

Southwire CL4SS™ Class 4 Non-Shielded Outdoor / General Purpose



Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

- Conductor:** Class B or C stranded soft-drawn bare copper per ASTM B3 and B8
- Insulation:** Twisted pair(s) with premium grade, lead-free, flame-retardant, Polyvinyl Chloride (PVC). See Table 4 for pair(s) numbers and colors.
- Jacket:** Lead-free, flame-retardant, LS, Polyvinyl Chloride (PVC). See Table 5 for available jacket colors.

APPLICATIONS AND FEATURES:

Intended for use in Fault Managed Power Systems (FMPS), remote powering, indoor Class 4 circuits per 2023 National Electrical Code (NEC) article 726. For use, primarily, in Agriculture, Intelligent Buildings, and Wireless Densification. The power source (transmitter) for Class 4 circuits shall be supplied from a power source that has a voltage output of 450 volts (peak or DC) or less. The CL4Z cables are considered for outdoor use only and are not to be attached to or used within a building structure. Type CL4Z cables comply with the applicable requirements for CL4. The CMG cables can be installed in buildings according to NEC article 722.135 and table 722.135(B).

Ratings:

Normal operating temperature: 90°C

Temperature Range: -40°C to 90°C

Rated Use: Dry or wet locations

SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 1400-2 Fault-Managed Power Systems - Part 2: Requirements for Cables
- UL 444 Communications Cables
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test

SAMPLE PRINT LEGEND:

{SQFTG} SOUTHWIRE{R} CL4SS P/N XX AWG X PAIR E537761 (UL) CL4Z 90C -40C OR CMG C(UL)US 90C -- FT4/IEEE 1202 -- WET LOCATIONS -- MADE IN USA ROHS-2 COMPLIANT



Table 1 – Weights and Measurements

| Cond. Size | Number of Pairs | Diameter Over Conductor | Insul. Thickness | Jacket Thickness | Approx. OD | Approx. Weight | Min Bending Radius | DC Resistance @ 25°C |
|------------|-----------------|-------------------------|------------------|------------------|------------|----------------|--------------------|----------------------|
| AWG/ Kcmil | pair | inch | mil | mil | inch | lb/1000ft | inch | Ω/1000ft |
| 18 | 2 | 0.045 | 17 | 25 | 0.349 | 26 | 1.2 | 6.669 |
| 18 | 4 | 0.045 | 17 | 25 | 0.376 | 50 | 1.4 | 6.669 |
| 18 | 8 | 0.045 | 17 | 37 | 0.417 | 88 | 2.0 | 6.669 |
| 16 | 2 | 0.056 | 17 | 25 | 0.376 | 70 | 1.4 | 4.181 |
| 16 | 4 | 0.056 | 17 | 32 | 0.403 | 113 | 1.7 | 4.181 |
| 16 | 8 | 0.056 | 17 | 37 | 0.481 | 125 | 2.3 | 4.181 |
| 14 | 2 | 0.070 | 22 | 30 | 0.467 | 112 | 1.6 | 2.631 |
| 14 | 4 | 0.070 | 22 | 37 | 0.543 | 183 | 2.0 | 2.631 |
| 14 | 8 | 0.070 | 22 | 37 | 0.780 | 370 | 2.6 | 2.631 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

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 – Weights and Measurements (Metric)

| Cond. Size | Number of Pairs | Diameter Over Conductor | Insul. Thickness | Jacket Thickness | Approx. OD | Approx. Weight | Min Bending Radius | DC Resistance @ 25°C |
|------------|-----------------|-------------------------|------------------|------------------|------------|----------------|--------------------|----------------------|
| AWG/ Kcmil | pair | inch | mm | mm | mm | lb/km | mm | Ω/km |
| 18 | 2 | 0.045 | 0.43 | 0.64 | 8.86 | 39 | 30.48 | 21.88 |
| 18 | 4 | 0.045 | 0.43 | 0.64 | 9.55 | 74 | 35.56 | 21.88 |
| 18 | 8 | 0.045 | 0.43 | 0.94 | 10.59 | 131 | 50.80 | 21.88 |
| 16 | 2 | 0.056 | 0.43 | 0.64 | 9.55 | 104 | 35.56 | 13.72 |
| 16 | 4 | 0.056 | 0.43 | 0.81 | 10.24 | 168 | 43.18 | 13.72 |
| 16 | 8 | 0.056 | 0.43 | 0.94 | 12.22 | 186 | 58.42 | 13.72 |
| 14 | 2 | 0.070 | 0.56 | 0.76 | 11.86 | 167 | 40.64 | 8.63 |
| 14 | 4 | 0.070 | 0.56 | 0.94 | 13.79 | 272 | 50.80 | 8.63 |
| 14 | 8 | 0.070 | 0.56 | 0.94 | 19.81 | 551 | 66.04 | 8.63 |

Table 3 - Typical Electrical Capacitance for Each Pair

| Size | Capacitance |
|------|-------------|
| AWG | pF/ft |
| 18 | <30 |
| 16 | <30 |
| 14 | <30 |



Table 4 - Stock Code by Jacket Color

| Conductor Size AWG | Number of Pairs num | Green | Black | White |
|--------------------------|---------------------------|--------------|--------------|--------------|
| | | | | |
| 18 | 2 | CL4Z182N0605 | CL4Z182N0608 | CL4Z182N0601 |
| 18 | 4 | CL4Z184N0605 | CL4Z184N0608 | CL4Z184N0601 |
| 18 | 8 | CL4Z188N0605 | CL4Z188N0608 | CL4Z188N0601 |
| 16 | 2 | CL4Z162N0605 | CL4Z162N0608 | CL4Z162N0601 |
| 16 | 4 | CL4Z164N0605 | CL4Z164N0608 | CL4Z164N0601 |
| 16 | 8 | CL4Z168N0605 | CL4Z168N0608 | CL4Z168N0601 |
| 14 | 2 | CL4Z142N0605 | CL4Z142N0608 | CL4Z142N0601 |
| 14 | 4 | CL4Z144N0605 | CL4Z144N0608 | CL4Z144N0601 |
| 14 | 8 | CL4Z148N0605 | CL4Z148N0608 | CL4Z148N0601 |

Table 5 - Pair Color Chart - Numbers & Colors

| 2 Pair | 4 Pair | 8 Pair |
|-----------------|-----------------|------------------|
| 1 Black & Red | 1 Black & Red | 1 Black & Red |
| 2 Black & White | 2 Black & White | 2 Black & White |
| | 3 Black & Green | 3 Black & Green |
| | 4 Black & Blue | 4 Black & Blue |
| | | 5 Black & Yellow |
| | | 6 Black & Brown |
| | | 7 Black & Orange |
| | | 8 Black & White |

