Hook-up & equipment wires

ISO 6722 Class D/E 180 °C

Anti-Capillary Engine and Automatic Transmission Wire (180 °C)



ISO 6722 Class D/E 180 °C Wire −70…+180 °C anti-capillary XLFE wire for automatic

ISO 6722 Class D/E 180 °C Wire · ISO 6722 Class E | **−70…+180 °C · ATF Immersion** | **0 ml Oil/Water Wicking**

Application

High-temperature anti-capillary automotive wire (`ISO 6722 Class D/E 180 °C Wire`) rated −70 °C to +180 °C (ISO 6722-1 Class E, 600 V), combining tinned copper strands sealed against oil/water wicking with e-beam cross-linked fluoropolymer-elastomer (XLFE)

Typical uses: Automatic transmission (AT/DCT/CVT) valve bodies, Submerged mechatronic TCU & shift-solenoid looms, E-axle oil-cooled motor stator & thermistor leads, Turbocharger actuator, EGR & exhaust NOx sensors, Heavy-duty diesel under-valve-cover harnesses

Construction





Cross-section, not to scale

1	Oil/water-blocked tinned copper	SAE J1128 · ISO 6722-1
2	E-beam cross-linked XLFE dielectric	ISO 6722-1 Class E · SAE J1128

Technical data

Typical values

Rated voltage	60 V DC (ISO 6722-1 automotive) · 600 V RMS (SAE / industrial equipment rating)
Max. DC conductor resistance (20 °C)	22 AWG: ≤ 54.3 Ω/km · 20 AWG: ≤ 34.6 Ω/km · 18 AWG: ≤ 21.8 Ω/km · 16 AWG: ≤ 14.0 Ω/km · 14 AWG: ≤ 8.79 Ω/km · 12 AWG: ≤ 5.56 Ω/km
Short-term thermal Excursion	+200 °C to +230 °C short-term peak
Anti-capillary fluid block	Zero ATF, engine oil or water wicking along conductor strands under differential pressure
Flame & pinch resistance	Passes ISO 6722-1 / SAE J1128 flame propagation, hot-wire pinch and scrape abrasion tests
Standard packing	Heat-treated ISPM-15 timber drums or spools with sealed ends
Dielectric withstand voltage	1.0–2.0 kV AC for 1 min · 5.0 kV spark test
Operating temperature range	−70 °C cold bend to +180 °C continuous (3,000 h thermal aging to ISO 6722-1 Class E)
Min. bending radius	3 × overall diameter (remains flexible down to −70 °C without fluoropolymer stiffness)
Hot ATF & hypoid gear oil	Engineered for continuous immersion in Dexron/Mercon ATF, DCT fluid, e-axle dielectric oil and engine oil at +150… +180 °C
Standards	ISO 6722-1 Class E (+175/+180 °C) & SAE J1128 dimensional profiles

Sizes

7 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cores × mm² / AWG	AWG ≈	Outer Ø min mm	Outer Ø max mm	Copper kg/km	Weight ≈ kg/km	Min. bend R mm
ISO 6722 Class D/E 180 °C Wire −70…+180 °C Anti-Capillary Engine & Transmission Wire (22–10 AWG) 7 sizes							
☐ ISO 6722 Class D/E 180 °C Wire 22 AWG (19/34)	22 AWG (0.35 mm²)	22	1.5	1.6	3	6	5
☐ ISO 6722 Class D/E 180 °C Wire 20 AWG (19/32)	20 AWG (0.50 mm²)	20	1.7	1.9	5	8	6
☐ ISO 6722 Class D/E 180 °C Wire 18 AWG (19/30)	18 AWG (0.80 mm²)	18	1.9	2.1	7	11	6
☐ ISO 6722 Class D/E 180 °C Wire 16 AWG (19/29)	16 AWG (1.25 mm²)	16	2.2	2.4	12	16	7
☐ ISO 6722 Class D/E 180 °C Wire 14 AWG (19/27)	14 AWG (2.00 mm²)	14	2.6	2.8	19	24	8
☐ ISO 6722 Class D/E 180 °C Wire 12 AWG (19/25)	12 AWG (3.00 mm²)	12	3.1	3.4	31	38	10
☐ ISO 6722 Class D/E 180 °C Wire 10 AWG (37/26)	10 AWG (5.00 mm²)	10	3.8	4.2	50	58	12

– Dimensions and weights are typical values per ISO 6722-1 Class E (+180 °C) · SAE J1128. Minimum fixed bending radius shown is 3 × OD.

Electrical & current ratings

7 sizes

Cross-section mm²	AWG ≈	Max. DC resistance 20 °C, Ω/km	Single wire in air 30 °C, A	Multi-core bundle 30 °C, A
0.35	22	54.5	6.5	5.0
0.52	20	34.6	10	7
0.82	18	24	14	11
1.25	16	16	19	14
2	14	10.2	26	20
3.31	12	6.2	36	27
5.26	10	3.88	50	36

– Current ratings at 30 °C ambient in free air. Apply temperature and bundle grouping factors per applicable equipment standard.

Standards and approvals

- ISO 6722-1 Class E (+180 °C) · SAE J1128
- 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/anti-capillary-engine-and-transmission-wire

Typical values for this cable type, based on ISO 6722-1 Class E (+180 °C) · SAE J1128. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.