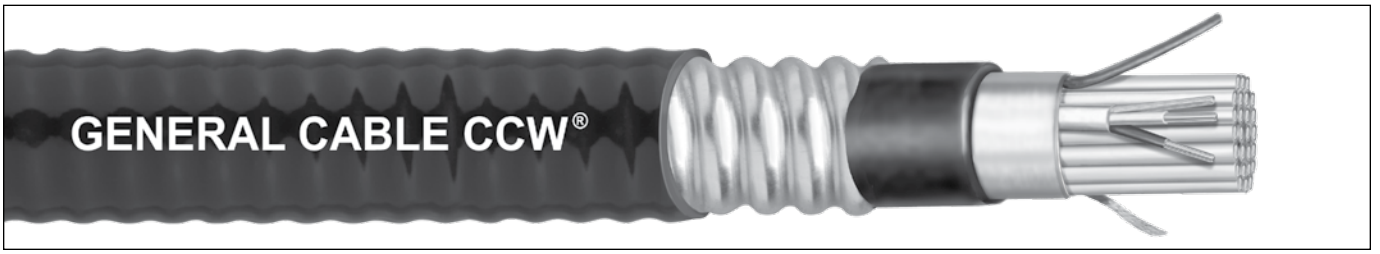
CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC



Product Construction:

Conductor:
- Bare annealed copper per ASTM B3
- Class B stranding per ASTM B8

Insulation:
- Cross-Linked Polyethylene (XLPE), rated 90°C per UL Standards 13 and 2250
- Color-coded per ICEA Method 1: pairs – black and white; triads – black, white and red. Each conductor in each pair or triad is printed alphanumerically for easy identification

Shielded Pairs/Triads:
- Isolated and individually twisted pairs or triads with a Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, two sizes smaller than insulated conductors

Cable Assembly:
- Individually shielded pairs or triads and communication wire are cabled together with a left-hand lay
- Communication wire: 20 AWG solid bare copper, Cross-Linked Polyethylene (XLPE), rated 90°C, orange

Overall Shield:
- Flexfoil® aluminum/polyester tape shield providing 100% coverage
- Stranded tinned copper drain wire, same size as insulated conductors

Inner Jacket:
- Flame-retardant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C
- Nylon rip cord to facilitate jacket removal

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

Overall Jacket:
- Flame-retardant, moisture- and sunlight-resistant Polyvinyl Chloride (PVC) per UL Standards 13 and 2250, black
- Low temperature performance meets ASTM D746 brittleness temperature at or below -40°C

Applications:

- CCW armored Instrumentation cables with individually shielded pairs or triads and an overall shield provide superior protection and reliability against physical damage for use in instrumentation and process control applications requiring ITC-HL or PLTC wiring methods where shielding against both external EMI and EMI between groups is required
- For use as Power Limited Tray Cable on circuits rated 150 V or less and 5 amps or less in Class 2 or Class 3 circuits in accordance with NEC Article 725
- For use as Instrumentation Tray Cable on circuits rated 150 V or less and 5 amps or less in accordance with NEC Article 727
- Recognized for use in Class I and III, Divisions 1 and 2; Class II, Division 2; or Class I, Zones 1 and 2 hazardous locations per NEC Articles 501, 502, 503 and 505

Applications: (cont'd.)

- Installed indoors or outdoors, in wet or dry locations, in a raceway, as aerial cable on a messenger, in cable trays, or for direct burial
- Recognized for use on fixed or floating offshore petroleum facilities as recommended by the American Petroleum Institute

Features:

- CCW armor provides superior mechanical protection and an impervious barrier to moisture, gas and liquids
- CCW armor provides EMI shielding performance
- Meets cold impact at -40°C

Specifications:

Design Adherence:
- UL 13 Power-Limited Circuit Cables
- UL 2250 Instrumentation Tray Cable
- UL 1569 Metal Clad Cables
- UL 1309/CSA C22.2 No. 245 Marine Shipboard Cable

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 PLTC, SUN RES, DIR BUR, -40°C, UL File # E36118
- UL Type ITC-HL, UL File # E177408
- UL Listed Marine Shipboard, UL File # E85994
- American Bureau of Shipping (ABS) Listed for CWCMC
- RoHS Compliant

General Cable

ABS

RoHS Compliant Directive 2011/65/EU

UL LISTED

CCW® Armored Instrumentation, Pairs/Triads, Individual and Overall Shield

UL Type ITC-HL/PLTC, XLPE, 300 V, 90°C, Sunlight-Resistant, Direct Burial
UL Marine Shipboard Cable, ABS CWCMC

CATALOG NUMBER	COND. SIZE (AWG)	NO. OF PAIRS	INSULATION THICKNESS		COMMUNICATION WIRE			INNER JACKET THICKNESS		NOMINAL CORE O.D.		NOMINAL ARMOR O.D.		JACKET THICKNESS		NOMINAL OVERALL O.D.		CROSS-SECTIONAL AREA[1]	APPROXIMATE NET WEIGHT	
					SIZE	INS. THICKNESS														
			mils	mm	AWG	mils	mm	mils	mm	INCHES	mm	INCHES	mm	mils	mm	INCHES	mm	SQ. IN.	LBS/1000 FT	kg/1000 m
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED PAIRS																				
9150.16010001*	16	1	30	0.76	—	—	—	62	1.57	0.38	9.7	0.56	14.2	50	1.27	0.67	17.0	0.36	207	308
9150.16021201	16	2	30	0.76	20	15	0.38	78	1.98	0.62	15.7	0.83	21.1	50	1.27	0.94	23.9	0.70	351	522
9150.16041201	16	4	30	0.76	20	15	0.38	93	2.36	0.75	19.1	0.99	25.1	50	1.27	1.10	27.9	0.96	509	757
9150.16081201	16	8	30	0.76	20	15	0.38	109	2.77	0.98	24.9	1.29	32.8	50	1.27	1.40	35.6	1.56	798	1,188
9150.16121201	16	12	30	0.76	20	15	0.38	109	2.77	1.17	29.7	1.52	38.6	60	1.52	1.65	41.9	2.17	1,075	1,600
9150.16161201	16	16	15	0.38	20	15	0.38	60	1.52	0.87	22.1	1.11	28.2	50	1.27	1.22	31.0	1.18	665	990
9150.16241201	16	24	30	0.76	20	15	0.38	124	3.15	1.62	41.1	1.92	48.8	60	1.52	2.05	52.1	3.34	1,790	2,664
9150.16361201	16	36	30	0.76	20	15	0.38	140	3.56	1.88	47.8	2.19	55.6	60	1.52	2.31	58.7	4.25	2,405	3,579
9150.16501201	16	50	30	0.76	20	15	0.38	171	4.34	2.26	57.4	2.62	66.5	75	1.91	2.78	70.6	6.15	3,366	5,009
16 AWG 7W (1.31 mm²) INDIVIDUAL AND OVERALL SHIELDED TRIADS																				
9150.16010002*	16	1	15	0.38	—	—	—	35	0.89	0.27	6.9	0.49	12.4	50	1.27	0.60	15.2	0.29	158	235
9150.16021202	16	2	30	0.76	20	15	0.38	93	2.36	0.72	18.3	0.96	24.4	50	1.27	1.07	27.2	0.91	461	686
9150.16041202	16	4	30	0.76	20	15	0.38	93	2.36	0.82	20.8	1.09	27.7	50	1.27	1.20	30.5	1.15	605	900
9150.16081202	16	8	30	0.76	20	15	0.38	109	2.77	1.08	27.4	1.43	36.3	50	1.27	1.54	39.1	1.89	992	1,476
9150.16121202	16	12	30	0.76	20	15	0.38	109	2.77	1.29	32.8	1.60	40.6	60	1.52	1.73	43.9	2.38	1,312	1,952
9150.16161202	16	16	15	0.38	20	15	0.38	70	1.78	0.95	24.1	1.24	31.5	50	1.27	1.35	34.3	1.45	965	1,436
9150.16241202	16	24	30	0.76	20	15	0.38	140	3.56	1.83	46.5	2.15	54.6	60	1.52	2.28	57.9	4.14	2,313	3,442
9150.16361202	16	36	30	0.76	20	15	0.38	140	3.56	2.08	52.8	2.45	62.2	60	1.52	2.58	65.5	5.30	3,140	4,673
9150.16501202	16	50	30	0.76	20	15	0.38	171	4.34	2.50	63.5	3.03	77.0	75	1.91	3.19	81.0	8.10	4,270	6,354

Dimensions and weights are nominal; subject to industry tolerances.
* Item rated ITC/PLTC.
[1] Cross-sectional area for cable tray fill is in accordance with NEC® Section 392.22.

UL® LISTED
RoHS Compliant Directive 2011/65/EU
ABS®
General Cable