



Product: [1045A](#)

Inst, 24 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, 24 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/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)	24	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)	1.244 in (31.60 mm)	Yes

Overall Cable Diameter (Nominal):	1.244 in (31.60 mm)
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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)	6 Amps per conductor @ 30°C

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating
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90°C Dry, 90°C Wet	-30°C to 90°C Dry/Wet
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Bend Radius

Stationary Min.	Installation Min.
14.9 in (378 mm)	14.9 in (378 mm)

Max. Pull Tension:	1772 lbs (803.8 kg)
Bulk Cable Weight:	899 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: 0.612 Revision Date: 02-03-2025
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
1045A 0101250	Black	Reel	1,250 ft	612825105312	C Z
1045A 0105000	Black	Reel	5,000 ft	612825105329	

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