Red Alert® Type MC-FPLP Fire Alarm and Control

Copper THHN/THWN or TFN or TFFN Insulated Copper Singles. Type TFN Insulated Copper Singles. Green Insulated Copper Grounding Conductor. UL Listed as Type MC and Type FPLP. 600 Volt Type MC and 300 Volt Type FPLP. Rated VW-1. Red Lightweight Aluminum Interlocked Armor.

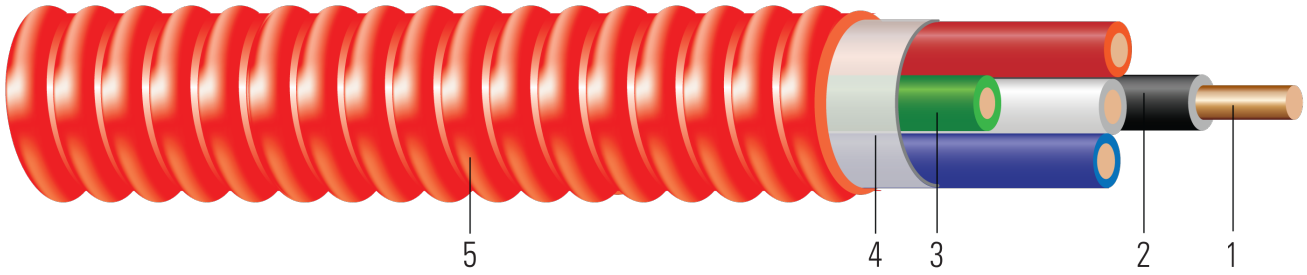

Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Solid or stranded copper per ASTM B3 and ASTM B8 or B174
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath Type THHN/THWN for 14 and 12 AWG; Type TFN or TFFN for 18 and 16 AWG
3. **Ground:** Green insulated ground. Polyvinyl Chloride with Nylon Sheath Type TFN or TFFN
4. **Binder:** Mylar tape
5. **Armor:** Red Aluminum Interlocked Armor

APPLICATIONS AND FEATURES:

Southwire Red Alert® Type MC-FPLP 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, 105ºC dray as Type FPLP.
- Anti-short bushings are not required for use with MC cable per NEC and UL.

Southwire Red Alert® Type MC-FPLP 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

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- 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
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- ASTM B174 Standard Specification for Bunch-Stranded Copper
- 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 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- RoHS Compliant Lead-Free, Silicone-Free
- 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 TFFN) INSULATED CONDUCTORS OR TYPE FPLP {UL} 105°C DRY-FOR USE IN CABLE TRAYS

Table 1 – Weights and Measurements

Stock Number	Cond. Size	Conductor Number	Diameter Over Conductor	Conductor Stranding	Insulation Thickness	Ground Size	Diameter Over Armor	Overall Weight
	AWG/ Kcmil		inch		mils	No. x AWG	inch	lbs/1000ft
640707◊	18	2	0.040	Solid	20	1x18	0.402	62
554686◊	18	2	0.040	Solid	20	1x18	0.391	59
677747◊	18	2	0.040	Solid	20	1x18	0.391	59
554687◊	18	4	0.040	Solid	20	1x18	0.434	78
553124◊	18	6	0.040	Solid	20	1x18	0.459	95
553125◊	18	8	0.040	Solid	20	1x18	0.507	115
554688◊	16	2	0.050	Solid	20	1x16	0.414	72
554689◊	16	4	0.050	Solid	20	1x16	0.463	98
553128◊	16	6	0.050	Solid	20	1x16	0.490	122
554690◊	14	2	0.064	Solid	20	1x14	0.451	92
554537◊	14	2	0.064	Solid	20	1x14	0.451	92
554539◊	14	4	0.064	Solid	20	1x14	0.509	131
561684◊	14	6	0.064	Solid	20	1x14	0.540	161
554540◊	12	2	0.080	Solid	20	1x12	0.487	121
554541◊	12	4	0.080	Solid	20	1x12	0.554	179
641527◊	16	8	0.050	19	20	1x16	0.536	137
573267◊	16	2	0.058	19	20	1x16	0.436	76
559605◊	14	3	0.073	19	20	1x14	0.497	117
557329◊	12	2	0.090	19	20	1x12	0.509	126
583397◊	10	4	0.117	19	25	1x10	0.679	275

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

Table 2 – Electrical and Engineering Data

Cond. Size	Conductor Number	Min. Bend Radius	DC Resistance at 25°C	AC Resistance at 75°C	Allowable Ampacity Raceway 60°C	Allowable Ampacity Raceway 75°C	Allowable Ampacity Raceway 90°C
AWG/ Kcmil		Inches	Ω/1000ft	Ω/1000ft	Amp	Amp	Amp
18	2	2.8	6.670	8.270	-	-	18
18	2	2.7	6.670	8.270	-	-	18
18	2	2.7	6.670	8.270	-	-	18
18	4	3.0	6.670	8.270	-	-	14
18	6	3.2	6.670	8.270	-	-	14
18	8	3.5	6.670	8.270	-	-	12
16	2	2.8	4.180	5.190	-	-	18
16	4	3.2	4.180	5.190	-	-	14
16	6	3.4	4.180	5.190	-	-	14
14	2	3.2	2.580	3.170	15	20	25
14	2	3.2	2.580	3.170	15	20	25
14	4	3.6	2.580	3.170	12	16	20
14	6	3.8	2.630	3.170	12	16	20
12	2	3.4	1.660	2.000	20	25	30
12	4	3.9	1.660	2.000	16	20	24
16	8	3.7	4.180	5.190	-	-	18
16	2	3.0	4.180	5.190	-	-	18
14	3	3.5	2.630	3.170	15	20	25
12	2	3.6	1.660	2.000	20	25	30
10	4	4.8	1.020	1.250	24	28	32

* 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.