

9844 Multi-Conductor - Low Capacitance Computer Cables for EIA RS-485 Applications



Description:

24 AWG stranded (7x32) TC conductors, polyethylene insulation, twisted pairs, overall Beldfoil® (100% coverage) + TC braid shield (90% coverage), 24 AWG stranded TC drain wire, PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Pairs	AWG	Stranding	Conductor Material
4	24	7x32	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material
PE - Polyethylene

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	90

Outer Shield Drain Wire AWG:

AWG	Stranding	Drain Wire Conductor Material
24	7x32	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter: 0.390 in.

Pair

Pair Color Code Chart:

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

Pair Lay Length & Direction:

Lay Length (in.)	Twists/ft. (twist/ft)	Direction
1.000	12.000	Left Hand Lay

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	81.700 lbs/1000 ft.
Max. Recommended Pulling Tension:	110 lbs.

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Min. Bend Radius (Install)/Minor Axis: 4 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CM

CEC/C(UL) Specification: CM

AWM Specification: UL Style 2919 (30 V 80°C)

EU CE Mark: 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

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

120

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)

12.8

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)

23

Nominal Velocity of Propagation:

VP (%)

66

Nominal Delay:

Delay (ns/ft)

1.6

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

24

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.1

Nom. Attenuation:

Attenuation (dB/100 ft.)

0.6 (@ 1 MHz)

Max. Operating Voltage - UL:

Voltage

300 V RMS (UI AWM Style 2919)

Max. Recommended Current:

Current

1.54 Amps per conductor @ 25°C

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Put Ups and Colors:






Item #	Putup	Ship Weight	Color	Notes	Item Desc
9844 0601000	1,000 FT	78.000 LB	CHROME	C	4 PR #24 PE SH PVC
9844 060500	500 FT	40.500 LB	CHROME	C	4 PR #24 PE SH PVC

Notes:

C = CRATE REEL PUT-UP.

Overall Foil/Braid Shield

Low-Capacitance Computer Cables for EIA RS-485 Applications
Plenum-Rated and Non-Plenum

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m
24 AWG Stranded (7x32) TC Conductors • Overall Beldfoil® (100% Coverage) + TC Braid Shield (90% Coverage) • 24 AWG Stranded TC Drain Wire																		
Polyethylene Insulation • Chrome PVC Jacket																		
UL AWM Style 2919 (30V 80°C) DMX 512 	9841	NEC:	1	See	100	30.5	4.3	2.0	24.0Ω/M'	3.4Ω/M'	.232	5.89	120	66%	12.8	42.0	23.0	75.5
		CM		Chart 5	500	152.4	20.0	9.1	78.7Ω/km	11.0Ω/km	For Plenum versions of 9841, see 82841 or 89841.							
		CEC:		(Tech Info	1000	304.8	40.0	18.2										
		CM		Section)														
NEC:	2	See	100	30.5	5.8	2.6	24.0Ω/M'	2.2Ω/M'	.340	8.64		120	66%	12.8	42.0	23.0	75.5	
CM		Chart 5	500	152.4	29.5	13.4	78.7Ω/km	7.2Ω/km	For Plenum versions of 9842, see 82842.									
CEC:		(Tech Info	1000	304.8	57.0	25.9												
CM		Section)																
NEC:	3	See	100	30.5	7.1	3.2	24.0Ω/M'	2.3Ω/M'		.360	9.14	120	66%	12.8	42.0	23.0	75.5	
CM		Chart 5	500	152.4	34.5	15.7	78.7Ω/km	7.7Ω/km										
CEC:		(Tech Info	1000	304.8	67.0	30.5												
CM		Section)																
NEC:	4	See	500	152.4	43.0	19.5	24.0Ω/M'	2.1Ω/M'	.390	9.91	120	66%	12.8	42.0	23.0	75.5		
CM		Chart 5	1000	304.8	83.0	37.7	78.7Ω/km	6.9Ω/km										
CEC:		(Tech Info																
CM		Section)																
Plenum • Foam FEP Insulation • Natural Flamarrrest® Jacket																		
300V RMS 	82841	NEC:	1	See	500	152.4	13.0	6.0	24.0Ω/M'	3.1Ω/M'	.204	5.18	120	76%	12	39.4	22	72.2
		CMP		Chart 5	1000	304.8	26.0	11.8	78.7Ω/km	10.2Ω/km	For Plenum versions of 82841, see 82842.							
		CEC:		(Tech Info														
		CMP FT6		Section)														
300V RMS 	82842	NEC:	2	See	500	152.4	19.0	8.6	24.0Ω/M'	2.4Ω/M'	.273	6.93	120	76%	12	39.4	22	72.2
		CMP		Chart 5	1000	304.8	42.0	19.1	78.7Ω/km	7.9Ω/km								
		CEC:		(Tech Info														
		CMP FT6		Section)														
Plenum • Foam FEP Insulation • Red FEP Jacket																		
300V RMS 	89841	NEC:	1	See	500	152.4	13.5	6.1	24.0Ω/M'	3.1Ω/M'	.202	5.13	120	76%	12	39.4	22	72.2
		CMP		Chart 5	1000	304.8	27.0	12.3	78.7Ω/km	10.2Ω/km								
		CEC:		(Tech Info														
		CMP FT6		Section)														
300V RMS 	89842 <small>new</small>	NEC:	2	See	500	152.4	25.5	11.6	24.0Ω/M'	3.1Ω/M'	.305	7.75	120	76%	12	39.4	22	72.2
		CMP		Chart 5	1000	304.8	49.0	22.2	78.7Ω/km	10.2Ω/km								
		CEC:		(Tech Info														
		CMP FT6		Section)														

DCR = DC Resistance • TC = Tinned Copper

*Capacitance between conductors.

**Capacitance between one conductor and other conductors connected to shield.