



Product: [50105FS-R](#)

CC-Link IE High flex industrial CAT 5e SF/UTP Ethernet cable

Product Description

High flex industrial Ethernet cable CAT5e,SF/UTP, 4x2x26AWG, Stranded Tinned-Copper Alloy, FEP insulation, Double shielding (Al/Mylar foil tape and tinned tinsel wire braid shield), FRPVC Jacket

Technical Specifications

Product Overview

Suitable Applications:	BELDEN 50105FS-R 4x2xAWG26 is Category 5e high speed data transmission cable suitable for continuous flex applications and other moving machinery parts. Double shielding (Al/Mylar foil tape and tinned tinsel wire braid shield) provides excellent immunity from electromagnetic interference (EMI) and radio frequency interference (RFI). It is suitable for internal wiring and external interconnection of network devices (class2 circuits only) and meet UL VW-1-Vertical Wire flame test & UL 444 (CM) flame ratings.
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Construction Details

Conductor

Size	Stranding	Material
26 AWG	Stranded	TCA - Tinned Copper Alloy

Insulation

Material	Color Code
FEP - Fluorinated Ethylene Propylene	Blue & Light Blue, Orange & Light Orange, Green & Light Green, Brown & Light Brown

Outer Shield

Shield Type
Tape
Braid

Outer Jacket

Material
PVC - Polyvinyl Chloride

Overall Cable Diameter (Nominal):	6.9 mm (0.27 in)
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Electrical Characteristics

Electricals

Max. Mutual Capacitance
56 pF/m (17 pF/ft)

Delay

Max. Delay Skew
45 ns/100m

High Frequency

Frequency [MHz]	Max. Insertion Loss (Attenuation) [dB/100m]	Min. NEXT [dB]	Min. PSNEXT [dB]	Min. ACRF (ELFEXT) [dB]	Min. PSACRF (PSELFEXT) [dB]	Min. RL (Return Loss) [dB]
1	3.1	65.3	62.3	63.8	60.8	20.0
4	6.1	56.3	53.3	51.7	48.7	23
8	8.6	51.8	48.8	45.7	42.7	24.5
10	9.7	50.3	47.3	43.8	40.8	25

16	12.4	47.2	44.2	39.7	36.7	25
20	13.9	45.8	42.8	37.8	34.8	25
25	15.6	44.3	41.3	35.8	32.8	24.2
31.25	17.6	42.9	39.9	33.9	30.9	23.3
62.5	25.5	38.4	35.4	27.9	24.9	20.7
100	33	35.3	32.3	23.8	20.8	19

Mechanical Characteristics

Temperature

UL Temperature
-20°C to +80°C

Standards and Compliance

Environmental Suitability:	Indoor, Outdoor
Flammability / Reaction to Fire:	UL1581 VW-1 Compliant, UL444 CM Compliant
TIA/EIA Compliance:	ANSI /EIA-568.2-DCategory.5e

Product Notes

Notes:	Characteristic impedance: 85-115Ω (@100MHz), Capacitance unbalance: pair to ground 330 pF/100m Max.1kHz), DC Resistance unbalance(Pair): 5.0 % Max. Double Screen: Al-PET foil and Tinned Tinsel braid, Trailing chain test: 20 million(R=38mm) , Torsion test: 20 million(±180°, L=300mm) , Reverse Bending Test: 20 million(R=40mm) 20 million(R=40mm)
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History

Update and Revision:	Revision Number: 0.21 Revision Date: 03-17-2025
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