MSHA armoured Cat 5e industrial Ethernet cable

121700A

MSHA Armoured Cat 5e Mining Ethernet Cable

TIA/EIA-568-B.2 Cat 5e / MSHA · 300 V · Foil-screened interlocked armored cable

TIA-568 Cat 5e / MSHA | 4×2×24 AWG Bonded | Interlocked Al Armor

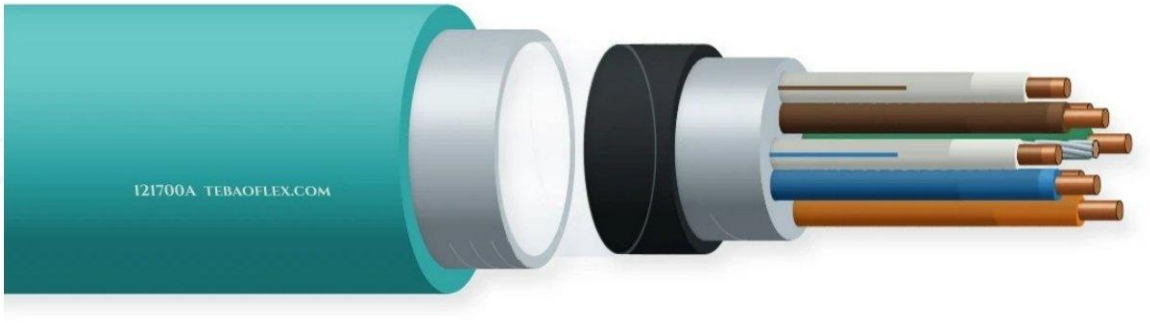


Application

121700A MSHA-approved Cat5e industrial Ethernet cable for underground mining and tunnel automation, featuring 4 bonded 24 AWG solid bare copper pairs, 100% aluminum/polyester foil shield, inner PVC jacket, interlocked aluminum armor and MSHA PVC jacket.

Typical uses: Underground Coal & Hard-Rock Mining, Open-Cast Excavators, Draglines & Shovels, Vertical Mine Shafts, Hoists & Boreholes, Tunneling, Mineral Processing & Slurry Plants

Construction





Cross-section, not to scale

1. Bonded-Pair Conductors (4×2×24 AWG)
2. 100% Al/PET Foil Shield & Drain Wire
3. Inner Jacket & Polyester Wrap
4. Interlocked Aluminum Armor (121700A)
5. MSHA Industrial Outer Jacket

Technical data

Typical values

Rated voltage / transmission duty	300 V (TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA)	Core / conductor construction	Bonded-Pair Conductors (4×2×24 AWG) — Solid bare copper with physically bonded TIA-568 polyolefin pairs
Primary dielectric / buffering	100% Aluminum/Polyester Foil Shield & Drain — 100% aluminum/polyester foil shield + 24 AWG stranded tinned copper drain wire	Continuous operating temperature	-40 to +75 °C (mining & industrial service)
Short-circuit / peak thermal rating	Verified thermal stability per TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA	Storage & transport temperature	−40…+80 °C on export wooden/steel drum
Outer protection / armouring	MSHA Industrial Outer Jacket — Oil-, sunlight- and flame-resistant MSHA-approved PVC outer jacket	Minimum bending radius	10 × OD
Crush, impact & abrasion duty	Heavy-duty mining rock-cut, impact and tensile protection per TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA	Flame retardancy & mine fire safety	Self-extinguishing / flame-retardant mining jacket per TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA
Mine water, oil & chemical resistance	Resistant to acidic mine water, hydraulic oils and abrasion per TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA	RoHS & REACH compliance	RoHS 2 (2011/65/EU + 2015/863) & REACH SVHC compliant
Standards	TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA		

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	Tensile rating kN ≈	Min. bend R mm
121700A Construction Schedule (-40 to +75 °C) 3 sizes						
☐ 121700A Cat 5e AIA Black MSHA	4 × 2 × 24 AWG (Cat 5e F/UTP)	Solid bare Cu bonded pairs	12.9	178	0.8	130
☐ 121700A Cat 5e AIA Blue Ex-i Zone	4 × 2 × 24 AWG (Cat 5e F/UTP)	Solid bare Cu bonded pairs	12.9	178	0.8	130
☐ 121700A Cat 5e AIA Grey Plant Trunk	4 × 2 × 24 AWG (Cat 5e F/UTP)	Solid bare Cu bonded pairs	12.9	178	0.8	130

– Custom core cross-sections, pair/fibre counts, armour grades and factory drum lengths available per TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA.

Electrical, optical & thermal parameters

3 sizes

Configuration	Max. DC R_{20} / Atten. Ω/km or dB/km	Rating / Impedance	Operating temp.
4 × 2 × 24 AWG (Black MSHA)	90.00	100 Ω ± 15 Ω (1–100 MHz)	-40 to +75 °C
4 × 2 × 24 AWG (Blue Ex-i)	90.00	100 Ω ± 15 Ω (1–100 MHz)	-40 to +75 °C
4 × 2 × 24 AWG (Grey Trunk)	90.00	100 Ω ± 15 Ω (1–100 MHz)	-40 to +75 °C

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

Standards and approvals

- ✓ Cat 5e / MSHA 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/121700a-msha-cat5e-foil-screened-interlocked-aluminum-armored-ethernet-cable

Typical values for this cable type, based on TIA/EIA-568-B.2 Cat 5e / UL 444 / MSHA. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.