

7961A Multi-Conductor - Category 5e DataTuff® Quad Cables



For more Information
please call

1-800-Belden1



General Description:

22 AWG Symmetric quad stranded tinned copper conductors, polyolefin insulation, FRPE bedding, industrial grade sunlight- and oil-resistant PVC jacket, rip cord. Sequential marking at two foot intervals. PROFINET Type B cable

Usage (Overall)

Suitable Applications:

Industrial Ethernet Cable, Harsh Environments, Category 5e, ProfiNet, 100BaseTX, CMX - Outdoor, PLTC Listed, Approved for Cable Tray Use in Class 1, Division 2, Hazardous Areas and Non-hazardous Areas, Cable Trays, Raceways, Conduit and Supported by Messenger Wires, Approved for Outdoor Usage

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material	Dia. (mm)
4	22	7x 0.25 mm	TC - Tinned Copper	0.737

Total Number of Conductors: 4

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
PO - Polyolefin	1.549

Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (mm)
FRPE	4.166

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil - Polyester Tape	100.000
2		Braid		85.000

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
Industrial Grade PVC

Overall Cable

Overall Nominal Diameter: 6.909 mm

Pair

Pair Color Code Chart:

Number	Color
1	White
2	Blue
3	Yellow
4	Orange

Mechanical Characteristics (Overall)

Storage Temperature Range:	-40°C To +80°C
Installation Temperature Range:	-20°C To +60°C
Operating Temperature Range:	-40°C To +80°C
Bulk Cable Weight:	63.397 Kg/Km
Max. Recommended Pulling Tension:	244.651 N
Min. Bend Radius/Minor Axis:	65.024 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMG, CMX-Outdoor, ITC, PLTC
CEC/C(UL) Specification:	CMG
AWM Specification:	UL Style 21047
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2002/95/EC (RoHS):	Yes
EU RoHS Compliance Date (mm/dd/yyyy):	01/01/2004
EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes
Telecommunications Standards:	Category 5e - TIA 568.C.2

Flame Test

UL Flame Test:	UL1685 FT4/IEEE 1202 Vertical Tray Flame Test
C(UL) Flame Test:	FT4
IEEE Flame Test:	1202

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Sunlight Resistance:	Yes
Oil Resistance:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)	49.215
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Maximum Capacitance Unbalance (pF/100 m):	66
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Nominal Velocity of Propagation:

VP (%)	70
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Maximum Delay:

Delay (ns/100 m)	552.000
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METRIC MEASUREMENT VERSION

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Maximum Conductor DC Resistance:

DCR @ 20°C (Ohm/100 m)
5.700

Max. Operating Voltage - UL:

Voltage
300 V RMS

Maximum DCR Unbalanced:

DCR Unbalance @ 20°C (%)
3

Electrical Characteristics-Premise (Overall)

Premise Cable Electrical Table 1:

Freq. (MHz)	Max. Attenuation (dB/100 m)	Min. NEXT (dB)	Min. ACR (dB)	Min RL (dB)
1	2.100	65.3	63.2	23.000
4	4.000	56.3	52.3	23.000
10	6.300	50.3	43.9	25.000
16	8.000	47.2	39.1	25.000
20	9.000	45.8	35.2	25.000
31.25	11.400	42.9	31.3	23.600
62.5	16.500	38.4	21.6	21.500
100	21.300	35.3	17.1	20.100

Premise Cable Electrical Table 2:

Freq. (MHz)	Input (Unfitted) Imp. (Ohms)	Fitted Impedance	Min. ACRF (dB)
1	100 ± 20.2	105 ± 10	64.0
4	100 ± 14.2	100 ± 10	52.0
10	100 ± 11.3	100 ± 10	44.0
16	100 ± 11.3	100 ± 10	39.9
20	100 ± 11.3	100 ± 10	38.0
31.25	100 ± 13.2	100 ± 10	34.1
62.5	100 ± 16.9	100 ± 10	28.1
100	100 ± 20.0	100 ± 10	24.0

Notes (Overall)

Notes: Operating temperatures are subject to length de-rating. Cable passes -40C Cold Bend per UL 1581. Limits below 4 MHz are for information only.

Notes (Cont'd.):

T568A Plug Compatible Part Number: R301601 T568B Plug Compatible Part Number: R301602

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7961A 1SW1000	1,000 FT	46.000 LB	GREEN, RAL 6018		PROFINET TYPE B CAT 5/5E
7961A 1SW2000	2,000 FT	92.000 LB	GREEN, RAL 6018		PROFINET TYPE B CAT 5/5E

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