



Product: [BA43105](#)

RailTuff™ 2 Cores WTB Railway TCN Cable with LSZH Material

Product Description
2C, 0.75 stranded tinned copper conductors, XL-Foam PE insulation ,shielded, XL-LSZH outer jacket

Technical Specifications

Product Overview

Suitable Applications:	WTB (wire train bus) data cable for fixed and protected installations inside of rail vehicles. This cable is applied for digital signal transmission with good transmission rate at the high frequencies. It is suitable for wiring of the components of communication network (TCN) over the entire trainset. This cable meets the requirements of the relevant parts of international railway standards like DIN 5510-2, EN 50153, EN 50155, EN 50305, EN 45545-2, and TJ/CL-313.
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Construction Details

Conductor			
Size	Material	No. of Elements	Notes
0.75 mm²	TC - Tinned Copper	2	Nom. Conductor Stranding 19/0.22 mm

Insulation		
Material	Nom. Insulation Diameter	Color Code
PE - Polyethylene (Foam)	2.65 mm (0.104 in)	Black and White

Outer Shield		
Shield Type	Material	Coverage
Tape	Bi-Laminate (Alum+Poly)	100%
Braid	Tinned Copper (TC)	90%

Outer Jacket	
Material	
LSZH - Low Smoke Zero Halogen (Flame Retardant, Thermoset)	
Overall Cable Diameter (Nominal):	8.25 mm (0.325 in)

Electrical Characteristics

Electricals	
Max. Conductor DCR	Nom. Characteristic Impedance
Max. 26.7 Ohm/km	120 Ohm

High Frequency	
Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]
1	10
2	14

Voltage	
UL Voltage Rating	
300 V	

Mechanical Characteristics

Temperature

Operating
-40°C to +90°C

Bend Radius

Installation Min.
4×D

Standards and Compliance

Environmental Suitability:	Indoor, Oil Resistance
Flammability / Reaction to Fire:	IEC 60332-1-2, IEC 60332-3-25
ISO/IEC Compliance:	IEC 61034-2 - Smoke Density Min Transmittance = 70%
CENELEC Compliance:	EN 45545-2
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 = 10 μS/mm, IEC 60754-2 - Halogen Acid Gas Amount - Min. pH = 4.3
European Directive Compliance:	EU CE Mark

Product Notes

Notes:	Capacitance(1MHz) Core to Core: 65 pF/m (Max.)
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History

Update and Revision:	Revision Number: 0.15 Revision Date: 05-26-2025
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