



**Product:** [1082A](#)

Inst, 50 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, 50 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	No. of Elements	Size	Stranding	Material
Pair(s)	50	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	0.074 in (1.9 mm)	1.176 in (29.87 mm)	Yes

Overall Cable Diameter (Nominal):	1.176 in (29.87 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.
11.8 in (300 mm)	11.8 in (300 mm)

Max. Pull Tension:	1878 lbs (851.8 kg)
Bulk Cable Weight:	860 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: 0.217 Revision Date: 01-11-2024
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