

CAROL®

Electronic Wire & Cable Alarm & Security Solutions Guide



Alarm & Security Solutions

CAROL® Electronics Wire & Cable is the right solution for alarm and security wire and cable. CAROL offers as broad an offering as anyone in the industry. Our Alarm and Security Solutions Guide makes it easier to specify and sell the right cables for every application in this ever-growing market. There are seven basic areas where alarm and security cables are used. CAROL has the right product to serve every application, including:

- Access Control
- Video Surveillance/CCTV
- Component Video
- Lighting Control & Touch Panel Systems
- Fire Alarm and Life Safety
- Home Theater and Burglar Alarms
- Data Communications

Access Control



Applications:

- Door Controllers
- Prox Sensors
- Key Pads
- Card Readers
- Gate Access

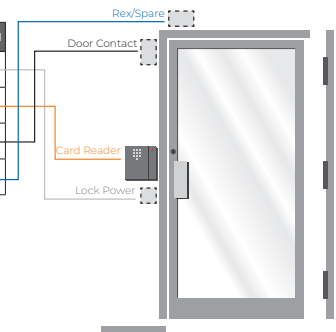
Our alarm and security cables offer solutions in all these major security applications markets, including:

- Commercial Buildings
- Residential Housing
- Business and Office Campus Environments
- Public Stadiums and Arenas
- Airport, Train, Bus and Other Transportation Hubs
- Schools, Colleges and Universities

The Alarm and Security Solutions Guide provides a quick and easy reference tool to identify every CAROL cable for the appropriate alarm and security application. Whatever the security application need calls for, we have a cable that delivers the performance you need.

JACKET COLOR CODING & COMPONENT APPLICATION

JACKET COLOR	COMPONENT	CABLE TYPE	APPLICATION
Gray	1	4 Conductor, 18 AWG	Lock Power
Orange	2	3 Pair, 22 AWG	Card Reader
White	3	2 Conductor, 22 AWG	Door Contact
Blue	4	4 Conductor, 22 AWG	Rex/Spare



Cable Solution	Description
4EPL4S	4 Shielded Elements Overall Jacket Access Control Plenum*
4EPL1S	4 Elements 1 Shielded Overall Jacket Access Control Plenum*
4ERS4S	4 Shielded Elements Overall Jacket Access Control Riser**
4ERS1S	4 Elements 1 Shielded Overall Jacket Access Control Riser**
E1032S-R	18/2 Conductor Riser
E1034S-R	18/4 Conductor Riser
E2002S	22/2 Conductor Shielded Riser
E2004S	22/4 Conductor Shielded Riser
E2006S	22/6 Conductor Shielded Riser
E2008S	22/8 Conductor Shielded Riser
E2010S	22/10 Conductor Shielded Riser
E2012S	22/12 Conductor Shielded Riser
E2102S	22/2 Conductor Shielded Plenum
E2104S	22/4 Conductor Shielded Plenum

Cable Solution	Description
E2106S	22/6 Conductor Shielded Plenum
E2108S	22/8 Conductor Shielded Plenum
E2032S	18/2 Conductor Shielded Riser
E2034S	18/4 Conductor Shielded Riser
E2036S	18/6 Conductor Shielded Riser
E2038S	18/8 Conductor Shielded Riser
E2202S	18/2 Conductor Shielded Plenum
E2204S	18/4 Conductor Shielded Plenum
E2206S	18/6 Conductor Shielded Plenum
E2208S	18/8 Conductor Shielded Plenum
E3004S-R	22/4 Conductor Plenum
E3006S-R	22/6 Conductor Plenum
E3042S-R	16/2 Conductor Plenum
E3034S-R	18/4 Conductor Plenum

CAROL® Composite Access Control Cable – Plenum* (3) Multi-Conductors • (1) Multi-Pair • Overall Jacket 60°C 300 Volt (UL) & C(UL) Type CMP

Catalog Number	Overall Nom. O.D. Inch (mm)	Comp. No.	Component Descriptions	Conductors Color Code	Component Nominal O.D. Inch (mm)	Insulation Thickness Inch (mm)
4EPL4S	0.430	1	4 Cond, 18 AWG, Shielded	White, Black, Red, Green	0.180 (4.572)	0.008 (0.2032)
		2	3 Pair, 22 AWG, Shielded	White & Green, Orange & Black, Red & Black	0.195 (4.93)	0.008 (0.2032)
		3	2 Cond, 22 AWG, Shielded	Red, Black	0.125 (3.175)	0.008 (0.2032)
		4	4 Cond, 22 AWG, Shielded	White, Black, Red, Green	0.145 (3.683)	0.008 (0.2032)
4EPL1S	0.420	1	4 Cond, 18 AWG, Unshielded	White, Black, Red, Green	0.180 (4.572)	0.008 (0.2032)
		2	3 Pair, 22 AWG, Unshielded	White & Green, Orange & Black, Red & Black	0.195 (4.93)	0.008 (0.2032)
		3	2 Cond, 22 AWG, Unshielded	Red, Black	0.125 (3.175)	0.008 (0.2032)
		4	4 Cond, 22 AWG, Unshielded	White, Black, Red, Green	0.145 (3.683)	0.008 (0.2032)

CAROL® Composite Access Control Cable – Riser* (3) Multi-Conductors • (1) Multi-Pair • Overall Jacket 60°C 300 Volt (UL) & C(UL) Type CMR

Catalog Number	Overall Nom. O.D. Inch (mm)	Comp. No.	Component Descriptions	Conductors Color Code	Component Nominal O.D. Inch (mm)	Insulation Thickness Inch (mm)
4ERS4S	0.430	1	4 Cond, 18 AWG, Shielded	White, Black, Red, Green	0.180 (4.572)	0.008 (0.2032)
		2	3 Pair, 22 AWG, Shielded	White & Green, Orange & Black, Red & Black	0.195 (4.93)	0.008 (0.2032)
		3	2 Cond, 22 AWG, Shielded	Red, Black	0.125 (3.175)	0.008 (0.2032)
		4	4 Cond, 22 AWG, Shielded	White, Black, Red, Green	0.145 (3.683)	0.008 (0.2032)
4ERS1S	0.420	1	4 Cond, 18 AWG, Unshielded	White, Black, Red, Green	0.180 (4.572)	0.008 (0.2032)
		2	3 Pair, 22 AWG, Unshielded	White & Green, Orange & Black, Red & Black	0.195 (4.93)	0.008 (0.2032)
		3	2 Cond, 22 AWG, Unshielded	Red, Black	0.125 (3.175)	0.008 (0.2032)
		4	4 Cond, 22 AWG, Unshielded	White, Black, Red, Green	0.145 (3.683)	0.008 (0.2032)

Video Surveillance/CCTV



Applications:

- CCTV
- Satellites
- Digital Video
- Analog Video
- Switchers/Multiplexers
- Digital Recorders
- Component Video



CATV/MATV/DBS RG 59, RG 6 and RG 11 Ratings

Cable Solution	Description
C3521	RG 6/U 18/1 FL + 95% TC CL2P
C3523	RG 6 SBC/Foil/61% TC Braid Plenum
C3524	RG 6 CCS/Foil/60% AL Braid Plenum
C3525	RG 6 CCS/Quad 60/40% AL Braid Plenum
C5761	RG 6 SBC Foil/95% BC Braid CATV/CM
C5775	RG 6 CCS/Foil/60% AL Braid CATV/CM
C5785	RG 6 CCS/Quad 60/40% AL Braid CATV/CM
C5886	RG 6 CCS/Foil/60% AL Braid CATVR/CMR
C5889	RG 6 CCS/Quad 60/40% AL Braid CATVR/CMR
C3528	RG 11 CCS/Foil/60%/AL Braid CATV/CMP Plenum
C5039	RG 11 CCS/Foil/60%/AL Braid CATV/CM
C5043	RG 11/U CCS Burial FL 60% AL
C5044	RG 11/U CCS Quad Shield CL2/CM
C1135	RG 59/U CCS 95% BC Braid CM
C3500	RG 59 CCS/95% BC Braid Plenum
C3526	RG 59/U CCS AMA/80% AL Braid CLP2/CMP

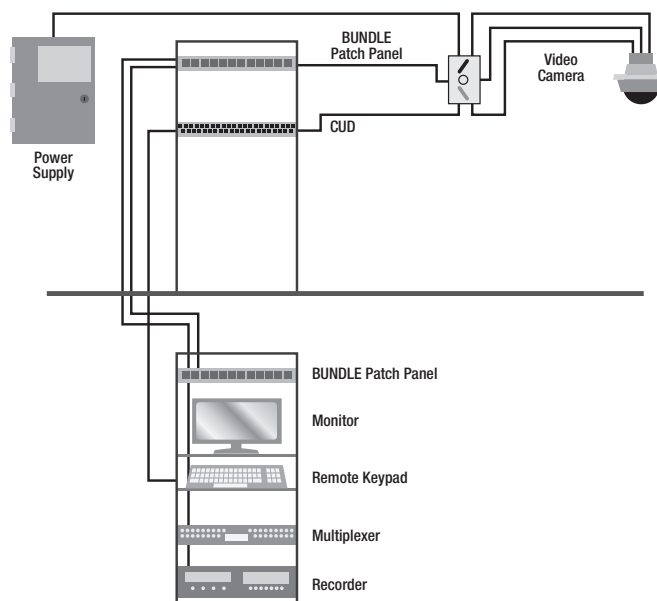
HDTV/SDI—Interconnect Cables RG 59, RG 6 and RG 11 Ratings

Cable Solution	Description
395011	RG 6 SBC/Foil/95% TC Braid CMR
495025	RG 6/U 18 AWG SBC 95% Dual Foil TC Braid CMP Plenum

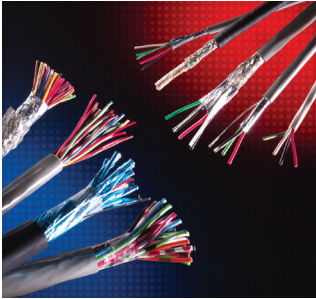
CCTV RG 59 and RG 11 Ratings

Cable Solution	Description
C8029	RG 6 + 18/2 Unshielded CATV/CM
C8031	RG 6/U SBC/95% + 18/2 Unshielded Pair CMP Plenum
495035	RG 6/U 18 AWG SBC 95% BC CMP Plenum
395058	RG 11 SBC/95% BC Braid CM
495015	RG 11 SBC/95% BC Braid CMP Plenum
C1103	RG 59 BC/95% BC Braid CATV/CM
C1142	RG 59 SBC/95% BC Braid CATV/CM
C8025	RG 59/U STR (7/30) BC/95% + 22/2 SH Pair CCTV/CM
C8027	RG 59 + 18/2 Shielded CATV/CM
C8028	RG 59 + 18/2 Unshielded CATV/CM
C8030	RG 59/U SBC/95% + 18/2 Unshielded Pair CCTV Plenum

VIDEO SURVEILLANCE APPLICATIONS



Multi-Media and Burglar Alarms



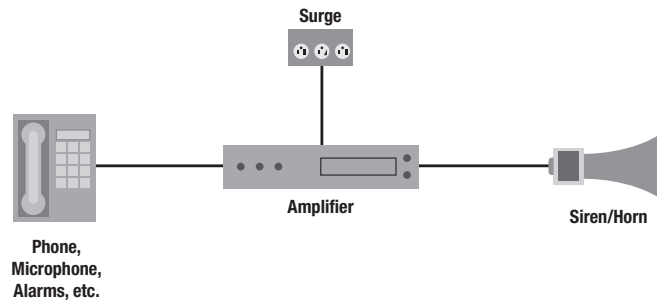
Applications:

- Intercoms
- PA Systems
- Sound Systems
- Emergency
- Phones
- Speakers
- Burglar Alarms
- Home Theater

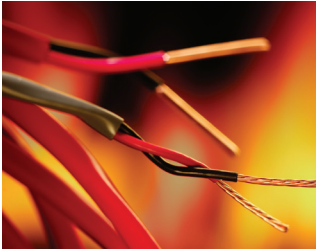


Cable Solution	Description
E1002S	22/2 Conductor Riser
E1004S	22/4 Conductor Riser
C4408	22/2 Solid Conductor CMR/CMX
C4408ST	22/2 Stranded Conductor CMR/CMX
C4412	22/4 Solid Conductor Solid CMR/CMX
C4412ST	22/4 Stranded Conductor CMR/CMX
E1006S	22/6 Conductor Riser
E1008S	22/8 Conductor Riser
E1032S	18/2 Conductor Riser
E1034S	18/4 Conductor Riser
E1042S	16/2 Conductor Riser
E1044S	16/4 Conductor Riser
E1052S	14/2 Conductor Riser
E1054S	14/4 Conductor Riser
E1062S	12/2 Conductor Riser
E1064S	12/4 Conductor Riser

Cable Solution	Description
C1000	Command® Series Twisted Pair Speaker, 22/2, 7x30 Stranding, 500' Reels
C1001	Command Series Twisted Pair Speaker, 20/2, 7x28 Stranding, 500' Reels
C1002	Command Series Twisted Pair Speaker, 18/2, 7x26 Stranding, 500' Reels
C1003	Command Series Twisted Pair Speaker, 16/2, 19x29 Stranding, 500' Reels
C1004	Command Series Twisted Pair Speaker, 14/2, 42x30 Stranding, 500' Reels
C1005	Command Series Twisted Pair Speaker, 12/2, 65x30 Stranding, 500' Reels
C1362	22/2 Conductor Zip (not for inwall use)
C1357	18/2 Conductor Zip (not for inwall use)
C1458	16/2 Conductor Zip CL2
C1461	14/2 Conductor Zip CL2
C1463	12/2 Conductor Zip CL2
C1702	14/2 Command Series Home Grade Speaker
C1703	14/4 Command Series Home Grade Speaker
C1704	16/2 Command Series Home Grade Speaker
C1705	16/4 Command Series Home Grade Speaker
C1800	Command Series "High Def" Speaker Type NEC, 12/2, 105x32 Stranding, 500' Reels
C1801	Command Series "High Def" Speaker Type NEC, 12/4, 105x32 Stranding, 500' Reels
C1802	Command Series "High Def" Speaker Type NEC, 14/2, 105x34 Stranding, 500' Boxes
C1803	Command Series "High Def" Speaker Type NEC, 14/4, 105x34 Stranding, 500' Reels
C1804	Command Series "High Def" Speaker Type NEC, 16/2, 65x34 Stranding, 500' Boxes
C1805	Command Series "High Def" Speaker Type NEC, 16/4, 65x34 Stranding, 500' Boxes

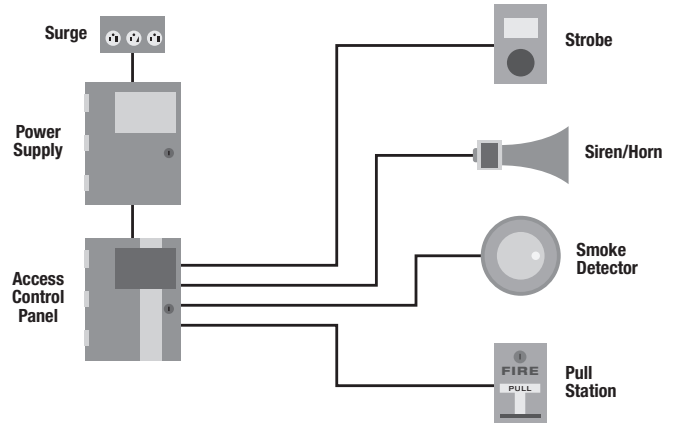


Fire Alarm and Life Safety



Applications:

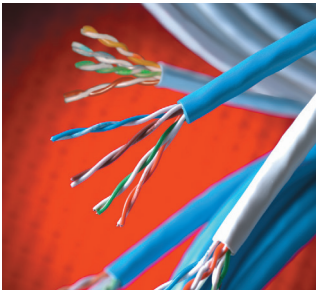
- Smoke Detectors
- Strobes/Sirens
- Pull Stations
- Microprocessor/Addressable Controlled Systems



Cable Solution	Description
E1502S	18/2 Conductor Riser FPLR
E1504S	18/4 Conductor Riser FPLR
E1512S-R	16/2 Conductor Riser FPLR
E1522S	14/2 Conductor Riser FPLR
E1524S	14/4 Conductor Riser FPLR
E2502S	18/2 Conductor Shielded Riser FPLR
E2504S	18/4 Conductor Shielded Riser FPLR
E2532S	14/2 Conductor Shielded Riser FPLR
E2534S	14/4 Conductor Shielded Riser FPLR
E3502S	18/2 Conductor Plenum FPLP
E3504S	18/4 Conductor Plenum FPLP
E3512S-R	18/2 Conductor Plenum FPLP

Cable Solution	Description
E3522S	14/2 Conductor Plenum FPLP
E3524S	14/4 Conductor Plenum FPLP
E3602S	18/2 Conductor Shielded Plenum FPLP
E3604S	18/4 Conductor Shielded Plenum FPLP
E3612S-R	16/2 Conductor Shielded Plenum FPLP
E3622S	14/2 Conductor Shielded Plenum FPLP
E3624S	14/4 Conductor Shielded Plenum FPLP

Helix/Hi-Temp® Data Communications



Applications:

- Telephones
- Cat 5e and 6
- Connections
- Networking
- Workstations
- Video Conferencing
- Telco Closets
- Home Automation
- IP Cameras

Cable Solution	Description
2133009	Cat 3 24/2 Pair Riser
2133013	Cat 3 24/3 Pair Riser
2133017	Cat 3 24/4 Pair Riser
2133021	Cat 3 24/6 Pair Riser
2133033	Cat 3 24/25 Pair Riser
2131243	Cat 3 24/2 Pair Plenum
2131244	Cat 3 24/3 Pair Plenum
2131245	Cat 3 24/4 Pair Plenum
2131246	Cat 3 24/6 Pair Plenum
2131505	Cat 3 24/25 Pair Plenum

Jacket Color	Pull-Pac®		Spool-Pac®	
	CMR (Non Plenum)	CMP (Plenum)	CMR (Non Plenum)	CMP (Plenum)
Blue	CR5.30.07	CP5.30.07	CR5.A3.07	CP5.A3.07
White	CR5.30.02	CP5.30.02	CR5.A3.02	CP5.A3.02
Gray	CR5.30.10	CP5.30.10	CR5.A3.10	CP5.A3.10
Green	CR5.30.06	CP5.30.06	CR5.A3.06	CP5.A3.06
Yellow	CR5.30.05	CP5.30.05	CR5.A3.05	CP5.A3.05
Red	CR5.30.03	CP5.30.03	CR5.A3.03	CP5.A3.03
Black	CR5.30.01	CP5.30.01	CR5.A3.01	CP5.A3.01

Jacket Color	Pull-Pac®		Spool-Pac®	
	CMR (Non Plenum)	CMP (Plenum)	CMR (Non Plenum)	CMP (Plenum)
Blue	CR6.30.07	CP6.30.07	CR6.A3.07	CP6.A3.07
White	CR6.30.02	CP6.30.02	CR6.A3.02	CP6.A3.02
Gray	CR6.30.10	CP6.30.10	CR6.A3.10	CP6.A3.10
Green	CR6.30.06	CP6.30.06	CR6.A3.06	CP6.A3.06
Yellow	CR6.30.05	CP6.30.05	CR6.A3.05	CP6.A3.05
Red	CR6.30.03	CP6.30.03	CR6.A3.03	CP6.A3.03
Black	CR6.30.01	CP6.30.01	CR6.A3.01	CP6.A3.01