# CSA TECK 90 1000V LSZH CONTROL CABLE

1000V Multi Conductor, 14 AWG - 1000 kcmil 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:

1. **Conductor:** Class B stranded copper, compressed or compact, in accordance with ASTM B3 and B8
2. **Insulation:** Cross-Linked Polyethylene (XLPE), Colour Code: 2/C black, white; 3/C red, black, blue; 4/C red, black, blue, white
3. **Grounding Conductors:** Uninsulated Class B stranded grounding conductor
4. **Inner Jacket:** Black Polyvinyl Chloride (PVC)
5. **Armor:** Aluminum Interlocked Armour (AIA)
6. **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, 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:


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- ASTM B3 Soft or Annealed Copper Wire
- ASTM B8 Concentric-Lay-Stranded Copper Conductors
- UL 1685 FT4 Vertical-Tray Fire Propagation and Smoke Release Test
- 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 ST1 Smoke Test - marked FT4-ST1
- 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_DUAL} SOUTHWIRE MASTER-DESIGN {CSA} LL90458 TECK 90 XLPE X/X XX AWG CU LSZH JACKET -40{D}C FT4-ST1 SUN RES AG14 90{D}C 1000V HL -- USA

## Table 1 – Weights and Measurements

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Ground | Ground Size | Inner Jacket Thickness | Dia. Over Inner Jacket | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | No. | inch | inch | mil | No. x AWG | AWG | mil | inch | inch | mil | inch | lb/ 1000ft | lb/1000ft |
| 10 | 7 | 0.113 | 0.203 | 45 | 1x12 | 12 | 65 | 0.627 | 0.837 | 45 | 0.927 | 149 | 467 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

† 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.

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

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 | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|---|---|---|---|---|---|
| AWG/Kcmil | inch | Ω/1000ft | Ω/1000ft | Ω/1000ft | Amp |
| 10 | 6.5 | 1.04 | 1.291 | 0.05 | 32 |

† Ampacities have been adjusted for more than Three Current-Carrying Conductors

† 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.

## Table 3 – Weights and Measurements (Metric)

| Cond. Size | Strand | Diameter Over Conductor | Diameter Over Insulation | Insul. Thickness | Ground | Ground Size | Inner Jacket Thickness | Dia. Over Inner Jacket | Dia. Over Armour | Overall Jacket Thickness | Approx. OD | Copper Weight | Approx. Weight |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AWG/ Kcmil | No. | mm | mm | mm | No. x AWG | AWG | mm | mm | mm | mm | mm | kg/km | kg/km |
| 10 | 7 | 2.87 | 5.16 | 1.14 | 1x12 | 12 | 1.65 | 15.93 | 21.26 | 1.14 | 23.55 | 222 | 695 |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item



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† Ampacities have been adjusted for more than Three Current-Carrying Conductors.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing.
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 4 – Electrical and Engineering Data (Metric)

| Cond. Size | Min Bending Radius | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance @ 60Hz | Allowable Ampacity In Raceway 90°C |
|---|---|---|---|---|---|
| AWG/Kcmil | mm | Ω/km | Ω/km | Ω/km | Amp |
| 10 | 165.10 | 3.4121 | 4.24 | 0.1640 | 32 |

† Ampacities have been adjusted for more than Three Current-Carrying Conductors
† 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.


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