



Product: [1868E](#)

Cat 5e Patch Cable, F/UTP, PVC, 4 Pair, AWG 26, Indoor

Product Description

Cat. 5e (100MHz), 4-Pair, F/UTP Foil shielded, Work Area Patch Cable, 26 AWG stranded (7x34) bare copper conductors, Polyethylene insulation, Beldfoil® shield, AWG 26 stranded (7x34) tinned copper drainwire, PVC jacket, RJ-45 compatible

Technical Specifications

Product Overview

Suitable Applications:	Work area cable; Support current and future Category 5e applications, such as: 1000Base - T (Gigabit Ethernet), 100 Base - T, 10 Base - T, FDDI, ATM
------------------------	--

Physical Characteristics (Overall)

Conductor

Element	AWG	Stranding	Material	No. of Pairs
Individual pair	26	7x34	BC - Bare Copper	4

Conductor Count:	8
Total Number of Pairs:	4

Insulation

Element	Type	Material	Nominal Diameter
Individual pair	Dielectric	Polyolefin	0.95 mm

Bonded-Pair:	No
--------------	----

Color Chart

Number	Color
Pair 1	Black/Blue & Blue
Pair 2	Black/Orange & Orange
Pair 3	Black/Green & Green
Pair 4	Black/Brown & Brown

Outer Shield Material

Type	Material	Coverage [%]	Drainwire Material	Drainwire AWG	Drainwire Construction n x D	Drainwire Position
Tape	Alum / Poly	100 %	TC - Tinned Copper	26 (7xAWG34)	Stranded	Under foil

Outer Shield Table Note:	Aluminum facing inside in contact with drain wire
--------------------------	---

Outer Jacket Material

Material	Nominal Diameter	Diameter +/- Tolerance	Max. Diameter	Min. Wall Thickness	Nominal Wall Thickness
PVC - Polyvinyl Chloride	5.4 mm	0.3 mm	5.9 mm	0.4 mm	0.45 mm

Construction and Dimensions

Min Elongation at Breakof Conductors:	10 %
Min Elongation at Breakof Insulation:	100 %
Min Elongation at Breakof Jacket:	100 %
Min Tensile Strength of Jacket:	9 MPa

Electrical Characteristics

Conductor DCR

Max. Conductor DCR	Max DCR Unbalanced Between Pairs [%]	Max. DCR Unbalanced Within Pair [%]
145 Ohm/km	4 %	2 %

Capacitance

Max. Capacitance Unbalance	Max. Mutual Capacitance
1,600 pF/m	56 pF/m

Impedance

Nominal Characteristic Impedance
100 Ohm

Delay

Max. Delay Skew	Min. Velocity of Propagation
40 ns/100m	60 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACR [dB]	Min. PSACR [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]	Min. TCL [dB]	Min. ELTCTL [dB]
1 MHz	3.2 dB/100m	65.3 dB	62.3 dB	62.1 dB	59.1 dB	64 dB	61 dB	20 dB	40 dB	35 dB
4 MHz	6 dB/100m	56.3 dB	53.3 dB	50.3 dB	47.3 dB	52 dB	49 dB	23 dB	34 dB	23 dB
10 MHz	9.5 dB/100m	50.3 dB	47.3 dB	40.8 dB	37.8 dB	44 dB	41 dB	25 dB	30 dB	15 dB
16 MHz	12.1 dB/100m	47.2 dB	44.2 dB	35.2 dB	32.2 dB	39.9 dB	36.9 dB	25 dB	28 dB	10.9 dB
20 MHz	13.5 dB/100m	45.8 dB	42.8 dB	32.2 dB	29.2 dB	38 dB	35 dB	25 dB	27 dB	9 dB
31.25 MHz	17.1 dB/100m	42.9 dB	39.9 dB	25.8 dB	22.8 dB	34.1 dB	31.5 dB	23.3 dB	25.1 dB	5.5 dB
62.5 MHz	24.8 dB/100m	38.4 dB	35.4 dB	13.6 dB	10.6 dB	28.1 dB	25.1 dB	20.7 dB	22 dB	
100 MHz	32 dB/100m	35.3 dB	32.3 dB	3.3 dB	0.3 dB	24 dB	21 dB	19 dB	20 dB	

High Freq Table Note: Limits below 4 MHz are for information only. Reference standard: ISO/IEC 61156-5 ed. 2.0 (2009)

General Electrical Parameters Notes: Reference standard: ISO/IEC 61156 - 5 ed. 2.0 (2009)

Coupling Attenuation Class: Type II

Segregation class according EN50174-2: a

Transfer Impedance

Frequency [MHz]	Description	Transfer Impedance
1 Mhz	Grade 2	Max. 50 mOhm/m
10 Mhz		Max. 100 mOhm/m
30 Mhz		Max. 200 mOhm/m
100 Mhz		Max. 1000 mOhm/m

Current

Max. Recommended Current [A]
1.5 A

Voltage

Voltage Rating [V]
72 V

Temperature Range

Installation Temp Range:	0°C To +50°C
Operating Temp Range:	-30°C To +60°C

Mechanical Characteristics

Bulk Cable Weight:	31 kg/km
Max Recommended Pulling Tension:	45 N
Min Bend Radius During Installation:	42 mm
Min Bend Radius During Operation:	21 mm

Standards

ISO/IEC Compliance:	ISO/IEC 11801 Ed. 2.2:2002/A2:2010/C1:2011
CENELEC Compliance:	EN 50173-1 Ed. 3:2011
Data Category:	Category 5e
ANSI Compliance:	ANSI/TIA 568.2-D (2018)

IEEE Specification:	PoE: IEEE 802.3bt Type 1, Type 2, Type 3
---------------------	--

Applicable Environmental and Other Programs

Environmental Space:	Indoor
EU RoHS Compliance Date (yyyy-mm-dd):	2003-01-01

Flammability, LSOH, Toxicity Testing

ISO/IEC Flammability:	IEC 60332-1
Burning Load:	395 kJ/m

Part Number

Variants

Item #	Color	Putup Type	Length	EAN
1868E.01500	Blue	Reel	500 m	8719605004536
1868E.011000	Blue	Reel	1,000 m	8719605004529
1868E.00B100	Gray	Flat Box	100 m	8719605004512
1868E.00500	Gray	Reel	500 m	8719605004505
1868E.001000	Gray	Reel	1,000 m	8719605004499

Patent:	https://www.belden.com/resources/patents
---------	---

Product Notes

Notes:	Electrical values are expected performance based on cable testing and representative performance within a typical Belden system.
--------	--

History

Update and Revision:	Revision Number: 0.234 Revision Date: 04-08-2020
----------------------	--

© 2020 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.