

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

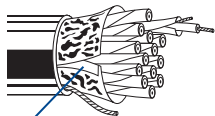
Computer Cable for Synchronous EIA Interface

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Nominal OD		Nominal DCR		Nom. Imped. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			
				Ft.	m	Lbs.	kg	Inch	mm	Cond.	Shield			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

28 AWG Stranded (7x36) TC Conductors • Individually and Overall Beldfoil Shielded (100% Coverage) • 28 AWG Stranded TC Drain Wires

Datalene® Insulation • Gray PVC Jacket

UL AWM Style 2384 (30V 60°C)	9868	NEC: CM	14	1000	304.8	71.0	32.2	.394	10.01	64.9Ω/M' 212.9Ω/km	Individual: 44.0Ω/M' 144.4Ω/km Overall: 18.2Ω/M' 59.7Ω/km	65	78%	—	—	20.5	67.3
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Z-Fold®

Individually Beldfoil shielded conductors are isolated from adjacent shields and each has a 28 AWG stranded TC drain wire.

DCR = DC Resistance • TC = Tinned Copper

*Capacitance between conductors.

**Nominal capacitance conductor to conductor and shield.

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.

Color Codes

Cond. No.	Color
1	Black w/ Blue Shield
2	Brown w/ Blue Shield
3	Red w/ Blue Shield
4	Orange w/ Blue Shield
5	Blue w/ Blue Shield
6	Yellow w/ Blue Shield
7	Natural w/ Blue Shield
8	Black w/ Red Shield
9	Brown w/ Red Shield
10	Red w/ Red Shield
11	Orange w/ Red Shield
12	Blue w/ Red Shield
13	Yellow w/ Red Shield
14	Natural w/ Red Shield

Overall Foil/Braid Shield

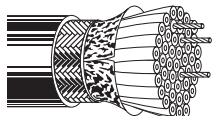
Computer Cables for EIA RS-232 Applications and IEEE 488 Interface,
Low-Capacitance Computer Cables for EIA RS-232 and EIA RS-423 Applications

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Nominal OD		Nominal DCR		Nom. Vel. of Prop.	Nominal Capacitance			
					Ft.	m	Lbs.	kg	Inch	mm	Cond.	Shield		* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

28 AWG Stranded (7x36) Tinned Copper Conductors • Overall Beldfoil® (100% Coverage) + Tinned Copper Braid Shield (65% Coverage)

Semi-rigid PVC Insulation • Chrome PVC Jacket

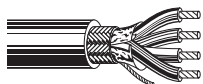
UL AWM Style 2464 (300V 80°C)	9637	NEC: CL2	25	See Chart 2R (Tech Info Section)	100	30.5	6.2	2.8	.305	7.75	64.9Ω/M'	4.5Ω/M'	66%	30	98	50	164
CSA AWM I B FT4					500	152.4	30.0	13.6			212.9Ω/km	14.8Ω/km					
					1000	304.8	59.0	26.8									



Low Cap 28 AWG Stranded (7x36) TC Conductors • Overall Beldfoil (100% Coverage) + TC Braid Shield (65% Coverage) • Drain Wire†

Datalene® Insulation • Chrome PVC Jacket

UL AWM Style 2919 (30V 80°C)	9791	NEC: CL2	6	See Chart 1 (Tech Info Section)	500	152.4	13.0	6.0	.225	5.72	64.9Ω/M'	6.15Ω/M'	78%	12	39.4	22	72.2
VW-1					1000	304.8	29.0	13.2			212.9Ω/km	20.2Ω/km					

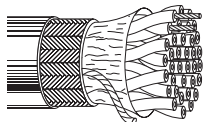


†28 AWG Stranded TC Drain Wire

IEEE 488 • 26 AWG & 24 AWG Stranded (7x34 & 7x32) TC Cond. • Overall Beldfoil (100% Coverage) + TC Braid Shield (90% Coverage) • Drain Wire

Semi-rigid PVC Insulation • Gray PVC Jacket

UL AWM Style 2464 (300V 80°C)	9641	NEC: CMG	23: (6)	See Chart 1 (Tech Info Section)	1000	304.8	82.0	37.4	.350	8.89	26 AWG: 2.6Ω/M'	2.6Ω/M'	66%	—	—	—	—
CSA AWM I A		CEC: CMG FT4	26 AWG Pairs								37.3Ω/M'	8.5Ω/km					
			(10)								122.4Ω/km						
			26 AWG Cond.								24 AWG: 23.3Ω/M'						
			(1)								76.4Ω/km						
			24 AWG Cond.														



TC = Tinned Copper

*Capacitance between conductors.

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

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.

Selection Guide

Shielded Multi-Pair Computer Cables

RS-232, RS-422, and RS-485 Applications*

Specifications		Cable Series**																	
		9804	8132	9829	8332	9501	8102	9729	8162	9990	9841	9680	9302*	8302	8777	9873	9773	8132FO	1419A
Conductor Size: (AWG)	28	✓	✓															✓	
	24			✓	✓	✓	✓	✓	✓	✓	✓	✓							✓
	22												✓	✓	✓				
	20															✓			
	18																✓		
Page No.		5.26	5.27	5.30	5.29	5.11	5.31	5.35	5.44	5.37	5.28	5.15	5.17	5.32	5.40	5.42	5.42	5.14	5.15
Insulation:	S-R PVC				✓	✓								✓					
	Polyethylene			✓						✓	✓	✓				✓	✓		
	Polypropylene	✓													✓				
	Datalene®†		✓				✓	✓	✓									✓	✓
Shield:	Overall Foil					✓						✓	✓					✓	✓
	Individual Foil							✓	✓	✓					✓	✓	✓		
	Overall Foil/Braid	✓	✓	✓	✓		✓		✓		✓			✓					
	Braid Coverage	90%	65%	65%	65%		65%		65%		90%			65%					
Drain Wire: (see key below)		●	●	●	×	●	●	▲	▲	▲	●	●	●	×	▲	▲	▲	●	●
No. of Pairs Available:	1					✓					✓								
	2	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓	✓
	3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	4	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓				✓	✓
	5	✓	✓	✓	✓	✓	✓		✓					✓				✓	✓
	6			✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		✓
	7	✓		✓	✓	✓	✓		✓					✓					
	8		✓			✓	✓		✓					✓				✓	
	9	✓		✓		✓		✓		✓		✓	✓		✓	✓	✓		
	10			✓	✓	✓	✓		✓					✓					
	11							✓							✓	✓			
	12	✓		✓				✓		✓					✓	✓	✓		
	12.5		✓		✓		✓					✓		✓				✓	✓
	13	✓																	
	15				✓	✓	✓	✓	✓				✓	✓	✓	✓	✓		✓
	17							✓							✓				
	18	✓	✓	✓	✓		✓		✓					✓				✓	
	19					✓		✓					✓		✓				
	25	✓	✓	✓	✓	✓	✓		✓	✓				✓				✓	
	27							✓					✓		✓				
	31	✓																	
	37														✓				
	50					✓													
Capacitance †† (pF/ft.)		15.5	11.0	15.5	30.0	30.0	12.5	12.5	12.5	25.0	12.8	15.5	35.0	35.0	30.0	30.0	30.0	11.0	13.0

S-R = Semi-rigid

* Refer to specifications for recommendations.

** All cables are UL-listed.

† Foam high density polyethylene.

†† Capacitance may vary on some cables.

◆ Standard PVC Insulation, solid conductors.

Drain Wire Key:

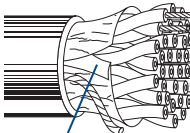
● = Drain wire overall.

▲ = Drain wire each pair.

× = No drain wire.

Overall Beldfoil® Shield

Low-Capacitance Computer Cables for EIA RS-232 and EIA RS-485 Applications

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
28 AWG Stranded (7x36) TC Conductors • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 28 AWG Stranded TC Drain Wire																		
Datalene® Insulation • Chrome PVC Jacket																		
 Z-Fold®	8132FO	NEC: CL2	2	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	8.5 20.0	3.9 9.1	65.0Ω/M' 213.0Ω/km	23.1Ω/M' 75.8Ω/km	.215 5.46	120	78%	11.0	36.1	20.0	65.6	
	8133FO	NEC: CL2	3	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	11.0 24.0	5.0 11.0	65.0Ω/M' 213.0Ω/km	23.1Ω/M' 75.8Ω/km	.250 6.35	120	78%	11.0	36.1	20.0	65.6	
	8134FO	NEC: CL2	4	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	13.5 31.0	6.1 14.1	65.0Ω/M' 213.0Ω/km	20.0Ω/M' 65.6Ω/km	.270 6.86	120	78%	11.0	36.1	20.0	65.6	
	8135FO	NEC: CL2	5	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	14.0 32.0	6.4 14.5	65.0Ω/M' 213.0Ω/km	20.0Ω/M' 65.6Ω/km	.280 7.11	120	78%	11.0	36.1	20.0	65.6	
	8138FO	NEC: CL2	8	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	22.0 42.0	10.0 19.1	65.0Ω/M' 213.0Ω/km	17.7Ω/M' 58.1Ω/km	.310 7.88	120	78%	11.0	36.1	20.0	65.6	
	8142FO	NEC: CL2	12.5 (12 pairs + 1 single)	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	27.5 54.0	12.5 24.5	65.0Ω/M' 213.0Ω/km	17.7Ω/M' 58.1Ω/km	.385 9.78	120	78%	11.0	36.1	20.0	65.6	
	8148FO	NEC: CL2	18	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	38.5 77.0	17.5 34.0	65.0Ω/M' 213.0Ω/km	15.8Ω/M' 51.8Ω/km	.445 11.31	120	78%	11.0	36.1	20.0	65.6	
	8155FO	NEC: CL2	25	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	42.0 84.0	19.1 34.0	65.0Ω/M' 213.0Ω/km	14.3Ω/M' 4.7Ω/km	.545 13.85	120	78%	11.0	36.1	20.0	65.6	

DCR = DC Resistance • TC = Tinned Copper

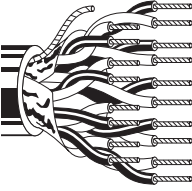
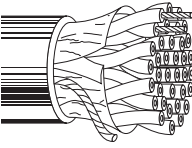
*Capacitance between conductors.

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

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

Overall Beldfoil® Shield

Low-Capacitance Computer Cables for EIA RS-232 and EIA RS-422 Applications

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 • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG Stranded TC Drain Wire																								
Polyethylene Insulation • Chrome PVC Jacket																								
 UL AWM Style 2919 (30V 80°C)	9680	NEC: CM CEC: CM	3	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	17.0 38.0	7.7 17.3	24.0Ω/M' 78.7Ω/km	14.4Ω/M' 47.2Ω/km	.282	7.16	100	66%	15.5	50.8	27.5	90.2						
	9681	NEC: CM CEC: CM	4	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	24.0 45.0	10.9 20.5	24.0Ω/M' 78.7Ω/km	14.4Ω/M' 47.2Ω/km	.307	7.80	100	66%	15.5	50.8	27.5	90.2						
	9682	NEC: CM CEC: CM	6	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	29.5 56.0	13.4 25.5	24.0Ω/M' 78.7Ω/km	13.1Ω/M' 43.0Ω/km	.342	8.69	100	66%	15.5	50.8	27.5	90.2						
	9683	NEC: CM CEC: CM	9	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	38.0 79.0	17.2 35.9	24.0Ω/M' 78.7Ω/km	12.0Ω/M' 39.4Ω/km	.397	10.10	100	66%	15.5	50.8	27.5	90.2						
	9684	NEC: CM CEC: CM	12.5 (12 prs.+ 1 single)	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	49.5 97.0	22.6 44.1	24.0Ω/M' 78.7Ω/km	12.0Ω/M' 39.4Ω/km	.445	11.30	100	66%	15.5	50.8	27.5	90.2						
Datalene® Insulation • Chrome PVC Jacket																								
 UL AWM Style 2919 (30V 80°C)	1419A	NEC: CM CEC: CM FT1	2	See Chart 5 (Tech Info Section)	500 1000 10000	152.4 304.8 3048.0	13.5 30.0 310.0	6.1 13.6 140.9	24.0Ω/M' 78.7Ω/km	15.1Ω/M' 49.5Ω/km	.248	6.30	100	78%	13	42.7	22	72						
	1420A	NEC: CM CEC: CM FT 1	3	See Chart 5 (Tech Info Section)	500 1000 10000	152.4 304.8 3048.0	15.0 34.0 340.0	6.8 15.5 154.5	24.0Ω/M' 78.7Ω/km	15.1Ω/M' 49.5Ω/km	.261	6.63	100	78%	13	42.7	22	72						
	1421A	NEC: CM CEC: CM	4	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	16.5 37.0	7.5 16.8	24.0Ω/M' 78.7Ω/km	14.4Ω/M' 47.2Ω/km	.280	7.11	100	78%	13	42.7	22	72						
	1422A	NEC: CM CEC: CM	5	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	23.0 43.0	10.5 19.5	24.0Ω/M' 78.7Ω/km	14.4Ω/M' 47.2Ω/km	.294	7.47	100	78%	13	42.7	22	72						
	1423A	NEC: CM CEC: CM	6	See Chart 5 (Tech Info Section)	500 1000 10000	152.4 304.8 3048.0	25.0 48.0 500.0	11.4 21.8 227.3	24.0Ω/M' 78.7Ω/km	13.0Ω/M' 42.7Ω/km	.319	8.10	100	78%	13	42.7	22	72						
	1424A	NEC: CM CEC: CM	12.5 (12 prs.+ 1 single)	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	43.0 85.0	19.5 38.6	24.0Ω/M' 78.7Ω/km	13.0Ω/M' 42.7Ω/km	.418	10.62	100	78%	13	42.7	22	72						
	1425A	NEC: CM CEC: CM	15	See Chart 5 (Tech Info Section)	500 1000	152.4 304.8	53.0 99.0	24.1 45.0	24.0Ω/M' 78.7Ω/km	11.2Ω/M' 36.7Ω/km	.473	12.01	100	78%	13	42.7	22	72						

DCR = DC Resistance • TC = Tinned Copper

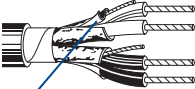
*Capacitance between conductors.

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

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

Individually Shielded

Low-Capacitance 100 Ohm Computer Cables for EIA RS-422, and Digital Audio Applications

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 • Twisted Pairs • Individually Shielded w/Beldfoil® (100% Coverage) • 24 AWG Stranded TC Drain Wire																		
Datalene® Insulation • Chrome PVC Jacket																		
 Z-Fold®	9729	NEC:	2	See	100	30.5	4.3	2.0	24.0Ω/M'	15.0Ω/M'	.266	6.76	100	76%	12.5	41.0	23.2	76.1
		CM		Chart 3	500	152.4	20.5	9.3	78.7Ω/km	49.2Ω/km								
	CEC:	(Tech Info	1000	304.8	39.0	17.7			For Plenum version of 9729,									
	CM	Section)	10000 †	3048.0	390.0	177.8			see 89729 or 82729.									
	9730	NEC:	3	See	100	30.5	5.1	2.3	24.0Ω/M'	15.0Ω/M'	.334	8.48	100	76%	12.5	41.0	23.2	76.1
		CM		Chart 3	500	152.4	24.5	11.1	78.7Ω/km	49.2Ω/km								
	CEC:	(Tech Info	1000	304.8	46.0	20.9			For Plenum version of 9730,									
	CM	Section)	10000 †	3048.0	520.0	236.4			see 89730.									
	9728	NEC:	4	See	100	30.5	6.0	2.7	24.0Ω/M'	15.0Ω/M'	.363	9.22	100	76%	12.5	41.0	23.2	76.1
		CM		Chart 3	500	152.4	29.0	13.2	78.7Ω/km	49.2Ω/km								
CEC:	(Tech Info	1000	304.8	51.0	23.1			For Plenum version of 9728,										
CM	Section)					see 89728.												
9731	NEC:	6	See	100	30.5	7.4	3.4	24.0Ω/M'	15.0Ω/M'	.421	10.69	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3	500	152.4	42.0	19.1	78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info	1000	304.8	83.0	37.7			For Plenum version of 9731,										
CM	Section)					see 89731.												
9732	NEC:	9	See	100	30.5	9.9	4.5	24.0Ω/M'	15.0Ω/M'	.488	12.40	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3	500	152.4	57.0	26.0	78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info	1000	304.8	106.0	48.1			For Plenum version of 9732,										
CM	Section)					see 89732.												
9733	NEC:	11	See	500	152.4	75.0	34.1	24.0Ω/M'	15.0Ω/M'	.575	14.61	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3					78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	
9734	NEC:	12	See	500	152.4	79.5	36.1	24.0Ω/M'	15.0Ω/M'	.575	14.61	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3	1000	304.8	154.0	70.0	78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	
9735	NEC:	15	See	500	152.4	95.0	43.2	24.0Ω/M'	15.0Ω/M'	.639	16.23	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3	1000	304.8	185.0	84.1	78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	
9736	NEC:	17	See	500	152.4	103.5	47.0	24.0Ω/M'	15.0Ω/M'	.671	17.04	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3	1000	304.8	210.0	95.5	78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	
9737	NEC:	19	See	1000	304.8	231.0	105.0	24.0Ω/M'	15.0Ω/M'	.671	17.04	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3					78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	
9738	NEC:	27	See	1000	304.8	334.0	151.8	24.0Ω/M'	15.0Ω/M'	.797	20.24	100	76%	12.5	41.0	23.2	76.1	
	CM		Chart 3					78.7Ω/km	49.2Ω/km									
CEC:	(Tech Info																	
CM	Section)																	

DCR = DC Resistance • TC = Tinned Copper

*Capacitance between conductors.

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

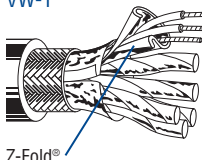
† Final put-up length may vary -10% to +20% from length shown. May contain 2 pieces. Minimum length of any one piece is 1500 ft.

See Attenuation, Rise Time and Bit Rate Data for this series on page 5.34.

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

Individually Shielded Pairs with Overall Foil/Braid Shield

Low-Capacitance Computer Cables for EIA RS-232, EIA RS-422, and Digital Audio Applications

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 • Twisted Pairs Individually Beldfoil® Shielded + Overall Beldfoil (100% Coverage) + TC Braid Shield (65%) • Drain Wire▲																		
Datalene® Insulation • Chrome PVC Jacket																		
UL AWM Style 2493 (60°C) VW-1  Z-Fold®	8162	NEC: CM CEC: CM	2	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	6.2 30.0 57.0	2.8 13.6 25.9	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 4.3Ω/M' 14.1Ω/km	.343 8.71	100	78%	12.5	41	22	72.2	
	8163	NEC: CM CEC: CM	3	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	7.0 34.0 66.0	3.2 15.5 30.0	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 4.4Ω/M' 14.4Ω/km	.359 9.12	100	78%	12.5	41	22	72.2	
	8164	NEC: CM CEC: CM	4	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	8.2 39.5 79.0	3.7 18.0 35.9	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 3.2Ω/M' 10.5Ω/km	.388 9.86	100	78%	12.5	41	22	72.2	
	8165	NEC: CM CEC: CM	5	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	9.0 45.0 89.0	4.1 20.5 40.5	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 3.4Ω/M' 11.2Ω/km	.413 10.49	100	78%	12.5	41	22	72.2	
	8166	NEC: CM CEC: CM	6	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	9.0 50.0 99.0	4.1 22.7 45.0	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.8Ω/M' 9.2Ω/km	.446 11.33	100	78%	12.5	41	22	72.2	
	8167	NEC: CM CEC: CM	7	See Chart 3 (Tech Info Section)	500 1000	152.4 304.8	52.5 103.0	23.9 46.7	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.8Ω/M' 9.2Ω/km	.446 11.33	100	78%	12.5	41	22	72.2	

▲24 AWG stranded TC drain wire

[▲]24 AWG stranded TC drain wire

DCR = DC Resistance • TC = Tinned Copper

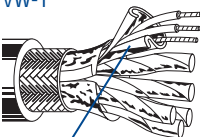
*Capacitance between conductors.

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

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

Individually Shielded Pairs with Overall Foil/Braid Shield

Low-Capacitance Computer Cables for EIA RS-232, EIA RS-422, and Digital Audio Applications

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 • Twisted Pairs Individually Beldfoil® Shielded + Overall Beldfoil (100% Coverage) + TC Braid Shield (65%) • Drain Wire▲																		
Datalene® Insulation • Chrome PVC Jacket																		
UL AWM Style 2493 (60°C) VW-1  Z-Fold®	8168	NEC: CM CEC: CM	8	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	10.8 61.5 115.0	4.9 28.0 52.3	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 3.0Ω/M' 9.8Ω/km	.479	12.17	100	78%	12.5	41	22	72.2
	8170	NEC: CM CEC: CM	10	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	18.0 83.0 164.0	8.2 37.7 74.5	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.7Ω/M' 8.9Ω/km	.584	14.83	100	78%	12.5	41	22	72.2
	8175	NEC: CM CEC: CM	15	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	22.6 107.5 210.0	10.3 48.9 95.5	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.5Ω/M' 8.2Ω/km	.665	16.89	100	78%	12.5	41	22	72.2
	8178	NEC: CM CEC: CM	18	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	24.6 117.0 238.0	11.2 53.2 108.2	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.6Ω/M' 8.5Ω/km	.686	17.42	100	78%	12.5	41	22	72.2
	8185	NEC: CM CEC: CM	25	See Chart 3 (Tech Info Section)	100 500 1000	30.5 152.4 304.8	32.3 160.5 356.0	14.7 73.0 161.8	24.0Ω/M' 78.7Ω/km	Individual: 18.0Ω/M' 59.1Ω/km Overall: 2.4Ω/M' 7.9Ω/km	.822	20.88	100	78%	12.5	41	22	72.2

▲24 AWG stranded TC drain wire

[▲]24 AWG stranded TC drain wire

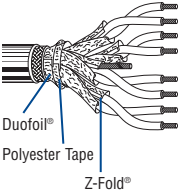
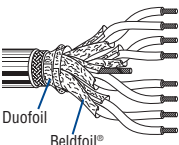
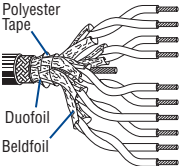
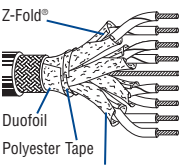
DCR = DC Resistance • TC = Tinned Copper

*Capacitance between conductors.

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

IEEE 802.3 • ISO/IEC 8802.3 10Base5

Transceiver Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Wt.		Conductor (stranding) Nom. DCR	Shielding Materials Nom. DCR	Nominal OD		Drain Wire	Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			
					Ft.	m	Lbs.	kg			Inch	mm				* pF/Ft.	* pF/m	** pF/Ft.	** pF/m
28 and 24 AWG Stranded TC Conductors • Twisted Pairs • Overall Polyester Isolation Tape + Duofoil® + TC Braid Shield (92% Coverage) • Drain Wire																			
Non-Plenum • Polypropylene Insulation • Light Gray PVC Jacket																			
UL AWM Style 2919 (30V 80°C)	9903	NEC: CMG CEC: CMG	4	Gray/White, Yellow/Orange, Blue/Green, Black/Red	500 1000	152.4 304.8	21.5 43.0	9.8 19.5	3 Pair: 28 AWG (7x36) TC 65.0Ω/M' 213.0Ω/km 1 Pair: 24 AWG (7x32) TC 24.0Ω/M' 78.7Ω/km Each Pair Individually Beldfoil® Shielded	Polyester Isolation Tape + Duofoil + 92% Tinned Copper Braid 9.5Ω/km	.250 6.35	24 AWG Stranded Tinned Copper	78*	66%	19.7	64.6	34.8	114.2	
																			
Duofoil® Polyester Tape Z-Fold®																			
*3 Pairs																			
20 AWG Stranded (7x28) TC Conductors • Twisted Pairs • Overall Polyester Isolation Tape + Duofoil + TC Braid Shield (95% Coverage) • Drain Wire																			
Non-Plenum • Datalene® Insulation • Light Gray PVC Jacket																			
UL AWM Style 2919 (30V 80°C)	9901	NEC: CL2, CM CEC: CM	4	Gray/White, Yellow/Orange, Blue/Green, Black/Red	500 1000	152.4 304.8	53.5 106.0	24.3 48.2	20 AWG (7x28) Tinned Copper Each Pair Individually Beldfoil Shielded 10.5Ω/M' 34.4Ω/km	Polyester Isolation Tape + Duofoil + 95% Tinned Copper Braid 2.0Ω/M' 6.6Ω/km	.415 10.54	22 AWG Stranded Tinned Copper	78	78%	16.7	54.8	29.5	96.8	
																			
Duofoil Beldfoil®																			
DEC Part No. 17-01320-00																			
UL AWM Style 2919 (30V 80°C)	9902	NEC: CL2, CM CEC: CM	5	Gray/White, Yellow/Orange, Blue/Green, Red/Brown, Red/Black	500 1000	152.4 304.8	76.0 145.0	34.5 65.9	20 AWG (7x28) Tinned Copper Each Pair Individually Beldfoil Shielded 10.5Ω/M' 34.4Ω/km	Polyester Isolation Tape + Duofoil + 95% Tinned Copper Braid 1.65Ω/M' 5.4Ω/km	.495 12.58	20 AWG Stranded Tinned Copper	78	78%	16.7	54.8	29.5	96.8	
																			
Polyester Tape Duofoil Beldfoil																			
Plenum • FEP Teflon® Insulation†† • Light Gray Fluorocopolymer (PVDF) Jacket																			
150°C	89901	NEC: CMP CEC: CMP	4	Gray/White, Yellow/Orange, Blue/Green, Red/Black	500†† 1000††	152.4 304.8	51.5 104.0	23.4 47.3	20 AWG (7x28) Tinned Copper Each Pair Individually Beldfoil Shielded 10.5Ω/M' 34.4Ω/km	Polyester Isolation Tape + Duofoil + 95% Tinned Copper Braid 1.5Ω/M' 4.9Ω/km	.370 9.40	22 AWG Stranded Tinned Copper	78	78%	16.7	54.8	29.5	96.8	
																			
Z-Fold® Duofoil Polyester Tape Beldfoil																			

††Foam FEP (data pairs) and solid FEP (power pair).

DEC Part No. 17-01319-00 • Suitable for Outdoor and Direct Burial applications.

DCR = DC Resistance • TC = Tinned Copper

* Capacitance between conductors.

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

†† Spools are one piece, but length may vary ±10% from length shown.

 Not RoHS compliant at time of printing. Please check with Belden Technical Support for current compliance information at 1-800-BELDEN-1.

Teflon is a DuPont trademark.

BELDENFor more information, contact **Belden Technical Support: 1-800-BELDEN-1 • www.belden.com**

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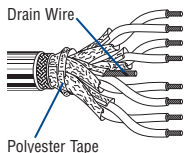
IEEE 802.3 • Ethernet 10Base5

Transceiver Cables

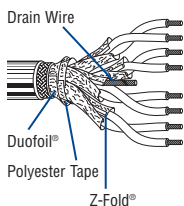
Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Wt.		Conductor (stranding) Nom. DCR	Shielding Materials Nom. DCR	Nominal OD		Drain Wire	Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance			
					Ft.	m	Lbs.	kg			Inch	mm				* pF/Ft.	* pF/m	** pF/Ft.	** pF/m

20 AWG Stranded (7x28) .038" TC Cond. • Twisted Pairs • Beldfoil® (100% Coverage) + Polyester Tape + TC Braid Shield (95% Cov.) • Drain Wire**Non-Plenum • Ethernet • Datalene® Insulation • Light Blue PVC Jacket**

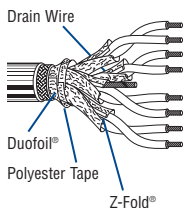
UL AWM Style 2919 (30V 80°C)	9892	NEC: CM, CL2 CEC: CM	4	Gray/White, Yellow/Orange, Blue/Green, Black/Red	500 1000	152.4 304.8	51.5 101.0	23.4 45.9	20 AWG (7x28) .038" Tinned Copper 9.5Ω/M' 31.2Ω/km	Polyester Isolation Tape + 95% Tinned Copper Braid 1.9Ω/M' 6.2Ω/km	.398	10.1	22 AWG (7x30) Tinned Copper	78	78%	16.7	54.8	29.5	96.8
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**20 AWG** Stranded (7x28) .038" TC Conductors • Twisted Pairs • Beldfoil® Inner + Overall Duofoil® (100% Coverage) + TC Braid Shield (95% Cov.)**Plenum • Ethernet • Foam FEP Insulation (Data) • Solid FEP Insulation (Power) • Brown Fluorocopolymer Jacket**

UL AWM Style 2919 (30V 80°C)	89892	NEC: CMP CEC: CMP	4	Gray/White, Yellow/Orange, Blue/Green, Red/Black	500 1000	152.4 304.8	50.0 101.0	22.7 45.9	20 AWG (7x28) .038" Tinned Copper 9.5Ω/M' 31.2Ω/km	Polyester Isolation Tape + Duofoil + 95% Tinned Copper Braid 1.5Ω/M' 4.9Ω/km	.359	9.1	22 AWG (7x30) Tinned Copper	78	78%	16.7	54.8	29.5	96.8
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**20 and 22 AWG** Stranded TC Conductors • Twisted Pairs • Beldfoil® Inner Shield (100% Coverage) + Overall TC Braid Shield (95% Coverage)**Non-Plenum • Ethernet • Foam HDPE (22 AWG) and PVC (20 AWG) Insulation • Light Blue PVC Jacket**

UL AWM Style 2919 (30V 80°C)	9891	NEC: CM CEC: CM	4	Black/White, Yellow/Orange, Blue/Green, Gray/Purple	100 500 1000	30.4 152.4 304.8	7.4 36.0 70.0	3.7 16.3 16.3	3 Pair: Each Pair Individually Shielded, Overall Duofoil + 95% Tinned Copper Braid 20 AWG (7x30) TC 14.7Ω/M' 48.23Ω/km Foam HDPE Insulation 1 Pair: 20 AWG (7x28) TC 9.5Ω/M' 31.1Ω/km PVC Insulation	22 AWG (7x30) Beldfoil® Shielded, Overall Duofoil + 95% Tinned Copper Braid 1.8Ω/M' 5.9Ω/km	.316	8.0	22 AWG (7x30) Tinned Copper	78*	78%*	16.7*	54.8*	29.5*	96.8*
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*3 Pairs

DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

* Capacitance between conductors.

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

Not RoHS compliant at time of printing. Please check with Belden Technical Support for current compliance information at 1-800-BELDEN-1.

IEEE 802.5; ISO/IEC 8802.5

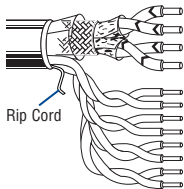
IBM Cabling System

Types 2A and 6A

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Standard Lengths		Standard Unit Wt.		Nominal OD		AWG (stranding) Diameter Nom. DCR	Shielding	Nom. Imped. (Ω)	Nominal Capacitance		Freq. (MHz)	Maximum Attenuation		Min. NEXT	
				Ft.	m	Lbs.	kg	Inch	mm				* pF/Ft.	* pF/m		(dB/ 1000')	(dB/ 100m)	(dB/ 3280')	(dB/ 1000m)

IBM Type 2A • 22 AWG Solid Bare Copper Conductors • Each Pair Individually Beldfoil® Shielded + Overall TC Braid Shield (65% Coverage)**Non-Plenum • Flame-retardant Foam Polyethylene Insulation • Black PVC Jacket**

IBM Part No. 9689	NEC: 6*	1000 [†]	304.8	80.0	36.4	.324	8.23	22	100%	150	8.5	27.9	1k**	.390	.128	—	—	—	—
4716739	CMG	3600 [†]	1097.6	298.8	135.8	x	x	(solid)	Beldfoil	@ 1MHz	(data)	(data)	4	6.7	2.2	58.0	58.0	58.0	58.0
33G2773	CEC: CMG					.466	11.84	BC	Each Pair	(data)			16	13.4	4.4	50.4	50.4	50.4	50.4
								.026"	+ 65%	600			100	37.5	12.3	38.5	38.5	38.5	38.5
								16.7Ω/M'	TC Braid	@ 1kHz			300	65.2	21.4	31.3	31.3	31.3	31.3
								54.7Ω/km	Overall	(voice)			100 ^{††}	40.8	13.4	—	—	—	—
													300 ^{††}	71.0	23.3	—	—	—	—
									(data only)				600 ^{††}	100.3	32.9	—	—	—	—

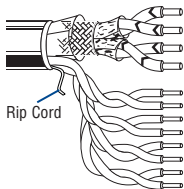


For Plenum version of 9689, see 82689.

IBM qualified Type 2A Media cable for use in IBM Cabling Systems.

Plenum • Foam FEP Teflon® Insulation • Black Flamarrest® Jacket

IBM Part No. 82689	NEC: 6*	1000 [†]	304.8	79.0	35.9	.324	8.23	22	100%	150	8.5	27.9	1k**	.390	.128	—	—	—	—
4716738	CMP					x	x	(solid)	Beldfoil	@ 1MHz	(data)	(data)	4	6.7	2.2	58.0	58.0	58.0	58.0
33G8221	CEC: CMP					.460	11.68	BC	Each Pair	(data)			16	13.4	4.4	50.4	50.4	50.4	50.4
								.026"	+ 65%	600			100	37.5	12.3	38.5	38.5	38.5	38.5
								16.7Ω/M'	TC Braid	@ 1kHz			300	65.2	21.4	31.3	31.3	31.3	31.3
								54.7Ω/km	Overall	(voice)			100 ^{††}	40.8	13.4	—	—	—	—
													300 ^{††}	71.0	23.3	—	—	—	—
									(data only)				600 ^{††}	100.3	32.9	—	—	—	—



IBM qualified Type 2A Media cable for use in IBM Cabling Systems.

IBM Type 6A • 26 AWG Stranded (7x34) BC Conductors • Twisted Pairs • Beldfoil Shielded Pairs + Overall TC Braid Shield (65% Coverage)**Non-Plenum • Datalene® Insulation • Striated Black PVC Jacket**

IBM Part No. 1215A	NEC: 2	1000 [†]	304.8	46.0	20.9	.325	8.26	26	100%	150	8.5	27.9	4	10	3.3	52.0	52.0	52.0	52.0
4716743	CL2, CM							(7x34)	Beldfoil				16	20	6.6	44.0	44.0	44.0	44.0
33G2775	CEC: CM							BC	Each Pair				100	57	18.7	33.0	33.0	33.0	33.0
								.019"	+ 65%	300			300	100	32.3	25.0	25.0	25.0	25.0
								38.7Ω/M'	TC Braid										
								127.0Ω/km	Overall										



IBM qualified Type 6A Office cable for use in IBM Cabling Systems.

BC = Bare Copper • DCR = DC Resistance • NEXT = Near-end Crosstalk • TC = Tinned Copper

* Capacitance between conductors

**Voice pairs (1 kHz); Data pairs (4–600 MHz)

† Spools are one piece, but length may vary ±10% from length shown.

†† Common mode

^ (2) shielded Data-grade pairs; (4) unshielded Voice-grade media pairs

Not RoHS compliant at time of printing. Please check with Belden Technical Support for current compliance information at 1-800-BELDEN-1.

Teflon is a DuPont trademark.

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For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com

견적문의 Belden114@CableCon.kr / 0707-434-7704 / Fax. 02-744-0909 / www.CableCon.co.kr

Industrial Data Solutions® — Industrial Twinax

Twinaxial Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

100 Ohm • 20 AWG Stranded (7x28) .037" One TC, One BC Conductor • Duofoil® (100% Coverage) + TC Braid Shield (86% Coverage)

Polyethylene Insulation • Polyethylene Inner Jacket • Black PVC Outer Jacket

75°C		9207	NEC:	100	30.5	7.1	3.2	20 AWG	.236	5.99	Duofoil	.330	8.38	100	66%	14.5	47.6	1	.3	1.0
		CMG CL2	U-500	U-152.4	34.0	15.5	(7x28)			+ 86%								10	1.2	3.9
		CEC:	500	152.4	34.5	15.7	.037"			TC Braid								50	2.8	9.2
		CMG FT4	1000	304.8	68.0	30.9	1 TC			2.5Ω/M'								100	4.1	13.5
			1640	500.0	111.5	50.7	1 BC			8.2Ω/km								200	6.4	21.0
			2000	609.6	136.0	61.8	9.5Ω/M'											400	10.2	33.5
			3280	1000.0	219.8	99.9	31.0Ω/km													
			5000	1524.0	350.0	159.1														
IBM P/N 7362211																				

IBM P/N 7362211

For Plenum version of 9207,
see 89207.
CPE jacket optional.

124 Ohm • 25 AWG Stranded (7x33) .021" Tinned Copper Conductors • Beldfoil® (100% Coverage) • Stranded Tinned Copper Drain Wire

Polyethylene Insulation • Blue PVC Jacket (Color Code: Clear, Blue)

UL AWM	9271	NEC:	100	30.5	3.2	1.5	25 AWG	.170	4.32	100%	.240	6.10	124	66%	12.2	40.0	1	.6	2.0
Style 2092		CM	500	152.4	14.0	6.4	(7x33)			Beldfoil							10	1.7	5.6
(300V 60°C)		CEC:	U-1000	U-304.8	27.0	12.3	.021"			Shield							50	3.6	11.8
		CM	1000	304.8	28.0	12.7	Tinned			12.0Ω/M'							100	5.0	16.4
							Copper			39.4Ω/km								200	6.9
									31.8Ω/M'									400	9.6
							104.3Ω/km												

Shorting Fold

CPE jacket optional.

124 Ohm • 16 AWG Solid .051" Bare Copper Conductors • Duofoil (100% Coverage) + Tinned Copper Braid Shield (90% Coverage)

Foam Polyethylene Insulation • Black PVC Jacket (Color Code: Clear, Blue)

UL AWM	9860	NEC:	500	152.4	52.0	23.6	16 AWG	.322	8.18	Duofoil	.440	11.18	124	78%	10.9	35.8	1	.2	.6
Style 2448		CMX	1000	304.8	103.0	46.8	(solid)			+90%							10	.7	2.3
(30V 60°C)		CEC:	2000	609.6	202.0	91.8	.051"			TC Braid							50	1.8	5.9
		CMX					Bare			1.3Ω/M'							100	2.9	9.5
							Copper			4.3Ω/km							200	4.1	13.5
									4.2Ω/M'								400	6.2	20.3
									13.8Ω/km										

CPE jacket optional.

150 Ohm • 22 AWG Stranded (19x34) .031" Tinned Copper Conductors • Duofoil (100% Coverage) • Stranded Tinned Copper Drain Wire

Datalene® Insulation • Black PVC Jacket (Color Code: Black, Yellow)

	9182	NEC:	U-500	U-152.4	22.5	10.2	22 AWG	.275	6.98	100%	.345	8.76	150	78%	8.8	28.9	1	.4	1.3	
		CL2X CMX	500	152.4	23.0	10.4	(19x34)			Duofoil							10	1.2	3.9	
		CEC:	1000	304.8	44.0	20.0	.031"			Shield							50	2.7	8.9	
		CMX					Tinned			6.3Ω/M'							100	4.3	14.1	
							Copper			20.7Ω/km							200	6.2	20.3	
								14.0Ω/M'										400	8.8	28.9
								45.9Ω/km												

For Plenum version of 9182, see 89182.

Dual version: YR41609

CPE jacket optional.

For Plenum version of 9182,
see 89182.

Dual version: YR41609

CPE jacket optional.

Plenum • Foam FEP Teflon® Insulation • Black FEP Teflon Jacket (Color Code: Black, Yellow)

	89182	NEC:	100	30.5	6.4	2.9	22 AWG	.278	7.06	100%	.307	7.80	150	78%	8.8	28.9	1	.4	1.3
		CMP	500 [†]	152.4	28.0	12.7	(19x34)			Duofoil							10	1.2	3.9
		CL2P	1000 [†]	304.8	53.0	24.1	.031"			Shield							50	2.7	8.9
		CEC:					Tinned			6.3Ω/M'							100	4.3	14.1
		CMP FT6					Copper			20.7Ω/km							200	6.2	20.3
										14.0Ω/M'								400	8.8
									45.9Ω/km										

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene-propylene • TC = Tinned Copper

[†]Spools are one piece, but length may vary ±10% from length shown.

Teflon is a DuPont trademark.

Industrial Data Solutions® — Industrial Data

EIA Industrial RS-485 PLTC/CM

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
22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) + TC Braid (90% Coverage) • Drain Wire▲																		
Datalene® Insulation • Black UV Resistant PVC Jacket (CPE jacket optional)																		
	Oil Res II 300V	3105A▼	NEC: CM PLTC CEC: CM FT1	1	See Chart (below)	500 1000 5000†	152.4 304.8 1523.9	23.0 50.0 255.0	10.4 22.7 115.8	14.7Ω/M' 48.2Ω/km	2.8Ω/M' 9.2Ω/km	.284 7.21	120	78%	11.0	36.1	20.9	68.6
															For CPE jacketed version order Part No. YR44345			
		3106A	NEC: CM PLTC CEC: CM FT1	1.5★	White/Orange, Orange/White, Blue/White	500 1000 5000†	152.4 304.8 1523.9	27.0 51.0 260.0	12.3 23.2 118.1	14.7Ω/M' 48.2Ω/km	2.8Ω/M' 9.2Ω/km	.300 7.62	120	78%	11.0	36.1	20.9	68.6
															For CPE jacketed version order Part No. YR46721			
		3107A▼	NEC: CM PLTC CEC: CM FT1	2	See Chart (below)	1000 4000 5000†	304.8 1219.2 1523.9	69.0 300.0 385.0	31.3 136.2 174.8	14.7Ω/M' 48.2Ω/km	1.8Ω/M' 5.9Ω/km	.356 9.04	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR46792				
		3108A	NEC: CM PLTC CEC: CM FT1	3	See Chart (below)	1000 2000	304.8 609.6	93.0 184.0	42.2 83.5	14.7Ω/M' 48.2Ω/km	1.5Ω/M' 4.9Ω/km	.420 10.67	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR45287				
		3109A	NEC: CM PLTC CEC: CM FT1	4	See Chart (below)	1000 2000	304.8 609.6	107.0 218.0	48.6 99.0	14.7Ω/M' 48.2Ω/km	1.4Ω/M' 4.6Ω/km	.420 10.67	120	78%	11.0	36.1	20.9	68.6
														For CPE jacketed version order Part No. YR44768				
▼3015A and 3107A are DMX512 Type.																		

[▼]3015A and 3107A are DMX512 Type.[★]22 AWG stranded tinned copper drain wire.

AL Interlocked Armor • Datalene® Insulation • PVC Inner Jacket • Black UV Resistant PVC Outer Jacket																		
300V	123107A NEW	NEC: CM PLTC CEC: CMG FT4	2	See Chart (below)		5000 ^{††}	1523.9	1140.0	514.1	14.7Ω/M' 48.2Ω/km	1.8Ω/M' 5.9Ω/km	.650 16.51	120	78%	11.0	36.1	20.9	68.6

[▲]22 AWG stranded tinned copper drain wire.

DCR = DC Resistance • TC = Tinned Copper

* Capacitance between conductors.

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

[†] Final put-up length may vary -0 to +10% from length shown.^{††} Final put-up length may vary ±10% for spools or reels and ±5% for UnReel® cartons from length shown.[▲]All conductors are under the braid shield; one pair is under the Beldfoil shield.**Color Code Chart**

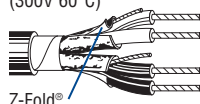
Pair No.	Color Combination
1	White/Blue Stripe Blue/White Stripe
2	White/Orange Stripe Orange/White Stripe
3	White/Green Stripe Green/White Stripe
4	White/Brown Stripe Brown/White Stripe

Industrial Data Solutions® — Interconnect Cable**Shielded Twisted Pair Cables**

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 • Twisted Pairs • Individually Beldfoil® Shielded (100% Coverage) • 24 AWG Stranded TC Drain Wire**Datalene® Insulation • Chrome PVC Jacket**

UL AWM Style 2493 (300V 60°C)	9729	NEC: CM	2	Red&Black, White&Black	100	30.5	4.3	2.0	24.0Ω/M'	15.0Ω/M'	.266	6.76	100	76%	12.5	41.0	23.2	76.1
		CEC: CM			500	152.4	20.5	9.3	78.7Ω/km	49.3Ω/km								
					1000	304.8	39.0	17.7										
					10000	3048.0	390.0	177.1										



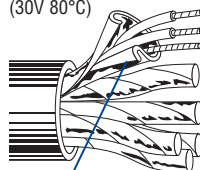
Z-Fold®

For Plenum version of 9729,
see 89729 or 82729.

24 AWG stranded (7x32) tinned copper drain wire.

22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Beldfoil Shielded (100% Coverage) • 22 AWG Stranded TC Drain Wire**Polypropylene Insulation • Chrome PVC Jacket**

UL AWM Style 2919 (30V 80°C)	8777	NEC: CM	3	Red&Black, White&Black, Green&Black	100	30.5	4.6	2.1	15.0Ω/M'	10.6Ω/M'	.273	6.93	50	66%	30	98	55	180
		CEC: CM			250	76.2	11.0	5.0	49.2Ω/km	34.8Ω/km								
					U-500	U-152.4	21.0	9.5										
					500	152.4	21.0	9.5										
					U-1000	U-304.8	41.0	18.6										
					1000	304.8	42.0	19.1										
					1640	499.9	67.2	30.5										
					3280	999.7	137.8	62.5										
					5000	1524.0	210.0	95.3										
					10000	3048.0	450.0	204.3										



Z-Fold®

For Plenum versions of 8777,
see 88777, 87777 or 82777.

22 AWG stranded (19x34) tinned copper drain wire.

22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • Individually Beldfoil Shielded (100% Coverage) • 24 AWG Stranded TC Drain Wire**Polypropylene Insulation • Chrome PVC Jacket (Pairs Cabled on Common Axis to Reduce Diameter)**

300V RMS 60°C	8723	NEC: CM	2	Red&Black, Green&White	100	30.5	2.3	1.0	16.0Ω/M'	14.7Ω/M'	.168	4.27	45	66%	35	115	62	203
		CEC: CM			U-500	U-152.4	10.5	4.8	52.5Ω/km	48.3Ω/km								
					500	152.4	10.0	4.5										
					U-1000	U-304.8	20.0	9.1										
					1000	304.8	20.0	9.1										
					1640	499.9	32.8	14.9										
					U-2000	U-609.6	40.0	18.2										
					2000	609.6	40.0	18.2										
					3280	999.7	65.6	29.8										
					5000	1524.0	95.0	43.1										
					10000	3048.0	200.0	90.8										



Z-Fold®

For Plenum versions of 8723,
see 88723, 87723 or 82723.

24 AWG stranded (7x32) tinned copper drain wire.

Plenum • FEP Insulation • Red FEP Jacket (Pairs Cabled on Common Axis to Reduce Diameter)

300V RMS, Non-conduit	88723	NEC: CMP	2	Red&Black, Green&White	100	30.5	3.4	1.5	16.0Ω/M'	14.7Ω/M'	.148	3.76	40	69%	35	115	67	220
		CEC: CMP FT6			500	152.4	11.0	5.0	52.5Ω/km	48.3Ω/km								
					1000	304.8	21.0	9.5										

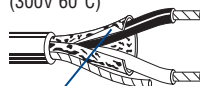


Z-Fold®

24 AWG stranded (7x32) tinned copper drain wire.

18 AWG Stranded (16x30) TC Conductors • Twisted Pair • Overall Beldfoil Shield (100% Coverage) • 20 AWG Stranded TC Drain Wire**Polyethylene Insulation • Chrome PVC Jacket**

UL AWM Style 2092 (300V 60°C)	8760	NEC: CM	1	Black & Clear	250	76.2	6.8	3.1	—	—	.222	5.64	—	—	24	79	44	144
		CEC: CM			U-500	U-152.4	13.0	5.9										
					500	152.4	13.0	5.9										
					U-1000	U-304.8	26.0	11.8										
					1000	304.8	26.0	11.8										
					2000	609.6	50.0	22.7										
					5000	1524.0	135.0	61.3										
					10000	3048.0	260.0	118.0										



Shorting Fold

For Plenum versions of 8760,
see 88760, 87760 or 82760.

20 AWG stranded (7x28) tinned copper drain wire.

DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • PVC = Polyvinyl Chloride • TC = Tinned Copper

* Capacitance between conductors.

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

Microphone and Musical Instrument Cable

Two-Conductor, Low-Impedance Cables

High-Conductivity Copper



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 (105x44) High-conductivity Bare Copper Conductors[†] • Double Bare Copper Spiral Shield (97% Coverage)

PVC Insulation • Matte Black PVC Jacket

300V RMS 80°C	9397	—	2	White, Green	500	152.4	12.0	5.5	.012	.30	.031	.79	.176	4.47	47	154	86	283
					1000	304.8	24.0	10.9										



24 AWG Stranded (45x40) TC Alloy Conductors[†] • Conductive Textile Wrap (100% Coverage) • TC Braid Shield (56% Coverage) • Cotton Spiral

EPDM Rubber Insulation • Black EPDM Jacket

300V RMS 90°C	8413	—	2	White, Black	100	30.5	2.3	1.0	.016	.41	.017	.43	.199	5.05	30	98	55	180
					U-500	U-152.4	13.0	5.9										
					500	152.4	11.5	5.2										



24 AWG Stranded (45x40) BC Alloy Conductors[†] • Conductive Textile Wrap (100% Coverage) • TC Braid Shield (65% Coverage) • Cotton Spiral

EPDM Rubber Insulation • Brown EPDM Jacket

300V RMS 90°C	9399	—	2	Blue, Red	500	152.4	12.5	5.7	.016	.41	.020	.51	.200	5.08	30	98	55	180
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24 AWG Stranded (42x40) High-conductivity BC Conductors[†] • TC “French Braid” Shield (95% Coverage) • BC Drain Wire

Datalene® Insulation • Matte PVC Jacket (Available in Red, Yellow, Green, Blue, Gray or Black)

Digital MIC Cable High-Flex 300V RMS 60°C	1800F	NEC:	2	Black,	500 *	152.4	12.0	5.5	.017	.43	.037	.94	.211	5.36	12	39	26	85
	110 Ohm	CL2R		Red	U-1000	U-304.8	26.0	11.8										
	AES/EBU				1000 *	304.8	24.0	10.9										



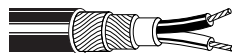
French Braid

*500 ft. and 1000 ft. put-ups available in Black only.

24 AWG Stranded (42x40) High-conductivity BC Conductors[†] • Double Bare Copper Spiral Shield (95% Coverage)

PVC Insulation • PVC Inner Jacket • Matte PVC Outer Jacket (Available in Red, Yellow, Green, Blue or Black)

100V RMS 60°C	1812A	—	2	Brown, White	328 *	100.0	9.8	4.5	.012	.30	.037	.94	.213	5.41	33	108	54	177
					1000	304.8	31.0	14.1										



*328 ft. put-up not available in Green.

BC = Bare Copper • EPDM = Ethylene Propylene Diene Monomer • TC = Tinned Copper

*Capacitance between conductors.

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

†Conductors cabled with fillers.

Not RoHS compliant at time of printing. Please check with Belden Technical Support for current compliance information at 1-800-BELDEN-1.

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.

Analog Multi-Pair Snake Cable

Flexible, Low-Capacitance Cables

Individually Shielded and Jacketed Twisted Pairs



Individually Shielded and Jacketed Pairs

Not NEC Rated

Product Description

22 AWG stranded (7x30) tinned copper conductor. Datalene® insulation. Twisted pairs individual Beldfoil® shield (100% Coverage) and have numbered and color-coded PVC jackets (see Chart 7 in Technical Information Section for colors). Pair jackets and shields are bonded so both strip simultaneously with automatic stripping equipment. Overall Matte Black PVC jacket and nylon rip cord.

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.

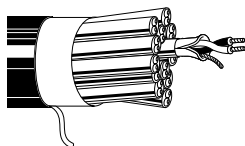
Color Code: Red, Black.

Specifications

Nominal OD — Conductor	.030" (.76mm)
Nominal OD — Insulation	.060" (1.52mm)
Inner Pair Jacket OD	.153" (3.89mm)
Nominal DCR	
Conductor	15.0Ω/M' (52.5Ω/km)
Shield (Inner Pair)	10.6Ω/M' (34.8Ω/km)
Voltage Rating	150V RMS
Temperature Rating	60°C
Nominal Impedance	70Ω
Nominal Velocity of Propagation	78%
Nominal Capacitance	
Between Conductors	19 pF/Ft. (62 pF/m)
Between Conductor/Shield*	35 pF/Ft. (115 pF/m)

DCR = DC Resistance

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



Part No.	No. of Pairs	Standard Lengths		Standard Unit Weight		Nominal OD	
		Ft.	m	Lbs.	kg	Inch	mm

Flexible, Low-Capacitance Twisted Pairs

22 AWG							
1217B	4	500 1000	152.4 304.8	53.0 107.0	24.0 48.5	.458	11.63
1218B	6	500 1000	152.4 304.8	79.5 152.0	36.1 68.9	.578	14.68
1219B	9	500 1000	152.4 304.8	115.5 234.0	52.4 106.1	.700	17.78
1220B	12	500 1000	152.4 304.8	141.0 286.0	70.0 129.7	.760	19.30
1222B	16	500 1000	152.4 304.8	188.0 384.0	85.3 174.2	.852	21.64
1225B	20	500 1000	152.4 304.8	240.0 471.0	108.8 213.6	.960	24.38
1427B	24	1000	304.8	588.0	266.7	1.088	27.64
1221B	28	500 1000	152.4 304.8	335.0 676.0	152.0 306.6	1.140	28.96
1226B	32	500 1000	152.4 304.8	369.0 744.0	167.4 337.5	1.183	30.05
1428B†	52	1000	304.8	1141.0	517.5	1.496	38.00

†1428B available by special order. Please contact Belden for lead time.

AES/EBU Digital Audio Cable

Single- and Double-Pair Cables



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

110 Ohm • 26 AWG Stranded (7x34) .018" TC Conductors • Twisted Pair • Beldfoil® Shield (100% Coverage) • 26 AWG Stranded TC Drain Wire**Datalene® Insulation • Chrome or Purple PVC Jacket**2-Conductor Digital Video Time Code Cable
75°C**9180**NEC:
CMR
CEC:
CMG FT41
Black,
White

1000 304.8 10.0 4.5

37.3Ω/M' 122.3Ω/km 23.1Ω/M' 75.8Ω/km

.144 3.66

110 76%

13 43 26 85



Shorting Fold

For cross-connect use with 7891A (et al.)
Digital Audio Snake Cables, see page 19.28.**24 AWG** Stranded (7x32) Tinned Copper Conductors • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG Drain Wire**Datalene Insulation • Gray or Purple PVC Jacket**

60°C

1800BNEC:
CMG
CEC:
CMG FT41
Black,
Red500* 152.4 8.0 3.6
U-1000 U-304.8 17.0 7.7
1000 304.8 16.0 7.3
5000* 1524.0 90.0 40.8

23.7Ω/M' 18.9Ω/M' 77.7Ω/km 62.0Ω/km

.177 4.57

110 76%

12 39 26 85

For cross-connect use with 1803F (et al.)
Digital Audio Snake Cables, see page 19.28.
For Plenum version of 1800B, see 1801B.*500 ft. put-up available in Gray only. 5000 ft. put-up available in Purple only.
The jacket and shield are bonded so both can be removed with automatic stripping equipment.**24 AWG** Stranded (42x40) HC BC Conductors • Conductors Cabled with Fillers • TC "French Braid" Shield (95% Coverage) • BC Drain Wire**Datalene Insulation • Matte PVC Jacket** (Available in Red, Yellow, Green, Blue, Gray or Black)Digital Mic Cable
High-Flex
60°C**1800F**NEC:
CL2R1
Black,
Red500▲ 152.4 12.0 5.5
U-1000 U-304.8 26.0 11.8
1000▲ 304.8 24.0 10.9

23.7Ω/M' 5.0Ω/M' 77.7Ω/km 16.4Ω/km

.211 5.36

110 76%

12 39 26 85



French Braid

*500 ft. and 1000 ft. put-ups available in Black only.

24 AWG Stranded (7x32) TC Conductors • Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG TC Drain Wire**Plenum • Foam FEP Teflon® Insulation • Flam arrest® Jacket** (Available in Natural White or Purple)

75°C, Non-conduit

1801BNEC:
CMP
CEC:
CMP FT61
Black,
Red500 152.4 6.0 2.7
U-1000 U-304.8 14.0 6.4
1000 304.8 12.0 5.5

23.7Ω/M' 18.9Ω/M' 77.7Ω/km 62.0Ω/km

.165 4.19

110 78%

12 39 26 85

**24 AWG** Stranded (7x32) TC Conductors • Dual Twisted Pairs • Overall Beldfoil Shield (100% Coverage) • 24 AWG TC Drain Wire**Datalene Insulation • Purple PVC Jacket in Zip-Cord Construction**

60°C

1802BNEC:
CMG
CEC:
CMG FT42
Black,
Red500 152.4 16.5 7.5
U-1000 U-304.8 35.0 15.9
1000 304.8 37.0 16.8

23.7Ω/M' 18.9Ω/M' 77.7Ω/km 62.0Ω/km

.180 4.57

110 76%

12 39 26 85



The jacket and shield are bonded so both can be removed with automatic stripping equipment.

22 AWG Stranded (7x30) TC Conductors • Twisted Pair with Fillers • Overall Beldfoil + TC Braid Shield (90% Coverage) • 24 AWG Drain Wire**Datalene Insulation • Black High-Flex Matte PVC Jacket**DMX512 Type
High-Flex
60°C**1696A**

—

1
Blue,
White250 76.2 8.0 3.6
500 152.4 14.5 6.6
U-1000 U-304.8 30.0 13.6
1000 304.8 32.0 14.5

17.8Ω/M' 4.6Ω/M' 48.5Ω/km 15.2Ω/km

.234 5.94

110 76%

13 43 26 85



Z-Fold®

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • HC = High-conductivity • TC = Tinned Copper

*Capacitance between conductors.

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

Teflon is a DuPont trademark.

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For more information, contact Belden Technical Support: 1-800-BELDEN-1 • www.belden.com

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AES/EBU Digital Audio Cable

Multi-Pair Snake Cables

Individually Shielded and Jacketed Pairs



Individually Shielded and Jacketed Pairs

NEC: CMG (CEC: CMG FT4)

Product Description

26 AWG or 24 AWG stranded tinned copper conductor. Datalene® insulation. Pairs individually shielded with bonded Beldfoil® with a drain wire and have numbered and color-coded PVC jackets (see Chart 7 in Technical Information Section for colors). Pair jackets and shields are bonded so both strip simultaneously with automatic stripping equipment. Overall Beldfoil shield/drain wire plus overall Purple PVC jacket and nylon rip cord.

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

Color Code: Black, Red.

Specifications

Nominal OD — Conductor

26 AWG	.019" (.48mm)
24 AWG	.024" (.60mm)

Nominal OD — Insulation

26 AWG	.054" (1.37mm)
24 AWG	.070" (1.78mm)

Inner Pair Jacket OD

26 AWG	.136" (3.45mm)
24 AWG	.167" (4.24mm)

Approvals

NEC	CMG
CEC	CMG FT4

Nominal DCR (26 AWG)

Conductor	37.3Ω/M' (122.3Ω/km)
Shield	25.5Ω/M' (83.6Ω/km)

Nominal DCR (24 AWG)

Conductor	23.7Ω/M' (77.7Ω/km)
Shield	18.9Ω/M' (62.0Ω/km)

Nominal Impedance

110Ω ±10Ω

Nominal Velocity of Propagation

76%

Nominal Capacitance (26 AWG)

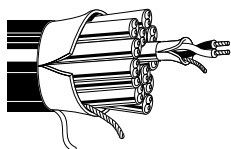
Between Conductors	12.5 pF/Ft. (41 pF/m)
Between Conductor/Shield*	25 pF/Ft. (82 pF/m)

Nominal Capacitance (24 AWG)

Between Conductors	12 pF/Ft. (39 pF/m)
Between Conductor/Shield*	26 pF/Ft. (86 pF/m)

DCR = DC Resistance

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



Part No.	No. of Pairs	Standard Lengths		Standard Unit Weight		Nominal OD	
		Ft.	m	Lbs.	kg	Inch	mm

Individually Shielded & Jacketed NEC: CMG (CEC: CMG FT4)

26 AWG (7x34)							
7891A	2	500	152.4	28.0	12.7	.343	8.71
		1000	304.8	56.0	25.5		
7890A	4	100	30.5	8.2	3.7	.399	10.13
		250	76.2	18.0	8.2		
		500	152.4	31.0	14.1		
		1000	304.8	61.0	27.7		
7880A†	8	250	76.2	28.0	12.7	.541	13.74
		500	152.4	57.0	25.9		
		1000	304.8	142.0	64.4		
Fits metal shell 25-pin D-sub connectors.							
7892A	12	500	152.4	85.5	37.9	.679	17.25
		1000	304.8	174.0	79.1		
7893A	16	500	152.4	109.5	49.8	.770	19.56
		1000	304.8	240.0	109.1		

Individually Shielded & Jacketed NEC: CMG (CEC: CMG FT4)

24 AWG (7x32) • Flexible							
1803F	4	500	152.4	57.5	26.1	.488	12.39
		1000	304.8	107.0	48.6		
1805F	8	500	152.4	106.5	48.3	.661	16.79
		1000	304.8	211.0	95.7		
1806F	12	500	152.4	160.0	72.6	.829	21.06
		1000	304.8	330.0	149.7		
1850F	16	500	152.4	208.0	94.4	.944	23.98
		1000	304.8	407.0	184.6		
1852F	24	500	152.4	321.0	145.6	1.205	30.61
		1000	304.8	644.0	292.1		
1854F	32	1000	304.8	841.0	381.5	1.346	34.19

†7880A is designed to fit in 25-pin D-sub connectors used in digital console board equipment.

AES/EBU Digital Audio Cable

Multi-Pair Snake Cables
Individually Shielded Pairs



Individually Shielded Pairs

NEC: CM (CEC: CM)

Product Description

24 AWG stranded (7x32) tinned copper conductors. Datalene® insulation. Twisted pairs individually Beldfoil® shielded (100% Coverage). Overall Chrome PVC jacket and 24 AWG stranded tinned copper drain wire.

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

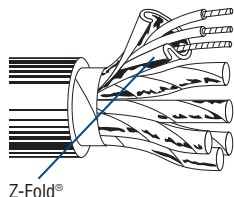
Color Code: See Chart 3 (in Technical Information Section)

Specifications

Nominal OD — Conductor	.024" (.60mm)
Nominal OD — Insulation	.061" (1.55mm)
Approvals	
NEC	CM
CEC	CM
UL Ratings	UL AWM Style 2493
Voltage Rating	300V
Temperature Rating	60°C
Non UL Temperature Rating	80°C
Nominal DCR	
Conductor	24.0Ω/M' (78.7Ω/km)
Shield	15.0Ω/M' (49.2Ω/km)
Nominal Impedance	100Ω
Nominal Velocity of Propagation	76%
Nominal Capacitance	
Between Conductors	12.5 pF/Ft. (41.0 pF/m)
Between Conductor/Shield*	23.2 pF/Ft. (76.1 pF/m)

DCR = DC Resistance

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



Z-Fold®

Part No.	No. of Pairs	Standard Lengths		Standard Unit Weight		Nominal OD	
		Ft.	m	Lbs.	kg	Inch	mm

Individually Shielded Pairs NEC: CM (CEC: CM)

24 AWG							
9729	2	100	30.5	4.3	2.0	.266	6.76
		500	152.4	20.5	9.3		
		1000	304.8	39.0	17.7		
		10000†	3048.0	390.0	176.9		

For Plenum version of 9729, see 89729 or 82729.

9730	3	100	30.5	5.1	2.3	.334	8.48
		500	152.4	24.5	11.1		
		1000	304.8	46.0	20.9		
		10000††	3048.0	520.0	236.4		

For Plenum version of 9730, see 89730.

9728	4	100	30.5	6.0	2.7	.363	9.22
		500	152.4	29.0	13.2		
		1000	304.8	51.0	23.1		

For Plenum version of 9728, see 89728.

9731	6	100	30.5	7.4	3.4	.421	10.69
		500	152.4	42.0	19.1		
		1000	304.8	83.0	37.7		

For Plenum version of 9731, see 89731.

9732	9	100	30.5	9.9	4.5	.488	12.40
		500	152.4	57.0	25.8		
		1000	304.8	106.0	48.1		

For Plenum version of 9732, see 89732.

9733	11	500	152.4	75.0	34.1	.575	14.61
9734	12	500	152.4	79.5	36.1	.575	14.61
		1000	304.8	154.0	70.0		

For Plenum version of 9734, see 89734.

9735	15	500	152.4	95.0	43.2	.639	16.23
		1000	304.8	185.0	84.1		

9736	17	500	152.4	103.5	47.0	.671	17.04
		1000	304.8	210.0	95.5		

9737	19	1000	304.8	231.0	105.0	.671	17.04
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9738	27	1000	304.8	334.0	151.8	.797	20.24
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† Total length may vary -10 to +5% from length shown and may contain 2 pieces.
Minimum length of any one piece will be 1500 ft.

†† Total length may vary -10 to +20% from length shown and may contain 2 pieces.
Minimum length of any one piece will be 1500 ft.

Precision Video Cable for Analog and Digital Parallel Digital Video

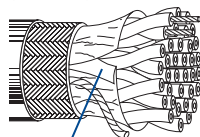


Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Pairs	Color Code	Standard Lengths		Standard Unit Weight		Nom. DCR		Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nom. Capacitance			
					Ft.	m	Lbs.	kg	Cond.	Shield	Inch	mm			* pF/ Ft.	* pF/ m	** pF/ Ft.	** pF/ m

28 AWG Stranded (7x36) TC Conductors • Twisted Pairs • Overall Beldfoil® + TC Braid Shield (65% Coverage) • TC Drain Wire[†]

Datalene® Insulation • Chrome PVC Jacket

UL AWM Style 2919 (30V 80°C)	8142	NEC: CL2	12.5 (12 pairs + 1 single)	See Chart 5 (Tech Info Section)	100	30.5	6.8	3.1	65.0Ω/M'	3.1Ω/M'	.375	9.52	120	78%	11.0	36.1	20.0	65.6
					500	152.4	33.0	15.0	213.0Ω/km	10.1Ω/km								
					1000	304.8	66.0	30.0										

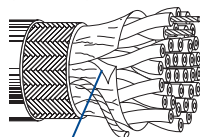


Shorting Fold

24 AWG Stranded (7x32) TC Conductors • Twisted Pairs • Overall Beldfoil + TC Braid Shield (65% Coverage) • TC Drain Wire^{††}

Datalene Insulation • Chrome PVC Jacket

UL AWM Style 2919 (30V 80°C)	8112	NEC: CM NEC: CM	12.5 (12 pairs + 1 single)	See Chart 5 (Tech Info Section)	100	30.5	9.2	4.2	24.0Ω/M'	2.4Ω/M'	.440	11.18	100	78%	12.5	41	22	72.2
					500	152.4	51.0	23.1	78.7Ω/km	7.9Ω/km								
					1000	304.8	101.0	45.8										



Shorting Fold

DCR = DC Resistance • TC = Tinned Copper

* Capacitance between conductors.

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

† Drain wire is 28 AWG stranded tinned copper

†† Drain wire is 24 AWG stranded tinned copper

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

Precision Video Cable for Analog and Digital

Digital Video Time Code and
Precision Video Twinax



Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m
110 Ohm • 26 AWG Stranded (7x34) .018" TC Conductors • Twisted Pair • Beldfoil® Shield (100% Coverage) • 26 AWG Stranded TC Drain Wire																			
Datalene® Insulation (Color Code: Black, White) • PVC Jacket (Chrome or Purple)																			
75°C	9180	NEC: CMR CEC: CMG FT4	1000	304.8	10.0	4.5	26 AWG (7x34) .018" TC 37.3Ω/M' 122.3Ω/km	.049	1.24	Beldfoil w/Stranded TC Drain Wire 23.1Ω/M' 75.8Ω/km	.144	3.66	110	76%	13.0	42.7	.38 .77 1.0 1.5 2.0 3.1 4.1 5.6 8.2 11.3 12.3 24.6	.8 1.2 1.3 1.5 1.7 1.9 2.1 2.4 2.8 3.1 3.2 4.2	2.6 4.0 4.3 5.0 5.6 6.3 7.0 8.0 9.3 10.3 10.6 14.0



Shorting Fold

Twinax • 124 Ohm • 16 AWG Solid .051" BC Conductors • Duofoil® (100% Coverage) + TC Braid Shield (90% Coverage)

Foam Polyethylene Insulation (Color Code: Clear, Blue) • Black PVC Jacket																			
UL AWM Style 2448 (30V 60°C)	9860	NEC: CMX CEC: CMX	500 1000 2000	152.4 304.8 609.6	52.0 103.0 202.0	23.6 46.8 91.8	16 AWG (solid) .051" BC 4.2Ω/M' 13.8Ω/km	.322	8.18	Duofoil + 90% TC Braid 1.3Ω/M' 4.3Ω/km	.440	11.18	124	78%	10.9	35.8	1 10 50 100 200 400	.2 .7 1.8 2.9 4.1 6.2	.6 2.3 5.9 9.5 13.5 20.3



BC = Bare Copper • DCR = DC Resistance • TC = Tinned Copper

Contact the Belden Customer Service Department for a Comprehensive Connector Cross Reference. **1-800-BELDEN-1**.

Maximum Transmission Distance at Serial Digital Data Rates

Data Rate:	143 Mb/s		177 Mb/s		270 Mb/s		360 Mb/s		540 Mb/s		1.5 Gb/s	
Spec:	SMPTE 259M		ITU-R BT. 601		SMPTE 259M		SMPTE 259M		SMPTE 344M*		SMPTE 292M	
Application:	Composite NTSC		Composite PAL		Component Video		Component Widescreen		Component Widescreen		HDTV	
Part No.	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m	Ft.	m
1865A	810	247	760	232	600	183	520	158	420	128	170	52
8279	910	277	810	247	640	195	550	168	440	134	170	52
1855A-7787A	1000	305	910	277	750	229	650	198	530	162	210	64
9209	1030	314	930	283	750	229	650	198	540	165	200	61
9209A	1030	314	930	283	750	229	650	198	540	165	200	61
1505A-7794A	1430	436	1320	402	1110	338	960	293	790	241	300	91
1505F	1200	366	1071	326	857	261	732	223	588	179	225	69
1506A	1360	415	1200	366	940	286	810	247	670	204	270	82
9231	1430	436	1270	387	1000	305	850	259	680	207	260	79
9141	1430	436	1270	387	1000	305	850	259	680	207	260	79
8281	1430	436	1270	387	1000	305	860	262	700	213	260	79
8281B	1430	436	1270	387	1000	305	850	259	680	207	250	76
8281F	1250	381	1100	335	860	262	730	222	590	180	240	73
88281	1300	396	1150	351	910	277	770	235	600	183	200	61
1694A-7710A	1760	536	1620	494	1360	415	1180	360	970	296	370	113
1695A	1670	509	1520	463	1250	381	1080	329	880	268	310	94
7855A	2220	677	2000	610	1670	509	1460	445	1210	369	470	143
7731A	2730	832	2460	750	2000	610	1740	530	1430	436	540	165
7732A	2420	738	2140	652	1690	515	1440	439	1150	351	430	131

*Values proposed at time of printing.

The serial digital interconnect standards are designed to operate where the signal loss at 1/2 the clock frequency does not exceed the approximate loss values listed below.

The maximum length values shown are based on typical attenuation values for the cables listed and the following criteria:

Maximum length = 30 dB loss at 1/2 the clock frequency: SMPTE 259M, PAL, Widescreen.

Maximum length = 20 dB loss at 1/2 the clock frequency: SMPTE 292M.

The bit error rate (BER) can vary dramatically as the calculated distances are approached. BER is dependent on receiver design and the losses of the actual coax used.

Distribution and routing equipment manufacturers should be contacted to verify their maximum recommended transmission.

Return Loss Headroom — Refer to graph on page 19.78.

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Thermostat & Control Cable

Commercial Applications
Shielded



Overall Shielded Twisted Pairs

CMR/CMG FT4 Rated

Product Description

Tinned copper conductors, Datalene® insulation. Conductors twisted into pairs, overall Beldfoil® shield (100% coverage), tinned copper drain wire, overall Brown PVC jacket. Sequential footage marking every two feet.

Color Code: Black & White, Green & Red.

Specifications

Conductor	Bare Copper
Insulation	Datalene
Shield	Beldfoil
Jacket	PVC
Approvals	
NEC	CMR
CEC	CMG FT4
Voltage Rating	300V
Temperature Rating	75°C

Applications

- Thermostat and control cable

Stranded Conductor



Solid Conductor



Part No.	No. of Pairs	Stranding	Standard Lengths		Standard Unit Weight		Outer Jacket Thickness		Nominal OD	
			Ft.	m	Lbs.	kg	Inch	mm	Inch	mm

Overall Shielded Twisted Pairs (NEC CMR and CEC CMG FT4)

24 AWG										
5660FT	1	solid	1000	305	11.0	5.0	.015	.38	.138	3.50
5661PT	2	solid	1000	305	18.0	8.2	.015	.38	.165	4.19
22 AWG										
5540FT	1	7	1000	305	15.0	6.8	.015	.38	.172	4.37
5541PT	2	7	1000	305	25.0	11.3	.015	.38	.202	5.13
18 AWG										
5340FT	1	7	1000	305	34.0	15.4	.015	.38	.260	6.60
5341PT	2	7	1000	305	58.0	26.3	.015	.38	.308	7.82

Alarm, Security and Speaker Cable / Shielded Audio Cable

Multi-conductor Cables for Residential, Light Commercial and Institutional Applications,
AES/EBU Digital Audio Cables, and Audio and Control Interconnect Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Color Code	Standard Lengths		Standard Unit Weight		Insulation Thickness		Outer Jacket Thickness		Nominal OD	
					Ft.	m	Lbs.	kg	Inch	mm	Inch	mm	Inch	mm

Multi-conductor • 22 AWG Stranded (7x30) Bare Copper Conductors**Non-Plenum • Polypropylene Insulation • PVC Jacket** (Beige, Brown, Orange, Yellow, Green, Blue, Purple, Gray or Natural)

300V 75°C	5500UG	NEC: CM	2	Black, Red	C-500	C-152.4	3.5	1.6	.006	.15	.015	.38	.114	2.90
		CEC: CM FT1			U-500	U-152.4	5.0	2.3						
					C-1000	C-304.8	7.0	3.2						
					U-1000	U-304.8	9.0	4.1						

Jacket sequentially marked at 2 ft. intervals.

300V 75°C	5502UG	NEC: CM	4	Black, Red, White, Green	C-500	C-152.4	6.5	3.0	.006	.15	.015	.38	.131	3.33
		CEC: CM FT1			U-500 *	U-152.4	7.5	3.4						
					C-1000	C-304.8	13.0	5.9						
					U-1000	U-304.8	14.0	6.4						

*U-500 ft. put-up available in Gray or White only.
Jacket sequentially marked at 2 ft. intervals.

Multi-conductor • 18 AWG Stranded (7x26) Bare Copper Conductors**Non-Plenum • Polypropylene Insulation • PVC Jacket** (Available in Black, Gray or Natural)

300V 75°C	5300UG	NEC: CM	2	Black, Red	C-500	C-152.4	7.5	3.4	.006	.15	.015	.38	.148	3.76
		CEC: CM FT1			U-500	U-152.4	8.5	3.9						
					U-1000	U-304.8	16.0	7.3						

Jacket sequentially marked at 2 ft. intervals.

Shielded Audio Cable

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

AES/EBU Digital Audio • 24 AWG Stranded (7x32) TC Conductors • Twisted Pairs • Overall Beldfoil® Shield (100% Coverage) • 24 AWG Drain Wire**Datalene® Insulation • Gray or Purple PVC Jacket**

60°C	1800B	NEC: CMG	1	Black, Red	500 *	152.4	8.0	3.6	23.7Ω/M'	18.9Ω/M'	.177	4.50	110	76%	12	39	26	85
		CEC: CMG FT4			U-1000	U-304.8	17.0	7.7	77.7Ω/km	62.0Ω/km								
					1000	304.8	16.0	7.3										
					5000 *	1524.0	90.0	40.9										

*500 ft. put-up available in Gray only. 5000 ft. put-up available in Purple only.
The jacket and shield are bonded so both can be removed with automatic stripping equipment.

For cross-connect use with 1803F (et al.)
Digital Audio Snake Cables, see page 19.28
For Plenum version of 1800B, see 1801B.

Audio and Control Interconnect • 22 AWG Stranded (7x30) TC Conductors • Twisted Pairs • 24 AWG Stranded TC Drain Wire**Polypropylene Insulation • Chrome PVC Jacket** (Pairs Cabled on Common Axis to Reduce Diameter)

60°C	8723	NEC: CM	2	Red/Black, Green/White	100	30.5	2.3	1.0	14.7Ω/M'	15.0Ω/M'	.160	4.06	45	66%	35	115	62	203
		CEC: CM			U-500	U-152.4	10.5	4.8	48.5Ω/km	49.2Ω/km								
					500	152.4	10.0	4.5										
					U-1000	U-304.8	20.0	9.1										
					1000	304.8	20.0	9.1										
					1640	499.9	32.8	14.9										
					U-2000	U-609.6	38.0	17.2										
					2000	609.6	40.0	18.2										
					3280	999.7	65.6	29.8										
					5000	1524.0	95.0	43.2										
					10000	3048.0	200.0	90.9										

Pairs Individually Shielded with Beldfoil® (100% Coverage)
For Plenum versions of 8723, see 88723, 87723 or 82723.

BC = Bare Copper • DCR = DC Resistance • TC = Tinned Copper

For additional selection of Belden® Audio Cables, refer to the Broadcast Cables section of this catalog.

*Capacitance between conductors.

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

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

BELDENFor more information, contact **Belden Technical Support: 1-800-BELDEN-1 • www.belden.com**

견적문의 Belden114@CableCon.kr / 0707-434-7704 / Fax. 02-744-0909 / www.CableCon.co.kr

Insulations and Jackets

Overview

Insulations

Belden expends a great amount of time and effort to formulate its own insulations. As a result, Belden® insulations provide superior performance under a variety of hostile environmental conditions. Belden cables are available in UL Listed and CSA Approved insulation compounds.

Among the insulations we utilize are:

- **Polyethylene**
- **Polyvinyl-chloride (PVC)**
- **Polypropylene**

Also available are:

- **Datalene®** — For computer and data transmission. Datalene is crush resistant, lightweight, and offers good performance characteristics over a wide range of temperatures.
- **Teflon® Insulated Plenum & High-Temperature Cables** — For data communications, instrumentation/control, and other commercial and industrial applications. Plenum cables eliminate the need for conduit and reduce installation time.

Jackets

Belden electronic cables are manufactured in a wide selection of jacketing materials.

- **Flamarrest®** — A Belden jacketing innovation, Flamarrest is a low-smoke, flame retardant compound that is five times more flexible than fluorocopolymer. Cables jacketed with Flamarrest are cost efficient and easy to install.

Also included in our wide selection of jacketing compounds are:

- **Polyvinyl-chloride**
- **Polyethylene**
- **Polyurethane**
- **Teflon**
- **Tefzel®**
- **Halar®**
- **Neoprene**
- **EPDM**
- **Hypalon®**
- **Silicone rubber**
- **Natural rubber**

Special compounds and variations of standard compounds are used as well.

Teflon, Tefzel and Hypalon are DuPont trademarks.
Halar is an Ausimont Corporation trademark.