



C-L-X[®] Type P-OS

Type ITC/PLTC Armored Thermoset



Instrumentation Cable

Single Pair or Triad - Overall Shield — 300 Volts - 90°C Rating

For Cable Tray Use



- A Bare Stranded Copper Conductor
- B X-olene Insulation
- C Twisted Pair/Triad
- D Aluminum/Synthetic Polymer Tape
- E Tinned Stranded Copper Drain Wire
- F Rip Cord
- G Inner Black Okoseal Jacket
- H Impervious, Continuous Corrugated Aluminum C-L-X Sheath
- J Outer Black Okoseal Jacket

Specifications

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

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

Conductor Identification: Pigmented black and white in pairs, black, red and white in triads.

Assembly: Pair or triad assembled with left-hand lay.

Cable Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a #18 AWG 7-strand tinned copper drain wire.

Inner Jacket: Black, flame-retardant Okoseal (PVC) per UL 13 and UL Standard 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 PVC Okoseal per UL Subject 13 and UL Standard 2250.

Classifications

UL Listed as ITC/PLTC — Instrument Tray Cable/Power Limited Tray Cable for use in accordance with Article 727 and Article 725 of the National Electrical Code.

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

Applications

Okonite Type C-L-X P-OS (Pair/Triad - 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 shielding against external interference is required, but shielding against interference among groups is not required; indoors or outdoors; in wet or dry locations with conductor operating temperatures up to 90°C; 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, or Class III, Division 2 and Class I, Zone 2 hazardous locations. Also for use as Power-Limited protective signaling cable (FPL) per NEC Code 760.

The C-L-X sheath provides physical protection against mechanical damage. It may be installed in both exposed and concealed work, secured to supports not greater than 6 feet apart.

The overall shield eliminates most of the static interference from the electric field radiated by power cables and other electrical equipment.

Product Features

- Passes the UL 1581, IEEE 383-1974, & IEEE 1202-1991 vertical tray flame tests.
- Passes the 210,000 BTU/hr. vertical tray flame test per ICEA T-29-520 and the 210,000 BTU/hr. corner configuration test.
- Recommended for dc applications in wet environments.
- UL listed as sunlight resistant.
- UL listed for direct burial.
- Complete pre-packaged, factory-tested wiring system color coded.
- C-L-X enclosure permits installation in cable tray containing light and power cables without a barrier separator.
- Individual pairs or triads are numbered and color coded for simplified hook-up.
- Excellent noise rejection.
- Impervious, continuous sheath excludes moisture, gases and liquids.
- C-L-X sheath exceeds equipment grounding conductor requirements of NEC Article 250.
- Excellent compression and impact resistance.
- Lower installed system cost than conduit or EMT systems.
- OSHA acceptable.
- UL listed as Marine Shipboard cable.
- Listed by American Bureau of Shipping (ABS) as CWCMC-PLTC and CWCMC-ITC.
- Meets API Standards 14F and 14FZ.
- Recognized by US Coast Guard as Type MC or CCWMC.
- Suitable for low temperature installation to -40°C.

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Single Pair or Triad - Overall Shield 300V - 90°C Rating
For Cable Tray Use



Product Data

Section 5: Sheet 4

Conductors: 16 AWG
X-Olene Insulation: 15 mils

Catalog Number	Number of Pairs	Number of Triads	Inner Jacket Thickness-mils	Inner Jacket Nominal O.D. - Inches	Outer Jacket - (mils)	C-L-X O.D. - Inches	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx. Net Weight (lbs/1000')	Approx. Ship Weight (lbs/1000')
567-93-3801	1		35	.26	50	.43	.56	.25	133	172
567-94-3801		1	35	.28	50	.48	.56	.25	154	193

ELECTRICAL SPECIFICATIONS Per UL Standard 13 & 2250

Conductor Resistance, nominalohms/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 392.9.

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 P-NS without the outer Okoseal jacket, change the sixth digit of the catalog number from 3 to 1, for example to order 1 pr. 16 AWG with a bare aluminum C-L-X, the catalog number would be 567-93-1801.

C-L-X products manufactured in the United States under license granted by Kabelmetal of Hanover, Germany.

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