



## CSA TECK 90 600V LSZH CONTROL CABLE

600V Multi Conductor, 14-10 AWG Copper, FT4 - Flame Retardancy Rating, XLPE Insulation, Aluminum Interlocked Armour, Sunlight Resistant, -40°C - 90°C, Rated HL, AG14

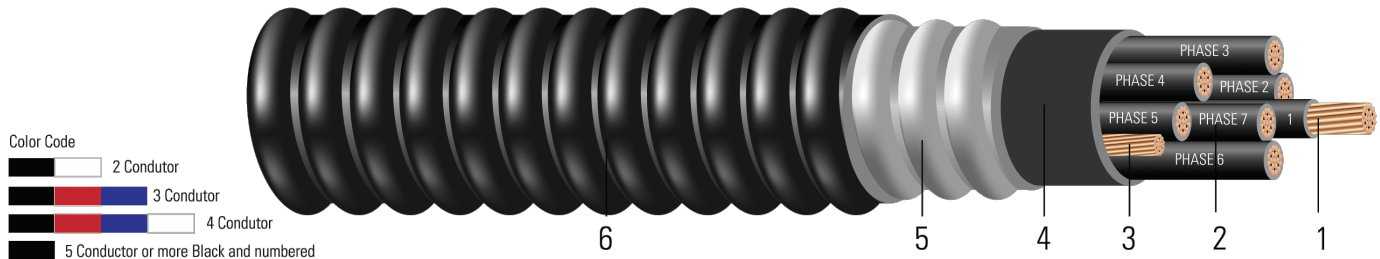


Image not to scale. See Table 1 for dimensions.

### CONSTRUCTION:

- Conductor:** Class B stranded copper, compressed or compact, in accordance with ASTM B3 and B8.
- Insulation:** Cross-Linked Polyethylene (XLPE), Colour Code: 2/C black, white; 3/C red, black, blue; 4/C red, black, blue, white; For 5/C cables or more, the insulation is black and numbered
- Grounding Conductors:** Uninsulated Class B stranded grounding conductor
- Inner Jacket:** Black Polyvinyl Chloride (PVC)
- Armor:** Aluminum Interlocked Armour (AIA)
- Overall Jacket:** Black Low Smoke Zero Halogen (LSZH)

### APPLICATIONS AND FEATURES:

For exposed or concealed wiring in wet or dry locations. For use in ventilated, non-ventilated and ladder type cable troughs and ventilated flexible cableway in wet, dry, or hazardous locations. Sunlight Resistant. Typical applications are for control lighting and power circuits in: pulp and paper mills, steel mills, food processing plants, commercial centers, mines, generating stations, refineries, industrial plants and chemical plants. Meets flame spread and smoke release requirements of NFPA 130. Rated for 1000 lbs./FT maximum sidewall pressure.

- -40°C - CSA Cold Bend and Impact Temperature
- -40°C - Min. Installation Temperature
- 90°C - Max. Continuous Operating Temperature

### SPECIFICATIONS:

- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- CSA C22.2 No. 174 Cables in Hazardous Locations
- CSA C22.2 No. 131 Type TECK 90 Cable
- CSA C22.2 No. 2556 & No. 0.3 Wire and Cable Test Methods
- CSA SUN RES - for Sunlight Resistant rating
- CSA AG14 - Acid Gas Compliance
- IEEE 1202 FT4 Flame Test (70,000) BTU/hr Vertical Tray Test
- NFPA 130 Standard for Fixed Guideway Transit and Passenger Rail Systems





**SAMPLE PRINT LEGEND:**

{SQMTR} SOUTHWIRE {CSA} LL90458 X/C XX AWG CU TECK 90 XLPE LSZH JACKET -40°C FT4-ST1 AG14 SUN RES 90°C 600V HL USA

**Table 1 – Weights and Measurements**

| Cond. Size | Cond. Number | Cond. Strands | Diameter Over Conductor | Insul. Thickness | Inner Jacket Thickness | Dia. Over Armor | Jacket Thickness | Approx. OD | Approx. Weight | Jacket Color |
|------------|--------------|---------------|-------------------------|------------------|------------------------|-----------------|------------------|------------|----------------|--------------|
| AWG/Kcmil  | No.          | No.           | inch                    | mil              | mil                    | inch            | mil              | inch       | lb/1000ft      |              |
| 14         | 2            | 7             | 0.070                   | 30               | 50                     | 0.570           | 45               | 0.660      | 196            | Black        |
| 14         | 3            | 7             | 0.070                   | 30               | 50                     | 0.591           | 45               | 0.681      | 220            | Black        |
| 14         | 4            | 7             | 0.070                   | 30               | 50                     | 0.625           | 45               | 0.715      | 247            | Black        |
| 14         | 5            | 7             | 0.070                   | 30               | 50                     | 0.663           | 45               | 0.753      | 276            | Black        |
| 14         | 6            | 7             | 0.070                   | 30               | 50                     | 0.702           | 45               | 0.792      | 305            | Black        |
| 14         | 7            | 7             | 0.070                   | 30               | 65                     | 0.702           | 45               | 0.792      | 324            | Black        |
| 14         | 8            | 7             | 0.070                   | 30               | 65                     | 0.774           | 45               | 0.864      | 377            | Black        |
| 14         | 10           | 7             | 0.070                   | 30               | 65                     | 0.866           | 45               | 0.956      | 442            | Black        |
| 14         | 12           | 7             | 0.070                   | 30               | 65                     | 0.887           | 45               | 0.977      | 483            | Black        |
| 14         | 15           | 7             | 0.070                   | 30               | 65                     | 0.954           | 45               | 1.044      | 556            | Black        |
| 14         | 19           | 7             | 0.070                   | 30               | 85                     | 1.109           | 45               | 1.199      | 697            | Black        |
| 14         | 20           | 7             | 0.070                   | 30               | 85                     | 1.136           | 45               | 1.226      | 724            | Black        |
| 14         | 25           | 7             | 0.070                   | 30               | 85                     | 1.283           | 45               | 1.373      | 903            | Black        |
| 14         | 30           | 7             | 0.070                   | 30               | 85                     | 1.338           | 45               | 1.428      | 1012           | Black        |
| 12         | 2            | 7             | 0.088                   | 30               | 50                     | 0.605           | 45               | 0.695      | 222            | Black        |
| 12         | 3            | 7             | 0.088                   | 30               | 50                     | 0.629           | 45               | 0.719      | 256            | Black        |
| 12         | 4            | 7             | 0.088                   | 30               | 50                     | 0.667           | 45               | 0.757      | 293            | Black        |
| 12         | 5            | 7             | 0.088                   | 30               | 65                     | 0.710           | 45               | 0.800      | 332            | Black        |
| 12         | 6            | 7             | 0.088                   | 30               | 65                     | 0.786           | 45               | 0.876      | 395            | Black        |
| 12         | 7            | 7             | 0.088                   | 30               | 65                     | 0.786           | 45               | 0.876      | 422            | Black        |
| 12         | 8            | 7             | 0.088                   | 30               | 65                     | 0.833           | 45               | 0.923      | 463            | Black        |
| 12         | 10           | 7             | 0.088                   | 30               | 65                     | 0.936           | 45               | 1.026      | 549            | Black        |
| 12         | 12           | 7             | 0.088                   | 30               | 65                     | 0.954           | 45               | 1.044      | 605            | Black        |
| 12         | 15           | 7             | 0.088                   | 30               | 85                     | 1.195           | 45               | 1.285      | 816            | Black        |
| 12         | 20           | 7             | 0.088                   | 30               | 85                     | 1.285           | 45               | 1.375      | 981            | Black        |
| 12         | 25           | 7             | 0.088                   | 30               | 85                     | 1.389           | 45               | 1.479      | 1156           | Black        |
| 10         | 2            | 7             | 0.113                   | 30               | 50                     | 0.653           | 45               | 0.743      | 270            | Black        |
| 10         | 3            | 7             | 0.113                   | 30               | 50                     | 0.680           | 45               | 0.770      | 319            | Black        |
| 10         | 4            | 7             | 0.113                   | 30               | 65                     | 0.725           | 45               | 0.815      | 371            | Black        |
| 10         | 6            | 7             | 0.113                   | 30               | 65                     | 0.858           | 45               | 0.948      | 505            | Black        |
| 10         | 8            | 7             | 0.113                   | 30               | 65                     | 0.918           | 45               | 1.008      | 604            | Black        |
| 10         | 10           | 7             | 0.113                   | 30               | 85                     | 1.142           | 45               | 1.232      | 777            | Black        |
| 10         | 12           | 7             | 0.113                   | 30               | 85                     | 1.211           | 45               | 1.301      | 911            | Black        |
| 10         | 15           | 7             | 0.113                   | 30               | 85                     | 1.307           | 45               | 1.397      | 1067           | Black        |

All dimensions are nominal and subject to normal manufacturing tolerances  
 ◇ Cable marked with this symbol is a standard stock item





All Dimensions are nominal and subject to normal manufacturing tolerances

\* Use Table 5C in the 2015 Canadian Electrical Code to derate this ampacity as per Rules 4-004 & 12-2210

† Ampacities based on not more than 3 conductors (4 with neutral) in raceway or cable as per Table 2 of 2015 Canadian Electrical Code

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 – Electrical and Engineering Data**

| Cond. Size    | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance | Max Pull Tension | Max Pull Tension | Min Bending Radius | Allowable Ampacity At 75°C | Allowable Ampacity At 90°C |
|---------------|----------------------|----------------------|---------------------|------------------|------------------|--------------------|----------------------------|----------------------------|
| AWG/<br>Kcmil | Ω/1000ft             | Ω/1000ft             | Ω/1000ft            | lb               | lb               | inch               | Amp                        | Amp                        |
| 14            | 2.631                | 3.170                | 0.058               | 65               | 65               | 4.6                | 20                         | 25                         |
| 14            | 2.631                | 3.170                | 0.058               | 98               | 98               | 4.7                | 20                         | 25                         |
| 14            | 2.631                | 3.170                | 0.058               | 131              | 131              | 5.0                | 16                         | 20                         |
| 14            | 2.631                | 3.170                | 0.058               | 164              | 164              | 5.2                | 16                         | 20                         |
| 14            | 2.631                | 3.170                | 0.058               | 197              | 197              | 5.5                | 16                         | 20                         |
| 14            | 2.631                | 3.170                | 0.058               | 230              | 230              | 5.5                | 14                         | 17                         |
| 14            | 2.631                | 3.170                | 0.058               | 263              | 263              | 6.0                | 14                         | 17                         |
| 14            | 2.631                | 3.170                | 0.058               | 328              | 328              | 6.6                | 10                         | 12                         |
| 14            | 2.631                | 3.170                | 0.058               | 394              | 394              | 6.8                | 10                         | 12                         |
| 14            | 2.631                | 3.170                | 0.058               | 493              | 493              | 7.3                | 10                         | 12                         |
| 14            | 2.631                | 3.170                | 0.058               | 624              | 624              | 8.3                | 10                         | 12                         |
| 14            | 2.631                | 3.170                | 0.058               | 657              | 657              | 8.5                | 10                         | 12                         |
| 14            | 2.631                | 3.170                | 0.058               | 822              | 822              | 9.6                | 9                          | 11                         |
| 14            | 2.631                | 3.170                | 0.058               | 986              | 986              | 9.9                | 9                          | 11                         |
| 12            | 1.662                | 2.002                | 0.054               | 104              | 104              | 4.8                | 25                         | 30                         |
| 12            | 1.662                | 2.002                | 0.054               | 156              | 156              | 5.0                | 25                         | 30                         |
| 12            | 1.662                | 2.002                | 0.054               | 208              | 208              | 5.2                | 20                         | 24                         |
| 12            | 1.662                | 2.002                | 0.054               | 261              | 261              | 5.6                | 20                         | 24                         |
| 12            | 1.662                | 2.002                | 0.054               | 313              | 313              | 6.1                | 20                         | 24                         |
| 12            | 1.662                | 2.002                | 0.054               | 365              | 365              | 6.1                | 17                         | 21                         |
| 12            | 1.662                | 2.002                | 0.054               | 417              | 417              | 6.4                | 17                         | 21                         |
| 12            | 1.662                | 2.002                | 0.054               | 522              | 522              | 7.1                | 12                         | 15                         |
| 12            | 1.662                | 2.002                | 0.054               | 626              | 626              | 7.3                | 12                         | 15                         |
| 12            | 1.662                | 2.002                | 0.054               | 783              | 783              | 8.9                | 12                         | 15                         |
| 12            | 1.662                | 2.002                | 0.054               | 1044             | 1044             | 9.6                | 12                         | 15                         |
| 12            | 1.662                | 2.002                | 0.054               | 1306             | 1306             | 10.3               | 11                         | 13                         |
| 10            | 1.040                | 1.253                | 0.050               | 166              | 166              | 5.2                | 35                         | 40                         |
| 10            | 1.040                | 1.253                | 0.050               | 249              | 249              | 5.3                | 35                         | 40                         |
| 10            | 1.040                | 1.253                | 0.050               | 332              | 332              | 5.7                | 28                         | 32                         |
| 10            | 1.040                | 1.253                | 0.050               | 498              | 498              | 6.6                | 28                         | 32                         |
| 10            | 1.040                | 1.253                | 0.050               | 664              | 664              | 7.0                | 24                         | 28                         |
| 10            | 1.040                | 1.253                | 0.050               | 830              | 830              | 8.6                | 17                         | 20                         |
| 10            | 1.040                | 1.253                | 0.050               | 996              | 996              | 9.1                | 17                         | 20                         |
| 10            | 1.040                | 1.253                | 0.050               | 1245             | 1245             | 9.7                | 17                         | 20                         |

\* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.

