



## Red Alert® Type MC-FPLP Fire Alarm Composite

Copper THHN/THWN or Type TFN Insulated Copper Singles. 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.

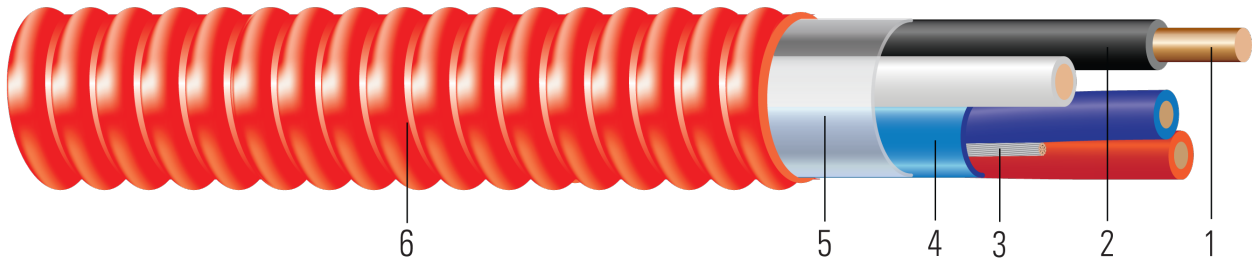


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** Solid copper per ASTM B3
2. **Insulation:** All phases are insulated with Polyvinyl Chloride with Nylon Sheath, Colors: See Table 1.
3. **Drain Wire:** Tinned drain wire the same size as the pair conductors
4. **Shield:** Aluminum foil with blue laminate
5. **Binder:** Mylar
6. **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
- 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 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 TFN) INSULATED CONDUCTORS OR TYPE FPLP {UL} 105°C DRY-FOR USE IN CABLE TRAYS

**Table 1 – Weights and Measurements**

| Stock Number | Composite Number and Size | Cond. Size | Conductor Number | Insulation Thickness | Shielded | Color       | Cond. Size | Conductor Number | Insulation Thickness | Shielded | Color   | Diameter over Armor | Overall Weight |
|--------------|---------------------------|------------|------------------|----------------------|----------|-------------|------------|------------------|----------------------|----------|---------|---------------------|----------------|
|              |                           | AWG/Kcmil  |                  | mils                 |          |             | AWG/Kcmil  |                  | mils                 |          |         | inch                | lbs/1000ft     |
| 554542       | 2/C #14 and 2/C #16       | 14         | 2                | 20                   | NO       | Blk/Wht     | 16         | 2                | 20                   | YES      | Blk/Wht | 0.665               | 155            |
| 554545       | 2/C #14 and 2/C #16       | 14         | 2                | 20                   | NO       | Blk/Wht     | 16         | 2                | 20                   | NO       | Red/Blu | 0.632               | 138            |
| 671536       | 2/C #14 and 2/C #16       | 14         | 2                | 20                   | NO       | Blk/Red     | 16         | 2                | 20                   | NO       | Blk/Red | 0.665               | 146            |
| 671730       | 2/C #14 and 2/C #16       | 14         | 2                | 20                   | NO       | Blk/Red     | 16         | 2                | 20                   | NO       | Blk/Red | 0.688               | 152            |
| 554547       | 2/C #14 and 2/C #16       | 14         | 2                | 20                   | NO       | Brn/Org     | 16         | 2                | 20                   | YES      | Red/Blu | 0.654               | 153            |
| 554548       | 2/C #14 and 2/C #18       | 14         | 2                | 20                   | YES      | Blk/Wht     | 18         | 2                | 20                   | YES      | Red/Blu | 0.636               | 139            |
| 679360       | 2/C #14 and 2/C #18       | 14         | 2                | 20                   | YES      | Blk/Wht/Grn | 18         | 2                | 20                   | YES      | Red/Blu | 0.636               | 139            |
| 555576       | 2/C #12 and 2/C #16       | 12         | 2                | 20                   | NO       | Blk/Red     | 16         | 2                | 20                   | YES      | Blk/Wht | 0.703               | 183            |





**Table 2 – Electrical and Engineering Data**

| Stock Number | Composite Number and Size | Conductor Size | DC Resistance @ 25° | AC Resistance @ 75°C | Capacitance | Cond. Size | DC Resistance @ 25° | AC Resistance @ 75°C | Capacitance | Min Bend Radius | Allowable Ampacity Raceway 60°C | Allowable Ampacity Raceway 75°C | Allowable Ampacity Raceway 90°C |
|--------------|---------------------------|----------------|---------------------|----------------------|-------------|------------|---------------------|----------------------|-------------|-----------------|---------------------------------|---------------------------------|---------------------------------|
|              |                           | 14             | Ohms/1000ft         | Ohms/1000ft          | pf/ft       | AWG/Kcmil  | ohms/1000ft         | Ohms/1000ft          | pf/ft       | inch            | amps                            | amps                            | amps                            |
| 554542       | 2/C #14 and 2/C #16       | 14             | 2.63                | 3.17                 | 57          | 16         | 4.18                | 5.03                 | 49          | 4.6             | 15                              | 20                              | 25                              |
| 554545       | 2/C #14 and 2/C #16       | 14             | 2.63                | 3.17                 | 57          | 16         | 4.18                | 5.03                 | 49          | 4.4             | 15                              | 20                              | 25                              |
| 671536       | 2/C #14 and 2/C #16       | 14             | 2.63                | 3.17                 | 57          | 16         | 4.18                | 5.03                 | 49          | 4.6             | 15                              | 20                              | 25                              |
| 671730       | 2/C #14 and 2/C #16       | 14             | 2.63                | 3.17                 | 57          | 16         | 4.18                | 5.03                 | 49          | 4.8             | 15                              | 20                              | 25                              |
| 554547       | 2/C #14 and 2/C #16       | 14             | 2.63                | 3.17                 | 57          | 16         | 4.18                | 5.03                 | 49          | 4.5             | 15                              | 20                              | 25                              |
| 554548       | 2/C #14 and 2/C #18       | 14             | 2.63                | 3.17                 | 57          | 18         | 6.66                | 8.03                 | 45          | 4.4             | 15                              | 20                              | 25                              |
| 679360       | 2/C #14 and 2/C #18       | 14             | 2.63                | 3.17                 | 57          | 18         | 6.66                | 8.03                 | 45          | 4.4             | 15                              | 20                              | 25                              |
| 555576       | 2/C #12 and 2/C #16       | 12             | 1.66                | 2.00                 | 71          | 16         | 4.18                | 5.03                 | 49          | 4.9             | 20                              | 25                              | 30                              |

