C-L-X® X-Olene® SP-OS

UL Type MC-HL, PLTC, ITC-HL and cUL ACIC-TC Instrumentation Cable
Multiple Shielded Pairs/Triads - Overall Shield
600 Volts 90°C Rating: UL MC-HL and cUL ACIC-TC
300 Volts 90°C Rating: UL PLTC & ITC-HL
For Cable Tray Use Sunlight Resistant For Direct Burial -50°C

A Copper Stranded Conductor
B X-Olene Insulation
C Tin Coated Copper Group Drain Wire
D Aluminum/Polyester Tape
E Twisted, Shielded Pairs
F Aluminum/Polyester Tape
G Tin Coated Copper Drain Wire
H Rip Cord
J Inner Okoseal Jacket
K Impervious, Continuous, Corrugated Aluminum C-L-X Sheath
L Outer Okoseal Jacket

Specifications

Conductors: Bare copper, Class B, stranded per ASTM B8.

Insulation: X-Olene® (XLPE), per UL 13, 2250 & 1569, 30 mils nominal thickness, 90°C temperature rating. Meets MIL-DTL-1377H, section 4.8.4.1.2 Cold Bend at -66°C and ASTM D746-04 brittlepoint at -76°C.

Conductor Identification: Pigmented black and white in pairs, black, red and white in triads; white conductor numerically printed for group identification.

Pair Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a Class B tin coated copper drain wire, two sizes smaller than the conductor. All multi-pair shields are isolated from each other.

Multiple Pair Assembly: Pairs/triads assembled with a left-hand lay. Cable fillers included where required to provide a round cable.

Multiple Pair Cable Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a class B strand tin coated copper drain wire, same size as conductor.

Inner Jacket: Black, flame-retardant, low temperature Okoseal® (PVC) per UL 13 and UL 2250. The inner jacket meets the thickness requirements of UL 1277. A rip cord is laid longitudinally under the jacket to facilitate removal.

C-L-X Sheath: A close-fitting, impervious, continuously welded and corrugated, aluminum sheath provides complete protection against moisture, liquids, and gases, has excellent mechanical strength, and provides equipment grounding through the sheath.

Outer Jacket: Black, flame-retardant, low temperature Okoseal per UL 13 and UL 2250.

Applications

These cables eliminate the need for conduit. Can be installed as Type PLTC in accordance with Article 722, and as Type ITC in accordance with Article 335 of the 2023 National Electrical Code.

They can also be installed as Type MC-HL and Type ITC-HL in Class I, II, and III, Divisions 1 and 2 hazardous location in accordance with NEC Articles 501, 502, 503, & 505; in Zone 2 per CEC for conductors #14 AWG & larger.

The isolated individual shields over each pair, in SP-OS cables, when properly grounded, prevent crosstalk or capacitive coupling between adjacent pairs while the overall shield eliminates most of the static interference from the electrical field radiated by power cables and other electrical equipment.

Product Features

Complete pre-packaged, factory-tested wiring system-color coded.
C-L-X enclosure permits installation in cable tray containing lighting and power cables without a barrier separator.
Lower installed system cost than conduit or EMT systems.

Applicable Standards

- UL listed for cable tray use, direct burial, in ducts, and sunlight resistant.
- Vertical Tray Flame Tests; IEEE 383-1974 & FT4/IEEE 1202.
- UL listed at -50°C. Also, meets the CSA 22.2 No.3 Cold Impact Test at -45°C.
- UL 13 Type PLTC & UL 2250 Type ITC.
- UL 2225 Type MC-HL & UL 1569.
- CSA C22.2 No. 230 Type TC
- CSA C22.2 No. 239 type ACIC
- cUL listed as Type ACIC-TC complies with CEC Zone 2 Hazardous Locations.

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Catalog Number	Number of Pairs	Number of Triads	Inner Jacket Thickness - mils	Nominal Core O.D. Inches	C-L-X O.D. Inches	Outer Jacket mils	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
#16 AWG										
567-70-3402	2		60	0.58	0.80	50	0.91	0.65	325	405
567-70-3404	4		60	0.70	0.93	50	1.04	0.85	424	504
567-70-3408	8		80	0.92	1.19	50	1.30	1.33	650	752
567-70-3412	12		80	1.10	1.37	50	1.48	1.73	842	985
567-70-3424	24		80	1.44	1.78	60	1.91	2.87	1450	1640
567-70-3436	36		110	1.82	2.19	60	2.32	4.23	2145	2480
567-71-3402		2	60	0.64	0.89	50	1.00	0.79	376	456
567-71-3404		4	60	0.75	1.02	50	1.13	1.00	500	580
567-71-3408		8	80	1.06	1.34	50	1.45	1.64	800	945
567-71-3412		12	80	1.26	1.56	60	1.69	2.24	1090	1235
567-71-3424		24	80	1.65	2.01	60	2.14	3.61	1914	2199
#18 AWG										
567-70-3302	2		45	0.50	0.71	50	0.82	0.53	253	333
567-70-3304	4		60	0.67	0.89	50	1.00	0.79	365	445
567-70-3308	8		60	0.83	1.06	50	1.17	1.08	503	583
567-70-3312	12		80	1.00	1.29	50	1.40	1.54	693	799
567-70-3324	24		80	1.34	1.64	60	1.78	2.48	1125	1290
567-70-3336	36		80	1.55	1.92	60	2.05	3.29	1545	1835
567-71-3302		2	60	0.62	0.84	50	0.95	0.71	326	406
567-71-3304		4	60	0.73	0.97	50	1.08	0.92	428	508
567-71-3308		8	80	0.98	1.24	50	1.35	1.43	658	764
567-71-3312		12	80	1.15	1.47	50	1.58	1.96	860	1003
567-71-3324		24	80	1.58	1.96	60	2.09	3.42	1505	1760

ELECTRICAL SPECIFICATIONS

	@20°C	@25°C
Conductor Resistance, nominal - ohms/1000 ft.		
16 AWG	4.10	4.18
18 AWG	6.51	6.64

Insulation Test Voltage (spark test) ..... 7500 Volts ac

Dielectric Test Voltage ..... 3000 Volts ac

Insulation Resistance Constant @60°F minimum ... 10,000 ohms-1000 ft.

	@20°C	@25°C
Loop Resistance, nominal (2 cdr.) - ohms/1000 ft		
16 AWG	8.20	8.36
18 AWG	13.02	13.28

Mutual Capacitance (PF/ft.)*
#16 23
#18 21

*Typical Value

† **Cross-sectional** area for calculation of cable tray fill in accordance with NEC Section 392.22.

Jackets - Optional jacket types available - consult local sales office.

Copper or bronze C-L-X available on special order.

To order without the outer Okoseal jacket (not "HL" listed), change the sixth digit of the catalog number from 3 to 1, for example to order 2 pr. 16 AWG with a bare aluminum C-L-X, the catalog number would be 567-70-1402.

Length Tolerance: Cut lengths of 1000 feet or longer are subject to a tolerance of ± 10%; less than 1000 feet ± 15%.

THE OKONITE COMPANY
Ramsey, New Jersey 07446