Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



9932 Multi-Conductor - Low-Capacitance Computer Cable for EIA RS-232/423





Description:

24 AWG stranded (7x32) TC conductors, Datalene® insulation, overall Beldfoil® (100% coverage) + TC braid shield (65% coverage), drain wire, PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

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

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material
Datalene®	FPE - Foam 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	65

Outer Shield Drain Wire AWG:

	Stranding	Drain Wire Conductor Material
24	Stranded	TC - Tinned Copper

Outer Jacket

Outer Jacket Material:

Outer Jacket Material PVC - Polyvinyl Chloride

Overall Cabling

Overall Cabling Color Code Chart:

Black White Red Green Brown Blue Orange	Color	
Red Green Brown Blue	Black	
Green Brown Blue	White	
Brown Blue	Red	
Blue	Green	
	Brown	
Orange	Blue	
	Orange	

Overall Nominal Diameter: 0.265 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2919)
Bulk Cable Weight:	42 lbs/1000 ft.
Min. Bend Radius (Install)/Minor Axis:	2.700 in.

Page 1 of 3

Detailed Specifications & Technical Data





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Applicable Specifications and Agency Compliance (Overall)									
Applicable Standards & Environmental Progr	rams								
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								
Flame Test									
UL Flame Test:	UL1685 UL Loading								
Plenum/Non-Plenum									
Plenum (Y/N):	No								

Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
12

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
22

Nominal Velocity of Propagation:

VP (%) 78

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 24

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft) 4.4

Max. Operating Voltage - UL:

Voltage 30 V RMS (UL AWM Style 2919) 300 V RMS

Max. Recommended Current:

Current
1.5 Amps per conductor @ 25°C

Notes (Overall)

Notes:

handling. Physical properties include good crush resistance and light weight.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9932 060100	100 FT	4.500 LB	CHROME		7 #24 FHDPE SH PVC

Detailed Specifications & Technical Data





9932 Multi-Conductor - Low-Capacitance Computer Cable for EIA RS-232/423

9932 0601000	1,000 FT	41.000 LB	CHROME	С	7 #24 FHDPE SH PVC
9932 060500	500 FT	18.500 LB	CHROME	С	7 #24 FHDPE SH PVC

Notes: C = CRATE REEL PUT-UP.

Introduction

Belden® multi-conductor cables are manufactured in a wide variety of gage sizes, dimensions, insulation materials, shielding configurations, and jacketing materials including Plenum and High-Temperature versions. These cables meet the technical requirements of many different types of systems. In fact, Belden offers one of the broadest lines of UL Listed, NEC and CEC multi-conductor cables available from any single source.

Applications for multi-conductor cables include computers, communications, instrumentation, sound, control, audio, and data transmission. Each of these cables is designed to protect signal integrity under critical conditions by reducing hum, noise, and crossfalk

To assist you in selecting the proper cable for your application, both the suggested working voltages and the maximum temperature ratings are indicated for each applicable product in this section.

Most of our multi-conductor cables are available from stock. Many of these are available off the shelf from distributors. If you have a new or unusual application or you cannot find a multi-conductor cable in this catalog section that meets your technical requirements, contact Technical Support at 1-800-BELDEN-1.

Multi-Conductor Cables Packaging

Belden's unique UnReel® cable dispenser is available for many of the multi-conductor products listed in this section. The letter "U" before the specified put-up length denotes UnReel packaging.

Selection Guide

Shielded Multi-Conductor Computer Cables for RS-232 Applications

Specifica	ntions		9925	9608	Series* 9533	9939
Conductor Si		28				
(AWG)		24	1	1	1	
		22			-	1
		20				
		18				
	Pac	je No.	4.18	4.17	4.11	4.19
Insulation:	S-R PVC	,		1	1	1
	Polyethylene				-	-
	Polypropylene	9				
	Datalene® †	-	1			
Shield:	Overall Foil		,		1	
		1		1		
	Drain Wire Overall Foil/B	raid	1	1	-	1
	Braid Coveraç		65%	65%		65%
Drain Wire O		,-	Yes	No	Yes	No
No. of Cond.		1	100	- 110		
		2				
		3	1	1	1	/
		4	1	/	1	1
		5	1	/	1	1
		6	1	1	/	1
		7	1	/	1	1
		8	1	/	1	1
		9	1	/	1	1
		10	1	1	/	1
		11	·	•	•	•
		12				
		13				
		15	1	1	/	1
		17	·		•	•
		18				
		19				
		20			/	
		25	1	1	✓	1
		27	Ť	•	•	•
		30			1	
		31				
		37	1	1		1
	40	_		1	*	
		50		1	1	1
		J 00	12.0	30.0	30.0	٧

^{*}All cables are UL-listed.



^{**}Capacitance may vary on some cables.

[†] Foam high density polyethylene.

Overall Foil/Braid Shield

Low-Capacitance Computer Cables for EIA RS-232 and EIA RS-423 Applications

	Part	UL NEC/	No.	Color	Standar	d Lengths	Star Unit \	ndard Weight	Nomi	nal OD	Nomin	al DCR	Nom. Vel.	Nominal Capacitance			
Description	No.	C(UL) CEC Type	of Cond.	Code	Ft.	m	Lbs.	kg	Inch	mm	Cond.	Shield	of Prop.	pF/ Ft.	pF/ m	pF/ Ft.	pF/ m
24 AWG Stranded (7:	x32) T0	C Conducte	ors • (Overall Be	eldfoil® (*	100% Cd	overag	e) + T(C Brai	d Shie	eld (65% C	overage)	• Drair	ıWi	e ^{††}		
Datalene® Insulatio	n • Ch	rome PVC	Jac	ket													
UL AWM Style 2919 (30V 80°C)	9925	NEC: CM CEC: CM	3	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	3.5 12.0 24.0	1.6 5.5 10.9	.215	5.46	24.0Ω/M′ 78.7Ω/km	5.2Ω/M′ 17.0Ω/km	78%	12	39.4	22	72.2
Z-Fold®	9927	NEC: CM CEC: CM	4	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	3.6 14.5 32.0	1.6 6.6 14.5	.230	5.84		5.3Ω/M′ 17.4Ω/km	78%	12	39.4	22	72.2
	9929	NEC: CM CEC: CM	5	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	4.0 16.0 36.0	1.8 7.3 16.3	.246	6.25	24.0Ω/M′ 78.7Ω/km	4.2Ω/M′ 13.9Ω/km	78%	12	39.4	22	72.2
	9931	NEC: CM CEC: CM	6	See Chart 1 (Tech Info Section)	100 500 1000 10000	30.5 152.4 304.8 3048.0	4.2 17.5 39.0 410.0	1.9 8.0 17.7 186.1	.265	6.73	24.0Ω/M′ 78.7Ω/km	4.4Ω/M′ 14.4Ω/km	78%	12	39.4	22	72.2
	9932	NEC: CM CEC: CM	7	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	4.5 18.5 41.0	2.0 8.4 18.6	.265	6.73	24.0Ω/M′ 78.7Ω/km	4.4Ω/M′ 14.4Ω/km	78%	12	39.4	22	72.2
	9933	NEC: CM CEC: CM	8	See Chart 1 (Tech Info Section)	100 500 1000 10000†	30.5 152.4 304.8 3048.0	4.9 21.0 46.0 480.0	2.2 9.6 20.9 217.9	.280	7.11	24.0Ω/M′ 78.7Ω/km	4.4Ω/M′ 14.4Ω/km	78%	12	39.4	22	72.2
	9934	NEC: CM CEC: CM	9	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	5.2 22.0 48.0	2.4 10.0 21.8	.300	7.62	24.0Ω/M′ 78.7Ω/km	3.9Ω/M′ 12.6Ω/km	78%	12	39.4	22	72.2
	9935	NEC: CM CEC: CM	10	See Chart 1 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	5.7 28.0 53.0	2.6 12.7 24.1	.306	7.77	24.0Ω/M′ 78.7Ω/km	3.2Ω/M′ 10.4Ω/km	78%	12	39.4	22	72.2
	9936	NEC: CM CEC: CM	15	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	7.2 35.0 68.0		.350	8.89	24.0Ω/M′ 78.7Ω/km	3.6Ω/M′ 11.7Ω/km	78%	12	39.4	22	72.2
	9937	NEC: CM CEC: CM	25	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	9.9 54.5 108.0	4.5 24.8 49.0	.445	11.30	24.0Ω/M′ 78.7Ω/km	2.8Ω/M′ 9.1Ω/km	78%	12	39.4	22	72.2
†24 AWG Stranded TC Drain Wire	9938	NEC: CM CEC: CM	37	See Chart 2R (Tech Info Section)	100 500 1000	30.5 152.4 304.8	12.9 71.5 139.0	5.9 32.5 63.1	.500	12.7	24.0Ω/M′ 78.7Ω/km	2.4Ω/M′ 7.8Ω/km	78%	12	39.4	22	72.2

DCR = DC Resistance • TC = Tinned Copper

Datalene insulation features include a low dielectric constant and a low dissipation factor for high-speed, low-distortion data handling. Physical properties include good crush resistance and light weight.



^{*}Capacitance between conductors.
**Nominal capacitance conductor to conductor and shield.

 $^{^{\}dag\uparrow}$ Final put-up may vary -10% to +20%. May contain two pieces, minimum length of any one piece is 1500 ft.