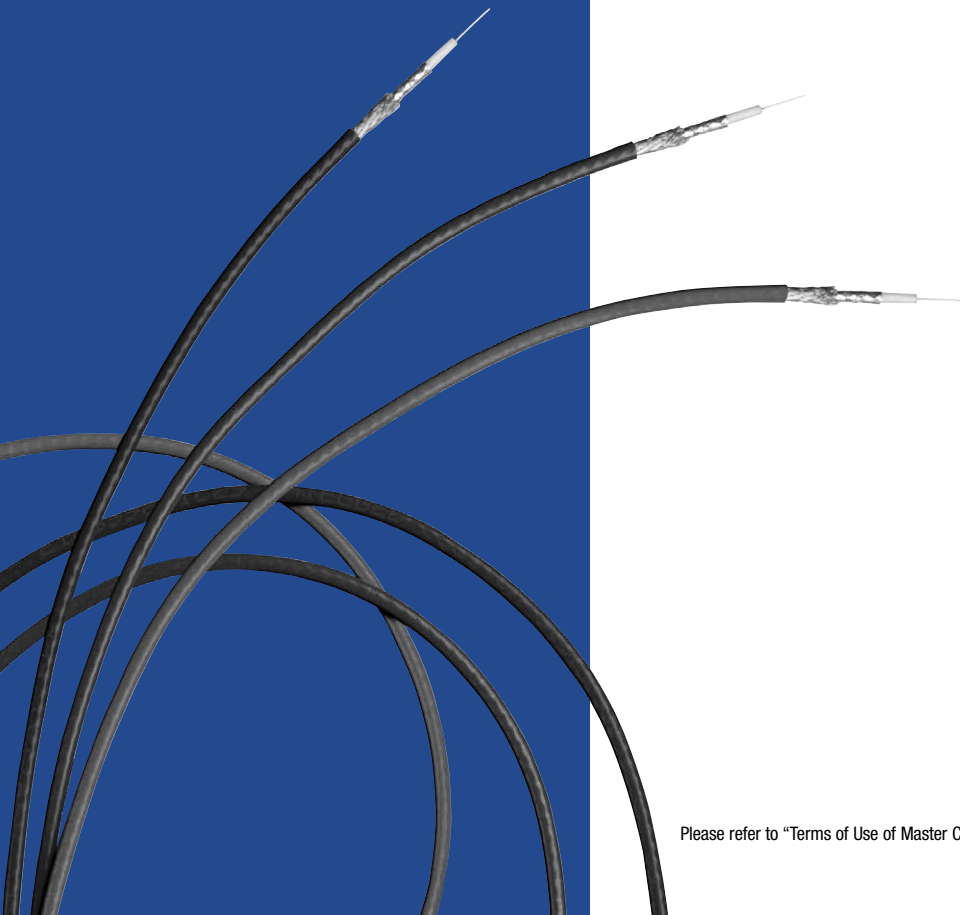




6 MIL-C-17 Coaxes

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Please refer to "Terms of Use of Master Catalog" on page 23.22.

Introduction

From Military to Civilian Use

Micro-coaxial cables are used in various consumer devices, military equipment and ultra-sound scanning equipment. There are different shielding configurations for different applications.

Although fiber optics, T1/E1, satellite and other high-tech methods are becoming the new standards, radio and especially television networks are connected with long distance coaxial cables. The history of these cables starts with the Second World War when the standard types were used by the military – when positive, reliable and trouble-free operation were essential to get users out of trouble.

Today – for different other purposes, Belden's cables offer performance second to none.

Key Applications

- Computer networks
- Radio
- Television
- Consumer devices
- Military equipment

Special Features

- **Short Coaxial Cable**
Connectivity for home video equipment, or in ham radio setups. Also commonly used for implementing computer networks; in particular ethernet.
- **Long Distance Coaxial Cable**
Connect radio networks and television networks, though this has largely been superseded by other more high-tech methods (fiber optics, T1/E1, satellite). It is still common for carrying cable television signals.
- **Micro-Coaxial Cable**
Used in a range of consumer devices, military equipment, and also in ultra-sound scanning equipment.

Availability

Most of our MIL-C-17 coax 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 MIL-C-17 coax cable in this catalog section that meets your technical requirements contact technical support at +31-77-3875-414 or techsupport.venlo@belden.com.







RG Designators

Standard types of coaxial cable were specified for military uses, in the form "RG-#" or "RG-#/U" (RG from radio guide, /U indicates multiple use). These references go back to World War II and were published in MIL-HDBK-216 (1962). These designations are now obsolete.

Currently the military standard is MIL-SPEC MIL-C-17. Numbers, such as M17/75-RG214, are given for military cables and manufacturer's catalog numbers for civilian applications. However, the RG-series designations were so common for generations that they are still used. Please be aware that since the handbook is withdrawn there is no standard to guarantee the electrical and physical characteristics of a cable described as "RG-# type".

The RG designators are mostly used to identify compatible connectors that fit the inner conductor, dielectric, and jacket dimensions of the old RG-series cables.

50 Ohm Coax

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter	Nominal Core OD (Dielectric)		Shielding Material 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/ 100 m	
30 AWG • Stranded (7x0.10) 0.3 mm Silver-Plated Copperweld-Steel-Wire • 96% Silver-Plated Copper Braid																				
PTFE Insulation • Tinted Brown FEP Jacket																				
200°C RG-178 B/U	MRG178		3280	1000	19.8	9.0	0.3 mm 30 AWG (7x0.10) SPCSW	0.033	0.84	96% SPC Braid	0.071	1.80	50	69.5%	32.0	104.9 max.	10	4.9	16.1	
																	50	11.6	38.0	
																	100	16.0	52.5	
																	200	23.0	75.4	
																	400	33.0	108.2	
																	700	45.0	147.6	
																	900	50.0	164.0	
																	1000	52.0	170.6	
																	3000	94.0	308.3	
																				
PTFE Insulation • Tinted Brown PTFE Jacket																				
200°C RG-196 A/U	MRG196		3280	1000	19.0	8.6	0.3 mm 30 AWG (7x0.10) SPCSW	0.033	0.84	96% SPC Braid	0.071	1.80	50	69.5%	32.0	104.9 max.				see above
																				
Also available with White PTFE Jacket.																				
26 AWG • Stranded (7x0.17) 0.51 mm Silver-Plated Copperweld-Steel-Wire • 95% Silver-Plated Copper Braid																				
PTFE Insulation • Tinted Brown FEP Jacket																				
200°C RG-316 /U	MRG316		3280	1000	35.3	16.0	0.51 mm 26 AWG (7x0.17) SPCSW	0.058	1.47	95% SPC Braid	0.098	2.49	50	69.5%	32.0	104.9 max.	10	3.5	11.5	
																	50	7.5	24.6	
																	100	11.0	36.1	
																	200	15.0	49.2	
																	400	21.0	68.9	
																	700	28.0	91.8	
																	900	32.0	105.0	
																	1000	34.0	111.5	
																	3000	58.0	190.2	
																				
PTFE Teflon® Insulation • Tinted Brown TFE Tape Jacket																				
200°C RG-188 A/U	MRG188		3280	1000	33.1	15.0	0.51 mm 26 AWG (7x0.17) SPCSW	0.058	1.47	96% SPC Braid	0.098	2.49	50	69.5%	32.0	104.9 max.				see above
																				
Also available with White PTFE Jacket.																				
19 AWG • Solid 0.9 mm Silver-Plated Copperweld-Steel-Wire • 95% Silver-Plated Copper Braid																				
PTFE Insulation • Tinted Brown FEP Jacket																				
200°C RG-303 /U	MRG303	NEC: CL2P	3280	1000	103.6	47.0	0.94 mm 19 AWG Solid SPCSW	0.116	2.95	95% SPC Braid	0.170	4.31	50	70%	32.0	104.9 max.	10	1.1	3.6	
																	50	2.7	8.9	
																	100	3.9	12.8	
																	200	5.8	19.0	
																	400	8.6	28.2	
																	700	12.0	39.4	
																	900	13.5	44.3	
																	1000	14.5	47.6	
																	3000	27.0	88.6	
																				
PTFE Insulation • Tinted Brown FEP Jacket																				
200°C RG-142 B/U	MRG142	NEC: CMP CEC: CMP FT6	3280	1000	145.5	66.0	0.94 mm 19 AWG Solid SPCSW	0.116	2.95	96% SPC Double Braid	0.195	4.95	50	70%	29.3	96.1	10	1.3	4.1	
																	50	3.0	9.8	
																	100	4.4	14.4	
																	200	6.3	20.7	
																	400	9.3	30.5	
																	700	12.5	41.0	
																	900	14.5	47.6	
																	1000	15.3	50.2	
																	3000	29.3	96.1	
																	8000	57.8	189.6	
																	124000	85.4	280.1	
																				

SPCSW = Silver-Plated Copperweld-Steel-Wire • SPC = Silver-Plated Copper • DCR = DC resistance

Teflon® is a DuPont trademark.

50 Ohm Coax

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter	Nominal Core OD (Dielectric)		Shielding Material 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/ 100 m
15 AWG • Solid 1.5 mm Silver-Plated Copperweld-Steel-Wire • 95 % Silver-Plated Copper Braid																			
PTFE Insulation • Tinted Brown FEP Jacket																			
200°C RG-304 /U	MRG304		3280	1000	282.2	128.0	1.50 mm 15 AWG Solid SPCSW	0.187	4.75	95% SPC Braid	0.283	7.20	50	69.5%	32.0	104.9 max.	10	0.7	2.2
																50	1.8	5.9	
																100	2.7	8.9	
																200	4.2	13.8	
																400	6.4	21.0	
																700	9.0	29.5	
																900	10.5	34.4	
																1000	11.1	36.4	
																8000	40.0	131.2	



12 AWG • Stranded (7x0.80) 2.4 mm Silver-Plated Copper • 96 % Silver-Plated Copper Braid																			
PTFE Insulation • Tinted Brown TGL Jacket																			
200°C RG-165 /U	MRG165		3280	1000	436.5	198.0	2.4 mm 12 AWG (7x0.80) SPC	0.283	7.20	96% SPC Braid	0.413	10.50	50	69.5%	29.3	96.1	10	0.5	1.8
																50	1.4	4.6	
																100	2.1	6.9	
																200	3.1	10.2	
																400	4.7	15.4	
																700	6.4	21.0	
																900	7.4	24.3	
																1000	8.0	26.2	
																3000	13.7	44.9	



12 AWG • Stranded (7x0.79) 2.3 mm Silver-Plated Copper • 95 % Silver-Plated Copper Double Braid																			
PTFE Insulation • Tinted Brown TGL Jacket																			
200°C RG-225 /U	MRG225		3280	1000	590.8	268.0	2.3 mm 12 AWG (7x0.79) SPC	0.283	7.20	95% SPC Double Braid	0.425	10.80	50	69.5%	32.3	106.0 max.	400	5.0	16.4



SPCSW = Silver-Plated Copperweld-Steel-Wire • SPC = Silver-Plated Copper • DCR = DC resistance

75 Ohm Coax

De- scription	Part No.	UL NEC/ C(UL)/CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter	Nominal Core OD (Dielectric)		Shielding Material 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/ 100 m

30 AWG • Stranded (7x0.10) 0.3 mm Silver-Plated Copperweld-Steel-Wire • 95 % Silver-Plated Copper Braid

PTFE Insulation • Tinted Brown FEP Jacket																			
200°C RG-179 B/U	MRG179		3280	1000	35.3	16.0	0.3 mm 30 AWG (7x0.10) SPCSW	0.062	1.58	95% SPC Braid	0.100	2.54	75	69.5%	22.9	75.0 max.	400	21.0	68.8



PTFE Insulation • Tinted Brown TFE Tape Jacket																			
200°C RG-187 A/U	MRG187		3280	1000	33.1	15.0	0.3 mm 30 AWG (7x0.10) SPCSW	0.063	1.60	95% SPC Braid	0.103	2.62	75	70%	22.9	75.0 max.			see above



Also available with White PTFE Jacket.

22 AWG • Solid 0.64 mm Silver-Plated Copperweld-Steel-Wire • 95 % Silver-Plated Copper Braid

PTFE Insulation • Tinted Brown FEP Jacket																			
200°C RG-302 /U	MRG302		3280	1000	130.1	59.0	0.64 mm 22 AWG Solid SPCSW	0.148	3.75	95% SPC Braid	0.203	5.15	75	69.5%	32.0	104.9 max.	400	8.6	28.2



PTFE Insulation • Tinted Brown TGL Jacket																			
200°C RG-140 /U	MRG140		3280	1000	154.3	70.0	0.64 mm 22 AWG Solid SPCSW	0.148	3.75	95% SPC Braid	0.228	5.80	75	69.5%	19.2	63.0	400	8.0	26.2



SPCSW = Silver-Plated Copperweld-Steel-Wire • SPC = Silver-Plated Copper • DCR = DC resistance

95 Ohm Coax

De- scription	Part No.	UL NEC/ C(UL)CEC Type IEC	Standard Lengths		Standard Unit Weight		Conductor (Stranding) Diameter	Nominal Core OD (Dielectric)		Shielding Material 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/ 100 m

30 AWG • Stranded (7x0.10) 0.3 mm Silver-Plated Copper-Steel-Wire • 91% Silver-Plated Copper Braid

PTFE Insulation • Tinted Brown FEP Jacket																			
200°C RG-180 B/U	MRG180		3280	1000	61.7	28.0	0.3 mm 30 AWG (7x0.10) SPCSW	0.102	2.60	91% SPC Braid	0.141	3.58	95	69.5%	17.4	57.0 max.	400	17.0	55.7



PTFE Insulation • Tinted Brown PTFE Jacket																			
200°C RG-195 A/U	MRG195		3280	1000	59.5	27.0	0.3 mm 30 AWG (7x0.10) SPCSW	0.102	2.60	91% SPC Braid	0.141	3.58	95	69.5%	17.4	57.0 max.			see above



SPCSW = Silver-Plated Copperweld-Steel-Wire • SPC = Silver-Plated Copper • DCR = DC resistance