Red Alert® Type MC-FPL Fire Alarm Two Pair

Copper THHN/THWN or Type TFN Insulated Copper Singles. UL Listed as Type MC and Type FPL. 600 Volt Type MC and 300 Volt Type FPL. Red Lightweight Aluminum Interlocked Armor.

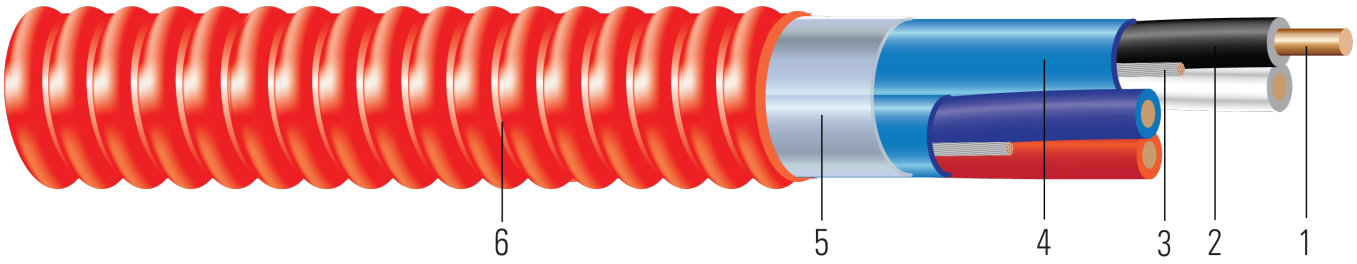

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath, Colors: Black/White; Red/Blue. Type THHN/THWN for 14; Type TFN for 18 and 16 AWG.
3. **Drain Wire:** Tinned drain wire the same size as the pair condutors
4. **Shield:** Aluminum foil with blue laminate
5. **Binder:** Mylar
6. **Armor:** Red Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

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Southwire Red Alert® Type MC-FPL Cable is suitable for use as follows:

- Wiring in Plenums, Ducts or Other Spaces Used for Environmental Air-Handling Purposes per NEC 300.22(C) & 760.135(C).
- Power-Limited and Non-Power Limited fire alarm circuits, including smoke detectors, bells, horns, fire alarm control panel equipment, and initiation and signaling devices.
- Class 1, Class 2, and Class 3 remote control, signaling, and power-limited circuits.
- Power, lighting, control, and signal circuits.
- Fished or embedded in plaster.
- Concealed or exposed installations.
- Places of Assembly per NEC 518.4 and theaters per NEC 520.5.
- Installation in cable tray and approved raceways.
- Under raised floors for information technology equipment conductors and cables per NEC 645.5(D) & 645.5(E)
- Class I Div. 2, Class II Div 2, & Class III Div. 1 Hazardous Locations.
- Binder tape with print legend wrapped around assembly.
- Approved for the State of Rhode Island Fire Systems.
- Rated at 600V, 90ºC dry as Type MC or 300V, 90ºC dry as Type FPL.
- Anti-short bushings are not required for use with MC cable per NEC and UL.

Southwire Red Alert® Type MC-FPL Cable - meets or exceeds the following requirements:

- UL Online Product Guide Info - Metal-Clad Cable (PJAZ) (www.ul.com)
- Federal Specification A-A59544 (formerly J-C-30B)
- NFPA 70 (National Electrical Code), Article 330
- Listed for use in UL 1, 2 and 3 Hour Through Penetration Firestop Systems

SPECIFICATIONS:

- UL 1424 Cables for Power-Limited Fire-Alarm Circuits
- ASTM B3 Soft or Annealed Copper Wire
- UL 66 Fixture Wire
- UL 83 Thermoplastic Insulated Wires and Cables
- UL 1569 Metal-Clad Cables
- UL 1479 Standard for Safety Fire Tests of Penetration Firestops
- UL 1685 Vertical-Tray Fire Propagation and Smoke Release Test
- Buy American: Compliant with Buy American Requirements, found in 49 U.S.C. § 5323(j); specify “Made in the USA Only!” when ordering to ensure your project receives American made products.

SAMPLE PRINT LEGEND:

SOUTHWIRE E96627 XX AWG MC 600V {UL} TYPE (THHN OR TFN) INSULATED CONDUCTORS OR TYPE FPL {UL} 90°C DRY-FOR USE IN CABLE TRAYS

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Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Color	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Diameter Over Armor	Copper Weight	Overall Weight
	AWG/ Kcmil			inch		mils	inch	lbs/1000ft	lbs/1000ft
18 AWG | 1 Strands									
555019	18	4	BK/WE	0.04	1	15	0.569	30	102
16 AWG | 1 Strands									
644665	16	2	BE,WE	0.051	1	15	0.424	24	72
555020	16	4	BK/WE/RD/BE	0.051	1	15	0.542	48	116
14 AWG | SOLID Strands									
554978	14	4	BK/WE	0.064	SOLID	15	0.7	76	171
14 AWG | 1 Strands									
587151	14	4	BK/WE/GN / BK/WE	0.064	1	15	0.706	76	175
678570	14	4	BK/WE/GN / BE/RD	0.064	1	15	0.644	62	147

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
Note: Conductor number = number of phase conductors. Does not include ground
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

Table 2 – Electrical and Engineering Data

Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Inductive Reactance @ 60Hz	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Ω/1000ft	Amp	Amp
18 AWG | 1 Strands							
18	4	4	6.669	8.277	0.036	-	11
16 AWG | 1 Strands							
16	2	3	4.181	5.189	0.033	-	18
16	4	3.8	4.181	5.189	0.033	-	14
14 AWG | SOLID Strands							
14	4	4.9	2.631	3.265	0.058	16	20
14 AWG | 1 Strands							
14	4	4.9	2.631	3.265	0.058	16	20
14	4	4.5	2.631	3.265	0.058	16	20

***** Ampacities based upon 2023 NEC Table 310.16 and do not take into account the overcurrent protection limitations in NEC 240.4(D) of 15 Amps for 14 AWG CU, 20 Amps for 12 AWG CU, and 30 Amps for 10 AWG CU (independent of the conductor temperature rating and stranding if size is present in table). Also, see NEC sections 310.15 and 110.14(C) for additional requirements.
***** Ampacities have been adjusted for more than Three Current-Carrying Conductors.

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