

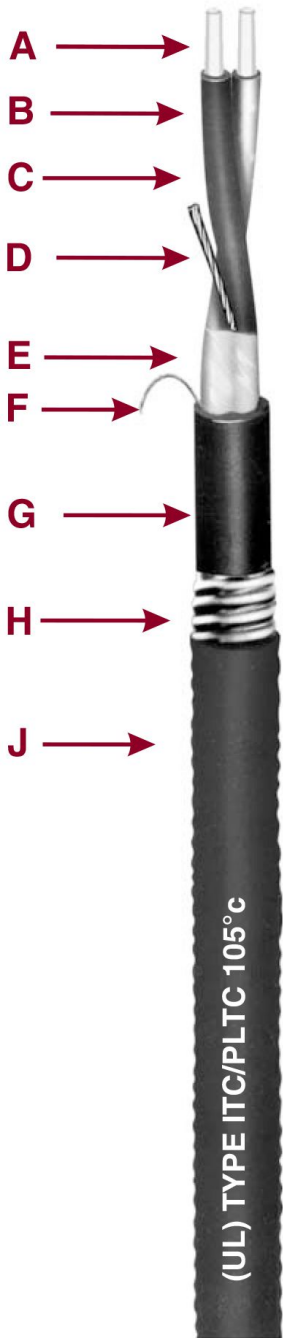
C-L-X® Type P-OS

Type ITC/PLTC Armored Thermocouple

Extension Cable

Single Pair - Overall Shield - 105°C Rating

For Cable Tray Use



Specifications

Conductors: Solid alloys per ANSI MC 96.1.

Insulation: Flame-retardant Okoseal® (PVC) per UL Standard 13 and 2250, 15 mils nominal thickness, 105°C temperature rating.

Conductor Identification: Pigmented insulating on individual conductors.

Assembly: Pairs assembled with left-hand lay

Cable Shield: Aluminum/Polyester backed 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 per UL Standard 13 and 2250. A rip cord is laid longitudinally under the jacket to facilitate removal.

C-L-X Sheath: 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: Flame-retardant, low temperature Okoseal per UL Standard 13 and 2250.

Classifications: UL Listed as Type ITC/PLTC - Instrumentation Tray Cable/Power Limited Tray Cable, for use in accordance with Article 727 and 725 of the National Electrical Code.

Cables comply with UL 2250 and UL Subject 13 for PLTC, CL2 and CL3.

Applications

Okonite Type C-L-X P-OS (Pair/triad - Overall Shield) Thermocouple Extension cables are designed for use as instrumentation and process control 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 interfer-

ence among groups is not required; indoors or outdoors; in wet or dry location 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, Class II, Division 2, or Class III, Division 2 and Class I, Zone 2 hazardous locations. 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 vertical tray flame tests.
- Passes the 210,000 BTU/hr vertical tray flame test per ICEA T-29-520.
- Complete pre-packaged, factory-tested wiring system-color coded.
- C-L-X cables are quality control inspected to meet or exceed applicable UL Standards.
- 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.
- 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.
- Lower installed system cost than conduit or EMT systems.
- Meets API Standards 14F and 14FZ.
- UL listed for direct burial
- Suitable for low temperature installation of -40°C

- A Solid Thermocouple Alloy Conductor
- B Okoseal Insulation
- C Twisted Pair
- D Tinned Stranded Copper Drain Wire
- E Aluminum/Polyester Tape
- F Rip Cord
- G Inner Okoseal Jacket
- H Impervious, Continuous, Corrugated Aluminum C-L-X Sheath
- J Outer Okoseal Jacket

C-L-X Type P-OS

Type ITC/PLTC Armored Thermocouple Extension Cable

Single Pair - Overall Shield - 105°C Rating
For Cable Tray Use



Conductors: 16 AWG
Okoseal Insulation: 15 mils

| ASA/ISA Type | Catalog Number | Number of Pairs | Inner Jacket Thickness - mils | Inner Jacket Nominal O.D. - Inches | C-L-X O.D. - Inches | Outer Jacket - mils | Nominal Cable O.D. - (in.) | Cross-Sectional Area (sq in) † | Approx Net Weight (lbs/1000') | Approx Ship Weight (lbs/1000') |
|--------------|----------------|-----------------|-------------------------------|------------------------------------|---------------------|---------------------|----------------------------|--------------------------------|-------------------------------|--------------------------------|
| EX | 584-20-1401 | 1 | 35 | .24 | .43 | 50 | .54 | .23 | 128 | 167 |
| JX | 584-20-2401 | 1 | 35 | .24 | .43 | 50 | .54 | .23 | 128 | 167 |
| KX | ▲ 584-20-3401 | 1 | 35 | .25 | .43 | 50 | .54 | .23 | 128 | 167 |
| TX | 584-20-4401 | 1 | 35 | .24 | .43 | 50 | .54 | .23 | 128 | 167 |

| ASA/ISA COLOR CODE AND LIMITS OF ERROR | | | | | | | | | |
|--|---------------|--------|---------------|-------|--------------------|---------------------|-----------------|-------------|--------------------------------------|
| ASA/ISA Type | Positive Wire | | Negative Wire | | Outer Jacket Color | Temperature Range°C | Limits of Error | | Nom. Loop Resistance Per 100' @ 20°C |
| | Alloy | Color | Alloy | Color | | | Standard | Special (1) | |
| EX | Chromel | Purple | Constantan | Red | Purple | 0 to 200°C | ± 1.7°C | | 27.8 ohms |
| JX | Iron | White | Constantan | Red | Black | 0 to 200°C | ± 2.2°C | ± 1.1°C | 13.9 ohms |
| KX | Chromel | Yellow | Alumel | Red | Yellow | 0 to 200°C | ± 2.2°C | | 23.6 ohms |
| TX | Copper | Blue | Constantan | Red | Blue | -60 to 100°C | ± 1.0°C | ± 0.5°C | 12.0 ohms |

▲ **Authorized Stock Item:** Available from our Customer Service Centers.

SX available upon request.

(1) Special grade alloy conductors for JX and TX are available on special order.

† **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 1 to 5 for EX, 2 to 6 for JX, 3 to 7 for KX, and 4 to 8 for TX. For example to order 12 pr. 20 AWG Type KX with a bare aluminum C-L-X, the catalog number would be 584-20-7212.

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 2250 | |
| Insulation Test Voltage (spark test) | 5000 Volts ac |
| Dielectric Test Voltage | 1500 Volts ac for 15 sec. |
| Shield Isolation Test | |
| Pair to Cable Shield | exceeds 100M ohms/1000 ft. |
| Insulation Resistance Constant @60°F, minimum | |
| (natural material typical value) | 2000 Megohms-1000 ft. |