

9545 Multi-Conductor - Computer Cable for EIA RS-232 Applications



Description:

24 AWG stranded (7x32) tinned copper conductors, conductors cabled, semi-rigid PVC insulation, overall Beldfoil® shield (100% coverage), 24 AWG stranded tinned copper drain wire, PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Conductors	AWG	Stranding	Conductor Material
40	24	7x32	TC - Tinned Copper

Insulation

Insulation Material:

Insulation Material	Wall Thickness (in.)
PVC - Polyvinyl Chloride	.010

Outer Shield

Outer Shield Material:

Outer Shield Trade Name	Outer Shield Material	Coverage (%)
Beldfoil®	Aluminum Foil-Polyester Tape	100

Outer Shield Drain Wire AWG:

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

Outer Jacket

Outer Jacket Material:

Outer Jacket Material	Nom. Wall Thickness (in.)
PVC - Polyvinyl Chloride	.040

Overall Cabling

Overall Cabling Lay Length & Direction:

Length (in.)
5.80

Overall Cabling Color Code Chart:

Number	Color
1	Black
2	White
3	Red
4	Green
5	Orange
6	Blue
7	White/Black
8	Red/Black
9	Green/Black
10	Orange/Black
11	Blue/Black
12	Black/White
13	Red/White
14	Green/White
15	Blue/White
16	Black/Red

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17	White/Red
18	Orange/Red
19	Blue/Red
20	Red/Green
21	Orange/Green
22	Black/White/Red
23	White/Black/Red
24	Red/Black/White
25	Green/Black/White
26	Orange/Black/White
27	Blue/Black/White
28	Black/Red/Green
29	White/Red/Green
30	Red/Black/Green
31	Green/Black/Orange
32	Orange/Black/Green
33	Blue/White/Orange
34	Black/White/Orange
35	White/Red/Orange
36	Orange/White/Blue
37	White/Red/Blue
38	Black/White/Green
39	White/Black/Green
40	Red/White/Green

Overall Nominal Diameter: 0.406 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +80°C
UL Temperature Rating:	80°C (UL AWM Style 2464)
Bulk Cable Weight:	120.700 lbs/1000 ft.
Max. Recommended Pulling Tension:	220 lbs.
Min. Bend Radius (Install)/Minor Axis:	4 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG
AWM Specification:	UL Style 2464 (300 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):	04/01/2005
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

C(UL) Flame Test: FT4

Plenum/Non-Plenum

Plenum (Y/N): No

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Electrical Characteristics (Overall)

Nom. Capacitance Conductor to Conductor:

Capacitance (pF/ft)
30

Nom. Capacitance Cond. to Other Conductor & Shield:

Capacitance (pF/ft)
55

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
25

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
18

Max. Operating Voltage - UL:

Voltage
300 V RMS (UL AWM Style 2464)

Max. Recommended Current:

Current
1.75 Amps per conductor @ 25°C

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9545 060100	100 FT	13.500 LB	CHROME	C	40 #24 PVC FS PVC
9545 0601000	1,000 FT	130.000 LB	CHROME	C	40 #24 PVC FS PVC
9545 060500	500 FT	65.000 LB	CHROME	C	40 #24 PVC FS 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 crosstalk.

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

Specifications		Cable Series*			
		9925	9608	9533	9939
Conductor Size: (AWG)	28				
	24	✓	✓	✓	
	22				✓
	20				
	18				
Page No.		4.18	4.17	4.11	4.19
Insulation:	S-R PVC		✓	✓	✓
	Polyethylene				
	Polypropylene				
	Datalene®†	✓			
Shield:	Overall Foil			✓	
	Drain Wire	✓		✓	
	Overall Foil/Braid	✓	✓		✓
	Braid Coverage	65%	65%		65%
Drain Wire Overall:		Yes	No	Yes	No
No. of Cond. Available:	1				
	2				
	3	✓	✓	✓	✓
	4	✓	✓	✓	✓
	5	✓	✓	✓	✓
	6	✓	✓	✓	✓
	7	✓	✓	✓	✓
	8	✓	✓	✓	✓
	9	✓	✓	✓	✓
	10	✓	✓	✓	✓
	11				
	12				
	13				
	15	✓	✓	✓	✓
	17				
	18				
	19				
	20			✓	
	25	✓	✓	✓	✓
	27				
30			✓		
31					
37	✓	✓		✓	
40			✓		
50		✓	✓	✓	
Capacitance ** (pF/ft.)		12.0	30.0	30.0	35.0

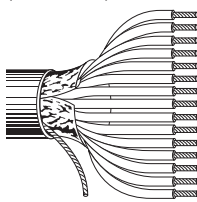
*All cables are UL-listed.

**Capacitance may vary on some cables.

† Foam high density polyethylene.

Overall Beldfoil® Shield

Computer Cables for EIA RS-232 Applications

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Jacket Thickness		Nominal OD		Nominal Capacitance						
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm	* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m			
24 AWG Stranded (7x32) TC Conductors • Conductors Cabled • Overall Beldfoil Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire																					
Semi-rigid PVC Insulation • Chrome PVC Jacket																					
 <p>UL AWM Style 2464 (300V 80°C)</p>	9533	NEC:	3	See	100	30.5	2.7	1.2	.010	.25	.032	.81	.162	4.11	33	108	65	213			
		CMG:		Chart 1	U-500	U-152.4	9.5	4.3													
		CEC:		(Tech Info	500	152.4	9.0	4.1													
		CMG FT4		Section)	U-1000	U-304.8	18.0	8.2													
						1000	304.8	18.0	8.2												
		9534	NEC:	4	See	100	30.5	3.0	1.4	.010	.25	.032	.81	.184	4.67	33	108	65	213		
	CMG:		Chart 1		U-500	U-152.4	11.0	5.0													
	CEC:		(Tech Info		500	152.4	11.5	5.2													
	CMG FT4		Section)		U-1000	U-304.8	21.0	9.5													
						1000	304.8	22.0	10.0												
	9535	NEC:	5	See	100	30.5	3.2	1.5	.010	.25	.032	.81	.189	4.80	33	108	65	213			
CMG:		Chart 1		U-500	U-152.4	12.0	5.4														
CEC:		(Tech Info		500	152.4	11.0	5.0														
CMG FT4		Section)		U-1000	U-304.8	23.0	10.4														
					1000	304.8	22.0	10.0													
	9536	NEC:	6	See	100	30.5	3.6	1.6	.010	.25	.032	.81	.209	5.31	33	108	65	213			
CMG:		Chart 1		U-500	U-152.4	14.5	6.6														
CEC:		(Tech Info		500	152.4	12.5	5.7														
CMG FT4		Section)		U-1000	U-304.8	27.0	12.3														
					1000	304.8	29.0	13.2													
	9537	NEC:	7	See	100	30.5	3.7	1.7	.010	.25	.032	.81	.209	5.31	33	108	65	213			
CMG:		Chart 1		U-500	U-152.4	15.0	6.8														
CEC:		(Tech Info		500	152.4	13.5	6.2														
CMG FT4		Section)		U-1000	U-304.8	29.0	13.2														
					1000	304.8	30.0	13.7													
	9538	NEC:	8	See	100	30.5	3.8	1.7	.010	.25	.032	.81	.224	5.69	33	108	65	213			
CMG:		Chart 1		U-500	U-152.4	17.0	7.7														
CEC:		(Tech Info		500	152.4	15.0	6.8														
CMG FT4		Section)		U-1000	U-304.8	32.0	14.6														
					1000	304.8	34.0	15.4													
	9539	NEC:	9	See	100	30.5	4.2	1.9	.010	.25	.032	.81	.244	6.20	30	98	55	180			
CMG:		Chart 1		U-500	U-152.4	20.0	9.1														
CEC:		(Tech Info		500	152.4	17.0	7.8														
CMG FT4		Section)		U-1000	U-304.8	37.0	16.9														
					1000	304.8	38.0	17.3													
	9540	NEC:	10	See	100	30.5	4.3	2.0	.010	.25	.032	.81	.244	6.20	30	98	55	180			
CMG:		Chart 1		U-500	U-152.4	19.5	8.9														
CEC:		(Tech Info		500	152.4	18.0	8.2														
CMG FT4		Section)		U-1000	U-304.8	38.0	17.2														
					1000	304.8	36.0	16.4													
	9541	NEC:	15	See	100	30.5	5.9	2.7	.010	.25	.032	.81	.284	7.21	30	98	55	180			
CMG:		Chart 2R		U-500	U-152.4	27.5	12.5														
CEC:		(Tech Info		500	152.4	28.0	12.7														
CMG FT4		Section)		U-1000	U-304.8	54.0	24.5														
					1000	304.8	56.0	25.4													
	9542	NEC:	20	See	100	30.5	7.3	3.3	.010	.25	.032	.81	.314	7.98	30	98	55	180			
CMG:		Chart 2R		U-500	U-152.4	34.0	15.4														
CEC:		(Tech Info		500	152.4	35.5	16.1														
CMG FT4		Section)		1000	304.8	69.0	31.3														
	9543	NEC:	25	See	100	30.5	8.7	4.0	.010	.25	.032	.81	.339	8.61	30	98	55	180			
CMG:		Chart 2R		500	152.4	44.0	20.0														
CEC:		(Tech Info		1000	304.8	86.0	39.0														
CMG FT4		Section)																			
	9544	NEC:	30	See	100	30.5	10.3	4.7	.010	.25	.040	1.02	.380	9.65	30	98	55	180			
CMG:		Chart 2R		500	152.4	51.5	23.4														
CEC:		(Tech Info		1000	304.8	102.0	46.3														
CMG FT4		Section)																			
	9545	NEC:	40	See	100	30.5	13.5	6.1	.010	.25	.040	1.02	.430	10.92	30	98	55	180			
CMG:		Chart 2R		500	152.4	65.0	29.5														
CEC:		(Tech Info		1000	304.8	130.0	59.0														
CMG FT4		Section)																			
	9546	NEC:	50	See	100	30.5	16.4	7.4	.010	.25	.045	1.14	.490	12.45	30	98	55	180			
CMG:		Chart 2R		500	152.4	81.5	37.0														
CEC:		(Tech Info		1000	304.8	168.0	76.3														
CMG FT4		Section)																			

TC = Tinned Copper

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