

## CCW<sup>®</sup> Armored Control With Bare Grounding Conductor

UL Type MC-HL, CSA Type HL, XLPE, 600 V, 90°C, Cable Tray Use, Sunlight-Resistant Direct Burial, UL Marine Shipboard Cable, ABS CWCMC



### Product Construction:

#### Conductor:

- Bare annealed copper per ASTM B3
- Compressed Class B stranding per ASTM B8

#### Insulation:

- Cross-linked Polyethylene (XLPE) insulation per ICEA S-73-532 and UL 44, Listed XHHW-2
- Color-coded per ICEA Method 1, Table E2, full-colored insulation with stripes
- Color-coded per CSA C22.2 No. 123 where applicable

#### Grounding Conductor:

- Class B stranded bare annealed copper per ASTM B3 and B8
- Sized in accordance with NEC Table 250.122

#### Cable Assembly:

- Insulated conductors and grounding wire are cabled together with non-hygroscopic fillers when required
- A binder tape, when required, is applied over the cabled core

#### CCW Armor:

- Impervious, continuously welded and corrugated aluminum alloy sheath per UL 1569 and UL 2225
- CCW armor conductivity meets the grounding requirements of NEC Article 250

#### Jacket:

- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC), black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Meets CSA Low Acid Gas requirements

### Applications:

- CCW armored control cables offer an economical, rugged and reliable alternative to labor-intensive cable in conduit wiring methods
- For use in Class I, II and III, Divisions 1 and 2; and Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505
- For use as services, feeders and branch circuits for power, lighting, control, and signal circuits in accordance with NEC Articles 330 and 725
- Installed indoors or outdoors, wet or dry locations, directly buried, embedded in concrete, in a raceway, as aerial cable on a messenger, in cable trays, or as exposed runs secured to supports in accordance with NEC Article 330
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

### Features:

- CCW armor provides an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Factory assembled and tested cable for use as an alternative to cable in conduit wiring systems
- Meets cold impact at -40°C
- 90°C continuous operating temperature, wet or dry
- 130°C emergency rating
- 250°C short circuit rating

### Specifications:

#### Design Adherence:

- ICEA S-73-532/WC57 Standard for Control, Thermocouple Extension and Instrumentation Cables
- UL 44 Rubber Insulated Wires and Cables
- UL 1569 Metal Clad Cables
- UL 2225 Cables and Cable Fittings for Use in Hazardous Locations
- UL 1309 Marine Shipboard Cable
- CSA C22.2 No. 123 Metal Sheathed Cables

#### Flame Tests:

- ICEA T-29-520 (210,000 BTU/hr)
- IEEE 383 (70,000 BTU/hr)
- CSA FT4
- IEEE 1202 (70,000 BTU/hr)
- UL 1581 (70,000 BTU/hr)
- IEC 60332-3 Cat. A

#### Compliances:

- UL Type MC-HL, XHHW-2, SUN RES, CT USE, DIR BUR, -40°C, UL File # E90496
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- CSA certified<sup>1</sup> Type RA90, XLPE, HL, SR, FT4, and -40°C, CSA File # 7319
- RoHS Compliant

<sup>1</sup> Standard cables are also marked CSA Type RA90, except four (4) conductor cables which require a different color code, which may be special-ordered.

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CATALOG NUMBER	COND. SIZE (AWG)	NO. OF COND.	BARE INSULATED GROUND (AWG)	INSULATION THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA <sup>1</sup>	APPROXIMATE NET WEIGHT		90°C AMPACITY @ 30°C AMBIENT <sup>2</sup>
				mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm		SQ. IN.	LBS/1000 FT	

## 14 AWG 7W (2.08 mm<sup>2</sup>) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR

9510.01404114	14	4	14	30	0.76	0.35	8.8	0.52	13.3	50	1.27	0.63	16.0	0.62	203	302	20
9510.01405114	14	5	14	30	0.76	0.38	9.7	0.53	13.5	50	1.27	0.63	16.0	0.62	224	333	20
9510.01407114	14	7	14	30	0.76	0.43	10.9	0.60	15.2	50	1.27	0.71	18.0	0.79	287	427	17.5
9510.01409114	14	9	14	30	0.76	0.51	13.0	0.75	19.1	50	1.27	0.86	21.8	1.16	368	548	17.5
9510.01412114	14	12	14	30	0.76	0.56	14.2	0.79	20.1	50	1.27	0.89	22.6	1.24	425	632	12.5
9510.01419114	14	19	14	30	0.76	0.67	17.0	0.92	23.4	50	1.27	1.02	25.9	1.63	594	884	12.5
9510.01437114	14	37	14	30	0.76	0.94	23.9	1.22	31.0	50	1.27	1.32	33.5	2.74	1030	1533	10

## 12 AWG 7W (3.31 mm<sup>2</sup>) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR

9510.01204112	12	4	12	30	0.76	0.38	9.7	0.55	14.0	50	1.27	0.65	16.5	0.66	246	366	24
9510.01205112	12	5	12	30	0.76	0.43	10.9	0.61	15.5	50	1.27	0.71	18.0	0.79	302	449	24
9510.01207112	12	7	12	30	0.76	0.49	12.4	0.64	16.3	50	1.27	0.74	18.8	0.86	362	539	21
9510.01209112	12	9	12	30	0.76	0.58	14.7	0.79	20.1	50	1.27	0.90	22.9	1.21	458	682	21
9510.01212112	12	12	12	30	0.76	0.64	16.3	0.83	21.1	50	1.27	0.94	23.9	1.39	545	811	15

## 10 AWG 7W (5.26 mm<sup>2</sup>) MULTI-CONDUCTOR CONTROL CABLE WITH BARE GROUNDING CONDUCTOR

9510.01004110	10	4	10	30	0.76	0.46	11.7	0.63	16.0	50	1.27	0.73	18.5	0.84	343	510	32
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Dimensions and weights are nominal; subject to industry tolerances.

<sup>1</sup> Cross-sectional area for cable tray fill is in accordance with NEC Section 392.22.

<sup>2</sup> Ampacities in accordance with NEC Article 310 and Table 310.15(B)(16).

