

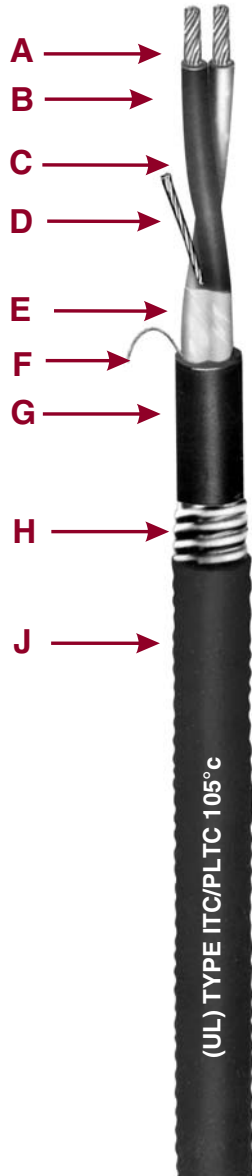


# C-L-X<sup>®</sup> Type P-OS

## Type ITC/PLTC Armored Instrumentation Cable

Single Pair or Triad - Overall Shield  
300 Volts - 105°C Rating

For Cable Tray Use



- A Bare Stranded Copper Conductor
- B Okoseal Insulation
- C Twisted Pair/Triad
- D Tinned Stranded Copper Drain Wire
- E Aluminum/Polyester Tape
- 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:** Flame-retardant Okoseal<sup>®</sup> (PVC) per UL Standard 13 and UL 2250, 15 mils nominal thickness, 105°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 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 Okoseal per UL 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 105°C; in cable trays; in raceways; supported by a messenger wire; under raised floors; for direct burial. Suitable Class I, Division 2, and Class I, Zone 2 Class II, Division 2, or Class III, Division 2 and Class I, Zone 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.

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

For dc service in wet locations, X-Olene<sup>®</sup> insulation is recommended.

### Product Features

- Passes the UL 1581, IEEE 383-1974, and IEEE 1202 vertical tray flame tests.
- Passes the 210,000 BTU/hr vertical tray flame test per ICEA T-29-520.
- 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 color coded for simplified hook-up.
- Maximum 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.
- Meets API Standards 14F and 14FZ.
- Suitable for low temperature installation of -40°C.

# C-L-X Type P-OS

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Single Pair or Triad - Overall Shield 300V - 105°C Rating  
For Cable Tray Use

# Product Data

## Section 5: Sheet 3



**Conductors: 16 AWG**  
**Okoseal 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')
▲ 564-10-3401	1	1	35	.26	50	.43	.54	.25	134	173
▲ 564-15-3401			35	.28	50	.43	.54	.25	155	194

### 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).....2000 Megohms-1000 ft.  
Loop Resistance, nominal (2 conductor) ohms-1000 ft @20°C  
16 AWG..... 8.2  
Mutual Capacitance, typical .....76 PF/ft.

▲ **Authorized Stock Item:** Available from our Customer Service Center  
† **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 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 564-10-1401.

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%.

