



Product: [1042A](#) 

Inst, 12 Pr #16 Str BC, PVC-NYL Ins E1, IS/OS, Blk PVC Jkt, 600V TC-ER
150V NPLF 90C Dry/Wet

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Product Description

UL Instrumentation, 12 Pair 16AWG (7x24) Bare Copper, PVC-NYL Insulation E1 Color Code, Individual & Overall Beldfoil® Shield, Black PVC Outer Jacket, 600V TC-ER 150V NPLF 90C Dry/75C Wet SUN RES DIR BUR

Technical Specifications

Product Overview

Suitable Applications:	Industrial Control, Raceways Cable trays and ducts, Digital Control, Instruments (4-20ma, 0-10v, ...), low voltage digital control (24v, ...), encoders, control circuits, distributed control system (DCS), programmable logic controller (PLC), Solenoids, Valves, Actuators, Positioners
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Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	12	16 AWG	7x24	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Nom. Insulation Diameter	Color Code
Pair(s)	PVC/Nylon - Polyvinyl Chloride + Nylon	0.022 in (0.56 mm)	0.101 in (2.57 mm)	ICEA Chart E1

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type	Notes
Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	18 AWG (7x26) TC	each pair

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	16 AWG (7x24) TC

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.084 in (2.1 mm)	0.907 in (23.0 mm)	Yes

Overall Cable Diameter (Nominal): 0.907 in (23.0 mm)

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Inner Shield DCR	Max. Current
Pair(s)	4.2 Ohm/1000ft	5.49 Ohm/1000ft (18.0 Ohm/km)	8 Amps per conductor @ 30°C

Nom Outer Shield DCR@Cond DCR1-cnvt: 3.14 Ohm/1000ft (10.3 Ohm/km)

Voltage

UL Voltage Rating
600 V (TC-ER), 150 V (NPLF)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 90°C Wet	-30°C to 90°C Dry, 90°C wet

Bend Radius

Stationary Min.	Installation Min.
10.9 in (277 mm)	10.9 in (277 mm)

Max. Pull Tension:	915 lbs (415 kg)
Bulk Cable Weight:	491 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Burial
Flammability / Reaction to Fire:	UL 1685 FT4 Loading, FT4, IEEE 1202 FT4
NEC / UL Compliance:	Article 336, Article 760, NPLF, TC-ER
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.638 Revision Date: 09-07-2025
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
1042A 0102500	Black	Reel	2,500 ft	612825105251	C Z
1042A 0105000	Black	Reel	5,000 ft	612825105268	C Z

Footnote:	C - CRATE REEL PUT-UP., Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.
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