



**Product:** [48112A](#)

TC VN/PVC, 5 C #12 Str BC, PVC-NYL Ins E1, Blk PVC Jkt, 600V TC-ER  
150V NPLF 90C Dry/Wet SUN RES DIR BUR

Product Description

UL Type TC (1277) PVC-Nylon/PVC, 5 Conductor 12AWG (7x20) Bare Copper, PVC-NYL Insulation E1 Color Code, Black PVC Outer Jacket, 600V TC-ER 150V NPLF 90C Dry/Wet SUN RES DIR BUR

Technical Specifications

Product Overview

Suitable Applications:	harsh environment digital and serial two-way communication, oil and gas extraction and refining sites, petrochemical, Profibus process automation or Foundation FieldBus process automation, extreme temperature environments, exposure to humidity/moisture, dust, and oil, remote locations long distance applications, etc.
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Physical Characteristics (Overall)

Conductor				
Element	AWG	Stranding	Material	No. of Conductors
Conductor(s)	12	7x20	BC - Bare Copper	5
Conductor Count: 5				

Insulation	
Material	Nominal Diameter
PVC/Nylon - Polyvinyl Chloride + Nylon	0.131 in

Color Chart	
Number	Color
1	Black
2	White
3	Red
4	Green
5	Orange

Outer Jacket		
Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.455 in	0.047 in
	0.456 in	

Electrical Characteristics

Conductor DCR	
Nominal Conductor DCR	
1.65 Ohm/1000ft	

Current	
Max. Recommended Current [A]	
24 Amps per Conductor at 30°C	

Voltage			
Description	UL Description	UL Voltage Rating	Voltage Rating [V]
Type TC	TC-ER	600 V RMS (Type TC)	600 V RMS (Type TC)

Temperature Range

UL Temp Rating:	90°C Dry, 90°C Wet
Operating Temperature Range:	-30°C To +90°C
Wet Temp Range:	-30°C To +90 °C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	163 lbs/1000ft
Max. Pull Tension:	256 lbs
Min Bend Radius (Overall):	4.56 in
Min. Bend Radius/Minor Axis:	1.82 in

Standards

NEC/(UL) Compliance:	TC-ER, THHN, THWN
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Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	Yes
EU CE Mark:	Yes

Suitability

Suitability - Burial:	Yes
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	Yes

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL 1685 UL Loading
IEEE Flammability:	1202
UL voltage rating:	600 V RMS (Type TC)

Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Variants

Item #	Put-Up Type
48112A 0105000	Reel

History

Update and Revision:	Revision Number: 0.43 Revision Date: 01-10-2024
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