



Welcome To The Most Complete Resource In The Industry For Reliable Electronic Wire And Cable:

The Belden® Master Catalog is a uniquely distinctive publication. An unparalleled resource for electronic wire and cable solutions, the catalog represents Belden's commitment to providing you with the most reliable electronic wire and cable products, whatever the application or need.

- > Industrial networking, instrumentation and control systems
- > Broadcast, entertainment and broadband markets
- > Wireless communications
- > Electrical equipment, including motors and apparatus

The Industry's Premier Source Of Information For Today's Designers And Specifiers.

The catalog, however, is much more than a listing of products. It is also the industry's premier source of information for today's designers and specifiers. We believe you'll find our Master Catalog to be an essential tool for solving a wide range of application problems.

Every one of our products is the result of foresight and leadership, and a proactive response to both emerging technologies and the changing needs of our customers.

Our Commitment To World-Class Manufacturing Is Unrivaled

Our world-class manufacturing standards are at the very heart of what distinguishes us from our competitors. All Belden products are manufactured using the industry's highest standards of quality, with the most advanced equipment, systems, controls and processes.

Choose From More Than 3,000 Wire And Cable Products

Belden has one of the largest product offerings in the markets we serve. Our selection of more than 3,000 wire and cable products is devoted to applications such as:

- > Home automation systems and networks
- > Computer networking and equipment for commercial organizations
- > Alarm, security and communications

Quality Management System Further Ensures Product Reliability

To assure Belden products meet your requirements, we use a formal, documented Quality Management System based on our Quality Policy and the ISO 9000 family of international standards. Belden Electronics was the first UL Registered Wire and Cable Company to receive registration to ISO 9001:2002. Our ISO certification is a confirmation of Belden's pledge to total quality and to continual improvement through our company's quality processes.

What this all adds up to is an unceasing dedication to reliability, which is at the root of Belden's aggressive, continual search for ways to meet the often complicated needs of our customers.



Paired Cable

No. of Pairs	Unshielded		Spiral Shield		Braid Shield		Overall Beldfoil®		Overall Foil/Braid		Individual Beldfoil		Individual Braid					
	Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page	Part No.	Page				
23 AWG																		
4	7851A▼	11.3	—	—	—	—	—	—	—	—	—	—	—	—				
	7852A▼	11.3																
	1872A▼	11.4																
	1874A▼	11.4																
	7881A▼	11.5																
		14.9																
	7882A▼	11.5																
		14.9																
	7883A▼	11.5																
	11872A	15.9																
121872A	15.9																	
22 AWG																		
1	8740▼	5.4	8737	5.24	8437▼	5.23	8450▼	12.11	3079A	15.19	—	—	—	—				
	88442	4.4					9414	5.18							3105A	15.26		
		4.23													9462	5.18	1696A	12.27
		5.6													8761	12.12		
		5.48														5.18		
	82442	4.4													9461	12.12		
		4.23														5.18		
		5.6													8451	12.11		
		5.48														5.19		
	9407	15.41													9451	12.11		
																5.19		
															1266A	12.11		
																5.19		
															1503A	12.11		
																5.19		
															88761	12.12		
																5.20		
																5.51		
															87761	12.12		
																5.20		
																5.51		
															82761	12.12		
																5.20		
					5.51													
				9182•	15.15													
					6.84													
				89182•	15.15													
					6.84													
				3077F	15.19													
				3078F	15.19													
				9322	15.41													
1-1/2	—	—	—	—	—	—	—	—	3106A	15.26	—	—	—	—				
2	8741▼	5.4	—	—	—	—	9302▼	5.17	8302	5.32	9406	5.38	—	—				
	9744	5.5					9184▼	5.17	9855▼	5.33	8723	12.13						
	88741	5.6					3000A	15.41	1268A▼	5.33		14.18						
		5.48					9512	15.41	89855▼	5.33		15.27						
	82741	5.6								5.52		5.38						
									1269A▼	5.33	82723	12.13						
									9696▼	5.33		5.38						
									89696▼	5.33		5.54						
										5.52	88723	12.13						
									3107A	15.26		15.27						
												5.38						
												5.54						
												87723						
							12.13											
							5.38											
							5.54											
							8728■											
							5.46											
							9688■▼											
							11.20											
							82688■▼											
							11.20											
							1634A■▼											
							11.20											
							3087A											
							15.23											

*Armored
 ▼ Solid conductors
 †Triad
 • Duofoil® shield
 ■ Individually shielded pairs or triads, plus overall foil, overall braid or overall foil and braid.
 ◆ Siamese version
 ◻ Quad



Teflon®

High-Temperature

UL AWM Style 1213 — 105°C

(Type E) MIL-W-16878/4

Teflon — 600V, 200°C

VW-1

Product Description

Stranded silver-coated copper conductor insulated with extruded TFE Teflon.



Part No.	AWG (stranding)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

105°C (UL) • 600V, 200°C (MIL-Spec)

UL AWM Style 1213 • (Type E) MIL-W-16878/4 — Teflon										
83000	30 (7x38)	.010	.25	.032	.81	100 [†]	30.5	.1	.05	1-10
						1000 [†]	304.8	1.0	.50	1-10
						1000 [†]	304.8	2.0	.90	1-10
83001*	28 (7x36)	.010	.25	.035	.89	100 [†]	30.5	.2	.10	1-10
						1000 [†]	304.8	2.0	.90	1-10
						1000 [†]	304.8	2.0	.90	1-10
83002	26 (7x34)	.010	.25	.037	.94	100 [†]	30.5	.2	.10	1-10
						500 [†]	152.4	1.0	.50	9
						1000 [†]	304.8	3.0	1.40	1-10
83003*	24 (19x36)	.010	.25	.043	1.09	100 [†]	30.5	.3	.10	1-10
						500 [†]	152.4	1.5	.70	1-10
						1000 [†]	304.8	3.0	1.40	1-10
83004	24 (7x32)	.010	.25	.043	1.09	100 [†]	30.5	.3	.10	1-10
						500 [†]	152.4	1.5	.70	2, 10
						1000 [†]	304.8	3.0	1.40	1-10
83005	22 (7x30)	.010	.25	.049	1.24	100 [†]	30.5	.4	.20	1-10
						500 [†]	152.4	3.0	1.40	2, 9, 10
						1000 [†]	304.8	4.0	1.80	1-10
83006*	22 (19x34)	.010	.25	.048	1.22	100 [†]	30.5	.4	.20	1-10
						500 [†]	152.4	3.0	1.40	1-10
						1000 [†]	304.8	4.0	1.80	1-10
83007*	20 (19x32)	.010	.25	.056	1.42	100 [†]	30.5	.5	.20	1-10
						500 [†]	152.4	4.0	1.80	2, 9, 10
						1000 [†]	304.8	6.0	2.70	1-10
83008	20 (7x28)	.010	.25	.058	1.47	100 [†]	30.5	.5	.20	1-10
						500 [†]	152.4	4.0	1.80	1-10
						1000 [†]	304.8	6.0	2.70	1-10

*Complies with MIL-W-16878 except stranding.

†Spools may contain more than one piece. Length may vary ±10% from length shown.

Teflon is a DuPont trademark.



Test Prod Wire and Gas Tube Sign and Ignition Cable

18 AWG Rubber Insulated 10,000V, 90°C

Product Description

Tinned copper, rubber insulated.

Suggested Working Voltage: 10,000V

Breakdown Voltage: 29,000V



24 AWG Rubber Insulated 1000V, 90°C • Miniature

Product Description

Tinned copper, separator, rubber insulated.

Suggested Working Voltage: 1000V

Breakdown Voltage: 10,000V



Gas Tube Sign and Ignition UL GTO-10 — 10kV, 105°C (CSA Type GTO-10 — 10kV)

Product Description

GTO cables are single conductors for use with gas-tube systems for signs, outline lighting or interior lights and for use with oil-burning equipment in accordance with the National Electrical Code. GTO-10 lead wire has an 18 AWG stranded tinned copper conductor and is insulated with a chemically cross-linked ethylene-propylene diene elastomer. Unshielded, it is available with either a flat black (color code 10) or dark gray (color code 876) exterior.



Stranded tinned copper conductor

Part No.	AWG (stranding)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

18 AWG Rubber Insulated

10,000V, 90°C										
8898	18 (65x36)	.088	2.24	.229	5.82	25	7.6	1.7	.8	2, 10
						100	30.5	4.4	2.0	2, 10
						500	152.4	20.0	9.1	2, 10

24 AWG Rubber Insulated

1000V, 90°C • Miniature										
8890	24 (45x40)	.019	.48	.066	1.68	25	7.6	.1	.05	2, 10
						100	30.5	.4	.20	2, 10
						500	152.4	2.5	1.10	2, 10

Part No.	AWG (stranding) [sq. mm] (stranding in mm)	Insulation Thickness		Nominal OD		Standard Lengths		Standard Unit Weight		Stock Colors (See Color Codes Chart on Page 3.29)
		Inch	mm	Inch	mm	Ft.	m	Lbs.	kg	

10kV, 105°C (UL) • 10kV (CSA)

UL and CSA Type GTO-10										
39018	18 (19x30) [.96 (19x.25)]	.100	2.54	.247	6.27	500*	152.4	18.0	8.2	10, 876
						1000*	304.8	37.0	16.8	10, 876
						1500*	457.3	54.0	24.5	10, 876

*Spools may contain more than one piece. Length may vary ±10% from length shown.



Bundled RGB Cable

CM and CMP Rated



Description	Part No.	UL NEC/C(UL) CEC Type	No. of Cond.	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

26 AWG Stranded (7x34) .019" Bare Copper • Duofoil® + 93% Tinned Copper Braid Shield • Overall Polyester Tape

Foam HDPE Insulation • Overall Black PVC Jacket • Inner PVC Jacket (Color Code: Red, Green, Blue, White, Yellow)

UL AWM Styles 1354 and 2668 (30V 60°C) 	1164B	NEC: CM	3	500 [†]	152.4	39.5	18.0	26 AWG (7x34) .019" BC 41.5Ω/M' 136.1Ω/km	.090	2.29	Duofoil + 93% TC Braid BC 8.6Ω/M' 28.2Ω/km	.388	9.86	75	78%	17.3	56.7	1	.6	2.0		
				1000 [†]	304.8	78.0	35.5		Coax OD:									5	1.3	4.3		
																			10	1.8	5.9	
																			30	3.1	10.2	
																			50	3.9	12.8	
																			100	5.4	17.7	
																			200	7.5	24.6	
									400	10.4	34.1											
									700	13.5	44.3											
									900	15.2	49.9											
									1000	15.9	52.2											
1167B	NEC: CM	4	1000 [†]	304.8	105.0	47.7	same as above	.090 Coax OD: .146	2.29 3.71	same as above	.455	11.56								900	15.2	49.9
																				1000	15.9	52.2
1418B	NEC: CM	5	500 [†]	152.4	61.0	27.7	same as above	.090 Coax OD: .146	2.29 3.71	same as above	.477	12.12										

100% Sweep tested. 10 MHz to 40 MHz.

RG-59/U Type • 22 AWG Stranded (7x30) .030" Bare Copper • Duofoil + 95% TC Braid (Coaxes) • 100% Overall Beldfoil® Shield

Plenum • Foam FEP Insulation • Overall Natural Flamarest® Jacket • Inner Fluorocopolymer Jacket (See chart below)

60°C 	1824A	NEC: CMP	3	500	152.4	63.5	28.9	22 AWG (7x30) .030" BC 15.3Ω/M' 50.2Ω/km	.135	3.43	Coaxes: Duofoil + 95% TC Braid 2.5Ω/km 8.3Ω/km Overall: Beldfoil 100% Shield Coverage 11.1Ω/M' 36.4Ω/km	.475	12.07	75	81%	17.3	56.7	1	.3	.8	
				1000	304.8	127.0	57.7		Coax OD:									5	.6	1.9	
																			10	.8	2.7
																			30	1.5	4.9
																			50	2.0	6.4
																			100	2.9	9.5
																			200	4.3	14.2
									400	6.6	21.6										
									700	9.4	30.9										
									900	11.1	36.4										
									1000	11.9	39.0										
1825A	NEC: CMP	4	500	152.4	84.5	38.4	same as above	.135 Coax OD: .200	3.43 5.08	same as above	.527	13.39									
1826A	NEC: CMP	5	500	152.4	101.5	46.1	same as above	.135 Coax OD: .200	3.43 5.08	same as above	.585	14.86									

100% Sweep tested. 10 MHz to 40 MHz.

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

Contact the Belden Customer Service Department for a more Comprehensive Connector Cross Reference. **1-800-BELDEN-1**. Request quotations of cables not listed.

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

Color Code Chart

Cond.	Color	Cond.	Color
1	Red	4	White
2	Green	5	Yellow
3	Blue		



Technical Information



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 252M		
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	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		

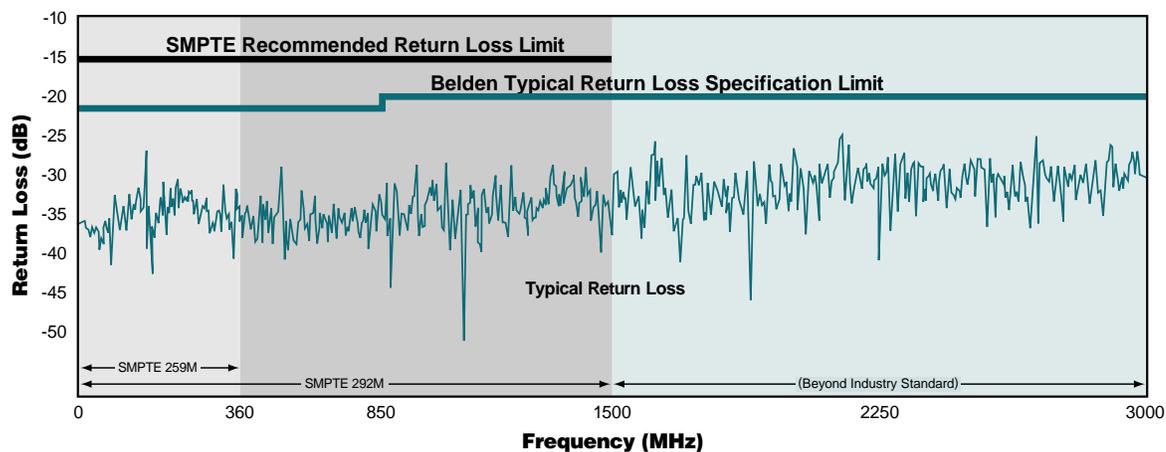
*Values proposed at time of printing.

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 (1694A)



Composite Data, Audio, Video, Security and Control Cable

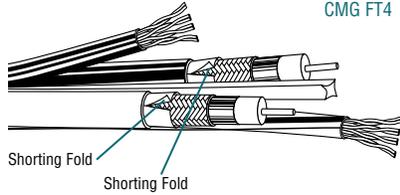
Banana Peel™ Jacketless Cables

Category 5e Bonded-Pairs

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Overall Nom. OD		Component Descriptions	Shielding Materials & Nom. DCR	Insulation Material & Color Code	Component Jacket Material & Colors	Component Nom. OD	
			Ft.	m	Lbs.	kg	Inch	mm					Inch	mm

Composite • (2) Cat 5e 4-Bonded-Pair UTP 24 AWG • (2) Series 6 Coax w/ Duobond Plus® (Bonded Tri-Shield)

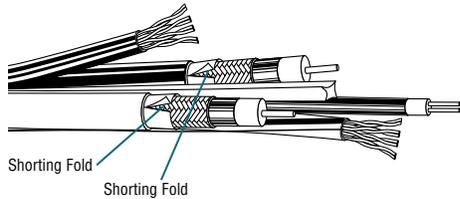
Polyolefin Insulation (Pairs) • Gas-injected FPE Insulation (Coax) • F-R PVC Jackets • No Overall Jacket														
	7876S <small>new</small>	NEC: CMR CEC: CMG FT4	500 1000	152.4 304.8	66.0 128.0	29.9 58.1	.550	13.97	(2) 4-Pair UTP Data Cables: Bonded-Pairs 24 AWG (solid) Bare Copper Cond.	None	Polyolefin (see chart below)	F-R PVC (1) Blue (1) Green	.200	5.08
									(2) Coax: Series 6 18 AWG (solid) Bare Copper Cond.	Duobond Plus (Bonded Tri-Shield): Duobond® + 80% AL Braid + AL Foil w/ Shorting Fold	Gas-injected Foam Polyethylene	F-R PVC (1) Black (1) White	.275	6.99



Coax sweep tested to 2.25 GHz and jacket sequentially marked. Third party verified to TIA/EIA-568-B.2, Category 5e

Composite • (2) Cat 5e 4-Bonded-Pair UTP 24 AWG • (2) Series 6 Coax w/ Duobond Plus • (1) 2-Fiber LANLite®

Polyolefin Insulation (Pairs) • Gas-injected FPE Insulation (Coax) • F-R PVC Jackets • No Overall Jacket														
	7878S <small>new</small>	NEC: CMR OF CEC: CMG OF FT4	500 1000	152.4 304.8	71.0 142.0	32.2 64.4	.595	15.11	(2) 4-Pair UTP Data Cables: Bonded-Pairs 24 AWG (solid) Bare Copper Cond.	None	Polyolefin (see chart below)	F-R PVC (1) Blue (1) Green	.200	5.08
									(2) Coax: Series 6 18 AWG (solid) Bare Copper Cond.	Duobond Plus (Bonded Tri-Shield): Duobond + 80% AL Braid + AL Foil w/ Shorting Fold	Gas-injected Foam Polyethylene	F-R PVC (1) Black (1) White	.275	6.99
									(1) 2-Fiber LANLite: Gigabit Ethernet 62.5µ/125µ/900µ (core/clad/coating) Tight Buffered	—	PVC (1) Blue (1) Orange	F-R PVC (1) Orange	.175	4.45



Coax sweep tested to 2.25 GHz and jacket sequentially marked. Third party verified to TIA/EIA-568-B.2, Category 5e

AL = Aluminum • DCR = DC Resistance • FPE = Foam Polyethylene • F-R = Flame-retardant • UTP = Unshielded Twisted Pair

Contact the Belden Customer Service Department for a Comprehensive Connector Cross Reference: **1-800-BELDEN-1**. Request quotations of cables not listed.

Color Codes: Cat 5e UTP

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



Composite Data, Audio, Video, Security and Control Cable

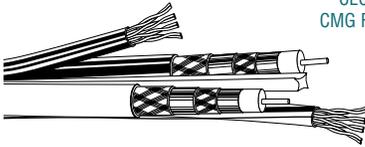
Banana Peel™ Jacketless Cables

Category 5e

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Overall Nom. OD		Component Descriptions	Shielding Materials & Nom. DCR	Insulation Material & Color Code	Component Jacket Material & Colors	Component Nom. OD	
			ft.	m	Lbs.	kg	Inch	mm					Inch	mm

Composite • (2) Cat 5e 4-Pair UTP 24 AWG • (2) Series 6 Coax w/ Duobond® IV* Quad Shield

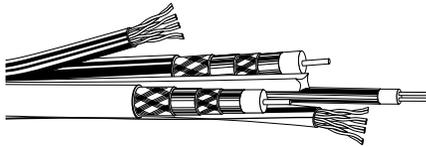
Polyolefin Insulation (Pairs) • Gas-injected FPE Insulation (Coax) • F-R PVC Jackets • No Overall Jacket													
7913S <small>new</small>	NEC:	500	152.4	67.0	30.4	.600	15.24	(2) 4-Pair UTP Data Cables: 24 AWG (solid) Bare Copper Cond.	None	Polyolefin (see chart below)	F-R PVC (1) Blue (1) Green	.200	5.08
	CEC: CMR OF	1000	304.8	134.0	60.8								
	CEC: CMG FT4							(2) Coax: Series 6 18 AWG (solid) Bare Copper Cond.	Duobond IV Quad Shield: 60% & 40% AL Braids 4.8Ω/M' 15.7Ω/km	Gas-injected Foam Polyethylene	F-R PVC (1) Black (1) White	.298	7.57



Coax sweep tested to 2.25 GHz and jacket sequentially marked.
Third party verified to TIA/EIA-568-B.2, Category 5e

Composite • (2) Cat 5e 4-Pair UTP 24 AWG • (2) Series 6 Coax w/ Duobond® IV* Quad Shield • (1) 2-Fiber LANLite®

Polyolefin Insulation (Pairs) • Gas-injected FPE Insulation (Coax) • F-R PVC Jackets • No Overall Jacket													
7914S <small>new</small>	NEC:	500	152.4	76.0	34.2	.620	15.75	(2) 4-Pair UTP Data Cables: 24 AWG (solid) Bare Copper Cond.	None	Polyolefin (see chart below)	F-R PVC (1) Blue (1) Green	.200	5.08
	CEC: CMR OF	1000	304.8	151.0	68.5								
	CEC: CMG OF FT4							(2) Coax: Series 6 18 AWG (solid) Bare Copper Cond.	Duobond IV Quad Shield: 60% & 40% AL Braids 4.8Ω/M' 15.7Ω/km	Gas-injected Foam Polyethylene	F-R PVC (1) Black (1) White	.298	7.57
								(1) 2-Fiber LANLite: Gigabit Ethernet 62.5µ/125µ/900µ (core/clad/coating) Tight Buffered	—	PVC (1) Blue (1) Orange	F-R PVC (1) Orange	.175	4.45



Coax sweep tested to 2.25 GHz and jacket sequentially marked.
Third party verified to TIA/EIA-568-B.2, Category 5e

AL = Aluminum • DCR = DC Resistance • FPE = Foam Polyethylene • F-R = Flame-retardant • UTP = Unshielded Twisted Pair

Contact the Belden Customer Service Department for a Comprehensive Connector Cross Reference: **1-800-BELDEN-1**. Request quotations of cables not listed.

* Duobond IV = Duobond II + 60% aluminum braid + Duofoil® + 40% aluminum braid.

Color Codes: Cat 5e UTP

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



