



UL 1424 / NEC Article 760 Fire Alarm Cables

FPLR

Riser Fire Alarm Cable

300 V UL 1424 / UL 1666 riser-rated power-limited fire alarm cable (18-12 AWG)



300 V UL 1424

UL 1666 Riser

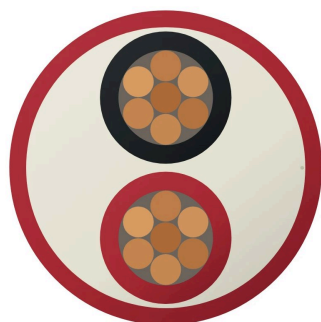
NEC Article 760

Application

Type FPLR (Power-Limited Fire Alarm Riser Cable) is manufactured to UL 1424 and NEC Article 760 for vertical riser shafts penetrating more than one floor and general non-plenum fire alarm wiring, verified to prevent floor-to-floor vertical flame propagation un

Typical uses: Multi-story commercial buildings, Residential & hotel towers, Warehouses & manufacturing, Retail & shopping centres, Schools & healthcare

Construction



Cross-section, not to scale

1	Solid bare copper conductor	ASTM B3
2	Flame-retardant riser insulation	UL 1424
3	Al-Mylar shield + drain (shielded)	UL 1424
4	UL 1666 riser outer jacket	UL 1666

Technical data

Typical values

NEC / UL voltage rating	300 V rms (power-limited fire alarm)	Dielectric withstand test	1500 V AC for 1 minute
Nominal capacitance (18 AWG)	≈75 pF/m unshielded · ≈138 pF/m shielded	UL temperature rating	75 °C
Operating temperature range	-20 °C to +75 °C	Min. installation bend radius	8 × cable OD
Ripcord	Integral nylon ripcord for fast jacket stripping	Vertical riser shaft flame test	UL 1666 (145 kW propane burner, flame propagation <12 ft / 3.66 m, temp <454.4 °C at 12 ft)
Substitution hierarchy	Replaces Type FPL, CMR, CL3R and CL2R per NEC 760.154(B)	Standards	UL 1424 Type FPLR & UL 1666

Sizes

13 standard constructions

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

Designation	AWG & Cores	Area mm ²	Outer Ø ≈ mm	Copper kg/km	Total weight ≈ kg/km	Min. bend R fixed mm
FPLR standard series 13 sizes						
☐ FPLR 18/2 Unshielded	2C × 18 AWG	0.82 mm ²	3.8	16	25	30
☐ FPLR 18/4 Unshielded	4C × 18 AWG	0.82 mm ²	4.5	31	43	36
☐ FPLR 16/2 Unshielded	2C × 16 AWG	1.31 mm ²	4.4	25	36	35
☐ FPLR 16/4 Unshielded	4C × 16 AWG	1.31 mm ²	5.2	50	63	42
☐ FPLR 14/2 Unshielded	2C × 14 AWG	2.08 mm ²	5.3	40	54	42
☐ FPLR 14/4 Unshielded	4C × 14 AWG	2.08 mm ²	6.3	79	98	50
☐ FPLR 12/2 Unshielded	2C × 12 AWG	3.31 mm ²	6.2	63	81	50
☐ FPLR 18/2 Shielded OAS	2C × 18 AWG OAS	0.82 mm ²	4.0	19	28	32
☐ FPLR 18/4 Shielded OAS	4C × 18 AWG OAS	0.82 mm ²	4.7	35	47	38
☐ FPLR 16/2 Shielded OAS	2C × 16 AWG OAS	1.31 mm ²	4.6	28	40	37
☐ FPLR 16/4 Shielded OAS	4C × 16 AWG OAS	1.31 mm ²	5.4	53	68	43
☐ FPLR 14/2 Shielded OAS	2C × 14 AWG OAS	2.08 mm ²	5.5	43	59	44
☐ FPLR 12/2 Shielded OAS	2C × 12 AWG OAS	3.31 mm ²	6.4	67	87	51

– Nominal outer diameters and weights are subject to manufacturing tolerances per UL 1424 / UL 1666 (NEC Art. 760).

Electrical data

13 sizes

AWG & Cores	Max. DC R @ 20 °C Ω/km	Current in air A	Current in duct/tray A
2C × 18 AWG	21.400	7	6
4C × 18 AWG	21.400	6	5
2C × 16 AWG	13.500	10	9
4C × 16 AWG	13.500	8	7
2C × 14 AWG	8.450	15	13
4C × 14 AWG	8.450	12	10
2C × 12 AWG	5.310	20	17
2C × 18 AWG OAS	21.400	7	6
4C × 18 AWG OAS	21.400	6	5
2C × 16 AWG OAS	13.500	10	9
4C × 16 AWG OAS	13.500	8	7
2C × 14 AWG OAS	8.450	15	13
2C × 12 AWG OAS	5.310	20	17

- Current ratings apply at +30 °C ambient in free air and +25 °C in enclosed tray/conduit.

Standards and approvals

- ✓ UL 1424 Type FPLR
- ✓ UL 1666 Vertical Riser
- ✓ NFPA 70 (NEC Article 760)
- ✓ NFPA 72 National Fire Alarm Code
- ✓ RoHS 3 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

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/fplr-riser-fire-alarm-cable



Typical values for this cable type, based on UL 1424 / UL 1666 (NEC Art. 760). Values for your order are confirmed in the quotation. Subject to change without notice.
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