



### C-L-X<sup>®</sup> Type P-OS Type ITC/PLTC Armored Thermoset Instrumentation Cable



Multiple Pairs or Triads - 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 Communication Wire
- E Aluminum/Polyester Tape
- F Tinned Stranded Copper Drain Wire
- G Rip Cord
- H Inner Black Okoseal Jacket
- J Impervious, Continuous Corrugated Aluminum C-L-X Sheath
- K Outer Black Okoseal Jacket

#### Specifications

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

**Insulation:** X-Olene (XLP), UL Standard 13 and 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.

**Communication Wire:** 20 AWG solid copper conductor, 15 mils X-Olene, 90°C temperature rating.

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

**Inner Jacket:** Black, flame-retardant, low temperature Okoseal (PVC) per UL Standard 13 and 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 Standard 13 and 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 Standard 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 hazardous

locations. Also for use as Power-Limited fire 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.

#### 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.
- 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.
- In addition, the aluminum CLX sheath exceeds the equipment grounding requirements of NEC Section 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.
- OSHA acceptable.
- UL listed as Marine Shipboard cable.
- Listed by American Bureau of Shipping (ABS) as CWCMC-PLT and CWCMC-ITC.
- Meets API Standards 14F and 14FZ.
- Suitable for low temperature installation to -40°C.

# C-L-X Type P-OS Type ITC/PLTC Armored Thermoset Instrumentation Cable



## Product Data Section 5: Sheet 5

Multiple Pairs or Triads- Overall Shield — 300V - 90°C Rating  
For Cable Tray Use

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')
567-93-3802	2	40	0.37	50	0.58	0.69	0.37	229	309	
567-93-3804	4	50	0.49	50	0.71	0.82	0.53	292	372	
567-93-3808	8	60	0.65	50	0.89	1.00	0.79	404	484	
567-93-3812	12	60	0.76	50	1.02	1.13	1.00	551	631	
567-93-3816	16	60	0.87	50	1.11	1.22	1.17	652	732	
567-93-3824	24	70	1.01	50	1.34	1.45	1.65	916	1022	
567-93-3836	36	70	1.24	60	1.56	1.69	2.24	1212	1355	
567-93-3850	50	80	1.47	60	1.83	1.96	3.02	1700	1864	
567-94-3802	2	40	0.39	50	0.62	0.73	0.42	262	342	
567-94-3804	4	50	0.52	50	0.75	0.86	0.58	351	431	
567-94-3808	8	60	0.69	50	0.93	1.04	0.85	554	634	
567-94-3812	12	60	0.81	50	1.06	1.17	1.08	777	867	
567-94-3816	16	70	0.95	50	1.24	1.35	1.43	946	1089	
567-94-3824	24	70	1.14	50	1.42	1.53	1.84	1418	1582	
567-94-3836	36	80	1.34	60	1.64	1.78	2.49	1875	2131	
567-94-3850	50	80	1.57	60	1.92	2.05	3.30	2534	2869	

† Cross-sectional area for calculation of cable tray fill in accordance with NEC Section 318-9

Copper or bronze C-L-X available on special order. To order C-L-X Type P-OS 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%.

### 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	
Insulation Resistance Constant @60°F minimum (natural material typical value).....10,000 Ohms-1000 ft.	
Loop Resistance, nominal (2 conductor) ohms-1000 ft @20°C	
16 AWG.....	8.2



**THE OKONITE COMPANY**

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