



Product: [28114AZ](#)

TC VN/PVC, 7+G C #12+12 Str BC, PVC-NYL Ins E2, Blk PVC Jkt, 600V
TC-ER 150V NPLF 90C Dry/Wet SUN RES DIR BUR

Product Description

UL Type TC (1277) PVC-Nylon/PVC, 7+G Conductor 12+12AWG (7x20) Bare Copper, PVC-NYL Insulation E2 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.
------------------------	--

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	Nominal Diameter	No. of Conductors
Conductor(s)	12	7x20	BC - Bare Copper	0.089 in	7
Ground	12	7x20	BC - Bare Copper	0.089 in	1

Conductor Count:	7
------------------	---

Insulation

Material	Nominal Diameter
PVC/Nylon - Polyvinyl Chloride + Nylon	0.130 in
PVC/Nylon - Polyvinyl Chloride + Nylon	0.130 in

Color Chart

Number	Color
1	Black
2	Red
3	Blue
4	Orange
5	Yellow
6	Brown
7	Red/Black
Ground	Green with Yellow stripe

Outer Jacket

Material	Nominal Diameter	Nominal Wall Thickness
PVC - Polyvinyl Chloride	0.570 in	0.063 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR
1.65 Ohm/1000ft

Current

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

Voltage

UL Description	UL Voltage Rating	Voltage Rating [V]
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:	-25°C To +90°C
Wet Temp Range:	-30°C To +90 °C
Dry Temp Range:	-30°C To +90 °C

Mechanical Characteristics

Bulk Cable Weight:	304 lbs/1000ft
Max. Pull Tension:	356 lbs
Min Bend Radius (Overall):	5.75 in
Min. Bend Radius/Minor Axis:	2.28 in

Standards

NEC Articles:	Article 336
NEC/(UL) Compliance:	NPLF, TC-ER, THHN/THWN Singles
IEEE Compliance:	1202

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:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
CA Prop 65:	Yes

Suitability

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

Flammability, LSOH, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	No
---------------	----

Related Part Numbers

Variants

Item #	Put-Up Type
28114AZ 0105000	Reel

History

Update and Revision:	Revision Number: 0.55 Revision Date: 02-03-2025
----------------------	---

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.