

## Multi-Conductor CU 600 V FR-XLPE LCT Shielded Thermoplastic CPE-TP Jacket Control Cable Color Method 1 Table 2

Control Cable 600 Volt Copper Conductors, Flame Retardant Cross Linked Polyethylene (FR-XLPE) Insulation Shielded Thermoplastic Chlorinated Polyethylene (CPE-TP) Jacket, Control Cable Conductor Identification Method 1 Table 2. Silicone Free



Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

1. **Conductor:** 7 strands class B compressed bare copper per ASTM B3 and ASTM B8
2. **Insulation:** Flame Retardant Cross Linked Polyethylene (FR-XLPE), 30 Mils thick for all cable sizes
3. **Filler:** Polypropylene filler on cables with 5 or less conductors
4. **Binder:** Polyester flat thread binder tape applied for cables with more than 5 conductors
5. **Shield:** 5 mils copper Longitudinally-Applied Corrugated Tape (LCT) shield
6. **Rip Cord:** Rip cord for ease of jacket removal
7. **Overall Jacket:** Thermoplastic Chlorinated Polyethylene (CPE-TP)

### APPLICATIONS AND FEATURES:

Southwire's 600 Volt control cables are suited for use in wet and dry areas, conduits, ducts, troughs, trays, direct burial, aerial supported by a messenger, and where superior electrical properties are desired. These cables are capable of operating continuously at the conductor temperature not in excess of 90°C for normal operation in wet and dry locations, 130°C for emergency overload, and 250°C for short circuit conditions. UL rated constructions can be used in Class I, II, and III, Division 2 hazardous locations per NEC Article 501 and 502. UL rated constructions with 3 or more conductors are listed for exposed runs (TC-ER) per NEC 336.10.

### SPECIFICATIONS:

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 44 Thermoset-Insulated Wires and Cables
- UL 1277 Electrical Power and Control Tray Cables
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- ICEA S-58-679 Control Cable Conductor Identification Method 1 Table 2
- ICEA S-73-532 Standard for Control, Thermocouple Extension and Instrumentation Cables
- ICEA S-95-658 (NEMA WC70) Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- IEEE 1202 FT4 Vertical Tray Flame Test (70,000 Btu/hr) and ICEA T-29-520 - (210,000 Btu/hr)
- VW-1 (Vertical-Wire) Flame Test



**SAMPLE PRINT LEGEND:**

**UL Listed**

SOUTHWIRE {UL} E75755 XX AWG CU X/C FR-XLPE E2 CDRS SHIELDED TYPE TC CPE JACKET 600V YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET

**Non UL Listed**

SOUTHWIRE XX AWG CU X/C FR-XLPE E2 CDRS SHIELDED CPE JACKET 600V SUN RES DIR BUR YEAR {SEQUENTIAL FOOTAGE MARKS} SEQ FEET



**Table 1 – Physical and Electrical Data**

| Cond. Size | Cond. Number | Diameter Over Cond. | Insul. Thickness | Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight | DC Resistance @ 25°C | AC Resistance @ 90°C | Min Bending Radius | Allowable Ampacity At 60°C * | Allowable Ampacity 75°C * | Allowable Ampacity 90°C * |
|------------|--------------|---------------------|------------------|------------------|------------|---------------|----------------|----------------------|----------------------|--------------------|------------------------------|---------------------------|---------------------------|
| AWG        | No.          | inch                | mil              | mil              | inch       | lb /1000ft    | lb /1000ft     | Ω /1000ft            | Ω /1000ft            | inch               | Amp                          | Amp                       | Amp                       |
| 14 AWG     |              |                     |                  |                  |            |               |                |                      |                      |                    |                              |                           |                           |
| 14         | 20           | 0.070               | 30               | 60               | 0.808      | 256           | 475            | 2.630                | 3.288                | 9.6                | 9                            | 11                        | 12                        |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

\* Ampacities are based on Table 310.15 (B)(16) of the NEC, 2017 Edition. Ampacities of insulated conductors rated up to and including 2000 Volts, based on ambient temperature of 30°C (86°F)

^ UL Listed part number

