



Product: [1078A](#)

Inst, 12 Pr #20+22 Str BC, PVC Ins E1, IS/OS, Blk PVC Jkt, 300V PLTC ITC CMG

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Product Description

UL Instrumentation, 12 Pair 20+22AWG (7x28) Bare Copper, PVC Insulation E1 Color Code, Individual & Overall Beldfoil® Shield, Black PVC Outer Jacket, PLTC ITC CMG AWM 2464 SUN RES

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	Number of Element	Size	Stranding	Material
Pair(s)	12	20 AWG	7x28	BC - Bare Copper
Comm Wire(s)	1	22 AWG	7x30	BC - Bare Copper

Insulation

Element	Material	Nom. Thickness	Color Code
Pair(s)	PVC - Polyvinyl Chloride	0.018 in (0.46 mm)	Black, White and Numbered
Comm Wire(s)	PVC - Polyvinyl Chloride	0.019 in (0.48 mm)	Orange

Inner Shield

Element	Shield Type	Material	Coverage	Drainwire Type
Pair(s)	Tape	Bi-Laminate (Alum+Poly)	100%	22 AWG (7x30) TC
Comm Wire(s)	No Shield			

Outer Shield

Shield Type	Material	Coverage	Drainwire Type
Tape	Bi-Laminate (Alum+Poly)	100%	20 AWG (7x28) TC

Outer Jacket

Material	Nom. Thickness	Nom. Diameter	Ripcord
PVC - Polyvinyl Chloride	0.063 in (1.6 mm)	0.637 in (16.2 mm)	Yes

Overall Cable Diameter (Nominal):	0.637 in (16.2 mm)
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Electrical Characteristics

Electricals

Element	Nom. Conductor DCR	Nom. Capacitance Cond-to-Cond	Nom. Capacitance Cond-to-Shield	Max. Current
Pair(s)	9.5 Ohm/1000ft (31 Ohm/km)	30 pF/ft (98 pF/m)	55 pF/ft (180 pF/m)	3 Amps per conductor @ 25°C
Comm Wire(s)	14.7 Ohm/1000ft (48.2 Ohm/km)			

Voltage

UL Voltage Rating
300 V (CMG, PLTC, UL AWM 2464), 150 V (ITC)

Mechanical Characteristics

Temperature

UL Temperature	Operating
105°C	-30°C to +105°C

Bend Radius

Stationary Min.	Installation Min.
6.4 in (160 mm)	6.4 in (160 mm)

Max. Pull Tension:	468 lbs (212 kg)
Bulk Cable Weight:	243 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance
Flammability / Reaction to Fire:	UL1685 (FT4 Loading), FT4, T-29-520, 1202
NEC / UL Compliance:	Article 725, Article 727, Article 800, CMG, ITC, PLTC
AWM Compliance:	AWM 2464
CEC / C(UL) Compliance:	CMG
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: 0.405 Revision Date: 04-14-2023
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
1078A 0107500	Black	Reel	7,500 ft	612825105985

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