



DIN 72551 / ISO 6722 / LV 112 Reduced-Wall (FLR) Automotive Wires

FLRYWK

Automotive Wire

60 V DC wide-temperature (-50 to +125 °C) heat-resistant & cold-flexible reduced-wall PVC



60 V DC ISO 6722-1 Class C

-50 to +125 °C Wide Window

Heat + Arctic Cold PVC (YWK)

Application

FLRYWK ('YWK' = Wärmebeständiges und kälteflexibles PVC) combines ISO 6722-1 Class C (+125 °C) heat endurance with extended -50 °C arctic cold flexibility in a single reduced-wall PVC primary wire. It bridges a 175 °C operating window (-50 °C to +125 °C) for c

Typical uses: Heavy truck cab-tilt & engine looms, Nordic & arctic off-highway plant, Cold-climate passenger car engine bays, Bus & coach HVAC / auxiliary heaters, Agricultural & forestry machinery

Construction



Cross-section, not to scale

1	Cu-ETP1 bare copper (Type A or B)	ISO 6722-1
2	Wide-range YWK PVC insulation	ISO 6722-1
3	Smooth colour/stripe outer surface	DIN 72551

Technical data

Typical values

Nominal voltage	60 V DC / 25 V AC	Wet dielectric test	3.0 kV AC rms for 5 min ($\geq 0.5 \text{ mm}^2$) · 1.0 kV ($< 0.5 \text{ mm}^2$)
Spark test	5.0 kV AC rms ($\geq 0.5 \text{ mm}^2$)	Continuous operating window	-50 °C to +125 °C (3000 h at +125 °C)
Short-term heat & overload	240 h at +150 °C · 6 h overload at +175 °C	Arctic cold winding test	-50 °C for 4 hours on mandrel without cracking
Min. wall thickness	0.20 mm (0.35–0.5 mm ²) · 0.24 mm (0.75–1.5 mm ²) · 0.28 mm (2.5 mm ²)	Scrape & sandpaper abrasion	Meets ISO 6722-1 Class C reduced-wall abrasion cycles
Flame propagation	Self-extinguishes within 70 s per ISO 6722-1 45° burn test	Fluid & road-salt resistance	Resists engine oil, diesel, ATF, glycol coolant & de-icing brine
Standards	ISO 6722-1 Class C (-50 °C Cold Extended) & DIN 72551		

Sizes

10 standard constructions

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

Designation	Type & Size mm ²	Strands × Ø / Wall mm	Max. OD mm	Copper kg/km	Total mass ≈ kg/km	Min. bend R mm
FLRYWK size range 10 sizes						
☐ FLRYWK 0.35 mm ²	0.35 mm ²	12×0.21 · 0.20 mm	1.35	3.3	4.6	5.4
☐ FLRYWK 0.50 mm ²	0.50 mm ²	16×0.21 · 0.22 mm	1.60	4.8	6.7	6.4
☐ FLRYWK 0.75 mm ²	0.75 mm ²	24×0.21 · 0.24 mm	1.90	7.2	9.6	7.6
☐ FLRYWK 1.00 mm ²	1.00 mm ²	32×0.21 · 0.24 mm	2.10	9.6	12.4	8.4
☐ FLRYWK 1.50 mm ²	1.50 mm ²	30×0.26 · 0.24 mm	2.40	14.4	17.7	9.6
☐ FLRYWK 2.50 mm ²	2.50 mm ²	50×0.26 · 0.28 mm	3.00	24.0	28.8	12.0
☐ FLRYWK 4.00 mm ²	4.00 mm ²	56×0.31 · 0.32 mm	3.70	38.4	45.0	14.8
☐ FLRYWK 6.00 mm ²	6.00 mm ²	84×0.31 · 0.32 mm	4.30	57.6	65.8	17.2
☐ FLRYWK 10.0 mm ²	10.0 mm ²	80×0.41 · 0.48 mm	6.00	96.0	109.5	24.0
☐ FLRYWK 16.0 mm ²	16.0 mm ²	126×0.41 · 0.52 mm	7.20	153.6	173.0	28.8

– Dimensions and maximum overall diameters conform to ISO 6722-1 Class C / DIN 72551 / LV 112.

Electrical data

10 sizes

Type & Size mm ²	Max. DC R @ 20 °C mΩ/m	Single wire in air A	In harness bundle A
0.35 mm ²	54.40	10	8
0.50 mm ²	37.10	13	10
0.75 mm ²	24.70	18	14
1.00 mm ²	18.50	22	17
1.50 mm ²	12.70	28	22
2.50 mm ²	7.60	38	30
4.00 mm ²	4.71	50	39
6.00 mm ²	3.14	64	50
10.0 mm ²	1.82	88	69
16.0 mm ²	1.16	118	92

– Current ratings are reference values at +25 °C ambient; derate for multi-wire harness bundles and elevated engine-bay temperatures.

Standards and approvals

- ✓ ISO 6722-1 Class C (-50 to +125 °C)
- ✓ DIN 72551 (FLRYWK)
- ✓ VDA LV 112
- ✓ RoHS 3 & ELV Compliant

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

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Email

info@tebaoflex.com

Web

tebaoflex.com/cables/flrywk-automotive-wire



Typical values for this cable type, based on ISO 6722-1 Class C / DIN 72551 / LV 112. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.