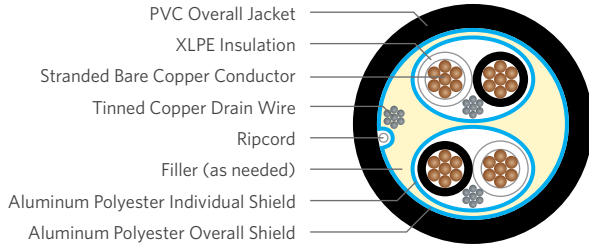


XLPE/PVC, 600V Instrumentation, Type TC-ER

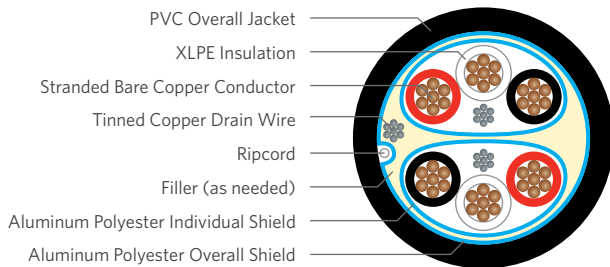
Series E1BF



Series E1BFD - Pairs



Series E1BFD - Triads



PRODUCT DESCRIPTION

The Superior Essex XLPE/PVC, 600V Instrumentation, Type TC-ER Cables consist of fully annealed bare copper Class B stranded conductors (in pairs or triads), covered with Cross-linked Polyethylene (XLPE) insulation, overall shielded or individually and overall shielded and black PVC jacket. These cables are used in control systems, audio, intercom, alarm circuits and energy management.

APPLICATIONS

- In free air, ducts, cable trays, conduit, raceways and direct burial
- Approved for Class I, Div. 2 industrial hazardous locations per NEC
- Permitted for Exposed Run (ER) used in accordance with NEC for 3 or more conductors; two conductors without a ground wire are Type TC only

FEATURES

- Rated at 90°C wet or dry
- Ripcord (for jackets with thicknesses of 60-mils or less)
- Excellent sunlight resistance
- Meets cold bend test at -25°C

MARKETS



SPECIFICATIONS

Conductor Count	Available in 1-pair through 36-pairs, and 1-triad through 24-triads
Conductor	Fully annealed bare copper Class B compressed strand
Gauge Sizes	Available in 18 or 16 AWG
Insulation	Cross-linked Polyethylene (XLPE) <ul style="list-style-type: none"> • 18 through 16 AWG are type RFH-2 • 14 AWG and larger are type XHHW-2
Color Coding	Per ICEA S-58-679 Method 9, Table E-1 (black-white-red), plus one conductor per pair/triad printed for identification; additional color coding options available
Shield Options	Overall (OS): Overall Aluminum polyester foil shield in contact with 20 AWG stranded tinned copper drain wire Individual and Overall (IS/OS): Combination of both individual and overall with Aluminum polyester foil shield in contact with 20 AWG stranded tinned copper drain wire
Jacket	Polyvinyl Chloride (PVC)
Jacket Marking	1-pair: 00000 FT SUPERIOR ESSEX XXAWG 1/PR XLPE/PVC OS 600V 90C WET OR DRY TYPE TC (UL) SUN RES DIR BUR MADE IN USA MMDDYYYY 2-pair/1-triad and higher: 00000 FT SUPERIOR ESSEX XXAWG XX/PR (or TR) XLPE/PVC OS (or IS or IS/OS) 600V 90C WET OR DRY TYPE TC-ER (UL) SUN RES DIR BUR MADE IN USA MMDDYYYY
Packaging	Non-returnable wood reels in a variety of lengths and dimensions
Performance Compliances	ASTM B8, ASTM B33 UL® 44, UL 66, UL 1277, UL 1685 (flame compliance) ICEA S-73-532 / NEMA WC57
Other Compliances	EPA 40 CFR, Part 261 OSHA RoHS-compliant/RoHS 2-compliant REACH-compliant

UL is a registered trademark of UL LLC.

PRODUCT KEY

Conductor	Stranding	Voltage	Insulation	Shielding Options	Jacket
Cu	B	600V	XLPE	OS Alum Mylar or IS Alum Mylar OS	PVC

Overall Shielded Series E1BFB

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Pair Count	Triad Count	Conductor Size AWG	Nominal Insulation Thickness ¹ in (mm)	Nominal Jacket Thickness ¹ in (mm)	Nominal Overall Diameter ¹ in (mm)	Nominal Net Weight ¹ lbs/kft (kg/km)
E1BFB-181B01PJ00	1	-	18	0.030 (0.76)	0.045 (1.14)	0.316 (8.03)	46 (68)
E1BFB-181B01TJ00	-	1	18	0.030 (0.76)	0.045 (1.14)	0.341 (8.66)	58 (86)
E1BFB-181B02PJ00	2	-	18	0.030 (0.76)	0.045 (1.14)	0.452 (11.48)	88 (131)
E1BFB-181B04PJ00	4	-	18	0.030 (0.76)	0.045 (1.14)	0.559 (14.20)	144 (214)
E1BFB-181B08PJ00	8	-	18	0.030 (0.76)	0.060 (1.52)	0.751 (19.08)	263 (391)
E1BFB-181B12PJ00	12	-	18	0.030 (0.76)	0.080 (2.03)	0.959 (24.36)	358 (533)
E1BFB-181B16PJ00	16	-	18	0.030 (0.76)	0.080 (2.03)	1.059 (26.90)	461 (686)
E1BFB-181B20PJ00	20	-	18	0.030 (0.76)	0.080 (2.03)	1.171 (29.74)	600 (893)
E1BFB-181B24PJ00	24	-	18	0.030 (0.76)	0.080 (2.03)	1.245 (31.62)	619 (624)
E1BFB-181B36PJ00	36	-	18	0.030 (0.76)	0.080 (2.03)	1.485 (37.72)	870 (1,299)
E1BFB-161B01PJ00	1	-	16	0.030 (0.76)	0.045 (1.14)	0.346 (8.79)	58 (87)
E1BFB-161B01TJ00	-	1	16	0.030 (0.76)	0.045 (1.14)	0.361 (9.17)	72 (107)
E1BFB-161B02PJ00	2	-	16	0.030 (0.76)	0.045 (1.14)	0.559 (14.20)	99 (148)
E1BFB-161B04PJ00	4	-	16	0.030 (0.76)	0.060 (1.52)	0.652 (16.56)	186 (277)
E1BFB-161B08PJ00	8	-	16	0.030 (0.76)	0.060 (1.52)	0.934 (23.72)	324 (482)
E1BFB-161B12PJ00	12	-	16	0.030 (0.76)	0.080 (2.03)	1.004 (25.50)	486 (723)
E1BFB-161B16PJ00	16	-	16	0.030 (0.76)	0.080 (2.03)	1.160 (29.46)	616 (917)
E1BFB-161B20PJ00	20	-	16	0.030 (0.76)	0.080 (2.03)	1.281 (32.54)	734 (1,092)
E1BFB-161B24PJ00	24	-	16	0.030 (0.76)	0.080 (2.03)	1.442 (36.63)	894 (1,330)
E1BFB-161B36PJ00	36	-	16	0.030 (0.76)	0.080 (2.03)	1.649 (41.88)	1,254 (1,866)

Individually and Overall Shielded Series E1BFD

PART NUMBERS AND PHYSICAL CHARACTERISTICS

Part Number	Pair Count	Conductor Size AWG	Nominal Insulation Thickness ¹ in (mm)	Nominal Jacket Thickness ¹ in (mm)	Nominal Overall Diameter ¹ in (mm)	Nominal Net Weight ¹ lbs/kft (kg/km)
E1BFD-181B02PJ00	2	18	0.030 (0.76)	0.045 (1.14)	0.516 (13.11)	95 (141)
E1BFD-181B04PJ00	4	18	0.030 (0.76)	0.060 (1.52)	0.624 (15.85)	170 (253)
E1BFD-181B08PJ00	8	18	0.030 (0.76)	0.060 (1.52)	0.910 (23.11)	292 (435)
E1BFD-181B12PJ00	12	18	0.030 (0.76)	0.080 (2.03)	1.021 (25.93)	442 (658)
E1BFD-181B16PJ00	16	18	0.030 (0.76)	0.080 (2.03)	1.129 (28.68)	554 (824)
E1BFD-181B20PJ00	20	18	0.030 (0.76)	0.080 (2.03)	1.236 (31.39)	665 (991)
E1BFD-181B24PJ00	24	18	0.030 (0.76)	0.080 (2.03)	1.466 (37.24)	802 (1,194)
E1BFD-181B36PJ00	36	18	0.030 (0.76)	0.080 (2.03)	1.631 (41.43)	1,116 (1,661)
E1BFD-161B02PJ00	2	16	0.030 (0.76)	0.060 (1.52)	0.596 (15.14)	135 (201)
E1BFD-161B04PJ00	4	16	0.030 (0.76)	0.060 (1.52)	0.695 (17.65)	214 (318)
E1BFD-161B08PJ00	8	16	0.030 (0.76)	0.060 (1.52)	0.901 (22.89)	399 (594)
E1BFD-161B12PJ00	12	16	0.030 (0.76)	0.080 (2.03)	1.109 (28.17)	584 (869)
E1BFD-161B16PJ00	16	16	0.030 (0.76)	0.080 (2.03)	1.261 (32.03)	712 (1,060)
E1BFD-161B20PJ00	20	16	0.030 (0.76)	0.080 (2.03)	1.316 (33.43)	845 (1,258)
E1BFD-161B24PJ00	24	16	0.030 (0.76)	0.080 (2.03)	1.511 (38.38)	1,009 (1,502)
E1BFD-161B36PJ00	36	16	0.030 (0.76)	0.110 (2.79)	1.821 (46.25)	1,447 (2,160)

¹The dimensions and weights shown are nominal and subject to industry standards and manufacturing tolerances. Other designs available upon request.