

## 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.

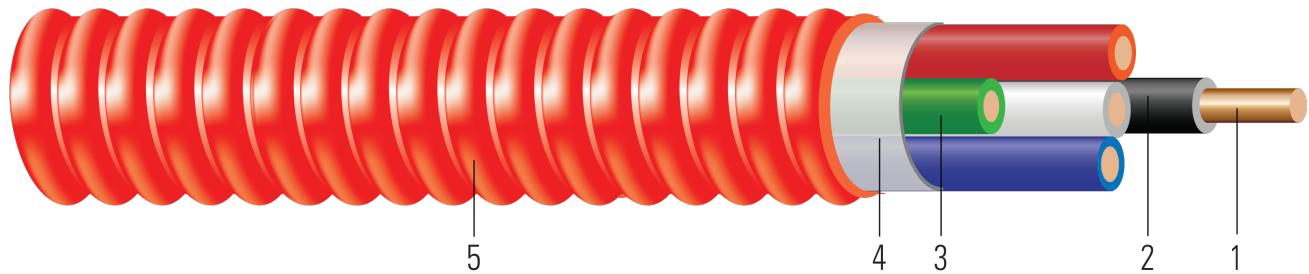


Image not to scale. See Table 1 for dimensions.

### 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, 90°C dry as Type MC or 300V, 105°C dry 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](http://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/<br>Kcmil |                  | inch                    |                     | mils                 | No. x<br>AWG | inch                | lbs/1000ft     |
| 554541◇      | 12            | 4                | 0.080                   | Solid               | 20                   | 1x12         | 0.554               | 179            |

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/<br>Kcmil |                  | Inches           | Ω/1000ft              | Ω/1000ft              | Amp                             | Amp                             | Amp                             |
| 12            | 4                | 3.9              | 1.660                 | 2.000                 | 16                              | 20                              | 24                              |

\* 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.

