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

Stock Number	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
TBA	14	7	0.071	0.161	45	1x14	14	50	0.428	0.638	45	0.728	39	273
TBA	14	7	0.071	0.161	45	1x14	14	50	0.454	0.664	45	0.754	52	305
TBA	14	7	0.071	0.161	45	1x14	14	50	0.496	0.706	45	0.796	65	342
668227	12	7	0.089	0.182	45	1x14	14	50	0.47	0.676	45	0.766	54	262
668224	12	7	0.089	0.182	45	1x14	14	50	0.499	0.699	45	0.789	74	293
TBA	12	7	0.089	0.179	45	1x14	14	65	0.569	0.779	45	0.869	93	385
668230	10	7	0.113	0.208	45	1x12	12	50	0.522	0.728	45	0.818	85	314
TBA	10	7	0.113	0.203	45	1x12	12	65	0.574	0.784	45	0.874	116	404
TBA	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.

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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
14	5.1	2.631	3.265	0.058	25
14	5.3	2.631	3.265	0.058	25
14	5.6	2.631	3.265	0.058	20
12	5.4	1.662	2.063	0.054	30
12	5.5	1.662	2.063	0.054	30
12	6.1	1.662	2.063	0.054	24
10	5.7	1.04	1.291	0.05	40
10	6.1	1.04	1.291	0.05	40
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)

Stock Number	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
TBA	14	7	1.80	4.09	1.14	1x14	14	1.27	10.87	16.21	1.14	18.49	58	406
TBA	14	7	1.80	4.09	1.14	1x14	14	1.27	11.53	16.87	1.14	19.15	77	454
TBA	14	7	1.80	4.09	1.14	1x14	14	1.27	12.60	17.93	1.14	20.22	97	509
668227	12	7	2.26	4.62	1.14	1x14	14	1.27	11.94	17.17	1.14	19.46	80	390
668224	12	7	2.26	4.62	1.14	1x14	14	1.27	12.67	17.75	1.14	20.04	110	436
TBA	12	7	2.26	4.55	1.14	1x14	14	1.65	14.45	19.79	1.14	22.07	138	573
668230	10	7	2.87	5.28	1.14	1x12	12	1.27	13.26	18.49	1.14	20.78	126	467
TBA	10	7	2.87	5.16	1.14	1x12	12	1.65	14.58	19.91	1.14	22.20	173	601
TBA	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
† 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.

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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
14	129.54	8.6319	10.71	0.1903	25
14	134.62	8.6319	10.71	0.1903	25
14	142.24	8.6319	10.71	0.1903	20
12	137.16	5.4528	6.77	0.1772	30
12	139.70	5.4528	6.77	0.1772	30
12	154.94	5.4528	6.77	0.1772	24
10	144.78	3.4121	4.24	0.1640	40
10	154.94	3.4121	4.24	0.1640	40
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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