



**Product:** [1090A](#)

Inst, 50 Pr #16 Str BC, PVC-NYL Ins E1, OS, Blk PVC Jkt, 600V TC-ER 150V NPLF TFN

[Request Sample](#)

Product Description

UL Instrumentation, 50 Pair 16AWG (7x24) Bare Copper, PVC-NYL Insulation E1 Color Code, Overall Beldfoil® Shield, Black PVC Outer Jacket, 600V TC-ER 150V NPLF TFN 90C Dry 75C 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
------------------------	---

Construction Details

Conductor

Element	No. of Elements	Size	Stranding	Material
Pair(s)	50	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)	Black, White and Numbered

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	0.083 in (2.1 mm)	1.547 in (39.29 mm)	Yes

Overall Cable Diameter (Nominal):	1.547 in (39.29 mm)
-----------------------------------	---------------------

Electrical Characteristics

Electricals

Element	Nom. Conductor DCR
Pair(s)	3.67 Ohm/1000ft (12.0 Ohm/km)

Voltage

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

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C Dry, 75°C Wet	-30C to 90C Dry, 75C wet

Bend Radius

Stationary Min.	Installation Min.
-----------------	-------------------

18.6 in (472 mm)	18.6 in (472 mm)
------------------	------------------

Max. Pull Tension:	3606 lbs (1636 kg)
Bulk Cable Weight:	1380 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Sunlight Resistance, Burial
Flammability / Reaction to Fire:	UL1685 (FT4 Loading), FT4, 1202
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: 0.404 Revision Date: 01-04-2024
----------------------	--

© 2024 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.