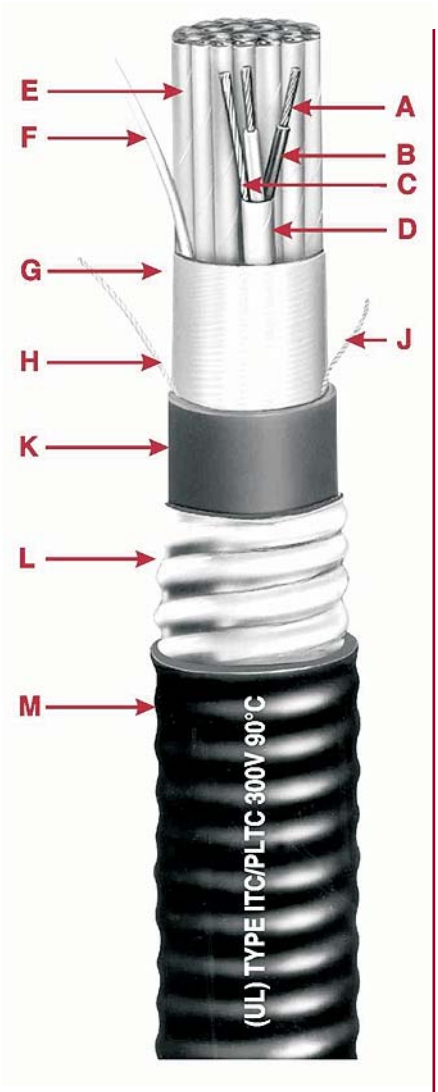
C-L-X® Type SP-OS

Type ITC/PLTC Armored Thermoset Instrumentation Cable

Multiple Shielded Pairs or Triads - Overall Shield — 300 Volts - 90°C Rating

For Cable Tray Use



A Bare Stranded Copper Conductor
B X-olene Insulation
C Tinned Stranded Copper group Drain Wire
D Aluminum/Polyester Tape
E Twisted Shielded Pairs/Triads
F Communication Wire
G Aluminum/Polyester Tape
H Tinned Stranded Copper Drain Wire
J Rip Cord
K Inner Black Okoseal Jacket
L Impervious, Continuous Corrugated Aluminum C-L-X Sheath
M Outer Black Okoseal Jacket

Specifications

Conductors: Bare soft annealed copper, Class B, 7-strand concentric per ASTM B-8.

Insulation: X-Olene® (XLP) per UL 13 and UL 2250, 15 mils nominal thickness, 90°C temperature rating.

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

Group Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a 7-strand tinned copper drain wire, two sizes smaller than the conductor. All group shields are completely isolated from each other.

Communications Wire: 20 AWG, solid bare copper conductor, 15 mils nominal X-Olene insulation, 90°C temperature rating.

Assembly: Pairs or triads assembled with left-hand lay. Fillers included where required to provide a round cable.

Cable Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a 7-strand tinned copper drain wire, same size as the conductor.

Inner Jacket: Black, flame-retardant, low temperature Okoseal® (PVC) per UL 13 and UL 2250. 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.

Classifications

UL Listed as ITC/PLTC — Instrument Tray Cable/Power Limited Tray Cable for use in accordance with Article 335 and Article 722 of the 2023 National Electrical Code.

These cables comply with UL 2250 for ITC and UL 13 for PLTC, CL2 and CL3.

Applications

Okonite Type C-L-X SP-OS (Pair/Triad - Individual and Overall Shield) instrumentation cables are designed for use as instrumentation, process control, and computer cables in ITC non-classified or labeled circuits up to 150 volts and 5 amps (750VA) and in Class 2 or 3 Power-Limited circuits where maximum shielding against external interference is required, as well as shielding among groups, particularly where the cable may be subject to abnormally high current or voltage interference; indoors or outdoors; in wet or dry locations; in cable trays; in raceways; supported by a messenger wire; under raised floors; for direct burial. Suitable Class I, Division 2, Class II, Division 2, Class III, Division 1 or Class I, Zone 2 hazardous locations. Also for use as Power-Limited fire protective signaling cable (FPL) per NEC Article 760. The C-L-X sheath provides physical protection against mechanical damage. It maybe installed in both exposed and concealed work, secured to supports not greater than 6 feet apart.

Product Features

- Passes the UL 1581, IEEE 383-1974, & IEEE 1202 vertical tray flame tests.
- Passes the 210,000 BTU/hr vertical tray flame test per ICEA T-29-520.
- Recommended for dc applications in wet environments.
- UL listed for direct burial.
- C-L-X enclosure permits installation in cable tray containing light and power cables without a barrier separator.
- Impervious, continuous sheath excludes moisture, gasses and liquids.
- In addition, the aluminum CLX sheath exceeds the equipment grounding requirements of NEC Articles 250.118 and 250.122, and can be used as the equipment grounding conductor.
- Excellent compression and impact resistance.
- Lower installed system cost than conduit or EMT systems..
- Suitable for low temperature installation to -40°C.

C-L-X Type SP-OS

Type ITC/PLTC Armored Thermoset Instrumentation Cable

Multiple Shielded Pairs or Triads - Overall Shield 300V - 90°C Rating

For Cable Tray Use

X-Olene Insulation: 15 mils

Catalog Number	Strand Size (AWG)	Number of Pairs	Number of Triads	Inner Jacket Thickness-mils	Inner Jacket Nominal 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')
567-86-3402	16(7X)	2		50	0.45	0.67	50	0.78	0.48	255	335
567-86-3404		4		50	0.53	0.75	50	0.86	0.58	324	404
567-86-3408		8		60	0.71	0.93	50	1.04	0.85	512	592
567-86-3412		12		60	0.83	1.06	50	1.17	1.08	659	765
567-86-3424		24		70	1.13	1.42	50	1.53	1.84	1218	1361
567-86-3436		36		80	1.33	1.64	60	1.78	2.49	1638	1802
567-86-3450		50		80	1.58	1.96	60	2.09	3.43	2125	2381
567-87-3402			2	50	0.50	0.71	50	0.82	0.53	288	368
567-87-3404			4	50	0.60	0.84	50	0.95	0.71	390	470
567-87-3408			8	60	0.81	1.06	50	1.17	1.08	618	698
567-87-3412			12	70	0.98	1.24	50	1.35	1.43	870	976
567-87-3424			24	80	1.30	1.60	60	1.73	2.35	1581	1745
567-87-3436			36	80	1.53	1.87	60	2.00	3.14	2113	2369
567-87-3450			50	90	1.79	2.19	60	2.32	4.23	2955	3290

ELECTRICAL SPECIFICATIONS
Per UL Standard 13 & 2250

Conductor Resistance, nominal .....ohms/1000 ft. @20°C
16 AWG 4.1
Insulation Test Voltage (spark test) .....5000 Volts ac
Dielectric Test Voltage .....1500 Volts ac
Insulation Resistance Constant @60°F, minimum (natural material typical value) .....10,000 Megohms-1000 ft.
Loop Resistance, nominal (2 conductor) ohms-1000 ft @20°C
16 AWG 8.2

† **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 C-L-X Type SP-OS without the outer Okoseal jacket, change the sixth digit of the catalog number from 3 to 1.

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