

Introduction

Multi Applications Demand Multiple Choice

When the applications are many and the systems different, cable flexibility is vital. Choice means the ability to meet every requirement and every contingency, because every system has different requirements.

Belden's multi-conductor 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.

Key Applications

- Computers
- Communications
- Instrumentation
- Sound
- Control
- Audio
- Data transmission

Special Features

- Belden multi-conductor cables are offered in many variations including plenum and high-temperature versions. Variations include:
 - Gage sizes
 - Dimensions
 - Insulation materials
 - Shielding configurations
 - Jacketing materials
- Each cable is designed to protect signal integrity under critical conditions by reducing hum, noise, and crosstalk.
- 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.
- Extended temperature and chemical resistant cable range: a broad range of cables suitable for application in the temperature range from -100°C up to +1550°C.

Availability

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, see our U.S. Master Catalog or contact technical support at +31-77-3875-414 or techsupport.venlo@belden.com.

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.		4.11	4.9	4.6	4.10
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/m)		39.4	98.4	98.4	114.8

* All cables are UL-Listed.

**Capacitance may vary on some cables.

† Foam high density polyethylene.

Overall Beldfoil® Shield

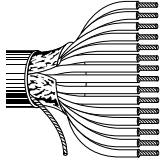
Computer Cables for EIA RS-232 Applications

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm		pF/ft.	pF/m	

24 AWG • Stranded (7x32) 0.6 mm Tinned Copper • Conductors Cabled • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire

Semi-Rigid PVC Insulation • Chrome PVC Jacket

300V 80°C UL AWM Style 2464	NEC: CMG CEC: CMG FT4		0.61 mm 24 AWG (7x32) TC	0.044	1.11	Overall Beldfoil® + Drain Wire (24 AWG TC)	-									see chart 1 (Tech Info Section)
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9533	3 CDR	100	31	2.6	1.2					0.162	4.11		CDR/CDR	33	108
		U-500	U-152	9.5	4.3								CDR/SCR	65	213
		500	152	9.0	4.1										
		U-1000	U-305	18.1	8.2										
		1000	305	18.1	8.2										
9534	4 CDR	100	31	3.1	1.4					0.184	4.67		CDR/CDR	33	108
		U-500	U-152	11.0	5.0								CDR/SCR	65	213
		500	152	11.5	5.2										
		U-1000	U-305	20.9	9.5										
		1000	305	22.0	10.0										
9535	5 CDR	100	31	3.3	1.5					0.189	4.80		CDR/CDR	33	108
		U-500	U-152	11.9	5.4								CDR/SCR	65	213
		500	152	11.0	5.0										
		U-1000	U-305	22.9	10.4										
		1000	305	22.0	10.0										
9536	6 CDR	100	31	3.5	1.6					0.209	5.31		CDR/CDR	33	108
		U-500	U-152	14.6	6.6								CDR/SCR	65	213
		500	152	12.6	5.7										
		U-1000	U-305	27.1	12.3										
		1000	305	29.1	13.2										
9537	7 CDR	100	31	3.7	1.7					0.209	5.31		CDR/CDR	33	108
		U-500	U-152	15.0	6.8								CDR/SCR	65	213
		500	152	13.7	6.2										
		U-1000	U-305	29.1	13.2										
		1000	305	30.2	13.7										
9538	8 CDR	100	31	3.7	1.7					0.224	5.69		CDR/CDR	33	108
		U-500	U-152	17.0	7.7								CDR/SCR	65	213
		500	152	15.0	6.8										
		U-1000	U-305	32.2	14.6										
		1000	305	34.0	15.4										
9539	9 CDR	100	31	4.2	1.9					0.244	6.20		CDR/CDR	30	98
		U-500	U-152	20.1	9.1								CDR/SCR	55	180
		500	152	17.2	7.8										
		U-1000	U-305	37.3	16.9										
		1000	305	38.1	17.3										
9540	10 CDR	100	31	4.4	2.0					0.244	6.20		CDR/CDR	30	98
		U-500	U-152	19.6	8.9								CDR/SCR	55	180
		500	152	18.1	8.2										
		U-1000	U-305	37.9	17.2										
		1000	305	36.2	16.4										

TC = Tinned Copper • DCR = DC resistance • SCR = Capacitance between one conductor and other conductors connected to shield. • CDR = Capacitance between conductors

Overall Beldfoil® Shield

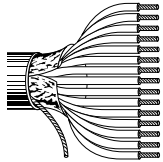
Computer Cables for EIA RS-232 Applications

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm		pF/ft.	pF/m	

24 AWG • Stranded (7x32) 0.6 mm TC • Conductors Cabled • Overall Beldfoil® Shield • 24 AWG Tinned Copper Drain Wire (continued)

Semi-Rigid PVC Insulation • Chrome PVC Jacket

300V 80°C UL AWM Style 2464	NEC: CMG CEC: CMG FT4						0.61 mm 24 AWG (7x32) TC	0.044	1.11	Overall Beldfoil® + Drain Wire (24 AWG TC)			-			see chart 2R (Tech Info Section)
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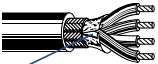


9541	15 CDR	100	31	6.0	2.7						0.284	7.21	CDR/CDR	30	98		
		U-500	U-152	27.6	12.5									CDR/SCR	55		180
		500	152	28.0	12.7												
		U-1000	U-305	54.0	24.5												
		1000	305	56.0	25.4												
9542	20 CDR	100	31	7.3	3.3						0.314	7.98	CDR/CDR	30	98		
		U-500	U-152	34.0	15.4									CDR/SCR	55		180
		500	152	35.5	16.1												
		1000	305	69.0	31.3												
9543	25 CDR	100	31	8.8	4.0						0.339	8.61	CDR/CDR	30	98		
		500	152	44.1	20.0									CDR/SCR	55		180
		1000	305	86.0	39.0												
9544	30 CDR	100	31	10.4	4.7						0.380	9.65	CDR/CDR	30	98		
		500	152	51.6	23.4									CDR/SCR	55		180
		1000	305	102.1	46.3												
9545	40 CDR	100	31	13.4	6.1						0.430	10.92	CDR/CDR	30	98		
		500	152	65.0	29.5									CDR/SCR	55		180
		1000	305	130.1	59.0												
9546	50 CDR	100	31	16.3	7.4						0.490	12.45	CDR/CDR	30	98		
		500	152	81.6	37.0									CDR/SCR	55		180
		1000	305	168.2	76.3												

TC = Tinned Copper • DCR = DC resistance • SCR = Capacitance between one conductor and other conductors connected to shield. • CDR = Capacitance between conductors

Overall Foil/Braid Shield

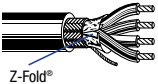
Computer Cables for EIA RS-232 Applications

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm		pF/ft.	pF/m	
24 AWG • Stranded Conductors (7x32) 0.6 mm Tinned Copper • Overall Beldfoil® Shield + 65% Tinned Copper Braid																
Semi-Rigid PVC Insulation • Chrome PVC Jacket																
300V 80°C UL AWM Style 2464		NEC: CMG CEC: CMG FT4					0.61 mm 24 AWG (7x32) TC	0.044	1.12	Overall Beldfoil® + Overall 65% TC Braid			-			
																
	9608	3 CDR	100 500 1000	31 152 305	3.1 11.9 22.9	1.4 5.4 10.4					0.190	4.83	CDR/CDR CDR/SCR	35 65	115 213	see chart 1 (Tech Info Section)
	9609	4 CDR	100 500 1000	31 152 305	3.5 13.4 26.0	1.6 6.1 11.8					0.200	5.08	CDR/CDR CDR/SCR	35 65	115 213	see chart 1 (Tech Info Section)
	9610	5 CDR	100 500 1000	31 152 305	4.0 16.1 32.0	1.8 7.3 14.5					0.215	5.46	CDR/CDR CDR/SCR	35 65	115 213	see chart 1 (Tech Info Section)
	9611	6 CDR	100 500 1000	31 152 305	4.2 17.0 34.0	1.9 7.7 15.4					0.225	5.72	CDR/CDR CDR/SCR	30 55	98 180	see chart 1 (Tech Info Section)
	9612	7 CDR	100 500 1000	31 152 305	4.2 18.5 38.1	1.9 8.4 17.3					0.225	5.72	CDR/CDR CDR/SCR	30 55	98 180	see chart 1 (Tech Info Section)
	9613	8 CDR	100 500 1000	31 152 305	4.4 20.9 41.0	2.0 9.5 18.6					0.240	6.10	CDR/CDR CDR/SCR	30 55	88 180	see chart 1 (Tech Info Section)
	9614	9 CDR	100 500 1000	31 152 305	4.9 22.0 44.1	2.2 10.0 20.0					0.253	6.43	CDR/CDR CDR/SCR	30 55	98 180	see chart 1 (Tech Info Section)
	9615	10 CDR	100 500 1000	31 152 305	5.5 25.1 50.0	2.5 11.4 22.7					0.270	6.86	CDR/CDR CDR/SCR	30 55	98 180	see chart 1 (Tech Info Section)
	9616	15 CDR	100 500 1000	31 152 305	6.6 31.5 63.1	3.0 14.3 28.6					0.300	7.62	CDR/CDR CDR/SCR	30 55	98 180	see chart 2R (Tech Info Section)
	9617	25 CDR	100 500 1000	31 152 305	10.1 49.6 100.1	4.6 22.5 45.4					0.370	9.40	CDR/CDR CDR/SCR	30 55	98 180	see chart 2R (Tech Info Section)
	9618	37 CDR	100 500 1000	31 152 305	13.2 66.6 135.1	6.0 30.2 61.3					0.411	10.43	CDR/CDR CDR/SCR	30 55	98 180	see chart 2R (Tech Info Section)
	9619	50 CDR	100 500 1000	31 152 305	17.2 93.0 182.1	7.8 42.2 82.6					0.485	12.32	CDR/CDR CDR/SCR	30 55	98 180	see chart 2R (Tech Info Section)

TC = Tinned Copper • DCR = DC resistance • SCR = Capacitance between one conductor and other conductors connected to shield. • CDR = Capacitance between conductors

Overall Foil/Braid Shield

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

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter Nom. DCR	Nominal Insulation OD		Shielding Material Nom. DCR	Nominal OD		Nom. Vel. of Prop.	Nominal Capacitance		Color Code
			ft.	m	lbs.	kg		inch	mm		inch	mm		pF/ft.	pF/m	
24 AWG • Stranded Conductors (7x32) 0.6 mm Tinned Copper • Overall Beldfoil® Shield + 65% Tinned Copper Braid • 24 AWG TC Drain Wire Datalene® Insulation • Chrome PVC Jacket																
30V 80°C UL AWM Style 2919		NEC: CM CEC: CM					0.61 mm 24 AWG (7x32) TC	0.053	1.35	Overall Beldfoil® + Overall 65% TC Braid + Drain Wire (24 AWG TC)			78%			
																
	9925	3 CDR	100 500 1000	31 152 305	3.5 12.1 24.0	1.6 5.5 10.9					0.215	5.46	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9927	4 CDR	100 500 1000	31 152 305	3.5 14.6 32.0	1.6 6.6 14.5					0.230	5.84	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9929	5 CDR	100 500 1000	31 152 305	4.0 16.1 35.9	1.8 7.3 16.3					0.246	6.25	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9931	6 CDR	100 500 1000 10000	31 152 305 3048	4.2 17.6 39.0 410.3	1.9 8.0 17.7 186.1					0.265	6.73	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9932	7 CDR	100 500 1000	31 152 305	4.4 18.5 41.0	2.0 8.4 18.6					0.265	6.73	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9633	8 CDR	100 500 1000 10000	31 152 305 3048	4.9 21.2 46.1 480.4	2.2 9.6 20.9 217.9					0.280	7.11	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9934	9 CDR	100 500 1000	31 152 305	5.3 22.0 48.1	2.4 10.0 21.8					0.300	7.62	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9935	10 CDR	100 500 1000	31 152 305	5.7 28.0 53.1	2.6 12.7 24.1					0.306	7.77	CDR/CDR CDR/SCR	12 22	39 72	see chart 1 (Tech Info Section)
	9636	15 CDR	100 500 1000	31 152 305	7.3 35.1 68.1	3.3 15.9 30.9					0.350	8.89	CDR/CDR CDR/SCR	12 22	39 72	see chart 2R (Tech Info Section)
	9937	25 CDR	100 500 1000	31 152 305	9.9 54.7 108.0	4.5 24.8 49.0					0.445	11.30	CDR/CDR CDR/SCR	12 22	39 72	see chart 2R (Tech Info Section)
	9938	37 CDR	100 500 1000	31 152 305	13.0 71.6 139.1	5.9 32.5 63.1					0.500	12.70	CDR/CDR CDR/SCR	12 22	39 72	see chart 2R (Tech Info Section)

TC = Tinned Copper • DCR = DC resistance • SCR = Capacitance between one conductor and other conductors connected to shield. • CDR = Capacitance between conductors