Okobus C-L-X
Twisted Shielded Single Pair: Type P-OS
Twisted Shielded Multi Pair: Type SP-OS
Type PLTC & Type ITC-HL Fieldbus Cable
Shielded Single Pair or Multiple Shielded Pairs
Overall Shield 300 Volts 90°C Rating

Specifications
Conductors: #18 AWG and #16 AWG tinned copper, Class B, stranded per ASTM B-8.
Insulation: X-Olene (crossed linked polyethylene) per UL 13 and 2250, 32 mils nominal thickness, 90°C temperature rating.
Conductor Identification: Pigmented orange and blue in pairs, orange conductor numerically printed for group identification.
Pair Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a Class B tinned copper drain wire, two sizes smaller than the conductor. All multi-pair shields are isolated from each other.
Multiple Pair Assembly: Twisted pairs assembled with a left-hand lay. Cable fillers included where required to provide a round cable.
Multiple Pair Cable Shield: Aluminum/Polyester tape overlapped to provide 100% coverage, and a Class B stranded tinned copper drain wire, same size as conductor.
Jacket: Orange, flame-retardant, Okoseal per UL 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: Orange, flame-retardant, Okoseal per UL 13 and 2250.

Applications
C-L-X OKOBUS® cables are designed for use in rugged plant and off-shore marine environments utilizing networked discrete or process automation and control. ITC-HL (Instrument Tray Cable - Hazardous Locations) eliminates the need for conduit when installed in accordance with NEC Article 501.10(A)(1)(d) “ITC-HL” installations.

Product Features
- FF-844 Foundation Fieldbus Type A.
- Passes the UL 13 and IEEE 383 vertical tray flame tests.
- Single pair passes IEEE 1202 vertical tray flame test.
- Sunlight & oil resistant.
- UL listed for direct burial.
- Individual pairs are completely isolated.
- 100% shield coverage for reduced electromagnetic noise pick-up.
- Excellent external noise rejection.
- Excellent weathering characteristics.
- OSHA Acceptable.
- Flexible, easy to handle and terminate.
- -30°C to 90°C.
- Foundation Fieldbus Registered.
- C-L-X enclosure permits installation in cable tray containing lighting and power cables without a barrier separator.
- 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 in non-HL areas.
- Lower installed system cost than conduit or EMT systems.
**Okobus C-L-X**

**Twisted Shielded Single Pair: Type P-OS**

**Twisted Shielded Multi Pair: Type SP-OS**

**Type PLTC & Type ITC-HL Fieldbus Cable**

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

### #18 AWG

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<th>Catalog Number</th>
<th>Number of Pairs</th>
<th>Inner Jacket Thickness</th>
<th>Nominal Core O.D.</th>
<th>C-L-X O.D.</th>
<th>Nominal Cable O.D.</th>
<th>Cross-Sectional Area (sq in)</th>
<th>Approx Net Weight (lbs/1000')</th>
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**Length Tolerance:** Cut lengths of 1000 feet or longer are subject to a tolerance of ± 10%; less than 1000 feet ± 15%.

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

**Cross-sectional** area for calculation of cable tray fill in accordance with NEC Section 392.22

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**Characteristics**

- **Nominal Characteristic Impedance, \( Z_0 \), at fr (31.25kHz), nominal:** 100 ohms
- **Maximum attenuation at 1.25 fr (39 kHz):** 3.0 dB/km
- **Maximum capacitive unbalance to shield:** 2 nF/km
- **Mutual Capacitance:**
  - #18 AWG: 30 nF/km
  - #16 AWG: 65 nF/km
- **Pair Inductance:**
  - #18 AWG: 760 mH/km
  - #16 AWG: 720 mH/km
- **Maximum DC resistance per conductor:**
  - #18 AWG: 22 ohms/km
  - #16 AWG: 14 ohms/km
- **Conductor cross-sectional area nominal:**
  - #18 AWG: 0.8 mm²
  - #16 AWG: 1.3 mm²
- **Drain Wire Maximum DC Resistance:**
  - #20 AWG: 35 ohms/km
  - #18 AWG: 22 ohms/km
- **Minimum shield coverage:** 100%
- **Minimum Bend Radius:** 7 x OD

- **- All values at 25°C**

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