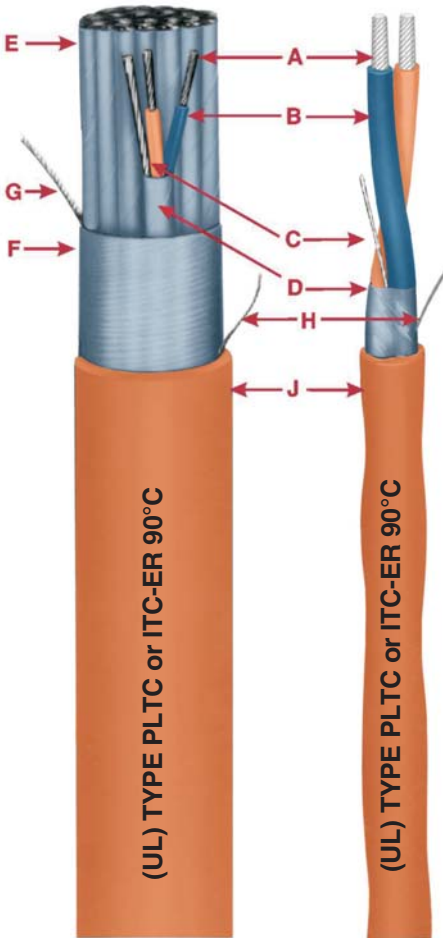
Okobus®

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 Volts 90°C Rating



A Tinned Copper Stranded Conductor
B X-Olene Insulation
C Tinned Stranded Copper Group Drain Wire
D Aluminum/Polyester Tape
E Twisted, Shielded Pairs
F Aluminum/Polyester Tape
G Tinned Stranded Copper Drain Wire
H Rip Cord
J Orange Okoseal Jacket

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 UL 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 UL 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 335 and Article 722 of the 2023 National Electrical Code.

Cables comply with FF-844, UL 2250 and UL 13 for Fieldbus circuits and CL2 and CL3.

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 335.4(5). 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.
- Individual pairs are completely isolated.
- 100% shield coverage for reduced electromagnetic noise pick-up.
- Excellent external noise rejection.
- Excellent weathering characteristics.
- Flexible, easy to handle and terminate.
- -30°C to 90°C.
- Foundation Fieldbus Registered.

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#18 AWG

Catalog Number	Number of Pairs	Jacket Thickness-mils	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
▲ 267-92-4901	1	45	0.33	0.09	61	72
267-92-4902	2	50	0.55	0.23	160	184
267-92-4904	4	60	0.70	0.38	225	264
267-92-4906	6	60	0.80	0.50	288	327
267-92-4908	8	60	0.79	0.48	348	412
267-92-4912	12	70	1.04	0.84	484	548
267-92-4916	16	70	1.17	1.07	606	686
267-92-4920	20	80	1.31	1.34	752	858
267-92-4924	24	80	1.43	1.60	869	1012

#16 AWG

Catalog Number	Number of Pairs	Jacket Thickness-mils	Nominal Cable O.D. - Inches	Cross-Sectional Area † (sq in)	Approx Net Weight (lbs/1000')	Approx Ship Weight (lbs/1000')
267-92-3501	1	45	0.38	0.11	82	93
267-92-3502	2	60	0.64	0.32	229	268
267-92-3504	4	60	0.77	0.47	300	339
267-92-3506	6	70	0.91	0.65	409	473
267-92-3508	8	70	1.01	0.79	496	576
267-92-3512	12	70	1.21	1.16	674	780
267-92-3516	16	80	1.43	1.60	884	1027
267-92-3520	20	80	1.53	1.83	1051	1194
267-92-3524	24	90	1.68	2.22	1250	1393

† **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.

Length Tolerance: Cut lengths of 1000 feet or longer are subject to a tolerance of ± 10%; less than 1000 feet ± 15%.

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 mm^2
#16 AWG.....1.3 mm^2

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 25C

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