Okobus
Twisted Shielded Single Pair: Type P-OS
Twisted Shielded Multi Pair: Type SP-OS
Type PLTC & Type ITC-ER Fieldbus Cable

Specifications
Conductors: #18 AWG and #16 AWG tinned copper, Class B, stranded per ASTM B-8.
Insulation: X-Olene (cross 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 strand 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.
Classifications: UL Listed as PLTC-Power Limited Tray Cable and as ITC-ER - Instrument Tray Cable/Exposed Run for use in accordance with Article 727 and Article 725 of the National Electrical Code.

Applications
Okonite® OKOBUS® cables are designed for use in rugged plant environments utilizing networked discrete or process automation and control. ITC-ER (Instrument Tray Cable - Exposed Run) eliminated the need for conduit when installed in accordance with NEC Article 727.4(6). Fully complies with Fieldcom Group FF-844.
The isolated individual shields over each pair, when properly grounded, prevent crosstalk or capacitive coupling between adjacent pairs which occurs with ac signals, particularly the pulse type.
The overall shield eliminates most of the static interference from the electrical field radiated by power cables and other electrical equipment.

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.
# Okobus

## Twisted Shielded Single Pair: Type P-OS
## Twisted Shielded Multi Pair: Type SP-OS
## Type PLTC & Type ITC-ER Fieldbus Cable

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

### #18 AWG

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<tr>
<th>Catalog Number</th>
<th>Number of Pairs</th>
<th>Jacket Thickness-mils</th>
<th>Nominal Cable O.D. - Inches</th>
<th>Cross-Sectional Area (sq in)</th>
<th>Approx Net Weight (lbs/1000')</th>
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† Cross-sectional area for calculation of cable tray fill in accordance with NEC Section 392.22

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

### CHARACTERISTICS

Nominal Characteristic Impedance, $Z_o$, 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........................8 x OD

-All values at 25°C