrocarbons                                                       | Standards                          | ASTM D5777 / ASTM G57                                    |

## Sizes

12 standard constructions

Tick the sizes you need and send this page to [info@tebaoflex.com](mailto:info@tebaoflex.com) or WhatsApp +86 185 9591 3361.

| Order designation                                                                       | Takeout Count & Type          | Spacing<br>m | Total Length<br>m | End Connectors       | Cable OD<br>mm | Complete Wt<br>kg | Break Load<br>kN |
|-----------------------------------------------------------------------------------------|-------------------------------|--------------|-------------------|----------------------|----------------|-------------------|------------------|
| 21 & 24-Takeout ERT Spread Cables (Standard Multi-Electrode Roll-Along Spreads) 6 sizes |                               |              |                   |                      |                |                   |                  |
| <input type="checkbox"/> ERT-21T-2M-SS-KPT32                                            | 21 × 316L Cylinder Rings      | 2 m          | 44                | 2 × 32-pin Bayonet   | 9.2            | 6.8               | 2.5              |
| <input type="checkbox"/> ERT-21T-5M-SS-KPT32                                            | 21 × 316L Cylinder Rings      | 5 m          | 110               | 2 × 32-pin Bayonet   | 9.5            | 14.5              | 3.0              |
| <input type="checkbox"/> ERT-21T-10M-SS-KPT32                                           | 21 × 316L Cylinder Rings      | 10 m         | 220               | 2 × 32-pin Bayonet   | 9.8            | 28.2              | 3.5              |
| <input type="checkbox"/> ERT-24T-2M-SS-KPT32                                            | 24 × 316L Cylinder Rings      | 2 m          | 50                | 2 × 32-pin Bayonet   | 9.6            | 7.9               | 2.5              |
| <input type="checkbox"/> ERT-24T-5M-SS-KPT32                                            | 24 × 316L Cylinder Rings      | 5 m          | 125               | 2 × 32-pin Bayonet   | 9.8            | 17.2              | 3.0              |
| <input type="checkbox"/> ERT-24T-10M-SS-KPT32                                           | 24 × 316L Cylinder Rings      | 10 m         | 250               | 2 × 32-pin Bayonet   | 10.2           | 33.5              | 3.5              |
| 32, 48 & 64-Takeout High-Density & Submersible ERT Spread Cables 6 sizes                |                               |              |                   |                      |                |                   |                  |
| <input type="checkbox"/> ERT-32T-3M-SS-KPT32                                            | 32 × 316L Cylinder Rings      | 3 m          | 100               | 32-pin Bayonet       | 10.6           | 15.8              | 3.5              |
| <input type="checkbox"/> ERT-32T-5M-SS-KPT32                                            | 32 × 316L Cylinder Rings      | 5 m          | 165               | 32-pin Bayonet       | 10.8           | 25.4              | 3.5              |
| <input type="checkbox"/> ERT-32T-10M-SS-KPT32                                           | 32 × 316L Cylinder Rings      | 10 m         | 330               | 32-pin Bayonet       | 11.2           | 49.0              | 4.5              |
| <input type="checkbox"/> ERT-48T-5M-SS-KPT61                                            | 48 × 316L Cylinder Rings      | 5 m          | 245               | 61-pin Bayonet       | 12.4           | 44.0              | 4.5              |
| <input type="checkbox"/> ERT-64T-2M-SS-KPT61                                            | 64 × 316L Cylinder Rings      | 2 m          | 130               | 61/64-pin Waterproof | 13.5           | 27.6              | 4.5              |
| <input type="checkbox"/> ERT-24T-5M-SUB-IP68                                            | 24 × Submersible 316L Sleeves | 5 m          | 125               | Submersible Wet-Mate | 11.5           | 21.8              | 4.5              |

– Supplied complete with backpack field reel and elastic/spring jumper straps for connecting stainless-steel takeout rings to ground stakes.

## Standards and approvals

- ✓ ASTM D5777 / ASTM G57 Resistivity Survey Compliant
- ✓ MIL-DTL-26482 Series 1 Waterproof Bayonet Interface

## 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/electrical-resistivity-tomography-ert-multi-electrode-takeout-cable-assembly](https://tebaoflex.com/cables/electrical-resistivity-tomography-ert-multi-electrode-takeout-cable-assembly)



Typical values for this cable type, based on ASTM D5777 / ASTM G57 / MIL-DTL-26482. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.