



Product: [BE43800](#)

Railtuff ® 5E, 4PR #26 Str BC, PO ins, SF/UTP, LSNH Jkt, EN 45545-2

Product Description

Railtuff ® 5E, 4 Pair AWG 26 Bare Copper - Stranded, Polyolefin (PO, PE, PP) insulation, SF/UTP - Overall Braid + Foil shielding, Crosslinked e-beam LSZH / FRNC jacket , EN 45545-2 HL1 - 3

Technical Specifications

Product Overview

Suitable Applications:	For use in railway applications such as rolling stock, buses or other vehicles, cable meets the requirements of the relevant parts of international railway standards like DIN 5510-2, EN 50153, EN 50155, EN 50305 and EN 45545-2
------------------------	--

Construction Details

Conductor

Size	Stranding	Material	No. of Pairs	No. of Elements
26 AWG	19x0.10 mm	BC - Bare Copper	4	8

Insulation

Material	Nom. Insulation Diameter	Color Code
PO - Polyolefin	1 mm (0.039 in)	White/Blue & Blue, White/Orange & Orange, White/Green & Green, White/Brown & Brown

Cable Core

Description
4 pairs twisted to cable core

Outer Shield

Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	
Braid	Tinned Copper (TC)	85%

Outer Jacket

Material	Nom. Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant, Thermoset)	6.7 mm (0.26 in)

Table Notes:	e-Beamed to Cross-link, Jacket OD +/- 0.3mm
Overall Cable Diameter (Nominal):	6.7 mm (0.26 in)

Electrical Characteristics

Electricals

Max. Conductor DCR	Max. Mutual Capacitance	Max. Capacitance Unbalance	Nom. Characteristic Impedance
145 Ohm/km	56 pF/m (17 pF/ft)	160 pF/100m	100 Ohm

Delay

Max. Delay Skew	Nom. Velocity of Prop.
40 ns/100m	60%

High Frequency

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	3.1 dB/100m	65.3	62.3	62.1	59.1	64	61	20	40	35
4	6 dB/100m	56.3	53.3	50.3	47.3	52	49	23	34	23
10	9.5 dB/100m	50.3	47.3	40.8	37.8	44	41	25	30	15
16	12.1 dB/100m	47.2	44.2	35.2	32.2	39.9	36.9	25	28	10.9
20	13.5 dB/100m	45.8	42.8	32.2	29.2	38	35	25	27	9
31.25	17.1 dB/100m	42.9	39.9	25.8	22.8	34.1	31.5	23.6	25.1	5.5
62.5	24.8 dB/100m	38.4	35.4	13.6	10.6	28.1	25.1	21.5	22	
100	32 dB/100m	35.3	32.3	3.3	0.3	24	21	20.1	20	

Table Notes: According ISO/IEC 11801 Cat. 5e and ISO/IEC 61156-5

Transfer Impedance

Frequency	Max. Transfer Impedance
1 Mhz	Max. 10 mOhm/m
10 Mhz	Max. 10 mOhm/m
30 Mhz	Max. 30 mOhm/m
100 Mhz	100 mOhm/m

Transfer Impedance Class: Grade 1

Screening Class: Type I

Table Notes: Coupling Attenuation

Voltage

Voltage Rating
300 V

Mechanical Characteristics

Temperature

Operating	Installation	Storage
-40°C to +90°C	-25°C To +50°C	-40°C to +90°C

Bend Radius

Stationary Min.	Installation Min.
33.5 mm (1.32 in)	67 mm

Standards and Compliance

Environmental Suitability:	Indoor
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-2-25, EN 50305 (9.1.1), DIN 5510-2 protection level 1 to 4
Data Category:	Category 5e
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = 70%
CENELEC Compliance:	EN 45545-2, Segregation class according EN50174-2 = d
European Halogen Free Standards:	IEC 62821-1 Halogen Free Compliance = Yes, IEC 60754-1 - Halogen Amount = Zero, IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity = 2.5 µS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark

History

Update and Revision: Revision Number: 0.370 Revision Date: 02-03-2025

Part Numbers

Variants

Item #	Color	Putup Type	Length	EAN
BE43800.00100	Black	Reel	100 m	8719605206381
BE43800.00305	Black	Reel	305 m	8719605026552
BE43800.00500	Black	Reel	500 m	8719605026569
BE43800.001000	Black	Reel	1,000 m	8719605026545

© 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.