







Master Catalog



-  Communication & Control
-  Audio
-  Networking
-  Video
-  Security
-  Specialty Applications

Your Link to Connectivity

West Penn Wire (WPW) designs and manufactures wires, cables, harnesses, and related products for small, mid-size, and Fortune 500 companies worldwide. WPW was established in 1971 and is a Belden brand. (NYSE: BDC)

Our design, engineering, and manufacturing excellence enable customers to obtain solutions that meet the most demanding requirements for data, audio, and video applications.

We complement our standard offerings with custom solutions for commercial, healthcare, education, institutional, and entertainment facilities.

Contact us:

West Penn Wire

480 Johnson Rd., Suite 220
Washington, PA 15301

Toll Free: **800-245-4964**

sales@westpennwire.com



Environmental Compliance: RoHs

To meet global environmental product requirements that are in part specified by the European Union's Restriction of Hazardous Substances (RoHS) Directive, the European Union's End-of-Life Vehicles Directive (ELV), the European Union's Waste from Electrical and Electronic Equipment (WEEE) Directive and California Proposition 65, West Penn Wire developed restricted materials specifications to encompass all raw materials, parts, components and products that are ultimately incorporated into West Penn Wire products.







TABLE OF CONTENTS





Low-Voltage Communication & Control Cables

	Non-Plenum Communication & Control Cables	1-17
	Plenum Communication & Control Cables	18-27

Audio Cables & Accessories

	ProAudio - Line- / Mic-Level Audio Cables.....	28-34
	ProAudio Accessories.....	35-38
	Speaker-Level Cables	39-43
	Speaker-Level Accessories	44

Networking Cables & Accessories

	Network Cables & Accessories (Cat 7, Cat 6, Cat 6A, Cat 5e)	45-52
	Serial Digital Data Cables	53-57
	Fiber Optic Cables	58-60
	Fiber Optic Accessories	61-66



Video Cables & Accessories

	Digital Video Cables HD-SDI & Accessories.....	67-72
	Analog CCTV Cables.....	73-78
	CCTV Accessories	79-81
	CATV/MATV Cables & Accessories.....	82-87
	RF 50 Ω Coaxial Cables	88-90

Security Cables & Accessories

	Fire Alarm Cables.....	91-98
	Access Control Cables.....	100-110

Specialty Applications

	Aquaseal® Water-Resistant Cables	111-118
	Halogen-Free Cables	119-121

Technical Reference

	Technical Reference.....	122-133
---	--------------------------	---------

COMMUNICATION AND CONTROL



- Non-Plenum
- Plenum

COMMUNICATION AND CONTROL

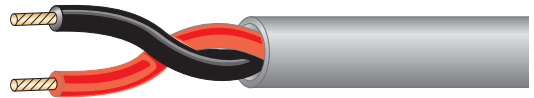
Low-Voltage & Control - Non-Plenum

Two-Conductor Unshielded	1
Three-Conductor Unshielded	2
Four-Conductor Unshielded	3
Multiple-Conductor 22 AWG Unshielded.....	4
Multiple-Conductor 18 AWG Unshielded.....	5
Multiple-Conductor 22 AWG Shielded	6
Multiple-Conductor 20 AWG Shielded	7
Multiple-Conductor 18 - 16 AWG Overall Shielded	8
Two-Conductor Shielded	9
Three-Conductor Shielded	10
Sound and Audio.....	11
Miniature Audio Cables Shielded	12
Media Control Cables.....	13
Multiple Pair - Overall Shielded.....	14-15
Multiple Pair - Individually Shielded.....	16-17

Low-Voltage & Control - Plenum

Two-Conductor Unshielded	18
Multiple-Conductor Unshielded.....	19-21
Two-Conductor Shielded	22
Multiple-Conductor Shielded	23-24
Shielded / Unshielded	25
Multiple Pair - Individually Shielded.....	26
LED Dimming Light Cables.....	27

Two Conductor / Unshielded



Applications:

- Indoor for:
- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Short Overall Twist Lengths
- Overall PVC Jacket

Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
220	2	22 AWG Solid 17.5 Ω/Mft	.008	None	.017	.118	CMR	--
221	2	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.120	CMR	--
222	2	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.017	.138	CMR	--
224	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.156	CMR	--
225	2	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.017	.182	CMR	--
226	2	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.017	.230	CL3R	--
227	2	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.017	.260	CL3R	--

Insulation Color Code	
Primary Color Code	
220, 221, 222, 224, 225	226, 227
1. Black	1. Black
2. Red	2. White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Selected Plenum Versions, see Plenum Section
- Selected Indoor/Outdoor **Aquaseal Water Resistant®** Versions, see Aquaseal Catalog Section
- Zero-Halogen Versions
- Cables are packaged in our Advantage Box
- Larger AWG sizes may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



Three Conductor / Unshielded



Applications:

- Indoor for:
- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
230	3	22 AWG Solid 17.5 Ω/Mft	.008	None	.017	.125	CMR	--
231	3	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.130	CMR	--
232	3	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.017	.146	CMR	--
234	3	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.168	CMR	--
235	3	16 AWG (19x29) 4.2 Ω/Mft	.009	None	.017	.198	CMR	--
236	3	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.017	.240	CL3R	--
238	3	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.017	.281	CL3R	--

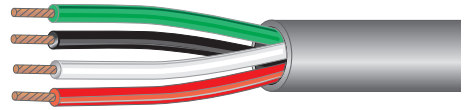
Insulation Color Code
Primary Color Code
1. Black
2. Red
3. White

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes may be on a reel
- Speaker Connectors are listed in Speaker Level Section
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Four Conductor / Unshielded



Applications:

- Indoor for:
- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
240	4	22 AWG Solid 17.5 Ω/Mft	.008	None	.017	.134	CMR	--
241	4	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.138	CMR	--
242	4	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.017	.159	CMR	--
244	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.183	CMR	--
245	4	16 AWG (19x29) 4.2 Ω/Mft	.009	None	.017	.217	CMR	--
246	4	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.017	.278	CL3R	--
248	4	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.017	.320	CL3R	--

Insulation Color Code
Primary Color Code
1. Black
2. Red
3. White
4. Green

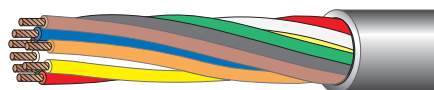
Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



Multiple Conductor 22 AWG / Unshielded



Applications:

- Indoor for:
 - Speaker Level
 - Audio Circuits
 - Low-Voltage Power
 - Instrumentation and Control
 - Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
855	5	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.150	CMR	--
270	6	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.163	CMR	--
271	8	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.176	CMR	--
272	10	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.218	CMR	--
274	15	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.251	CMR	--

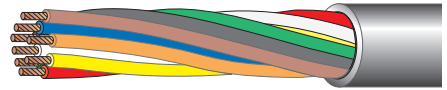
Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

18 AWG Multiple Conductor / Unshielded



Applications:

- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
280	5	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.205	CMR	--
281	7	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.225	CMR	--
282	9	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.263	CMR	--
283	12	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.298	CMR	--
284	15	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.020	.348	CMR	--
285	20	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.020	.372	CMR	--

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	16. White/Orange
3. White	10. Gray	17. White/Blue
4. Green	11. Pink	18. White/Brown
5. Brown	12. Tan	19. White/Yellow
6. Blue	13. White/Black	20. White/Purple
7. Orange	14. White/Red	

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



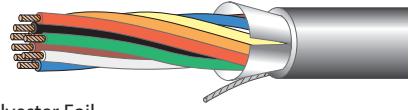
22 AWG Multiple Conductor / Overall Shielded

Applications:

- Indoor for:
- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Access Control - Reader
- Division 27 51 00
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3241	4	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.142	CMR	55 pf/ft* 99 pf/ft**
3855	5	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.154	CMR	55 pf/ft* 99 pf/ft**
3270	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.167	CMR	55 pf/ft* 99 pf/ft**
3271	8	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.182	CMR	55 pf/ft* 99 pf/ft**
3272	10	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.017	.222	CMR	55 pf/ft* 99 pf/ft**
3274	15	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.020	.255	CMR	55 pf/ft* 99 pf/ft**

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

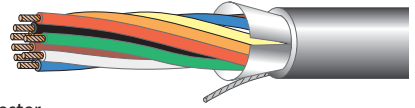
Multiple Conductor 20 AWG / Overall Shielded

Applications:

- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3011	4	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.163	CMR	60 pf/ft* 108 pf/ft**
3262	5	20AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.179	CMR	60 pf/ft* 108 pf/ft**
3263	7	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.198	CMR	60 pf/ft* 108 pf/ft**
3264	9	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.229	CMR	60 pf/ft* 108 pf/ft**
3265	12	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.259	CMR	60 pf/ft* 108 pf/ft**

Insulation Color Code	
Primary Color Code	
1. Black	7. Orange
2. Red	8. Yellow
3. White	9. Purple
4. Green	10. Gray
5. Brown	11. Pink
6. Blue	12. Tan

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



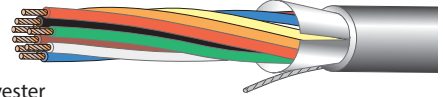
18 & 16 AWG Multiple Conductor / Overall Shielded

Applications:

- Indoor for:
- Audio Circuits
 - Low-Voltage Power
 - Access Control - Reader
 - Division 27 51 00
 - Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3244	4	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.187	CMR	68 pf/ft* 122 pf/ft
3280	5	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.209	CMR	68 pf/ft* 122 pf/ft
3021	6	18 AWG (7x26) 6.6 Ω/Mft	.008	Al. Foil 100%	.017	.225	CMR	68 pf/ft* 122 pf/ft
3281	7	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.230	CMR	68 pf/ft* 122 pf/ft
3282	9	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil 100%	.017	.267	CMR	68 pf/ft* 122 pf/ft
3283	12	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil 100%	.017	.302	CMR	68 pf/ft* 122 pf/ft
3245	4	16 AWG (19x29) 4.2 Ω/Mft	.008	Al. Foil 100%	.017	.225	CMR	75 pf/ft* 140 pf/ft

* Capacitance between conductors

Insulation Color Code	
Primary Color Code	
1. Black	7. Orange
2. Red	8. Yellow
3. White	9. Purple
4. Green	10. Gray
5. Brown	11. Pink
6. Blue	12. Tan

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord
- Selected Indoor/Outdoor **Aquaseal Water Resistant**® Versions, see Aquaseal Section
- 500 ft put-up lengths may be available, minimum quantities may apply



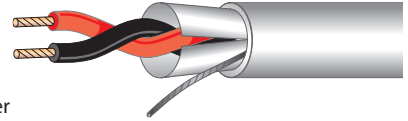
Twisted-Pair Overall Shielded / Two Conductor

Applications:

- Indoor for:
- Audio Circuits
- Low-Voltage Power
- Intercom Audio
- Line-Level Audio
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Tinned Copper Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
290	2	22 AWG Solid 17.5 Ω/Mft	Polypropylene .008	Al. Foil 100% 22 Solid	PVC .017	.120	CMR	55 pf/ft* 99 pf/ft**
291	2	22 AWG (7x30) 17 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.127	CMR	55 pf/ft* 99 pf/ft**
292	2	20 AWG (7x28) 10.5 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.140	CMR	60 pf/ft* 108 pf/ft**
293	2	18 AWG (7x26) 6.2 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.160	CMR	68 pf/ft* 122 pf/ft
294	2	16 AWG (19x29) 4.1 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.186	CMR	75 pf/ft* 140 pf/ft
295	2	14 AWG (19x27) 2.7 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.234	CL3R	76 pf/ft* 137 pf/ft
296	2	12 AWG (19x25) 1.7 Ω/Mft	Polypropylene .008	Al. Foil 100% 24 Standard	PVC .017	.265	CL3R	88 pf/ft* 158 pf/ft

* Capacitance between conductors

** Capacitance between one conductor and the other connected to the shield

Insulation Color Code	
Primary Color Code	
290, 291, 292, 293, 294	295, 296
1. Black	1. Black
2. Red	2. White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Selected Plenum Versions, see Plenum Section
- Selected Indoor/Outdoor **Aquaseal Water Resistant**® Versions, see Aquaseal Section
- Professional-Grade Versions
- Halogen-Free Version
- Cables are packaged in our Advantage Box
- Larger AWG sizes cables and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



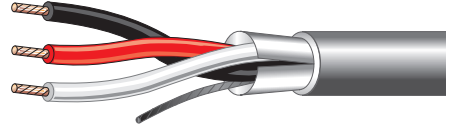
Three Conductor / Overall Shield

Applications:

- Indoor for:
- Audio Circuits
- Low-Voltage Power
- Intercom Audio
- Line-Level Audio

Description:

- ASTM Bare Copper
- Thermoplastic Insulation 100% Coverage of Aluminum Polyester Foil with Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
300	3	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil 100% 22 Solid	.017	.130	CMR	55 pf/ft* 99 pf/ft**
301	3	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100% 24 Standard	.017	.138	CMR	55 pf/ft* 99 pf/ft**
302	3	20 AWG (7x28) BC 10.1 Ω/Mft	.008	Al. Foil 100% 24 Standard	.017	.152	CMR	60 pf/ft* 108 pf/ft**
303	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100% 24 Standard	.017	.174	CMR	68 pf/ft* 122 pf/ft**

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White

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

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

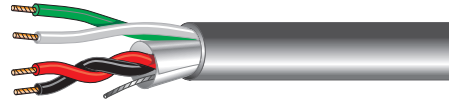
Sound and Audio / Special Cable

Applications:

- Indoor for:
 - Audio Circuits
 - Low-Voltage Power
 - Intercom Audio

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Unshielded / Shielded Pair 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil 100% 22 Solid	.017	.157	CMR	55 pf/ft* 99 pf/ft**
352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100% 24 Standard	.017	.162	CMR	55 pf/ft* 99 pf/ft**
355	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	.007	Al. Foil 100% 22 Solid	.017	.150	CMR	55 pf/ft* 99 pf/ft**
356	4 (2 Shld) (2 Unshld)	20 (7x28) 18 (7x26)	.008	Al. Foil 100% 24 Standard	.017	.196	CMR	60 pf/ft* 108 pf/ft**
357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100% 24 Standard	.017	.162	CMR	55 pf/ft* 99 pf/ft**
358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	.008	Al. Foil 100% 22 Standard	.017	.182	CMR	60 pf/ft* 108 pf/ft**
359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	.008	Al. Foil 100% 22 Standard	.017	.186	CMR	60 pf/ft* 108 pf/ft**
360	4 (2 Shld) (2 Unshld)	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100% 22 Standard	.017	.205	CMR	68 pf/ft* 122 pf/ft**
369	6 (2 Shld) (4 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil 100% 22 Solid	.017	.170	CMR	55 pf/ft* 99 pf/ft**
373	6 (1 Shld. Pr.) (2 Unshld. Pr.)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil 100% 22 Solid	.017	.195	CMR	--

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

Insulation Color Code			
Primary Color Code	351, 352, 355, 356, 357, 358, 359, 360	369	373
Unshielded	1. White, 2. Green	1. White, 2. Green, 3. Brown, 4. Blue	1. Black/Green 2. Black/White
Shielded	1. Black, 2. Red	1. Black, 2. Red	1. Black, 2. Red

Notes:

- Selected Plenum Versions, see Plenum Section
- Selected Indoor/Outdoor [Aquaseal Water Resistant](#) Versions, see Aquaseal Section
- Cables are packaged in our Advantage Box
- Orange rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



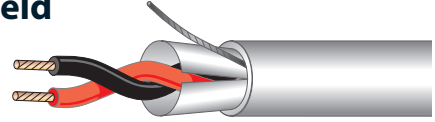
22 AWG Miniature Audio Cable / Overall Shield

Applications:

- Indoor for:
- Audio Circuits
- Low-Voltage Power
- Line-Level Audio
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Tinned Copper Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
450	2	22 AWG Solid 17.5 Ω/Mft	.006	Al. Foil 100% 22 Solid	.020	.118	CMR	34 pf/ft* 67 pf/ft**
451	3	22 AWG Solid 17.5 Ω/Mft	.006	Al. Foil 100% 22 Solid	.020	.130	CMR	34 pf/ft* 67 pf/ft**
452	2	22 AWG (7x30) 17 Ω/Mft	.008	Al. Foil 100% 24 Standard	.020	.135	CMR	32 pf/ft* 58 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red
3. White

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

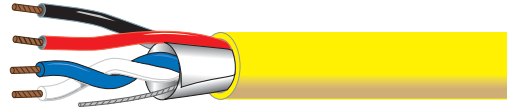
Notes:

- Cables are packaged in our Advantage Box
- Orange rip cord
- Professional-Grade Versions

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Media Control Cable

Specialized Control Systems



Applications:

- Indoor for:
- Communication Bus
- Low-Voltage Power
- Media Control Circuits
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Bare Copper
- Foam Polyolefin Insulation (Data Pair), Thermoplastic (Control Pair)
- Short Overall Twist Lengths
- (Data Pair) Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire, (Control Pair) Unshielded
- Overall PVC Jacket

Rating:

- NEC Type CMR (77350) and CMP (D25350)
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666 or NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
77350	4 (2 Shld)	22 AWG (7x30) 17 Ω/Mft	Polyolefin .025	Al. Foil-100% drain wire	PVC .030	.255	CMR	12.5 pf/ft* 22.5 pf/ft**
	(2 Unshld)	18 AWG (7x26) 6.2 Ω/Mft	.018	None				
D25350	4 (2 Shld)	22 AWG (7x30) 17 Ω/Mft	Foam FEP .022	Al. Foil-100% drain wire	Flexible Polymer Alloy .015	.206	CMP	12.5 pf/ft* 22.5 pf/ft**
	(2 Unshld)	18 AWG (7x26) 6.2 Ω/Mft	Polymer Alloy .008	None				

Insulation Color Code		
Primary Color Code	77350	D25350
	22 AWG Pair: Blue/White 18 AWG Control: Red/Black	22 AWG Pair: Blue/White 18 AWG Control: Red/Black

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

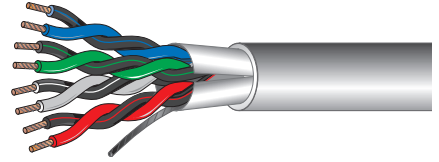
- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Cross Reference			
WPW Catalog Number	Crestron	Liberty	Extron
77350	CRESNET NP	LLINX-U	22-148-03
D25350	CRESNET P	LLINX-U-P	22-119-03



22 AWG Multiple Pair / Overall Shielded



Applications:

Indoor for:

- Audio Circuits
- Low-Voltage Power
- Intercom Systems
- Access Control
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3651	2	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.020	.196	CMR	55 pf/ft* 99 pf/ft**
3652	3	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.020	.209	CMR	55 pf/ft* 99 pf/ft**
3653	4	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.020	.229	CMR	55 pf/ft* 99 pf/ft**
3654	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.020	.288	CMR	55 pf/ft* 99 pf/ft**

Insulation Color Code	
Pair Color Code	
Pair 1.	Black/Red-Red
Pair 2.	Black/White-White
Pair 3.	Black/Green-Green
Pair 4.	Black/Blue-Blue
Pair 5.	Black/Yellow-Yellow
Pair 6.	Black/Brown-Brown

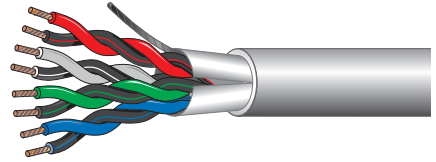
Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Orange rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Multiple Pair 18 AWG / Overall Shielded



Applications:

- Indoor for:
- Audio Circuits
- Low-Voltage Power
- Intercom Systems
- Access Control
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3751	2	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.261	CMR	68 pf/ft* 122 pf/ft**
3752	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.281	CMR	68 pf/ft* 122 pf/ft**
3753	4	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.315	CMR	68 pf/ft* 122 pf/ft**

Insulation Color Code

Pair Color Code

- Pair 1. Black/Red-Red
- Pair 2. Black/White-White
- Pair 3. Black/Green-Green
- Pair 4. Black/Blue-Blue

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964

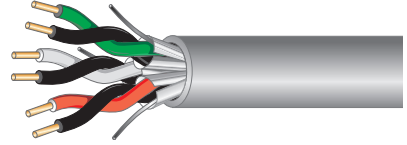
- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Cables are packaged in our Advantage Box
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



22 AWG Multiple Pair / Each Pair Shielded



Applications:

- Indoor for:
- Audio Circuits
 - Low-Voltage Power
 - Line-Level Audio
 - Audio Rack Cabling
 - Division 27 41 00
 - Division 27 51 00

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Each Pair Shielded 100% Coverage of Aluminum Polyester Foil with 22 AWG Solid Tinned Copper Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket

Rating:

- NEC Type CM
- UL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
420	2		.008	Al. Foil 100%	.017	.195	CM	55 pf/ft* 99 pf/ft
422	6	22 AWG Solid 17.5 Ω/mft	.008	Al. Foil 100%	.017	.285	CM	55 pf/ft* 99 pf/ft

* Capacitance between conductors

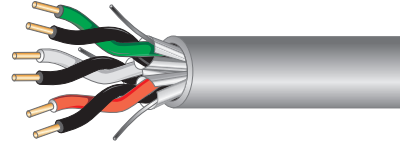
Insulation Color Code	
Pair Color Code	
Pair 1.	Black/Red-Red
Pair 2.	Black/White-White
Pair 3.	Black/Green-Green
Pair 4.	Black/Blue-Blue
Pair 5.	Black/Yellow-Yellow
Pair 6.	Black/Brown-Brown

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Selected Indoor/Outdoor Aquaseal Water Resistant* Versions
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord

18 AWG Multiple Pair / Each Pair Shielded



Applications:

- Indoor for:
- Audio Circuits
- Low-Voltage Power
- Line-Level Audio
- Audio Rack Cabling

Description:

- ASTM Tinned Copper
- Polyolefin Insulation
- Each Pair Shielded 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket

Rating:

- NEC Type CM
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D440	2	18 AWG (7x26) 6.6 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.268	CM	42 pf/ft* 76 pf/ft**
D441	3	18 AWG (7x26) 6.6 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.285	CM	42 pf/ft* 76 pf/ft**
D442	4	18 AWG (7x26) 6.6 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.312	CM	42 pf/ft* 76 pf/ft**

Insulation Color Code

Pair Color Code

- Pair 1. Black/Red-Red
- Pair 2. Black/White-White
- Pair 3. Black/Green-Green
- Pair 4. Black/Blue-Blue

Electrical Characteristics

Nom. Velocity of Propagation - 66%

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher paired cables may be on a reel
- Rip cord



Two Conductor / Unshielded

Applications:

- Indoor for:
- Plenum Spaces
- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Short Overall Twist Lengths
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP or CL2P
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: NFPA 262 Smoke & Flame Test



Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25221B	2	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.116	CMP	--
25222B	2	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.015	.134	CMP	--
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.154	CMP	--
25225B	2	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.015	.176	CMP	--
25226B	2	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.015	.218	CL2P	--
25227B	2	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.015	.256	CL2P	--

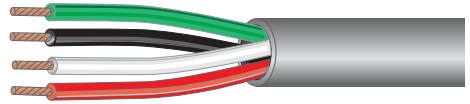
Insulation Color Code
Primary Color Code
1. Black
2. Red

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- Speaker Connectors Listed in Speaker Section
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Multiple Conductor / Unshielded - 22 AWG



Applications:

Indoor within ducts, plenums, and other spaces used for environmental air:

- Speaker Level
- Audio Circuits
- Low-Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Standard spool size, 1000 ft

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: NFPA 262 Smoke & Flame Test

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25231B	3	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.127	CMP	--
25240B	4	22 AWG Solid 17 Ω/Mft	.007	None	.015	.136	CMP	--
25241B	4	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.136	CMP	--
25855B	5	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.146	CMP	--
25270B	6	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.157	CMP	--
25271B	8	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.172	CMP	--
25272B	10	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.213	CMP	--
25273B	12	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.220	CMP	--
25274B	15	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.246	CMP	--

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



Multiple Conductor / Unshielded

16, 18 and 20 AWG



Applications:

Indoor within ducts, plenums, and other spaces used for environmental air:

- Intercom Systems
- Security Systems
- Sound and Audio
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V NEC Requirements
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25232B	3	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.015	.142	CMP	--
25242B	4	20 AWG (7x28) 10.5 Ω/Mft	.008	None	.015	.156	CMP	--
25234B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.162	CMP	--
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.180	CMP	--
25186B	6	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.216	CMP	--
25188B	8	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.235	CMP	--
25235B	3	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.015	.191	CMP	--
25245B	4	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.015	.208	CMP	--

Insulation Color Code	
Primary Color Code	
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	8. Yellow

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- 500 ft put-up lengths may be available, minimum quantities may apply

Multiple Conductor / Unshielded

14 and 12 AWG



Applications:

- Indoor within ducts, plenums, and other spaces used for environmental air:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Flex Plenum Jacket

Rating:

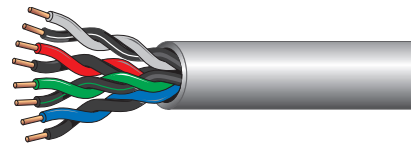
- NEC Type CL2P
- UL Listed
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25236B	3	14 AWG (19x27) 2.7 Ω/Mft	Polymer alloy .010	None	Flex Plenum .015	.236	CL2P	--
25246B	4	14 AWG (19x27) 2.7 Ω/Mft	Polymer alloy .010	None	Flex Plenum .015	.260	CL2P	--
25248B	4	12 AWG (19x25) 1.7 Ω/Mft	Polymer alloy .010	None	Flex Plenum .015	.304	CL2P	--

Plenum Communication & Control Cable Multiple Pair/ Unshielded

18 AWG Plenecon II[®] Extra Flexible



Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair Construction
- Overall Plenum PVC Jacket

Rating:

- NEC Type CMP

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25751B	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.253	CMP	--
25752B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.275	CMP	--
25753B	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.304	CMP	--

Insulation Color Code

Primary Color Code
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green
4. Black/Blue-Blue

Jacket Color Code

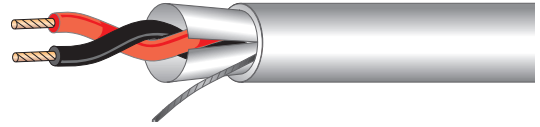
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box



Two Conductor / Shielded



Applications:

- Indoor within ducts, plenums, and other spaces used for environmental air:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Short Overall Twist Lengths
- Overall Shield Coverage 100% Aluminum Polyester Foil with Tinned Copper Drain Wire
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP or CL2P
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25290B	1	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.015	.116	CMP	54 pf/ft* 97 pf/ft**
25291B	1	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.124	CMP	55 pf/ft* 99 pf/ft**
25292B	1	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.138	CMP	60 pf/ft* 108 pf/ft**
25293B	1	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.156	CMP	68 pf/ft* 122 pf/ft**
25294B	1	16 AWG (19x29) 4.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.178	CMP	75 pf/ft* 140 pf/ft**
25295B	1	14 AWG (19x27) 2.7 Ω/Mft	.010	Al. Foil - 100% 24 Standard	.015	.222	CL2P	76 pf/ft* 137 pf/ft**
25296B	1	12 AWG (19x25) 1.7 Ω/Mft	.010	Al. Foil - 100% 24 Standard	.015	.260	CL2P	88 pf/ft* 158 pf/ft**
HT25293	1	18 AWG (19x30) 6.2 Ω/Mft	.008 FEP	Al. Foil - 100% 20 Standard	.014	.146	CMP Outdoor	51 pf/ft* 97 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red

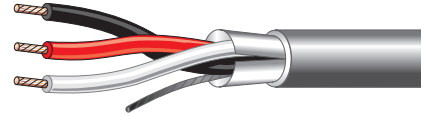
* Capacitance between conductors
 ** Capacitance between one conductor and the other connected to the shield

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- 500 ft put-up lengths may be available, minimum quantities may apply

Multiple Conductor / Shielded 22 AWG



Applications:

- Indoor within ducts, plenums, and other spaces used for environmental air:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Shield Coverage 100% Aluminum Polyester Foil with Tinned Copper Drain Wire
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25300B	3	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.015	.122	CMP	54 pf/ft* 97 pf/ft**
25301B	3	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.130	CMP	55 pf/ft* 99 pf/ft**
253241B	4	22 AWG (7x30) 17Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.141	CMP	55 pf/ft* 99 pf/ft**
253855B	5	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.154	CMP	55 pf/ft* 99 pf/ft**
253270B	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.162	CMP	55 pf/ft* 99 pf/ft**
253271B	8	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.184	CMP	55 pf/ft* 99 pf/ft**
253272B	10	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.213	CMP	55 pf/ft* 99 pf/ft**
253274B	15	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.244	CMP	55 pf/ft* 99 pf/ft**

Insulation Color Code

Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code

Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

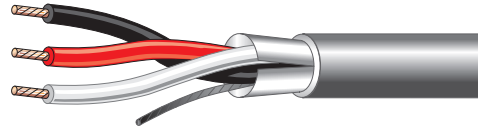
- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- 500 ft put-up lengths may be available, minimum quantities may apply



Multiple Conductor / Shielded 18 and 20 AWG



Applications:

- Indoor within ducts, plenums, and other spaces used for environmental air:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Shield Coverage 100% Aluminum Polyester Foil with Tinned Copper Drain Wire
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25302B	3	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.145	CMP	60 pf/ft* 108 pf/ft**
25303B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.166	CMP	68 pf/ft* 122 pf/ft**
253244B	4	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.182	CMP	68 pf/ft* 122 pf/ft**
253186B	6	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.221	CMP	68 pf/ft* 122 pf/ft**
253188B	8	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.244	CMP	68 pf/ft* 122 pf/ft**

Insulation Color Code	
Primary Color Code	
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	8. Yellow

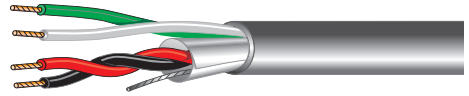
* Capacitance between conductors
 ** Capacitance between one conductor and the other connected to the shield

Notes:

- Plenum Installation Precautions, see Technical Reference Section
- Cables are packaged in our Advantage Box
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Combination / Shielded and Unshielded



Applications:

Indoor within ducts, plenums, and other spaces used for environmental air:

- Intercom Systems
- Security Systems
- Sound and Audio
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Unshielded/Shielded Coverage Polyester Foil with Tinned Copper Drain Wire
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25352B	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.156	CMP	55 pf/ft* 99 pf/ft**
25355B	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.015	.145	CMP	54 pf/ft* 97 pf/ft**
25357B	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.154	CMP	55 pf/ft* 99 pf/ft**
25358B	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	.008	Al. Foil - 100% Standard Drain	.015	.176	CMP	60 pf/ft* 108 pf/ft**
25359B	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	.008	Al. Foil - 100% Standard Drain	.015	.180	CMP	60 pf/ft* 108 pf/ft**
25372B	5 (3 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.015	.172	CMP	54 pf/ft* 97 pf/ft**

Insulation Color Code		
Primary Color Code	All Cables	25372B
Unshielded	1. White, 2. Green	1. Black, 2. Red, 3. White
Shielded	1. Black, 2. Red	1. Black, 2. Green

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

Notes:

- Cables are packaged in our Advantage Box
- Plenum Installation Precautions, see Technical Reference Section
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



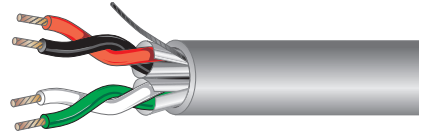
Multiple Pair / Individually Shielded Pairs

Applications:

- Indoor within ducts, plenums and other spaces used for environmental air:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair Construction
- Each Pair Shielded 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Short Overall Twist Construction
- Overall Flex Plenum Jacket



Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25510B	2	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.015	.195	CMP	55 pf/ft* 99 pf/ft**
25440B	2	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.253	CMP	68 pf/ft* 122 pf/ft**
25441B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.015	.278	CMP	68 pf/ft* 122 pf/ft**

Insulation Color Code 25510B & 25440B
Primary Color Code
1. Black
2. Red
3. White
4. Green

Insulation Color Code 25441B
Primary Color Code
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green

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

Notes: 25510B & 25440B

- Employs individually shielded pairs with one strd. drain wire common to all shields to ensure greater shielding and lower DC resistance

Notes: 25441B

- Employs individually shielded pairs with a strd. drain wire for each pair

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

LED Dimming Light Cables

Applications:

- Indoor within ducts, plenums and other spaces used for environmental air:
- LED Lighting
 - Communication & Control

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation Pler
- Twisted-Pair Construction
- Unshielded and Shielded Versions
- Overall Flex Plenum Jacket



Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
LED182P	2	18 AWG Solid BC 6.2 Ω/Mft	.008	None	.014	.142	CMP	--
LED182PSH	2	18 AWG Solid BC 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.014	.148	CMP	--
LED162P	4	16 AWG Solid BC 4.2 Ω/Mft	.008	None	.014	.164	CMP	--
LED162PSH	6	16 AWG Solid BC 4.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.014	.170	CMP	--

Insulation Color Code	
Primary Color Code	
1.	Violet
2.	Pink



AUDIO



- Pro-Audio
- Speaker Audio

AUDIO

Audio Cables

Broadcast Miniature Shielded.....	28
Broadcast Miniature Shielded Plenum	29
Professional Audio Shielded.....	30
Professional Audio Shielded Plenum	31
Multiple-Pair Individually Shielded.....	32
Multiple-Pair Individually Shielded Plenum	33
AES/EBU Digital Audio.....	34
Audio Assemblies	35
3.5 mm and XLR Connectors	36
50 Ohm Coax.....	37
RF50 Ohm Connectors	38

Speaker Cables

Two-Conductor Unshielded	39
Four-Conductor Unshielded	40
Residential Speaker High Flex	41
Large-Venue Speaker	42
Cluster Speaker	43
Speaker Connectors	44

Miniature Audio / 22 AWG Shielded

Applications:

- Indoor for:
- Audio Circuits
- Low Voltage Power
- Line-Level Audio
- Audio Rack Cabling
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Twisted-Pair Construction
- Overall Flex PVC Jacket



Rating:

- NEC Type CMR
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
454	1	22 AWG (7x30) 17 Ω/Mft	.008	Al. Foil 100% 22 Standard	.020	.135	CMR	34 pf/ft* 67 pf/ft**

The aluminum polyester shield is bonded to the jacket so both can be removed with automatic stripping equipment

Jacket Color Code			
	Jacket Color		Jacket Color
	Brown		Violet
	Red		Gray
	Orange		White
	Yellow		Black
	Green		Tan
	Blue		Pink

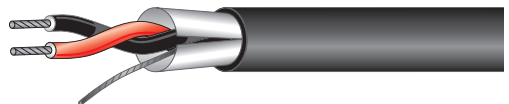
* Capacitance between conductors
 ** Capacitance between one conductor and the other connected to the shield

BELDEN **WPW**
 9451 454

Miniature Conformable Rack Cable / Shielded

Description:

- ASTM Overcoat Tinned Copper
- Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket - Black



Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
455	1	Overcoat 22 AWG (7x30) 17 Ω/Mft	.008	Al. Foil 100% 22 Standard drain	.020	.138	CMR	34 pf/ft* 67 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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



Miniature Audio / 22 AWG Shielded Plenum



Description:

- ASTM Tinned Copper
- FEP Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Twisted-Pair Construction
- Overall Flexible Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D25454	1	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100% 22 Standard	.018	.130	CMP	35 pf/ft* 67 pf/ft**

The aluminum polyester shield is bonded to the jacket so both can be removed with automatic stripping equipment

Insulation Color Code
Primary Color Code
1. Black
2. Red

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- The drain wire on these products is on the inside of the foil shield
- Minimum order quantities may apply on select jacket colors

BELDEN
9451P

WPW
D25454

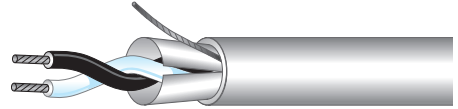
Twisted Pair / Overall Shielded

Applications:

- Indoor for:
- Audio Circuits
- Low Voltage Power
- Line-Level Audio
- Audio Rack Cabling
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Polyethylene or Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket



Rating:

- NEC Type CM or CL2
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
77291	1	22 AWG (7x30) 17 Ω/Mft	.016	Al. Foil 100% 22 Standard	.025	.175	CM	24 pf/ft* 47 pf/ft**
77292	1	20 AWG (7x28) 10.5 Ω/Mft	.016	Al. Foil 100% 20 Standard	.028	.204	CM	27 pf/ft* 49 pf/ft**
77293	1	18 AWG (16x30) 6.2 Ω/Mft	.018	100% Al. Foil 20 Standard	.028	.222	CM	24 pf/ft* 44 pf/ft**
77294	1	16 AWG (19x29) 4.2 Ω/Mft	.032	Al. Foil 100% 18 Standard	.032	.315	CL2	23 pf/ft* 44 pf/ft**
77510†	2	22 AWG (7x30) 17 Ω/Mft	.008	Ind. Shielded Al. Foil 100% with 1 drain wire	.020	.189	CM	35 pf/ft* 62 pf/ft**

Notes:

† Employs individually shielded pairs with one drain wire common to all shields

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

• 500 ft put-up lengths may be available, minimum quantities may apply

Insulation Color Code		
Primary Color Code	77291, 77292, 77293, 77294	77510
	1. Black	1. Black/Red
	2. Clear	2. White/Green

BELDEN

- 8761
- 8762
- 8760
- 8723

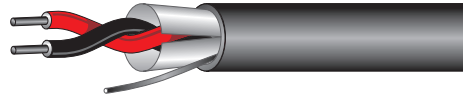
WPW

- 77291
- 77292
- 77293
- 77510

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



Twisted Pair / Overall Shielded - Plenum



Applications:

- Indoor for:
- Plenum Spaces
- Audio Circuits
- Low Voltage Power
- Line-Level Audio
- Audio Rack Cabling
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Teflon Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Twisted-Pair Construction
- Flexible Plenum Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

BROADCAST QUALITY

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D25291	1	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100% 24 Standard	.017	.134	CMP	35 pf/ft* 67 pf/ft**
D25292	1	20 AWG (7x28) 10.5 Ω/Mft	.010	Al. Foil 100% 22 Standard	.017	.148	CMP	27 pf/ft* 49 pf/ft**
D25293	1	18 AWG (7x26) 6.6 Ω/Mft	.010	Al. Foil 100% 22 Standard	.017	.168	CMP	51 pf/ft* 97 pf/ft**
D25294	1	16 AWG (19x29) 4.4 Ω/Mft	.010	Al. Foil 100% 22 Standard	.017	.188	CMP	36 pf/ft* 65 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red

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

Notes:

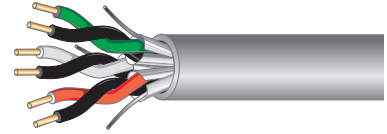
- Teflon = Fluorinated Ethylene Propylene (FEP)
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

BELDEN	WPW
82761	D25291
82760	D25293

Electrical Characteristics
Nom. Velocity of Propagation - 69%
Nom. Impedance Ω D25291 - 55 Ω
Nom. Impedance Ω D25292 - 50 Ω
Nom. Impedance Ω D25293 - 45 Ω
Nom. Impedance Ω D25294 - 40 Ω

Multiple Pair 22 AWG / Individually Shielded



Applications:

- Indoor for:
- Audio Circuits
- Low Voltage Power
- Line-Level Audio
- Line-Level Snake
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Polyolefin Insulation
- Each Pair Shielded 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Short Overall Twist Construction
- Overall PVC Jacket

Rating:

- NEC Type CM
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D430	2	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.235	CM	34 pf/ft* 67 pf/ft**
D431	3	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.258	CM	34 pf/ft* 67 pf/ft**
D439	4	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.280	CM	34 pf/ft* 67 pf/ft**
D432	6	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.025	.332	CM	34 pf/ft* 67 pf/ft**
D433	9	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.034	.390	CM	34 pf/ft* 67 pf/ft**
D434	12	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.034	.420	CM	34 pf/ft* 67 pf/ft**
D436	19	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.047	.565	CM	34 pf/ft* 67 pf/ft**
D438	27	22 AWG (7x30) 17 Ω/Mft	.006	Each Pair Al. Foil 100%	.047	.678	CM	34 pf/ft* 67 pf/ft**

Electrical Characteristics Nom. Velocity of Propagation - 66% Nom. Impedance Ω 22 AWG (7x30) - 55 Ω

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

Insulation Color Code			
Pair Color Code			
1. Black-Red	9. Red-Green	17. Green-Brown	25. Blue-Orange
2. Black-White	10. Red-Blue	18. Green-Orange	26. Brown-Yellow
3. Black-Green	11. Red-Yellow	19. White-Blue	27. Brown-Orange
4. Black-Blue	12. Red-Brown	20. White-Yellow	
5. Black-Yellow	13. Red-Orange	21. White-Brown	
6. Black-Brown	14. Green-White	22. White-Orange	
7. Black-Orange	15. Green-Blue	23. Blue-Yellow	
8. Red-White	16. Green-Yellow	24. Blue-Brown	

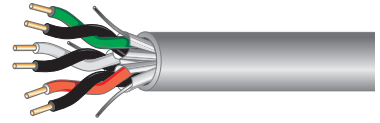
Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Selected Indoor/Outdoor **Aquaseal Water Resistant*** Versions available, see Aquaseal Section
- Orange rip cord



Multiple Pair / Individually Shielded - Plenum



Applications:

- Indoor for:
- Plenum Spaces
- Audio Circuits
- Low Voltage Power
- Line-Level Audio
- Line-Level Snake
- Division 27 41 00
- Division 27 51 00

Description:

- ASTM Tinned Copper
- Teflon Insulation
- Each Pair Shielded 100% Coverage of Aluminum Foil with 24 AWG Stranded Drain Wire
- Twisted-Pair Construction
- Flexible Plenum Jacket

Rating:

- NEC Type CMP
- UL and CUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D25430	2	22 AWG (7x30) 17 Ω/Mft	.010	Each Pair Al. Foil 100%	.017	.218	CMP	35 pf/ft* 67 pf/ft**
D25431	3	22AWG (7x30) 17 Ω/Mft	.010	Each Pair Al. Foil 100%	.017	.232	CMP	35 pf/ft* 67 pf/ft**
D25439	4	22 AWG (7x30) 17 Ω/Mft	.010	Each Pair Al. Foil 100%	.017	.256	CMP	35 pf/ft* 67 pf/ft**
D25432	6	22 AWG (7x30) 17 Ω/Mft	.010	Each Pair Al. Foil 100%	.017	.304	CMP	35 pf/ft* 67 pf/ft**
D25510#	2	22 AWG (7x30) 17 Ω/Mft	.010	Each Pair Al. Foil 100%	.017	.214	CMP	25 pf/ft* 45 pf/ft**

Insulation Color Code
Pair Color Code
1. Black-Red
2. Black-White
3. Black-Green
4. Black-Blue
5. Black-Yellow
6. Black-Brown

Insulation Color Code
Pairs Color Code D25510
1. Black/Red
2. White/Green

Electrical Characteristics
Nom. Velocity of Propagation - 69%
Nom. Impedance Ω 22 AWG (7x30) - 55 Ω

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Employs individually shielded pairs plus overall shield with one 24 AWG drain wire common to all shields to ensure greater shielding and lower DC resistance
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

AES / EBU Digital Audio Cable



Applications:

- Indoor for:
 - Audio Circuits
 - Low Voltage Power
 - Line-Level Audio
 - Audio Rack Cabling
 - Division 27 41 00
 - Division 27 51 00
 - Digital Audio Broadcast

Description:

- ASTM Tinned Copper
- Low-Loss Foam Polyethylene Insulation
- Individually Shielded 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Drain Wire
- DA2401 Shield is Bonded to the Jacket for Ease of Stripping
- Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CM
- UL Listed
- Meets 300V Requirements as Specified in the NEC

Standard spool size, 1000 ft

Plenum - Individually Shielded Pairs + Flexible Plenum Jacket								
Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
DA2401	1	24 AWG (7x32) 26 Ω/Mft	.020	Overall 100% Al. Foil Tape	.030	.182	CM	12.5 pf/ft* 22.5 pf/ft **
DA2402	2	24 AWG (7x32) 26 Ω/Mft	.020	Overall 100% Al. Foil Tape	.030	.298	CM	12.5 pf/ft* 22.5 pf/ft **

AES / EBU Digital Audio Cable Plenum

Description:

- ASTM Tinned Copper
- Low-Loss Foam FEP Insulation
- Individually Shielded 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Drain Wire

- Twisted-Pair Construction
- Overall Flexible Plenum Jacket

Rating:

- NEC Type CmP
- UL Listed

Plenum - Individually Shielded Pairs + Flexible Plenum Jacket								
Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
DA252401	1	24 AWG (7x32) 26 Ω/Mft	.020	Overall 100% Al. Foil Tape	.018	.141	CMP	12.5 pf/ft* 22.5 pf/ft **
DA252402	2	24 AWG (7x32) 26 Ω/Mft	.020	Overall 100% Al. Foil Tape	.018	.238	CMP	12.5 pf/ft* 22.5 pf/ft **

Insulation Color Code
Pair Color Code
Pair 1. Black/Red
Pair 2. Black/White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Electrical Characteristics Nom. Velocity of Propagation - 78% Nom. Impedance Ω - 110 Ω
--

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield



Audio Flex Assemblies	
Catalog No.	Description
CN-CSM4XMF-XX	Studio Grade Ultra Quiet Mic Assembly Replace XX: 2, 3, 5, 6, 10, 15, 20, 25, 50 ft
CN-CSM2XMF-XX	Stage Grade Ultra Quiet Mic Assembly Replace XX: 2, 3, 5, 6, 10, 15, 20, 25, 50 ft
Wireless Mic Flex Coaxial Assemblies	
Catalog No.	Description
WP-807BMBM-XX	RG8X 16 AWG BNC to BNC Assembly Replace XX: 15, 20, 25, 35, 50, 75, 100, 150 ft
WP-807RSRS-XX	RG8X 16 AWG RP SMA to RP SMA Assembly Replace XX: 15, 20, 25, 35, 50, 75, 100, 150 ft
WP-810BMBM-XX	RG8 12 AWG BNC to BNC Assembly Replace XX: 25, 50, 75, 100, 150, 175, 200 ft



XLR M to F



BNC to BNC

3 PIN XLR Style Connectors- Cable Mount	
Catalog No.	Description
CN-NC3MXB	3 Position XLR Male Black - Gold Contact
CN-NC3MXBAG	3 Position XLR Male Black - Nickel Contact
CN-NC3MX	3 Position XLR Male Nickel - Nickel Contact
CN-NC3FXB	3 Position XLR Female Black - Gold Contact
CN-NC3FXBAG	3 Position XLR Female Black - Nickel Contact
CN-NC3FX	3 Position XLR Female Nickel - Nickel Contact



CN-NC3FX



CN-NYS231

Audio Connectors

Line-Level Audio Connectors - Cable Mount

XLR - 3.5 mm - RCA Phono - 1/4 in

3.5 mm Stereo Mini Audio Connectors	
Catalog No.	Description
19-1202	Stereo Mini Plug
CN-SM3.5F	3.5 mm Stereo Mini Jack
CN-NYS231B	3.5 mm Mini Plug - Black/Nickel
CN-NYS231	3.5 mm Mini Plug Nickel/Nickel



CN-NYS373-GN

1/4 in Audio Connectors	
Catalog No.	Description
CN-NP3CBAG	1/4 in Black - Silver Contact TRS
CN-NP3C	1/4 in Silver - Silver Contact TRS
CN-NP2CBAG	1/4 in Black - Silver Contact TS
CN-NP2C	1/4 in Silver - Silver Contact TS
CN-NP3XB	Thin 1/4 in Black - Gold Contact TRS
CN-NP3XBAG	Thin 1/4 in Black - Silver Contact TRS
CN-NP3X	Thin 1/4 in Silver - Silver Contact TRS
CN-NP2XB	Thin 1/4 in Black - Gold Contact TS
CN-NP2XBAG	Thin 1/4 in Black - Silver Contact TS
CN-NP2X	Thin 1/4 in Silver - Silver Contact TS



CN-NP2XB



CN-NP3X

Panel Mount Connectors	
Catalog No.	Description
CN-MX35	3.5 mm Terminal Block
CN-NC3FDLB	XLR Panel Mt. Black - Gold Contact
CN-NC3FDLBAG	XLR Panel Mt. Black - Nickel Contact
CN-NC3FDL1	XLR Panel Mt. Nickel - Nickel Contact
CN-NC3FDL1B	XLR Panel Mt. Solderless Female Black
CN-NC3MDL1B	XLR Panel Mt. Solderless Male
CN-NYS230	1/4 in TRS - Panel Mount



CN-NC3FD-L-BAG



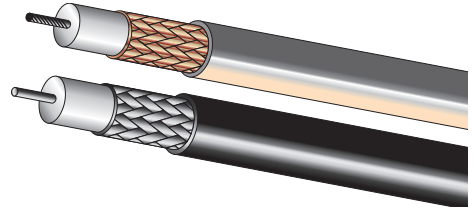
CN-MX35



RG58/U, RG58A/U, RG8/U, RG8x/U Type

Applications:

- RF Transmission
- Broadcast Transmission
- Wireless Communication



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
812 RG58A/U Type	CM	20 (19x32) Tinned Copper 8.8 Ω/Mft	Gas Injected Polyethylene .116	100% Bi-foil Al. +95% Tinned Cu Braid	PVC	.195	25 pf/ft	78%	50 Ω
					See connector listings, page 36				
813 RG-58/U Type	CM	20 (Solid) Tinned Copper 10.1 Ω/Mft	Gas Injected Polyethylene .116	100% Bi-foil Al. +95% Tinned Cu Braid	PVC	.195	26 pf/ft	78%	50 Ω
					See connector listings, page 36				
25812 RG-58/U Type Plenum	CMP	20 (19x32) Tinned Copper 8.8 Ω/Mft	Foam FEP .102	100% Bi-foil Al. +95% Tinned Cu Braid	Flex Plenum	.158	25 pf/ft	82%	50 Ω
					See connector listings, page 36				
810 RG-213/U Type	CM	12 (7x20) Bare Copper 1.9 Ω/Mft	Gas Injected Polyethylene .280	100% Bi-foil Al. +95% Tinned Cu Braid	PVC	.405	26 pf/ft	80%	50 Ω
					See connector listings, page 36				
25810 RG-213/U Type Plenum	CMP	12 (7x20) Bare Copper 1.9 Ω/Mft	Foam FEP .280	100% Bi-foil Al. +95% Tinned Cu Braid	Copolymer	.352	25 pf/ft	80%	50 Ω
					See connector listings, page 36				
98G8 RG-8/U Type	CM	10AWG Solid Bare Copper .9 Ω/Mft	Gas Injected Polyethylene .286	100% Bonded Bi-foil Al. + 90% Tinned Cu Braid	PVC	.405	24.5 pf/ft	84%	50 Ω
					See connector listings, page 36				
2598G8 RG-8/U Type Plenum	CMP	10AWG Solid Bare Copper .9 Ω/Mft	Foam FEP .280	100% Bonded Bi-foil Al. + 90% Tinned Cu Braid	Copolymer	.360	25 pf/ft	80%	50 Ω
					See connector listings, page 36				
807X RG-8X/U Type Flexible	CM	16 (19x29) Bare Copper 4.3 Ω/Mft	Gas Injected Polyethylene .155	100% Bonded Bi-foil Al. + 90% Tinned Cu Braid	PVC	.242	25 pf/ft	82%	50 Ω
					See connector listings, page 36				
808XWB RG-8X/U Outdoor	Outdoor	15 (Solid) Bare Copper 3.2 Ω/Mft	Gas Injected Polyethylene .155	100% Bonded Bi-foil Al. + 95% Tinned Cu Braid	Polyethylene	.248	23 pf/ft	85%	50 Ω

Straight Plug Male Connectors

Catalog No.	50 Ω BNC	50 Ω TNC	50 Ω "N" Type
812	CN-BM53-13	CN-TM53-1	CN-NM53-812
25812	CN-BM53-25	CN-TM53-25812	CN-NM53-25812
813	CN-BM53-13	CN-TM53-1	CN-NM53-812
810	CN-BM53-8	CN25810KTNC	CN-NM53/110
25810	CN25810KBNC	CN25810KTNC	CN-NM53-25810
98G8	CN-BM98G8	CN-TM98G8	CN-NM98G8
2598G8	CN-BM2598G8		CN-NM98G8
807X and 808XWB	CN-BM53-8X	CN-TM53-807	CN-NM53-8X



Wireless Mic Flex Coaxial Assemblies

Catalog No.	Description
WP-807BMBM-XX	RG8X 16 AWG BNC to BNC Assembly Replace XX: 15, 20, 25, 35, 50, 75, 100, 150 ft
WP-807RSRS-XX	RG8X 16 AWG RP SMA to RP SMA Assembly Replace XX: 15, 20, 25, 35, 50, 75, 100, 150 ft
WP-810BMBM-XX	RG8 12 AWG BNC to BNC Assembly Replace XX: 25, 50, 75, 100, 150, 175, 200 ft



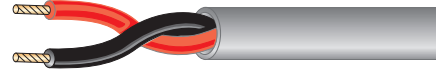
Two Conductor / Unshielded Non-Plenum

Applications:

- Indoor for:
 - Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666



Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
224	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.156	CMR	--
225	2	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.017	.182	CMR	--
226	2	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.017	.230	CL3R	--
227	2	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.017	.260	CL3R	--

Two Conductor / Unshielded Plenum

Rating:

- NEC Type CMP or CL3P
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.154	CMP	--
25225B	2	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.015	.176	CMP	--
25226B	2	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.015	.218	CL3P	--
25227B	2	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.015	.256	CL3P	--

Insulation Color Code		
Primary Color Code	220, 221, 222, 224, 225	226, 227
	1. Black	1. Black
	2. Red	2. White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- 500 ft put-up lengths may be available
- Minimum quantities may apply

Four Conductor / Unshielded Non-Plenum



Applications:

- Indoor for:
 - Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Rating:

- NEC Type CMR or CL3R
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
244	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.183	CMR	--
245	4	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.017	.217	CMR	--
246	4	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.017	.278	CL3R	--
248	4	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.017	.320	CL3R	--

Four Conductor / Unshielded Plenum

Rating:

- NEC Type CMP or CL3P
- UL and cUL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.180	CMP	--
25245B	4	16 AWG (19x29) 4.2 Ω/Mft	.008	None	.015	.208	CMP	--
25246B	4	14 AWG (19x27) 2.7 Ω/Mft	.010	None	.015	.260	CL3P	--
25248B	4	12 AWG (19x25) 1.7 Ω/Mft	.010	None	.015	.304	CL3P	--

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White
4.	Green

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Note: 500 ft put-up lengths may be available. Minimum quantities may apply.



Two Conductor / Unshielded



More Flexible

Applications:

- Indoor for:
 - Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Short Overall Twist Lengths
- Overall PVC Jacket

Rating:

- NEC Type CM, CL2 or CL3
- UL Listed
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HA225	2	16 AWG (65x34) BC 4.02 Ω/Mft	.015	None	.025	.199	CM	--
HA226	2	14 AWG (65x32) BC 2.58 Ω/Mft	.015	None	.025	.250	CL3	--
HA227	2	12 AWG (65x30) BC 1.7 Ω/Mft	.015	None	.025	.280	CL3	--
HA210	2	10 AWG (65x28) BC 1.1 Ω/Mft	.012	None	.020	.280	CL2	--

Four Conductor / Unshielded



More Flexible

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CM or CL3
- UL Listed
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HA245	4	16 AWG (65x34) BC 4.02 Ω/Mft	.015	None	.025	.242	CM	--
HA246	4	14 AWG (65x32) BC 2.58 Ω/Mft	.015	None	.025	.307	CL3	--
HA248	4	12 AWG (65x30) BC 1.7 Ω/Mft	.015	None	.025	.348	CL3	--

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White
4.	Green

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Two Conductor / Unshielded - 8 and 10 AWG



Applications:

- Indoor for:
- Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
- Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- Thermoplastic Insulation with Nylon
- Twisted-Pair Construction
- Overall PVC Sunlight-Resistant Jacket

Rating:

- NEC Type TC or CL2
- UL Listed
- Meets 600 Volt - Class 1
- Approved for Direct Burial and Outdoor Use

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
C210	2	10 AWG (65x28) 1.10 Ω/Mft	PVC .020 Nylon .005	None	.047	.357	Tray Cable TC	--
HA210	2	10 AWG (65x28) BC 1.1 Ω/Mft	Thermo- plastic .012	None	.020	.280	CL2	--
C208	2	8 AWG (65x26) .70 Ω/Mft	PVC .032 Nylon .006	None	.062	.498	Tray Cable TC	--

Insulation Color Code
Primary Color Code
1. Black
2. White

Applications:

- Indoor for:
- Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
- Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- HA210 - Thermoplastic, (25210) - Polymer Alloy
- Twisted-Pair Construction
- Overall Jacket

Rating:

- HA210 - NEC Type CL2
- 25210 - NEC Type CL2P
- UL Listed

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25210	2	10 AWG (65x28) 1.10 Ω/Mft	.012	None	.015	.275	CL2P	--

Insulation Color Code
Primary Color Code
1. Black
2. White



Cluster Speaker Cable / Twisted-Pair Unjacketed



Applications:

- Indoor for:
- Cluster Speaker Cable
 - Power-Limited Circuit Applications
 - Sound and Audio
 - Background Music

Description:

- ASTM Bare Copper
- Thermoplastic Insulation with Nylon
- Short Overall Twist Construction
- Unjacketed

Rating:

- NEC Type CL2
- UL Listed
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
C205	1	16 AWG (19x29) 4.2 Ω/Mft	PVC .015 Nylon .005	None	None	.194	CL2	--
C206	1	14 AWG (41x30) 2.7 Ω/Mft	PVC .015 Nylon .005	None	None	.222	CL2	--
C207	1	12 AWG (65x30) 1.7 Ω/Mft	PVC .015 Nylon .005	None	None	.260	CL2	--

Insulation Color Code	
Primary Color Code	
1.	Black
2.	White

Speaker Level Audio Connectors Cable Mount

Speakon Cable Mt. Female SPX	
Catalog No.	Description
CN-NL4FX	4 Pole, SPX Gray
CN-NL4FX2	4 Pole, SPX Red
CN-NL4FX4	4 Pole, SPX Yellow
CN-NL4FX5	4 Pole, SPX Green
CN-NL4FX9	4 Pole, SPX White

Speakon Audio Adapter	
Catalog No.	Description
CN-NL4MMX	4 Pole Male-to-Male Adapter

Speakon Cable Mt. Female Standard	
Catalog No.	Description
CN-NL4FC	NEUTRIK 4 Pole, Standard



Speaker Level Audio Connectors Panel Mount

Panel-Mount Connectors	
Catalog No.	Description
CN-NL4MPST	Speakon Panel Mt. 4 Pole - D-size Screw terminal
CN-NL4MP	NEUTRIK Speakon Panel Mt. 4 Pole - Solder






Speaker Level Audio Assemblies

Speakon-to-Speakon Assemblies	
Catalog No.	Description
CN-CN-4CNN-XX	13 AWG Speakon Assemblies 5,10,15, 25, 35, 50 ft



NETWORKING



-  Networking LAN
-  Serial Data Grade
-  Fiber Optics

NETWORKING

Networking Cables

Category 6A Cables	45
Category 6A Accessories.....	46
Category 6 Cables	47
Category 6 Accessories	48-49
Category 5e Cables.....	50
Category 5e Accessories	51
Tactical Assemblies.....	52

Networking Cables - Serial Data

Multiple-Pair - Individually Shielded	53
RS-485 - DMX Cables.....	54-55
Multiple-Pair Overall Shielded.....	56
Multiple-Pair Overall Shielded Plenum	57

Fiber Optics

Indoor / Outdoor OFNP Fiber Cables	58
Digital Media Video OM3 Fiber Cables	59
Indoor / Outdoor Armored OFNP Fiber Cables	60
Fiber Optic Assemblies and Pigtails.....	61
Pre-Terminated Long-Length Assemblies.....	62
Fiber Optic Installation Kit & Connectors.....	63
Fiber Optic Splice Accessories	64
Rack- & Panel-Mount Panels.....	65
Fiber Optic Installation – Certified Training	66

NETWORKING CABLES

CATEGORY 6A SMALL-DIAMETER F/UTP AND UTP CABLES



4-Pair 23 AWG F/UTP and UTP



Applications:

- Indoor for:
- 10G-BASE-T Ethernet
- Horizontal LAN Cabling
- Digital Integration 4K AV
- AV Digital Video

Description:

- ASTM Solid Bare Copper
- Non-Plenum & Plenum Versions
- Multiple-Pair Shielded F/UTP Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CMP or CMR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666 and NFPA 262
- Smoke & Flame Test

Category 6A F/UTP - Test to 750 MHz - 10G

Standard pool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4346AF	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.303	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254346AF	4	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Category 6A UTP - Test to 750 MHz - 10G

Applications:

- Indoor for:
- 10G-BASE-T Ethernet
- Horizontal LAN Cabling
- IPBaseT 4K AV Distribution

Description:

- ASTM Solid Bare Copper
- Non-Plenum & Plenum Versions
- Multiple-Pair Shielded UTP Twisted-Pair Construction
- Overall Jacket



Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4346A	4	23 AWG Solid 22 Ω/Mft	Thermo-Plastic	UTP	PVC	.307	CMR	Nom. Cap. 13 pf/ft Nom. Imp. 100 Ω
254346A	4	23 AWG Solid 22 Ω/Mft	FEP	UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 13 pf/ft Nom. Imp. 100 Ω

Insulation Color Code

Pair No.	Pair Color Code	
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White

Jacket Color Code

Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



CATEGORY 6 & 6A F/UTP Modular Plug	
Catalog No.	Description
106190	Cat6A Modular Plug 10G with Ext. Ground - BAG 100
106192	Cat6A Modular Plug 10G with Ext. Ground - BAG 50
90170	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)
90170-BI	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)+BOOTS
CATEGORY 6A UTP Modular Plug	
CN-CAPFMUL-S1	Cat6A UTP Plug Modular Plug
TL-CAT6A-CRIMP	Parallel Crim-p Tool for CN-CAPFMUL-S1
CATEGORY 6A F/UTP Modular Plug	
CN-MFP8	Cat6A F/UTP Plug Modular Plug

Modular Plugs Category 6A



CN-CAPFMUL-S1



CN-MFP8

CATEGORY 6A F/UTP Jacks	
Catalog No.	Description
RJ456AS-C6A	RJ45 Cat6A F/UTP - 10G - West Penn Wire Branded
KJS458MT-C6AC	RJ45 Cat6A F/UTP - 10G - Metal MT Style Punchdown
CATEGORY 6A UTP Jacks	
RJ456AU-C6A-cc	West Penn Wire Branded RJ45 Cat6A UTP RJ45 Jack WH, BK, BL, GY, GN, OR, RD, YE
KJ458MT-C6A-cc	RJ45 Cat6A UTP RJ45 Jack WH, BK, BL, GY, GN, OR, RD, YE
KJMT-8600	MT Series 4 Pair Punchdown Tool
KJWP-MTOOL	West Penn Wire 4 Pair Punchdown Tool

RJ45 Jacks Category 6A



KJS458MT-C6AC

CAT6A UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Jacket Colors	Length
C6A-CA1-cc-xx	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 3, 7, 10, 15, 20, 25 ft

Assemblies Category 6A



CAT6A F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Jacket Colors	Length
C6AS-CA1-GY-xx	Replace cc: GY	Replace xx: 3, 7, 10, 15, 20, 25 ft

CAT6A F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Jacket Colors	Length
C6AS-314cc-xxFB	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 3, 7, 10, 15, 20, 25 ft

CATEGORY 6A UTP MD SERIES PATCH PANELS	
Catalog No.	Description
24PP6A-L	24 Port Cat6A UTP Patch Panel 1.75 in - 1RU West Penn
48PP6A-L	24 Port Cat6A UTP Patch Panel 1.75 in - 1RU West Penn
24458MD-C6A	24 Port Cat6A UTP Patch Panel 1.75 in - 1RU
48458MD-C6A	48 Port Cat6A UTP Patch Panel 3.50 in - 2RU
48458HD-C6A	48 Port Cat6A Patch Panel 1.75 in - 1RU
CATEGORY 6A UTP ANGLED PATCH PANELS	
24458-C6A	24 Port Cat6A UTP Patch Panel MT Series
48458-C6A	48 Port Cat6A UTP Patch Panel MT Series
CATEGORY 6A UTP ANGLED PATCH PANELS	
24458A-C6A	24 Port Cat6A UTP Angled 1.75 in - 1RU
48458A-C6A	48 Port Cat6A UTP Angled 3.50 in - 2RU
CATEGORY 6A F/UTP PATCH PANELS	
24PP6AS-L	24 Port Cat6A F/UTP 10G - 1.75 in - 1RU - West Penn
48PP6AS-L	24 Port Cat6A F/UTP 10G - 1.75 in - 1RU - West Penn
24458S-C6A	24 Port Cat6A F/UTP 10G - 1.75 in - 1RU
48458S-C6A	48 Port Cat6A F/UTP 10G - 3.50 in - 2RU

Patch Panels Category 6A



4-Pair 23 AWG UTP and F/UTP

Applications:

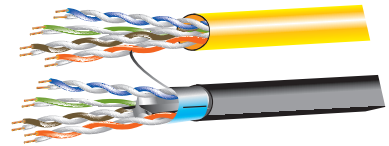
- Indoor for:
- 1G-BASE-T Ethernet
- Horizontal LAN Cabling
- Voice Backbone Cabling
- Digital Integration
- AV Digital Video

Description:

- ASTM Solid Bare Copper
- Plenum and Non-Plenum Versions
- Multiple-Pair Shielded F/UTP Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666 and NFPA 262 Smoke & Flame Test
- TIA/EIA-568-B.2



Category 6 F/UTP - Test to 550 MHz

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4246F	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.290	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254246F	4	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	.280	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Category 6 UTP Test to 550 MHz

Description:

- ASTM Solid Bare Copper
- Plenum and Non-Plenum Versions
- Multiple-Pair Unshielded Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CM, CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA 262 Smoke & Flame Test
- TIA/EIA-568-B.2

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4246EZ	4	23 AWG Solid 24 Ω/Mft	Polyolefin	None UTP	PVC	.220	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254246EZ	4	23 AWG Solid 24 Ω/Mft	Flame-Retardant Polyolefin/FEP	None UTP	Plenum Thermo-Plastic	.225	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4246OSP Outdoor	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Gel Water-Blocked	UV-Resistant PE	.266	-	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4246IO Indoor/ Outdoor	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP- Gel Water-Blocked	UV-Resistant Polyolefin .040 in	.271	CM	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Insulation Color Code

Pair No.	Pair Color Code	
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964



Modular Plugs

Category 6

CATEGORY 6 & 6A F/UTP Modular Plug	
Catalog No.	Description
106190	Cat6A Modular Plug 10G with Ext. Ground - BAG 100
106192	Cat6A Modular Plug 10G with Ext. Ground - BAG 50
90170	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)
90170-BI	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)+BOOTS
CATEGORY 6 UTP Modular Plug	
32-EXEZ44-xx	Cat 5E EZ EX Series Cat 5e/6 Modular Plug - xx : 50 or 500
32-6EZP	Cat6 UTP EZ Plug Modular Plug
HJ-326198UL	Cat6 UTP Modular Plug with Load Bar
CN-CAT61PC-xx	Cat6 UTP Modular Plug 1 Piece xx: Replace with 01 - pack of 100, 1K - pack of 1000
CABLE/CONNECTOR BOOTS	
32-1900-xx	CAT6 UTP Boots - xx: WH, BK, BU, RD, GY, OR, YE, GN
CN-B0051	CAT 6 F/UTP Black Boots
CN-B0042	CAT 6 F/UTP Blue Boots



CN-B0051



32-6EZP

Plug Installation Tools

Category 6A and Category 6

INSTALLATION TOOLS	
Catalog No.	Description
TL-EXOCRIMP	Modular Crimp Tool - EX Series Modular Plugs
TL-EZRJ45PROCT	Modular Crimp Tool - EZ Plug Pro Series
12516C	Dual Crimp Tool - Ext. Ground Crimp and IDC Crimp
12515C	Crimp Tool for Cat6A Connector 106190
12360C	External Ground Crimp Tool for 106190 & CN-111590H34
15010C	Strip Tool for Cat6 and Cat6A Cables
TL-CATWIREST	Cat Cable Stripping and Pair Separation Tool



TL-EZRJ45PROCT



TL-CATWIREST

RJ45 Jacks

Category 6A and Category 6

CATEGORY 6A F/UTP RJ45 Jacks	
Catalog No.	Description
RJ456S-C6C	RJ45 Cat6 F/UTP - Metal - West Penn Wire Branded
KJS458TL-C6C	RJ45 Cat6 F/UTP - Metal - Too-less
KJS458MT-C6C	RJ45 Cat6 F/UTP - Metal - MT Series
CATEGORY 6 UTP RJ45 Jacks	
RJ456U-C6C-cc	West Penn Wire Cat6 Jack - cc: IV, WH, BK, BL, GY, GN, OR, RD, YE
KJ458MT-C6C-cc	Cat6 Jack - cc: IV, WH, BK, BL, GY, GN, OR, RD, YE
CATEGORY 6 Feed-Thru Adapters	
KRJ45/6S	Cat 6 Feed-Thru Adapter Panel Mount
KRJ45/6S-SH	Cat 6 F/UTP Feed Thru Adapter Panel Mount



12515C



RJ456U-C6C-WH



Patch Cables Category 6

CAT6 F/UTP ASSEMBLIES - West Penn		
Catalog No.	Jacket Colors	Length
C6S-CA1-cc-xx	Replace cc: BK, GY, WH	Replace xx: 3, 5, 7, 10, 14, 20, 25 ft

CAT6 F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Jacket Colors	Length
C6CS-314GY-xxFB	Replace cc: Only Gray	Replace xx: 3, 7, 10, 15, 20, 25 ft

CAT6 UTP ASSEMBLIES - West Penn		
Catalog No.	Jacket Colors	Length
C6-CA1-cc-xx	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 3, 5, 7, 10, 15, 20, 25 ft

CAT6 UTP ASSEMBLIES - Channel Level		
Catalog No.	Jacket Colors	Length
C6-115cc-xxFB	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 1, 3, 7, 10, 15, 20, 25, 50 ft

Patch Panels Category 6

CATEGORY 6 UTP MD SERIES PATCH PANELS	
Catalog No.	Description
24PP6C-L	12 Port Cat6 UTP Patch Panel 1.75 in - 1RU - West Penn
48PP6C-L	12 Port Cat6 UTP Patch Panel 1.75 in - 1RU - West Penn
12458MD-C6C	12 Port Cat6 UTP Patch Panel 1.75 in - 1RU
48458HD-C6C	48 Port Cat6 UTP Patch Panel 1.75 in - 1RU
CATEGORY 6 UTP MT SERIES PATCH PANELS	
24458-C6C	24 Port Cat6 UTP MT Series
48458-C6C	48 Port Cat6 UTP MT Series
CATEGORY 6 UTP ANGLED PATCH PANELS	
24458A-C6C	24 Port Cat6 UTP Angled 1.75 in - 1RU
48458A-C6C	48 Port Cat6 UTP Angled 3.50 in - 2RU
CATEGORY 6 F/UTP PATCH PANELS	
24PP6CS-L	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU - West Penn
48PP6CS-L	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU - West Penn
24458S-C6C	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU
CATEGORY 6 UTP MINI WALL MOUNT PANELS	
12458M-C6C	Cat6 Mini Panel w/89D Bracket

MD SERIES



MT SERIES



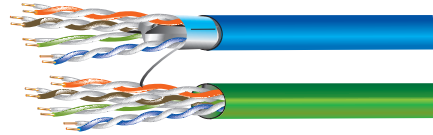
ANGLED SERIES



SHIELDED SERIES



4-Pair 24 AWG UTP and F/UTP



Applications:

- Indoor for:
- 100BASE-T Ethernet
- Horizontal LAN Cabling
- Voice Backbone Cabling
- Digital Integration
- AV Digital Video

Description:

- ASTM Solid Bare Copper
- Plenum and Non-Plenum Versions
- Multiple-Pair Unshielded Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CM, CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA 262 Smoke & Flame Test
- TIA/EIA-568-B

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4245EZ	4	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254245EZ	4	24 AWG Solid 26 Ω/Mft	Flame Retardant Polyolefin/FEP	None UTP	Plenum Thermo-Plastic	.205	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4245OSP	4	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Gel Water Blocked	UV-Resistant PE	.255	Outdoor	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4245IO	4	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Gel Water Blocked	UV-Resistant Polyolefin	.251	Indoor/ Outdoor CM	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4245F	4	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	100% Al. Foil F/UTP	PVC	.232	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254245F	4	24 AWG Solid 26 Ω/Mft	Flame Retardant Polyolefin/FEP	100% Al. Foil F/UTP	Plenum Thermo-Plastic	.218	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Insulation Color Code		
Pair No.	Pair Color Code	
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

CATEGORY 5E MODULAR PLUGS	
Catalog No.	Description
32-EXEZ44-xx	Cat 5e EZ EX Series Cat 5e/6 Modular Plug - xx : 50 or 500
32-EZP	EZ 8 Position Cat 5e Modular Plug - Bags of 50
CN-EZSTP-EG	F/UTP Shielded Cat 5e Modular Plug - Bags of 50
HJ-325998UL	8 Position Cat 5e Modular Plug
TL-EZRJ45PROCT	Crimp Tool for 32 - EZP
32-1900-xx	BOOTS: xx: WH, BK, BU, RD, GY, OR, YE, GN

Modular Plugs Category 5e



CATEGORY 5E RJ45 JACKS

Catalog No.	Description
KJ458MT-C5E-cc	RJ45 Cat 5e Jack - cc: WH, BK, BL, GY, GN, OR, RD, YE
KJS458TL-C5E	RJ45 Cat 5e Jack - F/UTP Shielded - Tool less
CATEGORY FEED THRU ADAPTERS	
KRJ45/5S	Cat 5e Feed-Thru Adapter UTP
KRJ45/5S-SH	Cat 5e Feed Thru Adapter Shielded F/UTP

RJ45 Jacks

Category 5e



KJS458MT-C5E-WH

Patch Panels

Category 5e



CATEGORY 5E MD SERIES PATCH PANELS

Catalog No.	Description
24458MD-C5E	24 Port Cat 5e Patch Panel 1.75 in - 1RU
48458MD-C5E	48 Port Cat 5e Patch Panel 3.50 in - 2RU
12458M-C5E	12 Port Mini Panel W/89D Brackets
CMB-250-P	Panel Mount Cable Mng. Bar 2.50 in Deep

CATEGORY 5E MT SERIES PATCH PANELS

Catalog No.	Description
24458-C5E	24 Port Cat 5e Patch Panel 1.75 in - 1RU
48458-C5E	48 Port Cat 5e Patch Panel 3.50 in - 2RU
24458S-C5E	24 Port Cat 5e Shielded F/UTP Patch
24458A-C5E	24 Port Cat 5e Angled
48458A-C5E	48 Port Cat 5e Angled

NETWORK CONNECTIVITY TOOLS

Catalog No.	Description
TL-3650	110 Adjustable Punchdown Tool
TRJ45P	Ratchet Type RJ45 Crimp Tool
TL-EZRJ45PROCT	EZ Ratch Modular Plug Crimp Tool
KJMT-8600	MT Series- Multi-Pair Punchdown Tool MT Series
KJWP-MTOOL	Multi-Pair Punchdown Tool - West Penn



NETWORKING CABLES

FLEX - TACTICAL ASSEMBLIES - NETWORK & DMX



NETWORK TACTICAL FLEX ASSEMBLIES	
Catalog No.	Description
CN-PC5-TAC-XX	Category 5e Flex Assembly RJ45 Plug to RJ45 Plug
CN-PC5ETTAC-XX	Category 5e Flex Assembly EtherCON to EtherCON
CN-PC5ETRE-XX	Category 5e Shielded Flex Assembly EtherCON to RJ45 Plug
CN-SC6-TAC-XX	Category 6 Flex Assembly RJ45 Plug to RJ45 Plug
CN-SC6ETTAC-XX	Category 6 Flex Assembly EtherCON to EtherCON
CN-SC6-RE-XX	Category 6 Shielded Flex Assembly EtherCON to RJ45 Plug

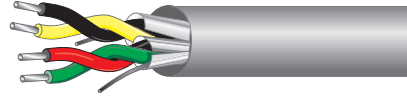
Replace XX with Length:
 Lengths available (ft): 3, 5, 10, 15, 20, 25, 35, 50, 75, 100, 125, 150, 200, 300



DMX TACTICAL FLEX ASSEMBLIES	
Catalog No.	Description
CN-DMXFLEX3-XX	Flex 3 Pin XLR DMX Assembly
CN-DMXFLEX5-XX	Flex 5 Pin XLR DMX Assembly

Replace XX with Length:
 Lengths available (ft): 2, 3, 5, 10, 15, 20, 25, 50, 75, 100

Multiple-Pair / Individually Shielded



Applications:

- Indoor for:
- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data

Description:

- ASTM Tinned Copper
- Polyolefin Insulation
- Each Pair Shielded 100% Coverage of Aluminum Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket

Rating:

- NEC Type CM
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D420	2	22 AWG Solid 17.5 Ω/Mft	.015	Individual Al. Foil 100%	.030	.261	CM	15.5 pf/ft* 28 pf/ft**

* Capacitance between conductors.

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

Data Grade Plenum Cable Multiple-Pair Series / Individually Shielded

Applications:

- Indoor for:
- Plenum Spaces
- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data

Description:

- ASTM Tinned Copper
- Teflon Insulation
- Each Pair Shielded 100% Coverage of Aluminum Foil with 24 AWG Stranded Drain Wire
- Twisted-Pair Construction
- Plenum PVDF Jacket

Rating:

- NEC Type CMP
- UL and cUL Listed or cETLus Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D25420	2	22 AWG Solid 17.5 Ω/Mft	.012	Individual Al. Foil 100%	.015	.185	CMP	15.5 pf/ft* 28 pf/ft**

Insulation Color Code
Pair Color Code
1. Black/Yellow
2. Red/Green

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Electrical Characteristics Nom. Velocity of Propagation - 66% Nom. Impedance Ω D420 & D25420 - 100 Ω
--



SERIAL DIGITAL CABLES

SERIAL DIGITAL RS-485 | DMX | OSDP



Applications:

- Indoor for:
- Computer Application
 - Low-Capacitance Data
 - RS-485 Data Applications
 - OSDP
 - DMX

Description:

- ASTM Tinned Copper
- FEP Plenum Cables CMP Data Pair
- Twisted-Pair Construction
- Polyester Wrap
- Data Pair Overall Shield, Power Pair Unshielded
- Flex Plenum PVC (Plenum)

Rating:

- NEC Type CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- UL NFPA 262 Plenum Versions



Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
1PR24P	1	24 AWG (7x32) 26 Ω/Mft	FEP .025	Al. Foil-100% with drain wire 24 AWG	.015	.183	CMP	10.8 pf/ft 120 Ω
1PR2418P	Data Pair	24AWG (7x32) 26 Ω/Mft	FEP .025	Al. Foil-100% with Drain	.020	.215	CMP	10.8 pf/ft 120 Ω
	Power	18AWG (7x26) 6.2 Ω/Mft	Plenum PVC .012	None				
1PR22P	1	22 AWG (7x30) 17 Ω/Mft	.023	Al. Foil-100% with drain wire 24 AWG	.015	.177	CMP	11.2 pf/ft 120 Ω
1PR2216P	Data Pair	22AWG (7x30) 17 Ω/Mft	FEP .030	Al. Foil-100% with Drain	.020	.246	CMP	
	Power	16AWG (19x29) 4.2 Ω/Mft	Plenum PVC .012	None				
D25222P	2	22 AWG (7x30) 17 Ω/Mft	.015 Foam FEP	Ind. Shielded Pairs with/24 AWG Drain	.018	.277	CMP	13.5pf/ft 120 Ω

Insulation Color Code
Pair Color Code
Data Pair 1. Blue-White
Power Pair: Red, Black

Jacket Color Code	
1PR24P	BK, OR
1PR2418P	BK, OR
1PR22P	OR
1PR2216P	BK
D25222P	WH

Insulation Color Code
Pair Color Code D25222P
Data Pair 1. Green-White
Data Pair 1. Brown-Blue

SERIAL DATA

SERIAL DIGITAL RS-485 | DMX | OSDP



Multiple Pair / Overall Shielded

Applications:

- Indoor for:
- Computer Application
- Low-Capacitance Data
- RS-485 Data Applications
- OSDP
- DMX

Description:

- ASTM Tinned Copper
- Polyolefin Insulation (Non-Plenum), FEP (Plenum) Foam PE (Direct Burial)
- Twisted-Pair Construction
- Polyester Wrap
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Drain Wire
- 90% Tinned Copper Braid
- Overall PVC Jacket (Non-Plenum), Flex Plenum PVC (Plenum)



Rating:

- NEC Type CM, CMP, or Direct Burial
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685 and UL NFPA-262 Plenum Versions

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D4851	1	24 AWG (7x32) 26 Ω/Mft	FEP .020	Al. Foil-100% with drain wire TC Braid 90%	.032	.232	CM	12.8 pf/ft* 23 pf/ft** 120 Ω
DRS485B	1	22 AWG (7x30) 17.4 Ω/Mft	.029 Foam PE	Al. Foil-100% with drain wire TC Braid 65% Water Block	.032	.232	Direct Burial	11 pf/ft* 20.9 pf/ft** 120 Ω
D4852	2	24 AWG (7x32) 26 Ω/Mft	FEP .020	Al. Foil-100% with drain wire TC Braid 90%	.032	.340	CM	12.8 pf/ft* 23 pf/ft** 120 Ω
D4853	3	24 AWG (7x32) 26 Ω/Mft	FEP .020	Al. Foil-100% with drain wire TC Braid 90%	.032	.360	CM	12.8 pf/ft* 23 pf/ft** 120 Ω
D254851	1	24 AWG (7x32) 26 Ω/Mft	Foam FEP .018	Al. Foil-100% with drain wire TC Braid 90%	.017	.202	CMP	12 pf/ft* 22 pf/ft** 120 Ω
D254852	2	24 AWG (7x32) 26 Ω/Mft	Foam FEP .018	Al. Foil-100% with drain wire TC Braid 90%	.017	.305	CMP	12 pf/ft* 22 pf/ft**

Insulation Color Code
Pair Color Code
Pair 1. Blue- White
Pair 2. Orange-White
Pair 3. Green-White
Pair 4. Brown-White

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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

Electrical Characteristics Nom. Vel of Propagation - 66% - (Plenum 76%) Nom. Impedance Ω 24 AWG - 120 Ω
--



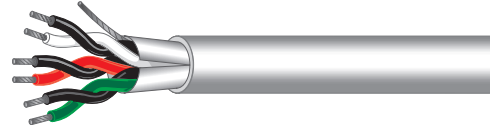
Multiple Pair / Overall Shielded

Applications:

- Indoor for:
- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data
- DMX Audio
- RS-485
- RS-232

Description:

- ASTM Tinned Copper
- Polyolefin Insulation
- Overall Shield 100% Coverage of Aluminum
- Polyester Foil with 24 AWG Stranded
- Tinned Copper Drain Wire
- Twisted-Pair Construction
- Overall PVC Jacket



Rating:

- NEC Type CM
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D2401	1	24 AWG (7x32) 26 Ω/Mft	.013	Al. Foil 100%	.030	.160	CM	14.5 pf/ft* 26 pf/ft **
D2402	2	24 AWG (7x32) 26 Ω/Mft	.013	Al. Foil 100%	.030	.228	CM	14.5 pf/ft* 26 pf/ft **
D2404	4	24 AWG (7x32) 26 Ω/Mft	.013	Al. Foil 100%	.030	.268	CM	14.5 pf/ft* 26 pf/ft **

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D3651	2	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.030	.235	CM	26 pf/ft* 47 pf/ft **
D3653	4	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.030	.268	CM	26 pf/ft* 47 pf/ft **

Insulation Color Code
Pair Color Code
Pair 1. Black/Red
Pair 2. Black/White
Pair 3. Black/Green
Pair 4. Black/Blue

Electrical Characteristics
Nom. Velocity of Propagation - 66%
Nom. Impedance Ω 24 AWG - 100 Ω
Nom. Impedance Ω 22 AWG - 55 Ω

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

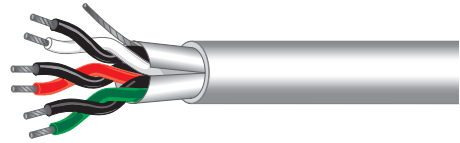
Multiple Pair / Overall Shielded

Applications:

- Indoor Plenum Spaces:
- Control
- Signaling
- Electronic Data
- Microprocessor Based
- Serial Data

Description:

- ASTM 24 AWG Tinned Copper
- Teflon Insulation
- Overall Shield 100% Coverage of Aluminum
- Polyester Foil with 24 AWG Stranded Drain Wire
- Twisted-Pair Construction
- Flexible Plenum Jacket



Rating:

- NEC Type CMP
- UL and cUL Listed or cETLus Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D252401	1	24 AWG (7x32) 26 Ω/Mft	.013	Al. Foil 100%	.015	.115	CMP	14.5 pf/ft* 26 pf/ft**
D252402	2	24 AWG (7x32) 26 Ω/Mft	.013	Al. Foil 100%	.015	.188	CMP	14.5 pf/ft* 26 pf/ft**

Electrical Characteristics
 Nom. Vel of Propagation - 69%
 Nom. Impedance Ω 24 AWG - 100 Ω

Description:

- ASTM 22 AWG Tinned Copper
- Teflon Insulation
- Overall Shield 100% Coverage of Aluminum
- Twisted-Pair Construction
- Flexible Plenum Jacket
- Polyester Foil with 24 AWG Stranded Drain Wire

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D253651	2	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.015	.191	CMP	25 pf/ft* 45 pf/ft**
D253652	3	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.015	.204	CMP	25 pf/ft* 45 pf/ft**

Insulation Color Code
Pair Color Code
Pair 1. Black/Red
Pair 2. Black/White
Pair 3. Black/Green

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

Electrical Characteristics
 Nom. Velocity of Propagation - 69%
 Nom. Impedance Ω 22 AWG - 55 Ω

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Teflon = Fluorinated Ethylene Propylene
- Plenum Installation Precautions, see Technical Reference Section



OFNP Indoor / Outdoor Distribution

Applications:

- Building Interconnection
- Telecommunication and Data
- Long-Haul Networking
- Ducts Between Buildings

Bend Radius (vs. Cable OD)

Installation: 20 x OD

Operation: 10 x OD

Temperature Range

Storage: -40°C to 70°C (-40°F to 158°F)

Installation: -20°C to 70°C (-4°F to 158°F)

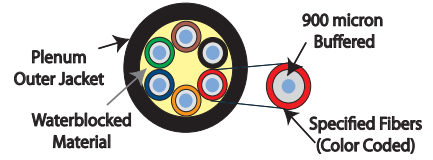
Operation: -40°C to 70°C (-40°F to 158°F)

Description:

- 900 µm Tight Buffered Fibers
- Color Coded for Easy Termination
- Flame Retardant
- UL Listed for Code Compliance
- Individual Subunit Jackets

Rating:

- Indoor/Outdoor Design
- OFNP - Plenum Rated
- Fully Water-Blocked TIA-455-82 Test



Catalog No.	No. of Fibers	Nom. OD	Min Bend Radius Short Term	Min Bend Radius Long Term	Max. Load Installation	OM/OS Rating Available
		Inches				
WP9X043T	2	.190	3.0 in 7.6 cm	2.0 in 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X045T	6	.190	3.0 in 7.6 cm	2.0 in 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X048T	12	.225	3.4 in 8.6 cm	2.3 in 5.8 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X611T	24	.330	4.9 in 12.4 cm	3.3 in 8.4 cm	600 lbs. 2700 Newtons	OM1 OM3 OM4 OS1/2

Part Number Builder: Replace X with Glass Size Code

WP9C611T - 24 Fiber OM3

Optical Characteristics						
Glass Type	Code (X)	OM Size	Operating Wavelength (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB/km)	Jacket Color
62.5/125 µm Multimode	B	OM1	850 nm/1300 nm	500/500	3.50/1.25	Black
50/125 µm Multimode	C	OM3	850 nm/1300 nm	1500/2500	3.50/1.25	Black
50/125 µm Multimode	E	OM4	850 nm/1300 nm	3500/4700	3.50/1.25	Black
8/125 µm Singlemode	W	OS1/2	1300 nm/1550 nm	--	.80/.50	Black

10G Ethernet:
OM3: 300 m
OM4: 400 m

40G Ethernet:
OM3: 100 m
OM4: 150 m

Insulation Color Code		
Fiber Optic Distribution Color Code		
1. Blue	5. Slate	9. Yellow
2. Orange	6. White	10. Violet
3. Green	7. Red	11. Rose
4. Brown	8. Black	12. Aqua

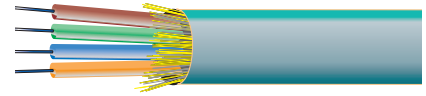
50/125 μm - Digital Media Fiber Optic Type

Applications:

- Riser Wiring
- Office Wiring
- Computer Room Wiring
- Media Control - AV 8G

Description:

- 900 μm Tight Buffered Fibers
- Individually Jacketed Fibers
- Color Coded for Easy Termination
- Flame Retardant
- UL Listed for Code Compliance



Rating:

- NEC Type OFNR - M9C006
- NEC Type OFNP - M9C014

Catalog No.	No. of Fibers	Nom. OD	Min Bend Radius Short Term	Min Bend Radius Long Term	UL Rating	Transmission Rating
WP9C006	4	.300	4.5 in	3.0 in	OFNR	OM3 50/125 μm LOF
WP9C014	4	.300	4.5 in	3.0 in	OFNP	OM3 50/125 μm LOF

NOTES:

OM3 - 50/125 μm Laser Optimized Fiber Cables
TIA 568-C.3 - 300 meters - @ 10G-BASE-T

8G Fiber-Crestron

CRESFIBER8G NP
CRESFIBER8G P

WPW

M9C006
M9C014

Optical Characteristics

Glass Type	Code (X)	OM Size	Operating Wavelength (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)	Jacket Color
50/125 μm Multimode	C	OM3	850 nm/1300 nm	1500/500	3.50/1.25	Aqua



CORNING
Optical Fibers

ISO/IEC 11801, Information technology – Generic Cabling for Customer Premises is being overhauled. The last version, edition 2.2, was published in 2011. In that version, ISO/IEC 11801 was one all-inclusive document. Since then, because of its size, the standard has been divided into six parts. One part is the Optical Fiber Interconnect. The Optical Fiber Interconnect shows relative distances for different glass sizes and transmission bandwidth.

Understanding ISO 11801 Standards

Transmission Standard		100 Mb	1 Gb	10 Gb	40 Gb	100 Gb
OM1	62.5/125 μm	2000 m	275 m	33 m	—	—
OM2	50/125 μm	2000 m	550 m	82 m	—	—
OM3	50/125 μm	2000 m	550 m	300 m	100 m	100 m
OM4	50/125 μm	2000 m	1000 m	550 m	150 m	150 m



Indoor / Outdoor Interlocking Armored

Applications:

- Campus/Inter Building
- Telecom Trunk
- Industrial
- Rugged Environments

Bend Radius (vs. Cable OD)

Installation: 20 x OD

Operation: 15 x OD

Temperature Range

Storage: -40°C to 70°C (-40°F to 158°F)

Installation: -20°C to 70°C (-4°F to 158°F)

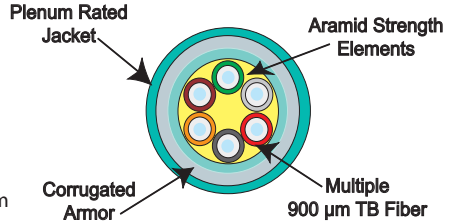
Operation: -40°C to 70°C (-40°F to 158°F)

Description:

- 900 µm Tight Buffered Fibers
- Color Coded for Easy Termination
- Flame-Retardant Plenum Rated
- Interlocking Armor
- UL Listed for Code Compliance
- Individual Subunit Jackets
- Tight Buffered - Indoor/Outdoor Plenum

Rating:

- Indoor/Outdoor Design
- OFNP - Plenum Rated
- Fully Water-Blocked TIA-455-82 Test



Catalog No.	No. of Fibers	Nom. OD	Min Bend Radius Short Term	Min Bend Radius Long Term	Max. Load Installation	OM/OS Rating Available
		Inches				
WP9X240T	6	.570	11 in	8.5 in	360 lbs. 1335 Newtons	OM1 OM3 SM2
WP9X241T	12	.620	12.5 in	9.3 in	400 lbs. 1335 Newtons	OM1 OM3 SM2
WP9X242T	24	.670	13 in	10 in	400 lbs. 1335 Newtons	OM1 OM3 SM2

Part Number Builder: Replace X with Glass Size Code

WP9C242T - 24 Fiber OM3 Armored

Optical Characteristics

Glass Type	Code (X)	OM Size	Operating Wavelength (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)	Jacket Color
62.5/125 µm Multimode	B	OM1	850 nm/1300 nm	500/500	3.50/1.25	Black
50/125 µm Multimode	C	OM3	850 nm/1300 nm	1500/2500	3.50/1.25	Black
50/125 µm Multimode	E	OM4	850 nm/1300 nm	3500/4700	3.50/1.25	Black
8/125 µm Singlemode	W	OS1/2	1300 nm/1550 nm	--	.80/.50	Black

10G Ethernet:
OM3: 300 m
OM4: 400 m

40G Ethernet
OM3: 100 m
OM4: 150 m

Insulation Color Code

Fiber Optic Distribution Color Code

1. Blue	5. Slate	9. Yellow
2. Orange	6. White	10. Violet
3. Green	7. Red	11. Rose
4. Brown	8. Black	12. Aqua

Assemblies - 62.5/125 μ m, 50/125 μ m, 50/125 μ m OM3, and Singlemode



ST Fiber Optic Assemblies	
Catalog No.	Description
FI-X001-xx	Simplex ST to ST Replace xx with: 3, 6, 10, 15, 30
FI-X002-xx	Duplex ST to ST Replace xx with: 3, 6, 10, 15, 30

SC Fiber Optic Assemblies	
Catalog No.	Description
FI-X001-xxSC	Simplex SC to SC Replace xx with: 3, 6, 10, 15, 30
FI-X002-xxSC	Duplex SC to SC Replace xx with: 3, 6, 10, 15, 30

LC Fiber Optic Assemblies	
Catalog No.	Description
FI-X001-xxLC	Simplex LC to LC Replace xx with: 3, 6, 10, 15, 30
FI-X002-xxLC	Duplex LC to LC Replace xx with: 3, 6, 10, 15, 30

ST to SC Fiber Optic Assemblies	
Catalog No.	Description
FI-X001-xxST/SC	Simplex ST to SC Replace xx with: 3, 6, 10, 15, 30
FI-X002-xxST/SC	Duplex ST to SC Replace xx with: 3, 6, 10, 15, 30

SC to LC Fiber Optic Assemblies	
Catalog No.	Description
FI-X001-xxLC/SC	Simplex SC to LC Replace xx with: 3, 6, 10, 15, 30
FI-X002-xxLC/SC	Duplex SC to LC Replace xx with: 3, 6, 10, 15, 30

Fiber Optic Assembly Glass Size

Replace X with:	Core Glass Size	Description
2	62.5 μ m	Standard 62.5 μ m fiber optic glass type multimode
3	8 μ m	8 μ m singlemode fiber optic glass type singlemode
4	50 μ m LOF	OM3 Laser Optimized 50 μ m multimode
5	50 μ m LOF	OM4 Laser Optimized 50 μ m multimode

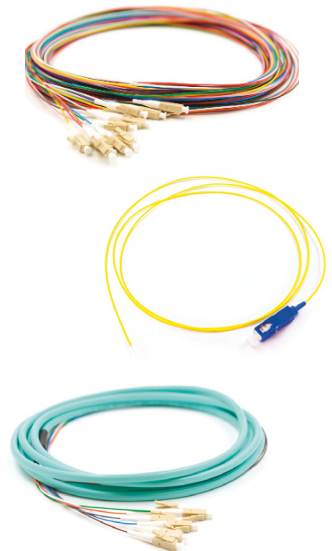
Replace xx with: 3, 6, 10, 15, 30 ft

OM3 15 ft LC to LC Assembly

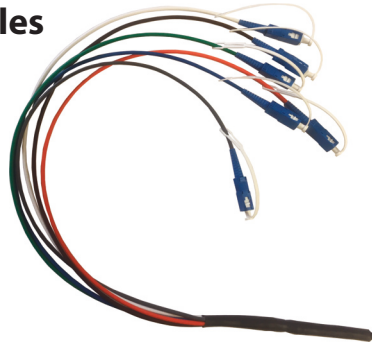
FI-4002-15LC

Fiber Optic Pigtails

Fiber Optic Pigtails	
FP12-51-9-003M	LC 12-Fiber Pigtail Kit, OM3, 3 Meter
FP12-6-2-003M	ST 12-Fiber Pigtail Kit, OM1, 3 Meter
FP12-9-2-003M	ST 12-Fiber Pigtail Kit, Singlemode, 3 Meter
FP12-9-9-003M	LC 12-Fiber Pigtail Kit, Singlemode, 3 Meter
FP1-51-4-003M	SC Single-Fiber Pigtail, OM3, 3 Meter
FP1-51-9-003M	LC Single-Fiber Pigtail, OM3, 3 Meter
FP1-6-4-003M	SC Single-Fiber Pigtail, OM1, 3 Meter
FP1-6-9-003M	LC Single-Fiber Pigtail, OM1, 3 Meter
FP1-9-4-003M	SC Single-Fiber Pigtail, Singlemode, 3 Meter
FP1-9-9-003M	LC Single-Fiber Pigtail, Singlemode, 3 Meter
FP6-51-4-003M	SC 6-Fiber Pigtail Kit, OM3, 3 Meter
FP6-51-9-003M	LC OM3 Multimode 6-Fiber Pigtail, 3 Meters
FP6-6-4-003M	SC 6-Fiber Pigtail Kit, OM1, 3 Meter
FP6-9-4-003M	SC 6-Fiber Pigtail Kit, Singlemode, 3 Meter
FP6-9-9-003M	LC OS1 Singlemode 6-Fiber Pigtail, 3 Meters



Long-Length 2- and 6-Fiber Pre-Terminated Cables



West Penn Wire's Indoor/Outdoor OFNP Pre-Terminated Fiber Optic Assemblies are perfect for fiber optic installations within a building or between two buildings. West Penn Wire can provide fully tested long-length assemblies to allow plug-and-play fiber optic installation.

West Penn Wire Pre-Terminated Long-Length Fiber Assemblies are built to your specifications using the best materials with highly skilled technicians in an environmentally controlled work space. All terminations are fully tested and ready for immediate installation.

We provide either 2-or 6-fiber Indoor/Outdoor OFNP OM1, OM3, OM4 and OS2 (singlemode) long-length assemblies. The assemblies are terminated at each end with ST, SC or LC connectors.

The length of fiber cable can range from 50 ft to 1000 ft

ST to ST		Glass Size (X)				Length
Part No.	Cable Description	OM1	OM3	OM4	OS2	Replace xxx:
FI-9X043-xxxST	Indoor/Outdoor OFNP 2 Fiber - 4 ST Connectors	B	C	E	W	50-1000 ft
FI-9X045-xxxST	Indoor/Outdoor OFNP 6 Fiber - 12 ST Connectors	B	C	E	W	50-1000 ft

SC to SC		Glass Size (X)				Length
Part No.	Cable Description	OM1	OM3	OM4	OS2	Replace xxx:
FI-9X043-xxxSC	Indoor/Outdoor OFNP 2 Fiber - 4 SC Connectors	B	C	E	W	50-1000 ft
FI-9X045-xxxSC	Indoor/Outdoor OFNP 6 Fiber - 12 SC Connectors	B	C	E	W	50-1000 ft

LC to LC		Glass Size (X)				Length
Part No.	Cable Description	OM1	OM3	OM4	OS2	Replace xxx:
FI-9X043-xxxLC	Indoor/Outdoor OFNP 2 Fiber - 4 LC Connectors	B	C	E	W	50-1000 ft
FI-9X045-xxxLC	Indoor/Outdoor OFNP 6 Fiber - 12 LC Connectors	B	C	E	W	50-1000 ft

SC to LC		Glass Size (X)				Length
Part No.	Cable Description	OM1	OM3	OM4	OS2	Replace xxx:
FI-9X043-xxxCL	Indoor/Outdoor OFNP 2 Fiber - 2 SC - 2 LC	B	C	E	W	50-1000 ft
FI-9X045-xxxCL	Indoor/Outdoor OFNP 6 Fiber - 6 SC - 6 LC	B	C	E	W	50-1000 ft

Kits and Connectors - FiberExpress - Brilliance

FiberExpress Kit	
Part No.	Description
FI-4270	FiberExpress Field Installable Complete Kit
FiberExpress Kit Components	
FI-4276	Support Handle with Adapters LC, SC & ST
FI-4283	Visual Fault Finder -VFL -250 with Adapter Cords
FI-4285	Field Cleaving Tool



Other Components:

- SC, ST and LC Adapters
- Alcohol Wipes
- Waste Bottle
- Safety Glasses
- Scissors
- Tweezers
- USB Key with Demo Video Files

FiberExpress Connectors 900 μm	
Part No.	Description
LC Connectors	
FI-4240	LC - 900 μm, Multimode Beige Connector, 62.5 μm
FI-5252	LC - 900 μm, Multimode Connector, 50 μm OM4
FI-4242	LC - 900 μm, Multimode Aqua Connector, 50 μm OM3
FI-4243	LC - 900 μm, Singlemode Blue Connector, 8 μm
SC Connectors	
FI-4244	SC - 900 μm, Multimode Beige Connector, 62.5 μm
FI-5253	SC - 900 μm, Multimode Connector, 50 μm OM4
FI-4246	SC - 900 μm, Multimode Aqua Connector, 50 μm OM3
FI-4247	SC - 900 μm, Singlemode Connector, 8 μm
ST Connectors	
FI-4248	ST - 900 μm, Multimode Beige Connector, 62.5 μm
FI-4249	ST - 900 μm, Multimode Black Connector, 50 μm
FI-4250	ST - 900 μm, Multimode Aqua Connector, 50 μm OM3
FI-4251	ST - 900 μm, Singlemode Connector, 8 μm



FiberExpress 2.0 mm Boots	
Part No.	Description
FI-5214	2.0 mm boots for FiberExpress Brilliance Connectors

FI-5214 - This part is used for 2.0 mm jacketed fibers such as West Penn Wire:

- WP9C006
- WP9C014

Dual LC Clip	
Part No.	Description
FI-FXBUCLLDB	LC/LC Duplex Clip



Splice and Adaptors

Splicing Tools and Splice	
Catalog No.	Description
3M-2501	3M Mechanical Splice Tool
3M-2529	3M Splice
SPL-MSPL6	Metal Splicing Tray 6 Fibers
SPL-MSPL12	Metal Splicing Tray 12 Fibers
Panel-Mount Adaptors	
MS-SC2MSP1	SC-SC Simplex Multimode
MS-SC2MDP1	SC-SC Duplex Multimode
MS-SC2SSP1	SC-SC Simplex Singlemode
MS-SC2SDP1	SC-SC Duplex Singlemode
MS-LC2MDP1	LC-LC Duplex Multimode
MS-LC3OD	LC-LC Duplex Multimode OM3
MS-LC1SDP1	LC-LC Duplex Singlemode
MS-LC3ODQ	LC-LC Quad Multimode OM3



3M-2501



3M-2529



SPL-MSPL12



MS-SCMDP1



MS-LC3ODQ



MS-LC1SDP1

HDMI Fiber Optic Cables

DR - Digital Ribbon HDMI Fiber

Fiber Optic Digital Ribbon HDMI Assemblies	
Catalog No.	Description
DR-PCB-HXXM	Digital Ribbon HDMI Fiber Cable Plenum

Replace **XX** with: 10,15, 23, 30, 50, 70, 100 in meters



Pulling Sock	
Catalog No.	Description
17507	Digital Ribbon Pulling Sock

Rack-Mount Enclosures & Wall Mount

Rack-Mount Patch Panels	
PP-W1U1	1 RU - Accommodates - 3 Adapter Plates
PP-W2U1	2 RU - Accommodates - 6 Adapter Plates
PP-W4U1	3 RU - Accommodates - 12 Adapter Plates
FI-RM24	2 RU - Accommodated 4 Adapter Plates
FI-RM48	3 RU - Accommodated 8 Adapter Plates

Wall-Mount Patch Panels	
PP-WM1S	1 Adapter Plate - Wall Mount 7 in x 6 in x 1.5 in
PP-WM2S	2 Adapter Plate - Wall Mount 15.625 in x 13 in x 2.125 in
PP-WM4S	4 Adapter Plate - Wall Mount 15.625 in x 15 in x 3.5 in
FI-WM12	2 Adapter Plate - Wall Mount WPW
FI-WM24	4 Adapter Plate - Wall Mount WPW
FI-WM48	8 Adapter Plate - Wall Mount WPW
FI-WM100	20 Adapter Plate - Wall Mount WPW



Adapter Plates & Cassettes

Fiber Optic Adapter Plates	
AS-WC06M	SC Simplex Multimode - 6 Fiber
AS-WC06G	SC Simplex OM3/4 10G Multimode - 6 Fiber
AS-WC06S	SC Simplex Singlemode - 6 Fiber
AS-WC12M	SC Duplex Multimode - 12 Fiber
AS-WC12G	SC Duplex OM3/4 10G Multimode - 12 Fiber
AS-WC12S	SC Duplex Singlemode - 12 Fiber
AS-WT06M	ST Simplex Multimode - 6 Fiber
AS-WT06S	ST Simplex Singlemode - 6 Fiber
AS-WT12M	ST Duplex Multimode - 12 Fiber
AS-WT12S	ST Duplex Singlemode - 12 Fiber
AS-WL12M	LC Duplex Multimode - 12 Fiber
AS-WL12G	LC Duplex OM3/4 10G Multimode - 12 Fiber
AS-WL12S	LC Duplex Singlemode - 12 Fiber
AS-WL24M	LC Quad Multimode - 24 Fiber
AS-WL24G	LC Quad OM3/4 10G Multimode - 24 Fiber
AS-WL24S	LC Quad Singlemode - 24 Fiber

Fiber Optic Cassette Plates	
DM-1MLCB24	24 LC Singlemode Cassette
DM-1MSCB12	12 SC Singlemode Cassette
DM-4MLCC12	12 LC Fiber Cassette OM3 1 MPO
DM-4MLCC24	24 LC OM3 Cassette 1 MPO
DM-4MSCC12	12 Fiber SC OM3 1 MPO



Fiber Optic Cable Accessories
Adapter Plates for Enclosures
5.1 in 1.15 in .060 in

Rack Mount Fiber Panels

Fiber Optic Adapter Plates	
12LC-FT	SC Simplex Multimode - 6 Fiber
12SC-FT	SC Simplex OM3/4 10G Multimode - 6 Fiber
24LC-FT	SC Simplex Singlemode - 6 Fiber
24SC-FT	SC Duplex Multimode - 12 Fiber
48LC-FT	SC Duplex OM3/4 10G Multimode - 12 Fiber
48SC-FT	SC Duplex Singlemode - 12 Fiber
FI-RME24STL	24 Port ST Loaded (19 in - 3.470 in H x 8.00 in D)
FI-RME48STL	48 Port ST Loaded (19 in - 3.470 in H x 8.00 in D)



West Penn Wire provides certified training for Fiber Optic Installations.

What you will learn:

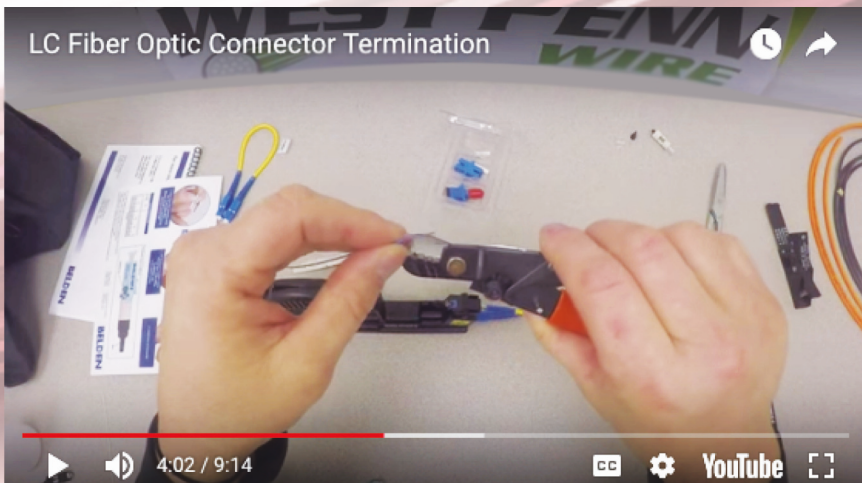
- > Optical Fiber construction
- > Advantages of a Fiber Optic Installation
- > Types of Fiber Optics
- > Connector Types
- > Connector Termination (Hands-On)
- > Splicing Fiber Optics
- > Enclosure/Panel Installation
- > System Design
- > Testing



West Penn Wire provides Installation & Termination Videos on our Resource Center at www.westpennwire.com





Termination Videos:

- > Fiber Optic ST Termination
- > Fiber Optic SC Termination
- > Fiber Optic LC Termination
- > RF 50 Ω BNC Termination
- > Category Cabling Terminations



VIDEO



-  Digital Video
-  CCTV
-  CATV/MATV
-  RF 50 Ohm

VIDEO

Digital Video

HD-SDI Cables.....	67
HD-SDI Connectors & Accessories.....	68
Category 6A Cables	69
Category 6 Cables	70
HDMI Assemblies.....	71
Category 7 Cables	72

Analog CCTV Cables

Miniature CCTV Cables 25 AWG.....	73
RG59/U CCTV Cables.....	74-75
RG6/U CCTV Cables	76-77
RG11/U CCTV Cables.....	78
CCTV Cable Connectors & Accessories.....	79-81

CATV / MATV Cables

RG6/U CATV Cables	82-84
RG11/U CATV Cables.....	85
CATV Connectors & Accessories.....	86-87

RF 50 Ohm Video

RF 50 Ohm Cables	88
RF 50 Ohm Accessories	89-90

HD-SDI Video Cables



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
HD825	CMR	25 AWG (Solid) BC 30 Ω/Mft	Gas Injected PE .085	Bifoil 100% Tinned Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-18 CN-BNCP-825	Strip Tool TL-KLEIN	Crimp/Comp Tool TL-105 TL-548G	
HD25825	CMP	25 AWG (Solid) BC 30 Ω/Mft	Foam FEP .078	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.146	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-18 CN-BNCP-825	Strip Tool TL-KLEIN	Crimp/Comp Tool TL-105 TL-548G	
819	CMR	20 AWG (Solid) BC 10 Ω/Mft	Gas Injected PE .142	Bifoil 100% Tinned Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. BNC 75 Ω Compression BNC	Connectors CN-BM74-32 DB59BNCHD-25	Strip Tool TL-7503	Crimp/Comp Tool TL-104 CPLCRBC-BR	
25819	CMP	20 AWG (Solid) BC 10 Ω/Mft	Foam FEP .135	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.200	16.2 pf/ft	84%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-32 DB59BNCHD-25	Strip Tool TL-7503	Crimp/Comp Tool TL-104 CPLCRBC-BR	
AQC819	CM	20 AWG (Solid) BC 10 Ω/Mft	Gas Injected PE .142	Waterblock tape + Bifoil 100% TC Braid 95%	Sunlight-Resistant PVC	.242	16.2 pf/ft	82%	75 Ω
					Underground In-Conduit				
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-32 DB59BNCHD-25	Strip Tool TL-7503	Crimp/Comp Tool TL-104 CPLCRBC-BR	
6350	CMR	18 AWG (Solid) BC 6.4 Ω/Mft	Gas Injected PE .180	Bifoil 100% Tinned Copper Braid 95%	PVC	.275	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM73-5 DB6BNCHD-25	Strip Tool TL-7503 L-CSST	Crimp/Comp Tool TL-107 CPLCRBC-BR	
256350	CMP	18 AWG (Solid) BC 6.4 Ω/Mft	Foam FEP .170	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.236	16.2 pf/ft	84%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM73-4 DB6BNCHD-25	Strip Tool TL-7503	Crimp/Comp Tool TL-107 CPLCRBC-BR	
6450	CMR	18 AWG (Solid) BC 6.4 Ω/Mft	Gas Injected PE .180	Bifoil 100% Tinned Copper Braid 95%	PVC	.275	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM73-5 DB6BNCHD-25	Strip Tool TL-59/6 L-CSST	Crimp/Comp Tool TL-107 CPLCRBC-BR	
256450	CMP	18 AWG Silver Copper	Foam FED .168	Bifoil 100% Tinned Copper Braid 95%	Plenum PVC	.229	16.2 pf/ft	85%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM73-5 DB6BNCHD-25	Strip Tool TL-59/6 L-CSST	Crimp/Comp Tool TL-107 CPLCRBC-BR	

Jacket Color Code

Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964





BNC Style Compression - 360 Double Bubble	
Catalog No.	Description
DB15BNCHD	MiniMax 25 AWG Cables - Purple Band
DB59BNCHD	RG59/U - Red Band
DB6BNCHD	RG6/U - Green Band
CN-BNC6-12G	12 GHz 6450 BNC Compression
DB6BNCPL2	RG6/U Plenum
CPLCRBC-BR	Double Bubble Compression Tool

360 Compression System:

- True 360-Degree Compression
- Creates Permanent "Double Bubble" Connection
- Environmentally Sealed
- Superior Return Loss Values
- 75 Ω Impedance
- Superior Pull Out Strength
- High-Definition Applications

75 Ω BNC to 75 Ω BNC

Digital Video MiniMax Plenum		
Catalog No.	Length	Jacket Colors
WP-HD25825BK-3	3 ft	Black
WP-HD25825BK-6	6 ft	
WP-HD25825BK-10	10 ft	
WP-HD25825BK-15	15 ft	
WP-HD25825BK-20	20 ft	
WP-HD25825BK-25	25 ft	

Digital Video RG59/U Non-Plenum		
Catalog No.	Length	Jacket Colors
WP-7B819BK-3	3 ft	Black
WP-7B819BK-6	6 ft	
WP-7B819BK-10	10 ft	
WP-7B819BK-15	15 ft	
WP-7B819BK-20	20 ft	
WP-7B819BK-25	25 ft	



HD-SDI Transmission Distances

Catalog No.	Return Loss 100 kHz-1 GHz 1 GHz-3 GHz	Attenuation (dB/100 ft)													
		1 MHz	3.6 MHz	10 MHz	71.5 MHz	135 MHz	270 MHz	360 MHz	540 MHz	720 MHz	1 GHz	2.25 GHz	3 GHz	4.5 GHz	
HD825	>23 dB >21 dB	.48	.98	1.73	3.51	4.69	6.51	7.72	9.3	10.88	13.34	18.92	22.16	-	
HD25825	>23 dB >21dB	.48	.99	1.75	3.54	4.73	6.57	7.79	9.38	10.98	13.46	19.28	22.80	-	
819	>23 dB >21 dB	.28	.44	.66	1.93	2.62	3.79	4.3	5.31	6.23	7.49	11.19	13.23	16.40	
25819	>23 dB >21 dB	.28	.48	1.03	2.20	2.83	4.55	5.24	6.12	7.29	9.40	17.48	21.60	-	
6350	>23 dB >21 dB	.23	.36	.5	1.47	1.93	2.85	3.22	3.93	4.65	5.52	8.75	10.45	13.30	
256350	>23 dB >21 dB	.24	.45	.75	1.77	2.45	3.30	4.0	5.10	5.90	7.30	11.59	13.71	-	

Some West Penn Wire items are subject to manufacturing minimums.

SDI JACKET COLORS

Note: A minimum order quantity may apply on select jacket colors.

4-Pair 23 AWG F/UTP and UTP

Applications:

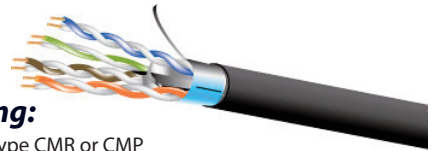
- Indoor for:
- 10G BASE-T Ethernet
- Horizontal LAN Cabling
- Digital Integration 4K AV
- AV Digital Video

Description:

- ASTM Solid Bare Copper
- Non-Plenum & Plenum Versions
- Multiple-Pair Shielded F/UTP Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA 262 Smoke & Flame Test



Category 6A F/UTP - Test to 750 MHz - 10G

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4346AF	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	—	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254346AF	4	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	—	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Category 6A UTP - Test to 750 MHz - 10G

Applications:

- Indoor for:
- 10G BASE-T Ethernet
- Horizontal LAN Cabling
- IPBaseT 4K AV Distribution

Description:

- ASTM Solid Bare Copper
- Non-Plenum & Plenum Versions
- Multiple-Pair Shielded UTP Twisted-Pair Construction
- Overall Jacket



Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4346A	4	23 AWG Solid 22 Ω/Mft	Thermo-Plastic	UTP	PVC	—	CMR	Nom. Cap. 13 pf/ft Nom. Imp. 100 Ω
254346A	4	23 AWG Solid 22 Ω/Mft	FEP	UTP	Plenum Thermo-Plastic	—	CMP	Nom. Cap. 13 pf/ft Nom. Imp. 100 Ω

Insulation Color Code

Pair No.	Pair Color Code	
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White

Jacket Color Code

Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



4-Pair 23 AWG UTP and F/UTP

Applications:

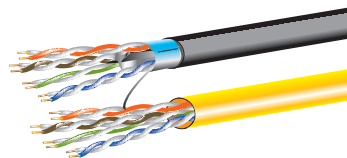
- Indoor for:
- 1G BASE-T Ethernet
- Horizontal LAN Cabling
- Voice Backbone Cabling
- Digital Integration
- AV Digital Video

Description:

- ASTM Solid Bare Copper
- Plenum and Non-Plenum Versions
- Multiple-Pair Shielded F/UTP
- Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA 262 Smoke & Flame Test
- TIA/EIA-568-B.2



Category 6 F/UTP - Test to 550 MHz

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4246F	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.290	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254246F	4	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	.280	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Category 6 UTP Test to 550 MHz

Description:

- ASTM Solid Bare Copper
- Plenum and Non-Plenum Versions
- Multiple-Pair Unshielded Twisted-Pair Construction
- Overall Jacket

Rating:

- NEC Type CM, CMR or CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666 and NFPA 262 Smoke & Flame Test
- TIA/EIA 568-B.2

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type	Shielding	Jacket Type	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
4246EZ	4	23 AWG Solid 24 Ω/Mft	Polyolefin	None UTP	PVC	.220	CMR	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
254246EZ	4	23 AWG Solid 24 Ω/Mft	Flame Retardant Polyolefin/FEP	None UTP	Plenum Thermo-Plastic	.225	CMP	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4246OSP Outdoor	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Gel Water-Blocked	UV-Resistant PE	.266	-	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω
4246IO Indoor/ Outdoor	4	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP- Gel Water-Blocked	UV-Resistant Polyolefin .040 in	.271	CM	Nom. Cap. 14 pf/ft Nom. Imp. 100 Ω

Insulation Color Code

Pair No.	Pair Color Code	
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964



HDMI Assemblies

HDMI Assemblies	
Catalog No.	Description
CA-HDMIccc-xx	18G HDMI 2.0a Assemblies Multiple Colors Flexible
ccc: Color BLU, BLK, RED, GRN xx: Length 05, 1, 2, 3, 5 m	
CN-HDExxxWP	HDMI UltraHD and 4K Molded Assemblies
xxx: Length 002, 003, 005, 007, 010, 015, 020 m	



HDMI Plenum-Rated Assemblies	
Catalog No.	Description
DR-H2.1-xx	Digital Ribbon HDMI Fiber Optic Assemblies
xx: Length 10, 15, 23, 30, 50, 70 m	
CN-CPHMHMETHxx	High-Speed HDMI Assemblies with Ethernet Plenum
xx: Length 15, 25, 35, 50 ft	



Category 7 and Category 6A F/UTP Cable Accessories

RJ45 Jacks	
RJ456AS-C6A	RJ45 Cat6A F/UTP - 10G West Penn Wire Branded
KJS458TL-C6A	RJ45 Cat6A F/UTP - 10G - Metal - Tool-less
KJS458MT-C6A	RJ45 Cat6A F/UTP - 10G - Metal MT Style Punchdown

Modular Plugs	
CN-MFP8	Cat 7 F/STP Modular Plug 10G

Patch Panels	
24PP6AS-L	24 Port Cat6A F/UTP 10G - 1.75 in - 1RU- West Penn
48PP6AS-L	24 Port Cat6A F/UTP 10G - 1.75 in - 1RU - West Penn

Category 6 F/UTP Cable Accessories

CATEGORY 6 & 6A F/UTP Modular Plug	
Catalog No.	Description
106190	Cat6A Modular Plug 10G with Ext. Ground - BAG 100
106192	Cat6A Modular Plug 10G with Ext. Ground - BAG 50
90170	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)
90170-BI	Cat6A 10G Termination Kit: 106190 + 12515C (Crimp Tool) +15010C (Strip Tool) + 12360C (Ext. Ground Crimp Tool)+BOOTS

CATEGORY 6A F/UTP Jacks	
Catalog No.	Description
RJ456S-C6C	RJ45 Cat6 F/UTP - Metal - West Penn
KJS458TL-C6C	RJ45 Cat6 F/UTP - Metal - Tool-less

CATEGORY 6 F/UTP PATCH PANELS	
24PP6CS-L	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU - West Penn
48PP6CS-L	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU - West Penn
24458S-C6C	24 Port Cat6 F/UTP Shielded - 1.75 in - 1RU

ANALOG CCTV CABLES

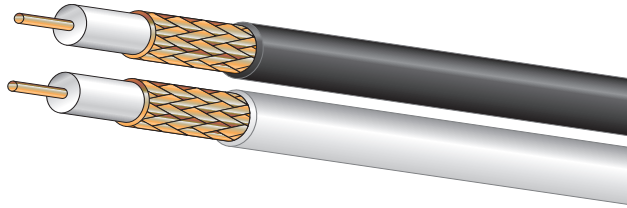
CCTV MINIMAX



MiniMax Miniature

Applications:

- CCTV - Up to 500 ft
- Security Baseband Video
- Rack Building Cables
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
825	CM	25 AWG (Solid) BC 30 Ω/Mft	Gas Injected PE† .085	Bare Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC				
25825	CMP	25 AWG (Solid) BC 30 Ω/Mft	Foam FEP .078	Bare Copper Braid 95%	Flex Plenum	.146	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC				
825182	CM	25 AWG (Solid) BC 30 Ω/Mft	Gas Injected PE† .085	Bare Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75 Ω
					Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC				



Note:
This cable contains 1 coax unit plus
1 pair 18 AWG Unshielded

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

Notes:

- 500 ft put-up lengths may be available, minimum quantities may apply
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
Non-Plenum	>23 dB	.5	1.8	3.12	4.19	5.79	8.59	11.14	13.22	14.41
Plenum	>23 dB	.5	1.8	3.12	4.40	6.41	9.66	12.61	14.95	16.18



ANALOG CCTV CABLES

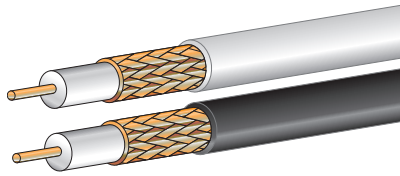
CCTV RG59 / U



RG59 / U Type

Applications:

- CCTV - Up to 1200 ft
- Security Baseband Video
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
815	CMR	20 AWG (Solid) BC 10.1 Ω/Mft	Gas Injected PE† .142	Bare Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75 Ω
						Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-32 CN-BNC59MCV	Strip Tool TL-7503	Crimp/Comp Tool TL-104 TL-548G
AQC815	CM	20 AWG (Solid) BC 10.1 Ω/Mft	Gas Injected PE† .142	Bare Copper Braid 95% + Aquaseal Tape	Sunlight Resistant PVC	.242	16.2 pf/ft	82%	75 Ω
						Underground-In-Conduit			
						Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-32 CN-BNC59MCV	Strip Tool TL-7503	Crimp/Comp Tool TL-104 TL-548G
25815	CMP	20 AWG (Solid) BC 10.1 Ω/Mft	Foam FEP .135	Bare Copper Braid 95%	Flex. Plenum	.198	16.2 pf/ft	82%	75 Ω
						Connector Type 75 Ω 3 Pc. Crimp BNC 75 Ω Compression BNC	Connectors CN-BM74-32 CN-BNC59MCV	Strip Tool TL-7503	Crimp/Comp Tool TL-104 TL-548G

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- 500 ft put-up lengths may be available, minimum quantities may apply
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3 GHz

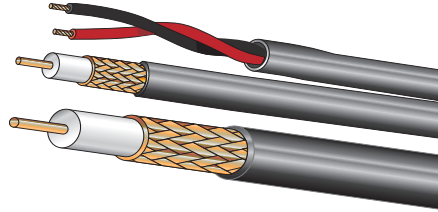
Electrical Specifications

Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
RG59/U	>23 dB	.29	.68	1.8	3.0	3.54	4.71	6.40	7.33	7.80

Siamese Construction Video & Power

Applications:

- CCTV
- Security Baseband Video
- Economy CCTV - Up to 750 ft
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
2815B	CM	20 AWG (Solid) BC 10.1 Ω/Mft	Gas Injected PE† .142	Bare Copper Braid 95%	PVC	.232 x .465	16.2 pf/ft	82%	75 Ω
Siamese Construction This cable contains 1 coax unit plus 1 pair 18 AWG (7x26) Unshielded									
252815	CMP	20 AWG (Solid) BC 10.1 Ω/Mft	Foam FEP .135	Bare Copper Braid 95%	Flex. Plenum	.198 x .465	16.2 pf/ft	82%	75 Ω
Siamese Construction This cable contains 1 coax unit plus 1 pair 18 AWG (7x26) Unshielded Fluoropolymer									

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75 Ω 3 Pc. Crimp BNC	CN-BM74-32	TL-7503	TL-104
75 Ω Compression BNC	CN-BNC59MVCV		TL-548G

Notes:

- 500 ft put up lengths may be available, minimum quantities may apply
- †- Gas Injected Polyethylene 100% Sweep Tested
- Standard Spool size, 1000 ft
- Spools are one piece, but lengths may vary +/- 10%
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
RG59/U	>23 dB	.29	.68	1.8	3.0	3.54	4.71	6.40	7.33	7.80
Plenum RG59/U	>23 dB	.30	.68	1.80	3.00	3.91	5.30	7.24	8.29	8.76



ANALOG CCTV CABLES

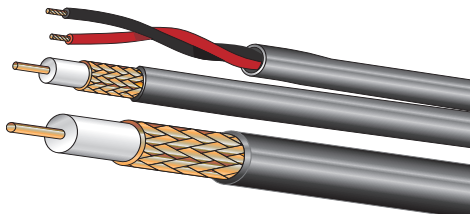
CCTV RG6 / U



Non-Plenum & Indoor / Outdoor

Applications:

- CCTV - Up to 1600 ft
- Security Baseband Video
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
806	CMR	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE † .180	Bare Copper Braid 95%	PVC	.270	16.2 pf/ft	82%	75 Ω
2806B	CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE † .180	Bare Copper Braid 95%	PVC	.280 x .580	16.2 pf/ft	82%	75 Ω
Siamese Construction This cable contains 1 coax unit plus 1 pair 16 AWG Stranded Unshielded									
AQC806	CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE † .180	Bare Copper Braid 95% Aquaseal Tape	Sunlight-Resistant PVC	.280	16.2 pf/ft	82%	75 Ω
							<i>Underground-In-Conduit</i>		
AQC2806	CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE † .180	B.C Braid 95% Aquaseal Tape	Sunlight-Resistant PVC	.280 x .580	16.2 pf/ft	82%	75 Ω
Siamese Construction This cable contains 1 coax unit plus 1 pair 16 AWG Stranded Unshielded Aquaseal Tape									
							<i>Underground-In-Conduit</i>		



Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75 Ω 3 Pc. Crimp BNC	CN-BM73-5	TL-7503	TL-104
75 Ω Compression BNC	CN-BNC6MVCV		TL-548G

Notes:

- 500 ft put-up lengths may be available, minimum quantities may apply
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
RG6/U Non-Plenum	>23 dB	.24	.52	1.18	1.83	2.73	3.95	5.38	6.13	6.45

ANALOG CCTV CABLES

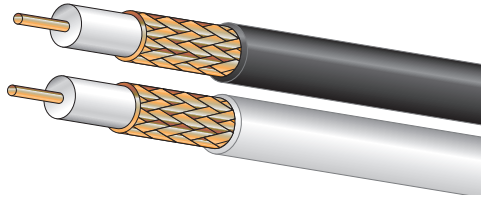
CCTV RG6 / U



RG6 / U Type Plenum

Applications:

- CCTV
- Security Baseband Video
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω		
25806	CMP	18 AWG (Solid) BC 6.5 Ω /Mft	Foam FEP .170	Bare Copper Braid 95%	Flex. Plenum	.230	16.2 pf/ft	82%	75 Ω		
				Connector Type		Connectors		Strip Tool		Crimp/Comp Tool	
				75 Ω 3 Pc. Crimp BNC		CN-BM73-4		TL-7503		TL-107	
				75 Ω Compression BNC		CN-BNC6MVCV				TL-548G	

Electrical Specifications

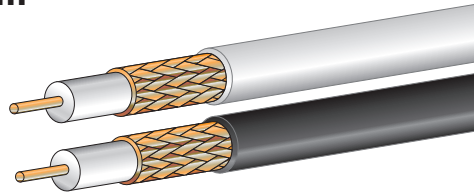
Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
Plenum RG6/U	>23 dB	.24	.52	1.18	1.93	3.02	4.45	6.09	6.93	7.24



RG11 / U Type Non-Plenum & Plenum

Applications:

- CCTV - Up to 2000 ft
- Security Baseband Video
- Division 28 05 13



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
811	CM	14 AWG (Solid) BC 2.6 Ω /Mft	Gas Injected PE† .280	Bare Copper Braid 95%	PVC	.405	16.2 pf/ft	82%	75 Ω
4811 Direct Burial	--	14 AWG (Solid) BC 2.6 Ω /Mft	Gas Injected PE† .280	Bare Copper Braid 95%	Inner Jkt. PVC Outer Jkt. PE	.405 .455	16.2 pf/ft	82%	75 Ω

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75 Ω 3 Pc. Crimp BNC	CN-BM53-26	TL-124	TL-113
75 Ω Compression BNC	FS11BNC	PS11	CPLCCGT-11BNC

Notes:

- 500 ft put-up lengths may be available, minimum quantities may apply
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz- 1 GHz	Attenuation (dB/100 ft)								
		1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	700 MHz	900 MHz	1 GHz
RG11/U Non-Plenum	>23 dB	.16	.35	.87	1.38	1.98	2.95	4.00	4.54	4.77
RG11/U Plenum	>23 dB	.16	.35	.87	1.44	2.19	3.32	4.53	5.14	5.35

Security Cable Assemblies BNC to BNC



CCTV - Cable Assemblies RG59/U	
Catalog No.	Length (ft)
WP-7B815BK-xx	Replace xx with: 3, 6, 10, 15, 20, 25

CCTV - Cable Assemblies MiniMax 25 AWG		
Catalog No.	Length	Jacket Colors
WP-7B825**-3	3 ft	BK ONLY COLOR AVAILABLE
WP-7B825**-6	6 ft	
WP-7B825**-10	10 ft	
WP-7B825**-15	15 ft	
WP-7B825**-20	20 ft	
WP-7B825**-25	25 ft	

CCTV - Cable Assemblies Plenum MiniMax 25 AWG		
Catalog No.	Length	Jacket Colors
WP-7B25825**-3	3 ft	BK ONLY COLOR AVAILABLE
WP-7B25825**-6	6 ft	
WP-7B25825**-10	10 ft	
WP-7B25825**-15	15 ft	
WP-7B25825**-20	20 ft	
WP-7B25825**-25	25 ft	

Security Accessories 75 Ohm BNC Compression Style

75 Ω BNC Compression Style - Window	
Catalog No.	Description
CN-BNCP-RGB	1 Pc. Miniature 25 AWG RGB - Window
CN-BNCP-825	1 Pc. MiniMax 25 AWG 825 - Window
CN-BNC59MVCV	1 Pc. RG59/U Window - Universal - YE
CN-BNC6MVCV	1 Pc. RG6/U Window - Universal - PU

75 Ω BNC Compression Style - ProSNS	
Catalog No.	Description
FS11BNC	RG11 BNC Compression
FSNS11HBNCPCLA	BNC RG11 Plenum Compression
FSNS6BNCU	ProSNS RG6 CCTV BNC Compression
FSNS6BNCPL	ProSNS RG6 CCTV BNC Compression Plenum
FSNS59BNCU	ProSNS RG59 CCTV BNC Compression
FSNS59BNCPL	ProSNS RG59 CCTV BNC Compression Plenum

CN-BNCP-RGB

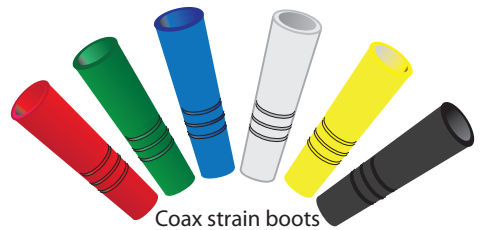


3 Pc. 75 Ω BNC



Security Accessories 75 Ω BNC Crimp Style

75 Ω BNC Crimp Style	
Catalog No.	Description
CN-BM74-19	4 Pc. Miniature RGBHV
CN-BM74-18	4 Pc. MiniMax Miniature
CN-BM74-32	4 Pc. RG59/U PVC or Plenum
CN-BM73-5	3 Pc. RG6/U PVC
CN-BM73-4	3 Pc. RG6/U Plenum
CN-BF74-18	4 Pc. Female MiniMax Miniature



Coax strain boots

B58TN-xx - Strain Relief Boots for Miniature Coaxial Connectors
 B59TN-xx - Strain Relief Boots for RG59/U Coaxial Connectors
 xx: RD, GN, BL, WH, YE, BK



Security Accessories

Stripping Tools

Stripping Tools	
Catalog No.	Description
TL-124	3 Cut Tool RG8, RG11, RG213
TL-KLEIN	All-Purpose Strip Tool
TL-121	Pro Series 3-step adjustable blades
PS11	Compression Strip Tool - 2 Cut- RG11

TL-KLEIN



TL-107



Security Accessories

Crimp Tools

Tools Crimp and Compression	
Catalog No.	Description
TL-104	RG58, RG59/U, RG59 Plenum
TL-105	MiniMax 25 AWG and 26 AWG
TL-803	Universal MiniMax and RG59
TL-107	Universal RG59, RG6
TL-113	RG8/U & RG11/U
TL-25810	RG8/U Plenum 25810
TL-548G	Compression Tool
CPLCCT-SLM	Compression Tool ProSNS Connectors
CPLCCT-11BNC	RG11/U Comp. Tool
SNSUNI	RG11/U Plenum BNC Compression Tool

Crimp Tool Die Sizes: inches

TL-104: .068, .213, .255

TL-105: .068, .178

TL-803: .065, .068, .178, .213, .255

TL-107: .068, .093, .213, .255, .311

TL-113: .102, .359, .406

TL-115: .068, .100, .324, .384

Notes:

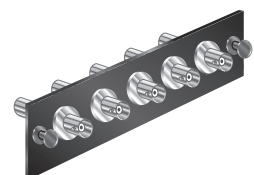
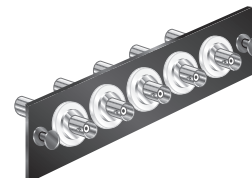
TL-548G - Accepts RG59, RG6 & RG11
RECOMMENDED FOR WINDOW STYLE

Security Accessories

Enclosures, Plates and Racks

Wall-Mount Enclosures	
PP-WM15	1 Adapter Plate - Wall Mount 7 in x 6 in x 1.5 in
PP-WM25	2 Adapter Plate - Wall Mount 15.625 in x 13 in x 2.125 in
PP-WM45	4 Adapter Plate - Wall Mount 15.625 in x 15 in x 3.5 in
FI-WM12	12 Port Double Door, Wall Mount - 4 Plates
FI-WM48	48 Port Double Door, Six Pack Empty - 8 Plates
FI-WM100	100/120 Port Wall-Mount Patch Panel

BNC Adapter Plates	
CN-ADPBNC	5 BNC Female to Female Plate Installed
CN-ADPBISO	5 BNC Female to Female Plate Isolated Installed
CN-ADPBNC	5 BNC Position Empty
CN-AD6PBK	Blank Plate



Security Products Rack-Mount Panels

Rack-Mount Patch Panels	
PP-W1U1	Empty Rack - Loaded with 3 Adapter Plates 1 RU
PP-W2U1	Empty Rack - Loaded with 6 Adapter Plates 2 RU
PP-W4U1	Empty Rack - Loaded with 12 Adapter Plates 3 RU
CN-BNCIL-16	16 Port BNC Isolated Loaded (19 in - 1RU)
CN-BNCIL-32	32 Port BNC Isolated Loaded (19 in - 2RU)



Accessories Adaptors

Coaxial Adaptors	
CN-ADP503	BNC Right Angle M to F
CN-ADP703	75 Ω BNC RA M to F
HJ-CPAD506	BNC - T-3 Female
CN-ADP505	BNC - T-2 Female - 1 Male
CN-ADP705	75 Ω BNC - T-2 F - 1 M
CN-ADP755	75 Ω Splice
CN-ADP511	BNC M to M
CN-ADP504	BNC F to UHF F
CN-MT-50	50 Ω BNC Terminator
CN-MT-75	75 Ω BNC Terminator
CN-ADP756	75 Ω BNC F to F Bulkhead
CN-ADP559	BNC F to F Bulkhead - UG49
HJ-CPAD516	BNC M to "F" Female
CN-ADP807	BNC M to "N" F
CN-ADP523	BNC 2 Female - 1 Male Goal Post
CN-ADP521	BNC F to F Iso. Bulkhead - 75 Ω
CN-ADP529-25	BNC F to F Iso. Bulkhead - 50 Ω
CN-ADP106	RCA F to "F" Male
HJ-CPADP103	RCA M to "F" Female



HJ-CPAD506



CN-ADP511



CN-ADP703



CN-ADP755



CN-ADP505



CN-MT-75



CN-ADP504



HJ-CPAD516



CN-ADP756



CN-ADP807



HJ-CPADP103



CN-ADP106



CATV / MATV CABLES

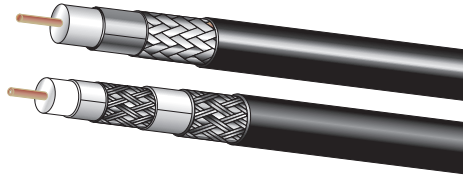
RG6 / U Cables




RG6 / U Type

Applications:

- CATV / MATV
- Division 27 41 33



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω		
841	CATV CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE .180	Bifoil* 100% + Alum. Braid 65%	PVC	.265	16.2 pf/ft	82%	75 Ω		
				Connector Type "F" Type "F" Compression		Connector CN-F56ALM-100 CN-F6MVCV		Strip Tool TL-7502 TL-CSST		Crimp/Comp Tool TL-111 TL-548G	
6100	CATV	18 AWG (Solid) CCS 28.0 Ω/Mft	Gas Injected PE .180	Bifoil* 100% + Alum. Braid 61%	PVC	.265	16.2 pf/ft	82%	75 Ω		
				Connector Type "F" Type "F" Compression		Connector CN-F56ALM-100 CN-F6MVCV		Strip Tool TL-7502 TL-CSST		Crimp/Comp Tool TL-111 TL-548G	
AQC841  Water Resistant Cables	CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE .180	Bifoil* 100% + Waterblock tape Al. Braid 65%	Sunlight Resistant PVC	.275	16.2 pf/ft	82%	75 Ω	<i>Underground In-Conduit</i>	
				Connector Type "F" Type "F" Compression		Connector CN-F6MVCV		Strip Tool TL-7502 TL-CSST		Crimp/Comp Tool TL-111 TL-548G	
6140 Flooded Burial	-	18 AWG (Solid) CCS 28.0 Ω/Mft	Gas Injected PE .180	Bonded Bifoil* 100% Al. Braid 61% Flooding	Sunlight Resistant PE	.275	16.2 pf/ft	82%	75 Ω		
				Connector Type "F" Type "F" Compression		Connector CN-F6MVCV		Strip Tool TL-7502 TL-CSST		Crimp/Comp Tool TL-111 TL-548G	

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964

Notes:

• 500 ft put-up lengths may be available, minimum quantities may apply

*Bifoil is an Aluminum Polyester Aluminum Tape with 100% Coverage
100% Sweep Tested, 0.3 MHz to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz-1GHz 1 GHz-3 GHz	Attenuation (dB/100 ft)											
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	1.8 GHz	2.25 GHz	3 GHz
Non-Plenum RG6/U Gas Injected PE	>23 dB >21 dB	.57	1.45	1.85	3.07	3.85	4.62	5.40	6.3	8.05	8.85	9.99	11.9

CATV / MATV CABLES

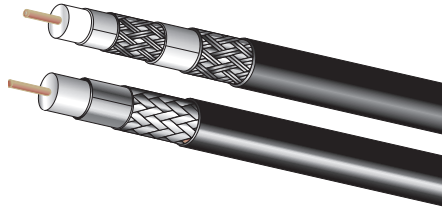
RG6 / U Quad-Shielded



RG6 / U Type Quad-Shielded

Applications:

- CATV / MATV
- Division 27 41 33



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
HQ841 Quad-Shield	CATV	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE .180	Bifoil* +Al. Braid 60%+ Bifoil* + Al. 40% Braid	PVC	.295	16.2 pf/ft	82%	75 Ω
Q841 Quad-Shield	CATV CM	18 AWG (Solid) BC 6.5 Ω/Mft	Gas Injected PE .180	Bifoil* +Al. Braid 65% + Bifoil* + Al. Braid 55%	PVC	.295	16.2 pf/ft	82%	75 Ω
6300 Quad-Shield	CATV	18 AWG (Solid) CCS 28.0 Ω/Mft	Gas Injected PE .180	Bonded Bifoil* +Al. Braid 60% + Bifoil* + Al. Braid 40%	PVC	.295	16.2 pf/ft	82%	75 Ω
6310 Quad-Shield Outdoor	-	18 AWG (Solid) CCS 28.0 Ω/Mft	Gas Injected PE .180	Bonded Bifoil* +Al. Braid 60% + Bifoil* + Al. Braid 40%	Sunlight Resistant PE	.295	16.2 pf/ft	82%	75 Ω

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

Notes:

• 500 ft put-up lengths may be available, minimum quantities may apply

*Bifoil is an Aluminum Polyester Aluminum Tape with 100% Coverage
100% Sweep Tested, 0.3 MHz to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz-1GHz 1 GHz-3 GHz	Attenuation (dB/100 ft)											
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	1.8 GHz	2.25 GHz	3 GHz
Non-Plenum RG6/U Gas Injected PE	>23 dB >21 dB	.57	1.45	1.85	3.07	3.85	4.62	5.40	6.3	8.05	8.85	9.99	11.9



CATV / MATV CABLES

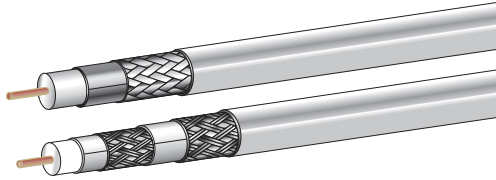
RG6 / U Plenum Cables



RG6 / U Plenum Type

Applications:

- CATV / MATV for Plenum Spaces
- Division 27 41 33



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
25841	CATVP CMP	18 AWG (Solid) BC 6.5 Ω/Mft	Foam FEP .170	Bifoil* 100 + Alum. Braid 77%	Flex. Plenum	.237	16.2 pf/ft	82%	75 Ω
256100	CATVP CMP	18 AWG (Solid) CCS 28 Ω/Mft	Foam FEP .170	Bifoil* 100 + Alum. Braid 60%	Flex. Plenum	.237	16.2 pf/ft	82%	75 Ω
25Q841 Quad-Shield	CATVP CMP	18 AWG (Solid) BC 6.5 Ω/Mft	Foam FEP .170	Bifoil* +Al. Braid 65% + Bifoil* + Al. Braid 55%	Flex. Plenum	.273	16.2 pf/ft	82%	75 Ω
256300 Quad-Shield	CATVP CMP	18 AWG (Solid) CCS 28 Ω/Mft	Foam FEP .170	Bifoil* +Al. Braid 60% + Bifoil* + Al. Braid 40%	Flex. Plenum	.270	16.2 pf/ft	82%	75 Ω

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

Notes:

• 500 ft put-up lengths may be available, minimum quantities may apply

*Bifoil is an Aluminum Polyester Aluminum Tape with 100% Coverage
100% Sweep Tested, 0.3 MHz to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz-1GHz 1 GHz-3 GHz	Attenuation (dB/100 ft)											
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	1.8 GHz	2.25 GHz	3 GHz
Plenum RG6/U Foam FEP	>23 dB >21 dB	.45	1.6	2.0	2.9	4.5	4.9	6.6	8.0	10.3	12.6	13.36	15.42

CATV / MATV CABLES

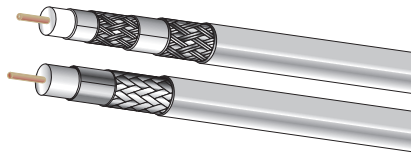
RG11 / U Cables



RG11 / U Type Non-Plenum & PLENUM Cables

Applications:

- CATV / MATV Non-Plenum and Plenum
- Division 27 41 33



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
1100	CATV CM	14 AWG (Solid) CCS 11.0 Ω/Mft	Gas Injected PE .280	Bonded Bifoil* + Al. Braid 61%	PVC	.405	16.2 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
821	CATV CM	14 AWG (Solid) BC 2.6 Ω/ft	Gas Injected PE .280	Bifoil* + Al. Braid 65%	PVC	.405	16.2 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
1110 Flooded Burial	-	14 AWG (Solid) CCS 11.0 Ω/Mft	Gas Injected PE .280	Bonded Bifoil* + Al. Braid 61% Flooding	PE	.405	16.2 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
Q821 Quad-Shield	CATV CM	14 AWG (Solid) BC 2.6 Ω/Mft	Gas Injected PE .280	Bifoil* + Al. Braid 65% + Bifoil* + Al. Braid 55%	PVC	.405	16.2 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
Q821F Quad-Shield Flooded	--	14 AWG (Solid) B 2.6 Ω/Mft	Gas Injected PE .280	Bifoil* + Al. Braid 65% + Bifoil* + Al. Braid 55%	Polyethylene (PE)	.405	16.2 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
25821	CATVP CMP	14 AWG (Solid) B 2.6 Ω/Mft	Foam FEP .280	Bifoil* + Al. Alum. Braid 65%	Copolymer	.352	16 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				
25Q821 Quad-Shield	CATVP CMP	14 AWG (Solid) BC 2.6 Ω/Mft	Foam FEP .280	Bifoil* + Al. Braid 60% + Bifoil* + Al. Braid 40%	Copolymer	.385	16 pf/ft	82%	75 Ω
					Connector Type "F" Type "F" Compression				

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964

Notes:

• 500 ft put-up lengths may be available, minimum quantities may apply

*Bifoil is an Aluminum Polyester Aluminum Tape with 100% Coverage
100% Sweep Tested, 0.3 MHz to 3 GHz

Electrical Specifications

Catalog No.	Return Loss 100 kHz-1 GHz 1 GHz-3 GHz	Attenuation (dB/100 ft)											
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	1.8 GHz	2.25 GHz	3 GHz
Non-Plenum RG11/U	>23 dB >21 dB	.38	.92	1.20	1.92	2.40	2.85	3.40	4.05	5.05	5.90	6.42	7.76
Plenum RG11/U	>23 dB >21 dB	.25	1.0	1.5	2.0	2.98	3.5	4.9	5.5	6.0	7.5	7.95	9.19



CATV / MATV "F" Type Connectors

"F" Crimp Type Connectors	
Catalog No.	Description
CN-F56ALM-100	RG6/U
CN-F11ALX	RG11/U
CN-F11TFE	RG11/U Plenum



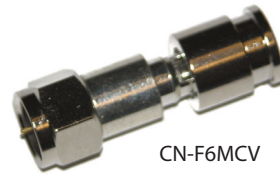
CN-F59ALM



CN-F11ALX

CATV / MATV "F" Type Compression Connectors

"F" Type Compression Connectors	
Catalog No.	Description
CN-F59MCV	Universal-RG59/U PVC, Plenum, Quad, Quad Plenum
CN-F6MCV	Universal-RG6/U PVC, Plenum, Quad, Quad Plenum
FS11V	RG11/U, Quad-Shield Plenum
716SNS1P11PL-25	RG11 Plenum with 7/16 in Nut



CN-F6MCV

CATV / MATV Assorted Adaptors

"F" Type Barrel and Adaptors	
Catalog No.	Description
CN-F81	F Barrel Splice
CN-F81NW	F Barrel Splice with Nut and Washer
CN-F71	F Male to Male Adapter
CN-ADP100	"F" Female to "F" Push on
CN-ADP102	"F" Right Angle (F to M)
CN-ADP103	RCA M to "F" Female
CN-ADP106	RCA F to "F" Male



CN-F81



CN-ADP106



CN-F81NW



CN-ADP103



CN-ADP102



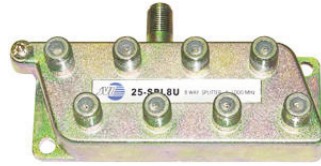
CN-F71



CN-ADP100

CATV / MATV Splitters

Splitters	
Catalog No.	Description
GHS-2	2 Way Splitter-1 GHz
GHS-4	4 Way Splitter-1 GHz
GHS-8	8 Way Splitter-1 GHz



GHS-8

CATV / MATV Strip Tools

Stripping Tools	
Catalog No.	Description
TL-7502	2 Cut Tool - RG59, RG6, RG58
TL-124	3 Cut Tool RG8, RG11, RG213
TL-CSST	Compression Strip Tool - 2 Cut RG59 & RG6
PS11	Compression Strip Tool RG11/U
TL-59-6	Miniature Strip Tool RG59 and 6

CATV / MATV Crimp / Compression Tools

Crimp and Compression Tools	
Catalog No.	Description
TL-111	RG59/RG6
TL-112	RG6/RG11 (CN-F11ALX)
TL-115	Plenum RG11
TL-SNS11	Compression Tool RG11-CN-FSNS-11
CPLCCT-SS59/11	Compression Tool RG11-CN-FS11V & CN-FS11PL
TL-548G	Alternate Compression Tool



TL-115

Notes:

• TL-548G - Accepts RG59, RG6, & RG11

Crimp Tool Die Sizes: Inches

TL-111: .324, .359

TL-112: .100, .322, .448

TL-115: .068, .100, .324, .384



RF 50 Ohm COAXIAL CABLES

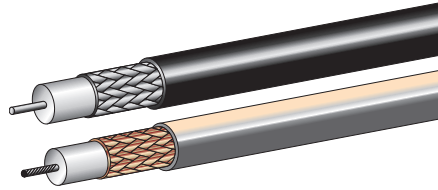


RF Transmission 50 Ohm Coaxial

RG58/U - RG58A/U - RG8/U - RG213/U & RG8x/U Type

Applications:

- RF Transmission
- Broadcast Transmission
- Wireless Communication



Standard spool size, 1000 ft

Catalog No.	NEC Type	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. OD Inches	Nom. Capacitance	Nom. VP	Nom. Imp Ω
812 RG58A/U Type	CM	20 (19x32) Tinned Copper 8.8 Ω/Mft	Gas Injected PE .116	100% Bi-foil AL. +95% Tinned Cu Braid	PVC	.195	25 pf/ft	78%	50 Ω
						50 Ω BNC: CN-BM53-13 Crimp Tool: TL-105			
813 RG-58/U Type	CM	20 (Solid) Tinned Copper 10.1 Ω/Mft	Gas Injected PE .116	Tinned Copper Braid 95%	PVC	.195	26 pf/ft	78%	50 Ω
						50 Ω BNC: CN-BM53-13 Crimp Tool: TL-105			
25812 RG-58/U Type Plenum	CMP	20 (19x32) Tinned Copper 8.8 Ω/Mft	Foam FEP .102	100% Bi-foil AL. +95% Tinned Cu Braid	Flex Plenum	.158	25 pf/ft	82%	50 Ω
						50 Ω BNC: CN-BM53-25 Crimp Tool: TL-105			
810 RG-213/U Type	CM	12 (7x20) Bare Copper 1.9 Ω/Mft	Gas Injected PE .280	Bare Copper Braid 95%	PVC	.405	26 pf/ft	80%	50 Ω
						50 Ω BNC: CN-BM53-8 Crimp Tool: TL-113			
25810 RG-213/U Type Plenum	CMP	12 (7x20) Bare Copper 1.9 Ω/Mft	Foam FEP .280	Bare Copper Braid 95%	Copolymer	.352	25 pf/ft	80%	50 Ω
						50 Ω BNC: CN25810KBNC Crimp Tool: TL-115			
98G8 RG-8/U Type	CM	10AWG Solid Bare Copper .9 Ω/Mft	Gas Injected PE .286	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	PVC	.405	24.5 pf/ft	84%	50 Ω
						50 Ω BNC: CN-BM98G8 Crimp Tool: TL-RG-10G			
2598G8 RG-8/U Type Plenum	CMP	10AWG Solid Bare Copper .9 Ω/Mft	Foam FEP .280	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	Copolymer	.360	25 pf/ft	80%	50 Ω
						50 Ω BNC: CN-BM2598G8 Crimp Tool: TL-RG-10G			
807X RG-8X/U Type Flexible	CM	16 (19x29) Bare Copper 4.3 Ω/Mft	Gas Injected PE .155	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	PVC	.242	25 pf/ft	82%	50 Ω
						50 Ω BNC: CN-BM53-8X Crimp Tool: TL-119			
808XWB RG-8X/U Outdoor	Outdoor	15 (Solid) Bare Copper 3.2 Ω/Mft	Gas Injected PE† .155	100% Bonded Bi- foil AL. + 95% Tinned Cu Braid	Polyethylene	.248	23 pf/ft	83%	50 Ω
						50 Ω BNC: CN-BM53-8X Crimp Tool: TL-119			

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department: 800-245-4964

- 500 ft lengths may be available upon request
- Minimum quantities apply
- Custom colored jackets may be available
- Minimum quantities apply

Electrical Specifications: Attenuation (dB/100 ft)

Catalog No.	1 MHz	10 MHz	50 MHz	100 MHz	200 MHz	400 MHz	900 MHz	1 GHz
812	.5	1.3	3.2	4.6	6.8	10.1	16.7	18.2
813	.6	1.5	3.5	4.8	6.9	10.2	16.8	18.3
25812	.5	1.3	3.2	4.6	6.8	10.1	16.7	18.2
810	.2	.6	1.3	2.0	2.8	4.0	6.8	7.3
25810	.2	.6	1.3	2.0	2.8	4.0	6.7	7.2
98G8	.1	.5	1.0	1.4	1.8	2.6	4.1	4.4
2598G8	.1	.4	1.0	1.6	2.3	3.4	6.0	6.9
807X	.3	.9	2.1	3.1	4.5	6.6	10.7	

RF Connectors

Straight Plug Male Connectors

Catalog No.	50 Ω BNC	50 Ω TNC	50 Ω "N" Type
812	CN-BM53-13	CN-TM53-1	CN-NM53-812
25812	CN-BM53-25	CN-TM53-25812	CN-NM53-25812
813	CN-BM53-13	CN-TM53-1	CN-NM53-812
810	CN-BM53-8	CN25810KTNC	CN-NM53/110
25810	CN25810KBNC	CN25810KTNC	CN-NM53-25810
98G8	CN-BM98G8	CN-TM98G8	CN-NM98G8
2598G8	CN-BM2598G8		CN-NM98G8
807X AND 808WB	CN-BM53-8X	CN-TM53-807	CN-NM53-8X





50 Ohm Coaxial Assemblies

BNC Assemblies		
Catalog No.	Description	Footage
WP-812BMBM-xx	RG58A/U Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 1 to 50 ft
WP-25812BMBM-xx	RG58A/U Assembly Plenum BNC Male to BNC Male	Replace xx: 1 to 50 ft
WP-807BMBM-xx	RG8x/U Flex Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 1 to 100 ft
WP-810BMBM-xx	RG213/U Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 1 to 200 ft
WP-25810BMBM-xx	RG213/U Assembly Plenum BNC Male to BNC Male	Replace xx: 1 to 200 ft
WP-98G8BMBM-xx	RG8/U Assembly Non-Plenum BNC Male to BNC Male	Replace xx: 1 to 300 ft
WP-2598G8BM-xx	RG8/U Assembly Plenum BNC Male to BNC Male	Replace xx: 1 to 300 ft

Reversed Polarity SMA to RP SMA Type Assemblies		
Catalog No.	Description	Footage
WP-98G8RS-xxx	RG8 Non Plenum Reversed Polarity SMA Assemblies	Replace xx: 1 to 125 ft
WP-2598G8RS-xxx	RG8 Plenum Reversed Polarity SMA Assemblies	Replace xx: 1 to 125 ft
WP-807RSRS-xx	RG8x/U Flex Assembly Non-Plenum Reversed Polarity SMA Assemblies	Replace xx: 1 to 50 ft

NOTES:

Other Cable Assembly Configurations Can Be Specially Made.
Contact 800-245-4964

Installation Tools

Crimp Tools	
Catalog No.	Description
TL-104	RG58 Crimp Tool
TL-105	RG58/U Plenum Crimp Tool
TL-112	RG8/U "N" Crimp Tool
TL-25810	RG8/U & RG11/U
TL-115	RG8/U Plenum 25810
TL-119	RG8X/U
TL-RG8-10G	RG8/U - 98G8 and 2598G8

Strip Tools	
Catalog No.	Description
TL-121	3 Blade Strip Tool RG58, RG8X
TL-124	RG213 & RG8/U Strip Tool



Crimp Tool Die Sizes: Inches

- TL-104: .068, .213, .255
- TL-105: .068, .178
- TL-112: .100, .322, .448
- TL-113: .102, .359, .406
- TL-115: .068, .100, .324, .384
- TL-119: .068, .110, .213, .255, .324

SECURITY



-  Fire Alarm
-  Access Control

SECURITY

Fire Alarm Cables

Unshielded FPLR Cables	91
Unshielded FPLP Cables	92
Unshielded Fire Alarm Flexible Cables	93
Shielded FPLR Cables.....	94
Shielded FPLP Cables.....	95
Shielded Fire Alarm Flexible Cables.....	96
Addressable - Low-Capacitance Cables	97
Local Law 5 Fire Alarm Cables.....	98-99

Access Control Cables

OSDP - RS-485.....	100
Composite Unjacketed.....	101
Composite Jacketed	102
Non-Plenum Reader Cables.....	103-104
Plenum Reader Cables.....	105
Non-Plenum Reader Cables.....	106-107
Plenum Reader Cables Shielded	108
Unshielded Accessory Cables	109
RS-485 Cables	110

Power-Limited Multiple Conductor / Unshielded

Applications:

- Indoor for:
- Fire Alarm Circuits
 - Initiating Devices
 - Notification Devices
 - Division 28 05 13.23

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Twisted-Pair or Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666



Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
980	1	18 AWG Solid 6.5 Ω/Mft	.008	None	.017	.146	FPLR	31 pf/ft*
982	4	18 AWG Solid 6.5 Ω/Mft	.008	None	.017	.170	FPLR	31 pf/ft*
990	1	16 AWG Solid 4.1 Ω/Mft	.008	None	.017	.168	FPLR	34 pf/ft*
992	4	16 AWG Solid 4.1 Ω/Mft	.008	None	.017	.198	FPLR	34 pf/ft*
994	1	14 AWG Solid 2.6 Ω/Mft	.012	None	.017	.210	FPLR	34 pf/ft*
700	4	14 AWG Solid 2.6 Ω/Mft	.012	None	.017	.246	FPLR	34 pf/ft*
998	1	12 AWG Solid 1.8 Ω/Mft	.012	None	.017	.244	FPLR	40 pf/ft*

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	Brown
4.	Blue

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

* Capacitance between conductors

Notes:

- Selected Indoor/Outdoor **Aquaseal Water Resistant* Versions**, see Aquaseal Section
- Selected Halogen-Free Versions
- 500 ft put-up lengths may be available, minimum quantities may apply



FIRE ALARM CABLES

UNSHIELDED PLENUM



Power-Limited / Unshielded



Applications:

- Indoor for:
- Plenum Spaces
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair or Cabled Construction
- Flexible Plenum Jacket

Rating:

- NEC Type FPLP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
60980B	1	18 AWG Solid 6.5 Ω/Mft	.008	None	.015	.144	FPLP	31 pf/ft*
60982B	4	18 AWG Solid 6.5 Ω/Mft	.008	None	.015	.166	FPLP	31 pf/ft*
60991B	1	16 AWG Solid 4.1 Ω/Mft	.008	None	.015	.164	FPLP	34 pf/ft*
60164B	4	16 AWG Solid 4.1 Ω/Mft	.008	None	.015	.191	FPLP	34 pf/ft*
60993B	1	14 AWG Solid 2.6 Ω/Mft	.010	None	.015	.198	FPLP	33 pf/ft*
60700B	4	14 AWG Solid 2.6 Ω/Mft	.010	None	.015	.236	FPLP	33 pf/ft*
60995B	1	12 AWG Solid 1.8 Ω/Mft	.010	None	.015	.239	FPLP	40 pf/ft*

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	Brown
4.	Blue

* Capacitance between conductors

Notes:

- Plenum Installation Precautions, see Technical Reference Section, page 130
- 500 ft put-up lengths may be available, minimum quantities may apply

Tracer Marks:

Available Upon Request: Minimum Quantities Apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

FIRE ALARM CABLES

UNSHIELDED STRANDED CONDUCTOR



Power-Limited Multiple Conductor / Unshielded



Applications:

- Indoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Stranded Bare Copper
- Thermoplastic Insulation Twisted-Pair or Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
990S	1	16 AWG Strd. 4.1 Ω/Mft	.009	None	.017	.182	FPLR	34 pf/ft*
994S	1	14 AWG Strd. 2.6 Ω/Mft	.010	None	.017	.224	FPLR	33 pf/ft*
998S	1	12 AWG Strd. 1.8 Ω/Mft	.010	None	.017	.260	FPLR	40 pf/ft*

Stranded Conductor Fire Alarm Cables Plenum Power-Limited / Unshielded



Stranded Conductors

Applications:

- Indoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Stranded Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair or Cabled Construction
- Flexible Plenum Jacket

Rating:

- NEC Type FPLP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
60991BS	1	16 AWG Stranded 4.1 Ω/Mft	.008	None	.015	.180	FPLP	34 pf/ft*
60993BS	1	14 AWG Stranded 2.6 Ω/Mft	.010	None	.015	.210	FPLP	33 pf/ft*
60995BS	1	12 AWG Stranded 1.8 Ω/Mft	.010	None	.015	.254	FPLP	40 pf/ft*

Insulation Color Code
Primary Color Code
1. Black
2. Red

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

* Capacitance between conductors



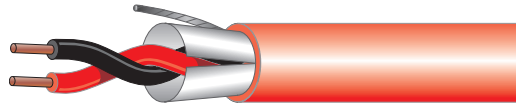
Power-Limited Multiple Conductor/ Shielded

Applications:

- Indoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Twisted-Pair or Cabled Construction
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Tinned Copper Drain Wire
- Overall PVC Jacket



Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
975	1	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.017	.150	FPLR	66 pf/ft* 119 pf/ft**
977	4	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.017	.180	FPLR	66 pf/ft* 119 pf/ft**
991	1	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.017	.172	FPLR	77 pf/ft* 139 pf/ft**
993	4	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.017	.200	FPLR	77 pf/ft* 139 pf/ft**
995	1	14 AWG Solid 2.6 Ω/Mft	.012	Al. Foil 100%	.017	.215	FPLR	84 pf/ft* 151 pf/ft**
999	1	12 AWG Solid 1.8 Ω/Mft	.012	Al. Foil 100%	.017	.248	FPLR	96 pf/ft* 173 pf/ft**

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	Brown
4.	Blue

Jacket Color Code	
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964	

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

Notes:

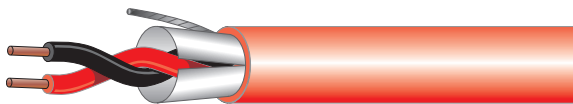
- Selected Indoor/Outdoor **Aquaseal Water Resistant**® Versions, see Aquaseal Section
- Selected Halogen-Free Versions
- Select Items are Packaged in our Advantage Box
- Orange Rip Cord Under Jacket
- 500 ft put-up lengths may be available, minimum quantities may apply



Tracer Marks:

Available Upon Request: Minimum Quantities Apply

Power-Limited / Shielded



Applications:

- Indoor for:
- Plenum Spaces
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair or Cabled Construction
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Tinned Copper Drain Wire
- Flexible Plenum Jacket

Rating:

- NEC Type FPLP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
60975B	1	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.015	.148	FPLP	66 pf/ft* 119 pf/ft**
60977B	4	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.015	.170	FPLP	66 pf/ft* 119 pf/ft**
60990B	1	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.015	.168	FPLP	77 pf/ft* 139 pf/ft**
603164B	4	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.015	.195	FPLP	77 pf/ft* 139 pf/ft**
60992B	1	14 AWG Solid 2.6 Ω/Mft	.010	Al. Foil 100%	.015	.202	FPLP	84 pf/ft* 151 pf/ft**
60994B	1	12 AWG Solid 1.8 Ω/Mft	.010	Al. Foil 100%	.015	.243	FPLP	96 pf/ft* 173 pf/ft**

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	Brown
4.	Blue

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

Notes:

- Plenum Installation Precautions, see Technical Reference
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



FIRE ALARM CABLES

SHIELDED STRANDED CONDUCTOR



Power-Limited Multiple Conductor/ Shielded



Applications:

- Indoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Stranded Bare Copper
- Thermoplastic Insulation
- Twisted-Pair
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Tinned Copper Drain Wire
- Flexible Plenum Jacket

Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
995S	1	14 AWG Stranded 2.6 Ω/Mft	.012	Al. Foil 100%	.017	.232	FPLR	
999S	1	12 AWG Stranded 1.8 Ω/Mft	.012	Al. Foil 100%	.017	.264	FPLR	

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red

Notes:

- Select Items are Packaged in our Advantage Box
- Orange Rip Cord Under Jacket
- 500 ft put-up lengths may be available, minimum quantities may apply

Plenum Power-Limited / Shielded



Applications:

- Indoor for:
- Plenum Spaces
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

Description:

- ASTM Stranded Bare Copper
- Polymer Alloy Insulation
- Twisted-Pair
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Tinned Copper Drain Wire
- Flexible Plenum Jacket

Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
60990BS	1	16 AWG Stranded 4.1 Ω/Mft	.008	Al. Foil 100%	.015	.174	FPLR	77 pf/ft* 139 pf/ft**
60992BS	1	14 AWG Stranded 2.6 Ω/Mft	.010	Al. Foil 100%	.015	.210	FPLR	84 pf/ft* 152 pf/ft**
60994BS	1	12 AWG Stranded 1.8 Ω/Mft	.010	Al. Foil 100%	.015	.249	FPLR	96 pf/ft* 173 pf/ft**

Notes:

- Plenum Installation Precautions, see Technical Reference
- 500 ft put-up lengths may be available, minimum quantities may apply

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Addressable Systems / Data Cable



Applications:

- Indoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Addressable Fire Systems
- Digital Audio Loops
- Division 28 05 13.23

Description:

- ASTM Bare Copper
- Polyolefin Insulation
- Short Overall Twist Lengths
- Unshielded Construction
- Overall PVC Jacket

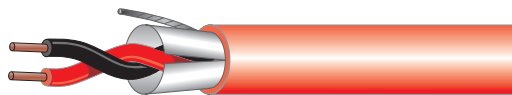
Rating:

- NEC Type FPLR
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D980	1	18 AWG Solid 6.5 Ω/Mft	.015	None	.030	.196	FPLR	16 pf/ft* 105 Ω
D990	1	16 AWG Solid 4.1 Ω/Mft	.015	None	.030	.223	FPLR	17 pf/ft* 105 Ω

Power-Limited / Shielded Addressable Systems / Data Cable



Description:

- ASTM Bare Copper
- Polyolefin Insulation
- Short Overall Twist Length
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG TC Drain Wire
- Overall PVC Jacket

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D975	1	18 AWG Solid 6.5 Ω/Mft	.015	Al. Foil 100%	.035	.223	FPLR	25 pf/ft* 45 pf/ft**
D991	1	16 AWG Solid 4.1 Ω/Mft	.015	Al. Foil 100%	.035	.245	FPLR	30 pf/ft* 54 pf/ft**
D995	1	14 AWG Solid 2.6 Ω/Mft	.020	Al. Foil 100%	.035	.281	FPLR	30 pf/ft* 54 pf/ft**

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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



FIRE ALARM CABLES

DATA GRADE PLENUM



Power-Limited / Unshielded

Applications:

- Indoor for:
- Plenum Spaces
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Addressable Fire Systems
- Digital Audio Loops
- Division 28 05 13.23

Description:

- ASTM bare copper
- Teflon Insulation
- Twisted-Pair Construction
- Flexible Plenum Jacket



Rating:

- NEC Type FPLP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D60980	1	18 AWG Solid 6.5 Ω/Mft	.012	None	.015	.160	FPLP	16 pf/ft 105 Ω
D60991	1	16 AWG Solid 4.1 Ω/Mft	.012	None	.015	.181	FPLP	17 pf/ft

Fire Alarm Cables Power-Limited / Shielded

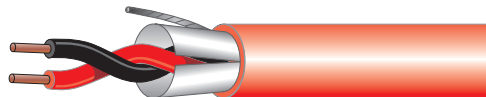
Plenecon II® Data Cable

Description:

- ASTM Bare Copper
- Teflon Insulation
- Twisted-Pair Construction
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG TC Drain Wire
- Flexible Plenum Jacket

Rating:

- NEC Type FPLP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test



Standard spool size, 1000 ft

Catalog No.	No. of Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D60975	1	18 AWG Solid 6.5 Ω/Mft	.012	Al. Foil 100%	.015	.165	FPLP	25 pf/ft* 45 pf/ft**
D60990	1	16 AWG Solid 4.1 Ω/Mft	.012	Al. Foil 100%	.015	.188	FPLP	30 pf/ft* 54 pf/ft**

Insulation Color Code

Primary Color Code

- Black
- Red

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our
Customer Service Department:
800-245-4964

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Notes:

- Plenum Installation Precautions, see Technical Reference
- 500 ft put-up lengths may be available, minimum quantities may apply

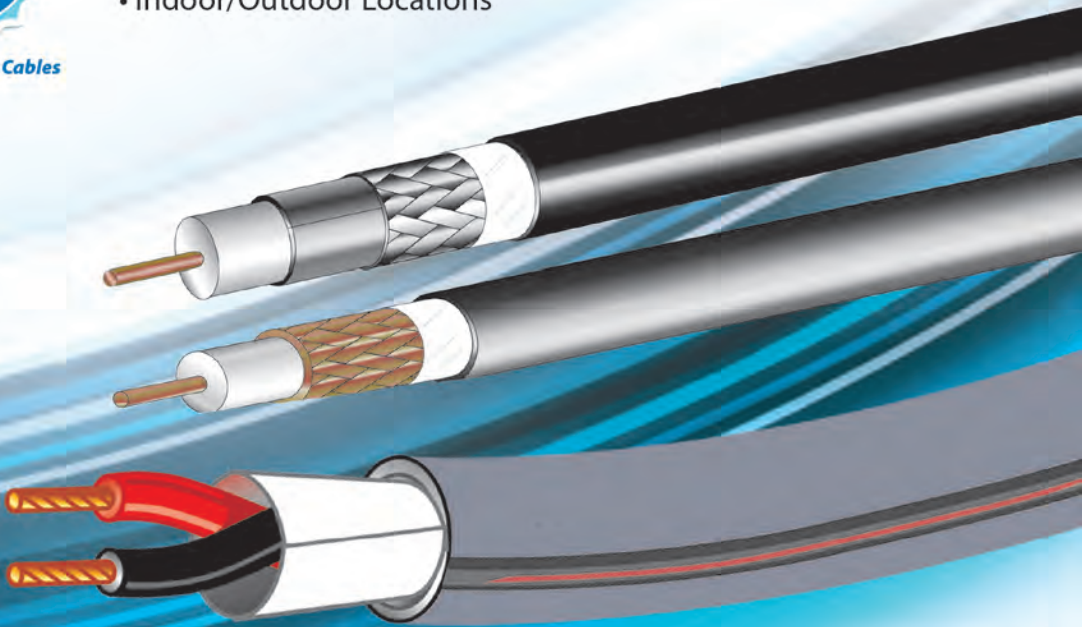


Aquaseal[®] Water Resistant Cables Superior UL-Rated Cables for Outdoor In-Conduit & Direct Burial Applications



Aquaseal[®] Fire Alarm Cables

- Unshielded and Shielded
- In-Conduit and Direct Burial
- Indoor/Outdoor Locations



Access Control • Audio • Communications • Fire Alarm • Intercom • Video

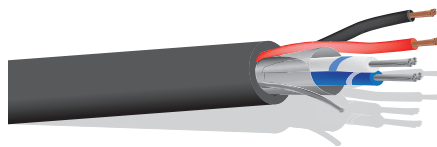
OSDP Access Control Cables

Applications:

- Access Control Systems
- OSDP - Open Supervised Device Protocol
- Division 28 05 13.16

Rating:

- NEC Type CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 62 PLENUM



Standard spool size, 1000 ft

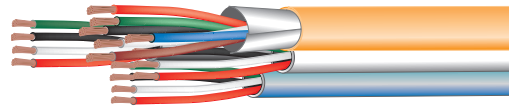
Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance & Impedance
1PR24P	1	24 AWG (7x32) 26 Ω/Mft	FEP .025	Al. Foil-100% with drain wire 24 AWG	.015	.183	CMP	10.8 pf/ft 120 Ω
1PR2418P	Data Pair	24 AWG (7x32) 26 Ω/Mft	FEP .025	Al. Foil 100% with Drain	.020	.215	CMP	10.8 pf/ft 120 Ω
	Power	18 AWG (7x26) 6.2 Ω/Mft	Plenum PVC .012	None				
1PR22P	1	22 AWG (7x30) 17 Ω/Mft	.023	Al. Foil-100% with drain wire 24 AWG	.015	.177	CMP	11.2 pf/ft 120 Ω
1PR2216P	Data Pair	22 AWG (7x30) 17 Ω/Mft	FEP .030	AL. Foil 100% with Drain	.020	.246	CMP	13.5 pf/ft 120 Ω
	Power	16 AWG (19x29) 4.2 Ω/Mft	Plenum PVC .012	None				
D25222P	2	22 AWG (7x30) 17 Ω/Mft	.015 Foam FEP	Ind. Shielded Pairs with 24 AWG Drain	.018	.277	CMP	13.5pf/ft* 120 Ω

Insulation Color Code
Pair Color Code
Data Pair 1. Blue-White
Power Pair 1. Red-Black

Insulation Color Code
Pair Color Code D25222P
Data Pair 1. Green-White
Data Pair 1. Brown-Blue

Jacket Color Code	
1PR24P	BK, OR
1PR2418P	BK, OR
1PR22P	OR
1PR2216P	BK
D25222P	WH

Composite Access Control Cables UnJacket - Peel Design



Applications:

- Access Control Systems
- Division 28 05 13.16

Standard spool size, 1000 ft

Catalog No.	Cable Types	Application	NEC Type	Nom. Jacket OD & Color
BP251822B	4 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 6 Cond. 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.401 in
BP2518223P	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.396 in
BP253PSH	2 Cond. 22 AWG Shielded 4 Cond. 18 AWG Shielded 4 Cond. 22 AWG Shielded 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.420 in

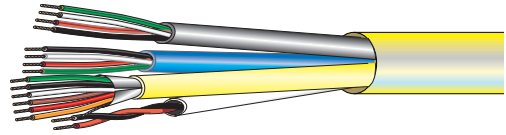
Cable Types	Conductor Colors	Jacket Colors
Door Contact	1. Black, 2. Red	White
Lock Power	1. Black, 2. Red, 3. White, 4. Green	Gray
Request to Exit	1. Black, 2. Red, 3. White, 4. Green	Blue
Card Reader	1. Black, 2. Red, 3. White, 4. Green 5. Brown, 6. Blue	Orange



Composite Access Control Cables

Applications:

- Access Control Systems
- Division 28 05 13.16



Standard spool size, 1000 ft

Catalog No.	Cable Types	Application	NEC Type	Nom. Jacket O.D. & Color
AC1822	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 6 Cond. 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CM	.440 in
AC251822B	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 6 Cond. 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.440 in
AC251822B3P	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.440 in
AC2518223PX*	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.440 in
AC253PSH	2 Cond. 22 AWG Shielded 4 Cond. 18 AWG Shielded 4 Cond. 22 AWG Shielded 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CMP	.460 in
AQC1822 	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded <i>All Aquaseal® Design</i>	Door Contact Lock Power Request to Exit Card Reader	CM	.460 in

Cable Types	Conductor Colors	Jacket Colors
Door Contact	1. Black, 2. Red	White
Lock Power	1. Black, 2. Red, 3. White, 4. Green	Gray
Request to Exit	1. Black, 2. Red, 3. White, 4. Green	Blue
Card Reader	1. Black, 2. Red, 3. White, 4. Green 5. Brown, 6. Blue	Orange

Notes:

Standard Spool size, 1000 ft, spools are one piece, but lengths may vary +/- 10%

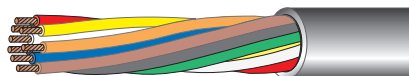
PE - Polyethylene Bifoil is an Aluminum Polyester Aluminum Tape with 100% coverage 100% sweep tested

*AC2518223PX

Jacket Colors

- Reader: White- Yellow Stripe
- Door Contact: White- Green Strip
- REX/Spare: White - Red Stripe
- Lock Power: White - Purple Stripe

Multiple Conductor 22 AWG / Unshielded



Applications:

- Indoor for:
- Reader Cables
- Low Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
855	5	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.150	CMR	-
270	6	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.163	CMR	-
271	8	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.176	CMR	-
272	10	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.218	CMR	-
274	15	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.251	CMR	-

Insulation Color Code

Primary Color Code

1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code

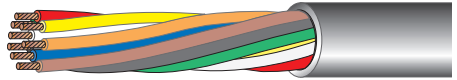
Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



18 AWG Multiple Conductor / Unshielded



Applications:

- Reader Cables
- Audio Circuits
- Low Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Cabled Construction
- Overall PVC Jacket

Rating:

- NEC Type CMR
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
280	5	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.205	CMR	-
281	7	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.225	CMR	-
282	9	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.263	CMR	-
283	12	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.298	CMR	-
284	15	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.020	.348	CMR	-

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Multiple Conductor / Unshielded



Applications:

- Reader Cables Plenum Cables
- Audio Circuits
- Low Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25855B	5	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.146	CMP	-
25270B	6	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.157	CMP	-
25271B	8	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.172	CMP	-
25272B	10	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.213	CMP	-
25273B	12	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.220	CMP	-
25274B	15	22 AWG (7x30) 17 Ω/Mft	.007	None	.015	.246	CMP	-
25186B	6	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.216	CMP	-
25188B	8	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.235	CMP	-

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Notes:

- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



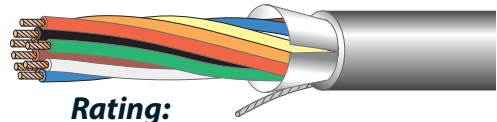
22 AWG Multiple Conductor / Overall Shielded

Applications:

- Indoor for:
- Reader Cables
- Audio Circuits
- Low Voltage Power
- Access Control - Reader
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3241	4	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.142	CMR	55 pf/ft* 99 pf/ft**
3855	5	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.154	CMR	55 pf/ft* 99 pf/ft**
3270	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.167	CMR	55 pf/ft* 99 pf/ft**
3271	8	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100%	.017	.182	CMR	55 pf/ft* 99 pf/ft**
3272	10	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.017	.222	CMR	55 pf/ft* 99 pf/ft**
3274	15	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.020	.255	CMR	55 pf/ft* 99 pf/ft**

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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

Notes:

- Selected Plenum Versions, see Plenum Section
- Selected Indoor/Outdoor **Aquaseal Water Resistant®** Versions, see Aquaseal Catalog Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply



Multiple Conductor 20 & 18 AWG / Overall Shielded

Applications:

- Reader Cable
- Audio Circuits
- Low Voltage Power
- Instrumentation and Control
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with 24 AWG Stranded Tinned Copper Drain Wire
- Cabled Construction
- Overall PVC Jacket



Rating:

- NEC Type CMR
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3011	4	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.163	CMR	60 pf/ft* 108 pf/ft**
3262	5	20AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.179	CMR	60 pf/ft* 108 pf/ft**
3263	7	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100%	.015	.198	CMR	60 pf/ft* 108 pf/ft**

* Capacitance between conductors

** Capacitance between one conductor and the other connected to the shield

Multiple Conductor 18 AWG / Overall Shielded

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
3280	5	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.209	CMR	68 pf/ft* 122 pf/ft**
3021	6	18 AWG (7x26) 6.6 Ω/Mft	.008	Al. Foil 100%	.017	.225	CMR	68 pf/ft* 122 pf/ft**
3281	7	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100%	.017	.230	CMR	68 pf/ft* 122 pf/ft**

Insulation Color Code	
Primary Color Code	
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

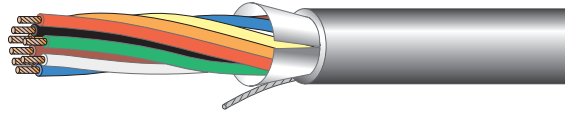
* Capacitance between conductors
** Capacitance between one conductor and the other connected to the shield

Notes:

- Orange Rip cord
- Selected Indoor/Outdoor **Aquaseal Water Resistant**® Versions, see Aquaseal Catalog Section
- 500 ft put-up lengths may be available, minimum quantities may apply



Multiple Conductor / Shielded 22 AWG and 18 AWG



Applications:

- Indoor for:
- Plenum Spaces
- Reader Cables
- Audio Circuits
- Low Voltage Power
- Access Control - Reader
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Polymer Alloy Insulation
- Cabled Construction
- Overall Shield Coverage 100% Aluminum Polyester Foil with Tinned Copper Drain Wire
- Overall Flex Plenum Jacket

Rating:

- NEC Type CMP
- UL-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
253855B	5	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.154	CMP	55 pf/ft* 99 pf/ft**
253270B	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.162	CMP	55 pf/ft* 99 pf/ft**
253271B	8	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.184	CMP	55 pf/ft* 99 pf/ft**
253272B	10	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.213	CMP	55 pf/ft* 99 pf/ft**
253274B	15	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.244	CMP	55 pf/ft* 99 pf/ft**
253186B	6	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Strd.	.015	.221	CMP	68 pf/ft* 122 pf/ft**
253188B	8	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Strd.	.015	.244	CMP	68 pf/ft* 122 pf/ft**

Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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

Notes:

- Selected Plenum Versions, see Plenum Section
- Cables are packaged in our Advantage Box
- Larger AWG sizes and higher-paired cables may be on a reel
- Rip cord
- 500 ft put-up lengths may be available, minimum quantities may apply.

Unshielded Accessory Cables



Applications:

- Indoor for:
- Request to Exit (REX) Cables
- Lock Power Cables
- Door Contact Cables
- Division 28 05 13.16

Description:

- ASTM Bare Copper
- Thermoplastic insulation
- Short overall twist lengths
- Overall PVC jacket

Rating:

- NEC Type CMR or CLP
- Flame Rating: UL 1666

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
221	2	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.120	CMR	31 pf/ft
224	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.156	CMR	33 pf/ft
240	4	22 AWG Solid 17.5 Ω/Mft	.008	None	.017	.134	CMR	--
241	4	22 AWG (7x30) 17 Ω/Mft	.007	None	.017	.138	CMR	--
244	4	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.017	.183	CMR	--

Unshielded / Plenum Rated Accessory Cables

Rating:

- NEC Type CMP or CL2RP
- Flame Rating: NFPA 262

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
25221B	2	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.116	CMP	--
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.154	CMP	--
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.180	CMP	--
25241B	4	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.136	CMP	--

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White
4.	Green

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964



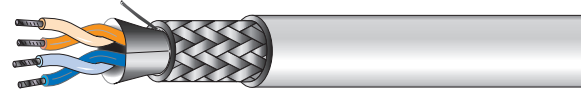
Multiple Pair Series / Overall Shielded RS-485 Data Cables

Applications:

- Indoor for:
- Computer Application
- Low-Capacitance Data
- RS-485 Data Applications
- 120 Ω

Rating:

- NEC Type CM
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685



Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D4851	1	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil- 100% with drain wire TC Braid 90%	PVC .032	.232	CM	12.8 pf/ft* 23 pf/ft**
DRS485DB	1	22 AWG (7x30) 17.4 Ω/Mft	.029 Foam PE	Al. Foil- 100% with drain wire TC Braid 65% Water Block	PVC .032	.232	DIRECT BURIAL	11 pf/ft* 20.9 pf/ft**
D4852	2	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil- 100% with drain wire TC Braid 90%	PVC .032	.340	CM	12.8 pf/ft* 23 pf/ft**

Electrical Characteristics - Nom. Velocity of Propagation - 66% - Nom. Impedance Ω 24 AWG - 120 Ω

Rating:

- NEC Type CMP
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262 Smoke & Flame Test

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
D254851	1	24 AWG (7x32) 26 Ω/Mft	Foam FEP	Al. Foil - 100% with drain wire TC Braid 90%	Flex. Plenum .017	.202	CMP	12 pf/ft* 22 pf/ft**
D254852	2	24 AWG (7x32) 26 Ω/Mft	Foam FEP	Al. Foil - 100% with drain wire TC Braid 90%	Flex. Plenum .017	.305	CMP	12 pf/ft* 22 pf/ft**

Jacket Color Code

Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Insulation Color Code

Pair Color Code

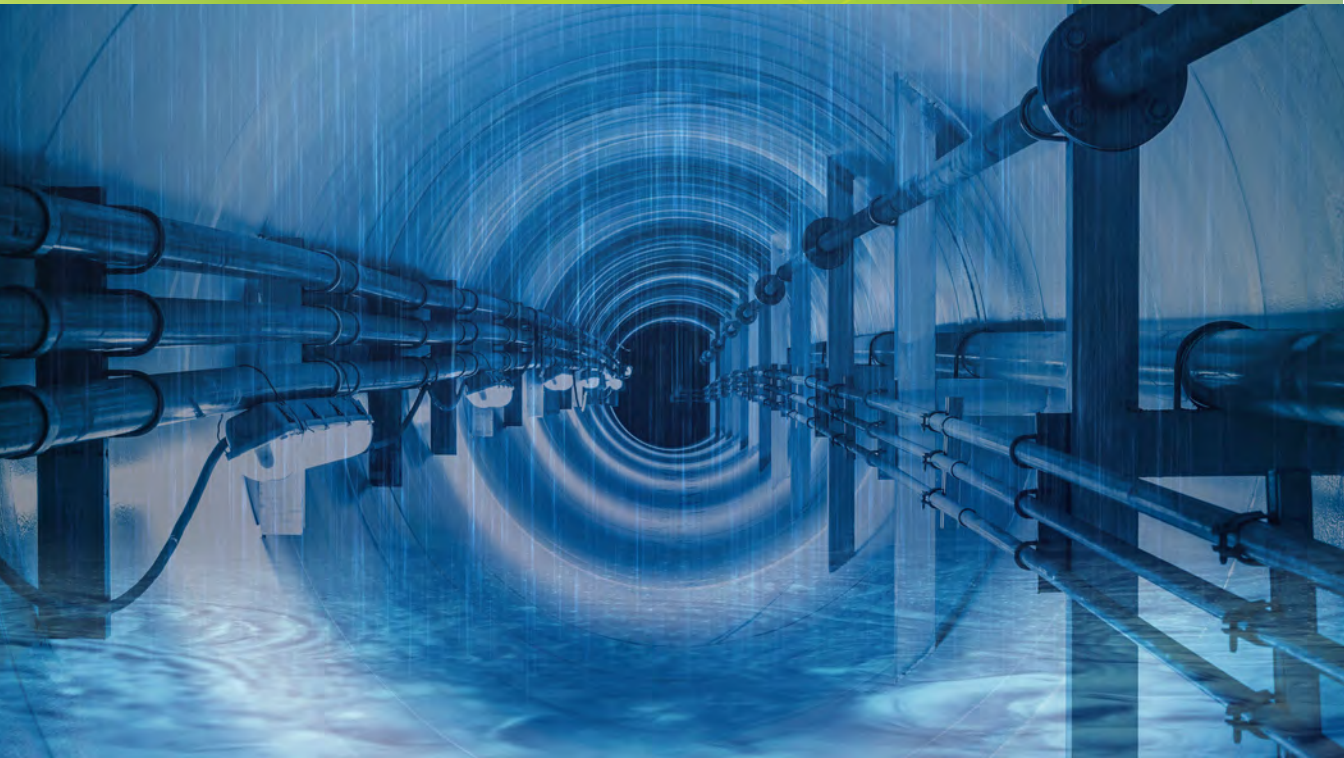
- Pair 1. Blue - White/Blue
- Pair 2. Orange - White/Orange

Electrical Characteristics

Nom. Velocity of Propagation - 76%
Nom. Impedance Ω 24 AWG - 120 Ω

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

SPECIALTY APPLICATIONS



-  Aquaseal® Indoor/Outdoor
-  Halogen Free

SPECIALTY APPLICATIONS

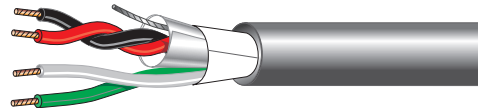
Aquaseal® - Water Resistant

Shielded/Unshielded	111
Multiple-Conductor Shielded	112
Multiple-Conductor Unshielded.....	113
Multiple Pair - Individually Shielded.....	114
1 Pair/Unshielded	115
Multiple-Conductor Unshielded Direct Burial	116
Multiple-Conductor Shielded Direct Burial	117
Aquaseal Coaxial Cables	118

Halogen-Free Cables

Two-Conductor LSZH Cables	119
Multiple-Conductor LSZH Cables.....	120
Fire Alarm LSZH.....	121

Combination / Shielded and Unshielded



Water Resistant Cables
Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Audio Circuits
 - Low Voltage Power
 - Intercom Audio
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation
- Unshielded/Shielded Pair 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Short Overall Twist Construction
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

Rating:

- NEC Type CM or CL3
- UL Listed
- Meets 300V Requirements as specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQC351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.025	.215	CM CL3	54 pf/ft* 97 pf/ft**
AQC352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.230	CM CL3	55 pf/ft* 99 pf/ft**
AQC355	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.025	.220	CM CL3	54 pf/ft* 97 pf/ft**
AQC357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.235	CM CL3	55 pf/ft* 99 pf/ft**
AQC369	6 (2 Shld) (4 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 24 Solid	.025	.240	CM CL3	54 pf/ft* 97 pf/ft**
AQC373	6 (1 Pr. Shld) (2 Pr. Unsh)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.260	CM CL3	54 pf/ft* 97 pf/ft**
AQC359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.266	CM CL3	60 pf/ft* 108 pf/ft**
AQC358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.260	CM CL3	60 pf/ft* 108 pf/ft**

Insulation Color Code

Primary Color Code	AQC351, AQC352, AQC358, AQC355, AQC357, AQC359	AQC369	AQC373
Unshielded	1. White, 2. Green	1. White, 2. Green, 3. Brown, 4. Blue	1. Black/Green 2. Black/White
Shielded	1. Black, 2. Red	1. Black, 2. Red	1. Black, 2. Red

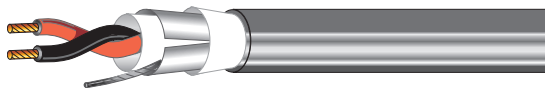
* Capacitance between conductors
** Capacitance between one conductor and the other connected to the shield

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department: 800-245-4964



Two & Multiple Conductor / Shielded



Aquaseal®



Water Resistant Cables

Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Audio Circuits
 - Low Voltage Power
 - Intercom Audio
 - Line-Level Audio
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation
- Short Overall Twist Lengths
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Waterblocked Construction
- Overall Sunlight - Moisture-Resistant PVC Jacket

Rating:

- NEC Type CM or CL3
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQC290	1	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.025	.200	CM CL3	54 pf/ft* 97 pf/ft**
AQC291	1	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.205	CM CL3	55 pf/ft* 99 pf/ft**
AQC3274	15	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.361	CM CL3	55 pf/ft* 99 pf/ft**
AQC3270	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.220	CM CL3	55 pf/ft* 99 pf/ft**
AQC292	1	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.220	CM CL3	60 pf/ft* 108 pf/ft**
AQC293	1	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil - 100% 24 Standard	.025	.257	CM/CL3 FPL	46 pf/ft* 83 pf/ft**
AQC3186	6	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.323	CM CL3	68 pf/ft* 122 pf/ft**
AQC3283	12	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.025	.410	CM CL3	68 pf/ft* 122 pf/ft**

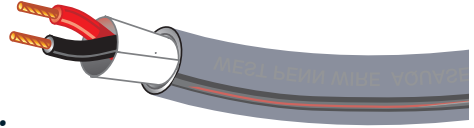
Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

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

Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select items are packaged in our Advantage Box
- Orange rip cord under jacket

Multiple Conductor / Unshielded



Aquaseal®



Water Resistant Cables

Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Speaker Level
- Audio Circuits
- Low Voltage Power
- Background Music
- Division 27 41 00
- Division 27 51 00
- Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation
- Short Overall Twist Construction
- Unshielded
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

Rating:

- NEC Type CM or CL3
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQC224	1	18 AWG (7x26) 6.2 Ω/Mft	.010	None	.025	.218	CM/CL3 FPL	NA
AQC188	8	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.025	.340	CM CL3	NA
AQC225	1	16 AWG (19x29) 4.2 Ω/Mft	.010	None	.025	.242	CM/CL3 FPL	NA
AQC240	4	22 AWG Solid 17.5 Ω/Mft	.008	None	.025	.194	CM CL3	NA

Insulation Color Code

Primary Color Code

1. Black	7. Orange
2. Red	8. Yellow
3. White	9. Purple
4. Green	10. Gray
5. Brown	11. Pink
6. Blue	12. Tan

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964

Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select items are packaged in our Advantage Box
- Orange rip cord under jacket

Multiple Conductor - Access Control Design



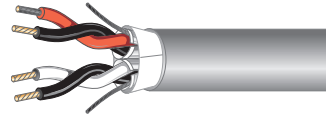
Catalog No.	Conductor Types	Application	NEC Type	Nom. Jacket OD & Color
AQC1822	2 Cond. 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded <i>All Aquaseal® Design</i>	Door Contact Lock Power Request to Exit Card Reader	CM	.460 in



Water Resistant Cables



Multiple Pair / Each Pair Individually Shielded



Aquaseal®



Water Resistant Cables

Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Audio Circuits
 - Low Voltage Power
 - Line-Level Audio
 - Audio Rack Cabling
 - Division 27 41 00
 - Division 27 51 00

Description:

- ASTM Bare Copper
- PVC Insulation
- Short Overall Twist Lengths
- Individually Shield 100% Coverage of Aluminum Polyester Foil with TC Drain Wire
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

Rating:

- NEC Type CM or CL3
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQC430	2	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.380	CM CL3	55 pf/ft* 99 pf/ft**
AQC439	4	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.427	CM CL3	55 pf/ft* 99 pf/ft**
AQC432	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Standard	.025	.520	CM CL3	55 pf/ft* 99 pf/ft**
AQC422	6	22 AWG (Solid) 17.5 Ω/Mft	.008	Al. Foil - 100% 22 Solid	.025	.510	CM CL3	54 pf/ft* 97 pf/ft**

Insulation Color Code

Pair Color Code

1. Black-Red	4. Black-Blue
2. Black-White	5. Black-Yellow
3. Black-Green	6. Black-Brown

- * Capacitance between conductors
 ** Capacitance between one conductor and the other connected to the shield

Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange rip cord under jacket

Jacket Color Code

Stocked jacket colors vary by item.
 For available jacket colors, please contact our Customer Service Department:
 800-245-4964

1 Pair / Unshielded



Water Resistant Cables

Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation
- Short Overall Twist Construction
- Unshielded
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

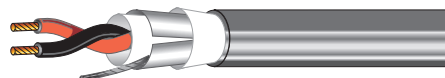
Rating:

- NEC Type CM, CL3 or FPL
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQC224	1	18 AWG (7x26) 6.2 Ω/Mft	.010	None	.025	.218	CM/CL3 FPL	30 pf/ft
AQC225	1	16 AWG (19x29) 4.2 Ω/Mft	.010	None	.025	.242	CM/CL3 FPL	35 pf/ft
AQC226	1	14 AWG (19x27) 2.7 Ω/Mft	.015	None	.025	.294	CL3 FPL	34 pf/ft
AQC227	1	12 AWG (19x25) 1.7 Ω/Mft	.015	None	.025	.325	CL3 FPL	34 pf/ft

Aquaseal® Water-Blocking Cable 1 Pair / Shielded



Water Resistant Cables

Underground In-Conduit

Applications:

- Indoor/Outdoor Use:
- Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music

Description:

- ASTM Bare Copper
- PVC Insulation
- Short Overall Twist Lengths
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

Rating:

- NEC Type CM, CL3 or FPL
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC293	1	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil - 100% 24 Standard	.025	.257	CM/CL3 FPL	39 pf/ft 70 pf/ft
AQC294	1	16 AWG (19x29) 4.2 Ω/Mft	.010	Al. Foil - 100% 24 Standard	.025	.281	CM/CL3 FPL	46 pf/ft 83 pf/ft
AQC295	1	14 AWG (19x27) 2.7 Ω/Mft	.015	Al. Foil - 100% 24 Standard	.025	.333	CL3 FPL	48 pf/ft 86 pf/ft



Multi-Conductor / 300 Volts Power-Limited



Aquaseal®



Water Resistant Cables
**Underground -
Direct Burial**

Applications:

- Indoor/Outdoor Use:
- Speaker Level
 - Audio Circuits
 - Low Voltage Power
 - Background Music
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation with Nylon
- Twisted-Pair or Cabled Construction
- Waterblocked Construction
- Overall Sunlight- & Moisture-Resistant PVC Jacket

Rating:

- NEC Type FPL, PLTC or CL3
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Direct Burial
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQ224	1	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	None	.035	.270	CL3/FPL PLTC	25 pf/ft*
AQ244	4	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.327	CL3/FPL PLTC	25 pf/ft*
AQ225	1	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.295	CL3/FPL PLTC	28 pf/ft*
AQ245	4	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.355	CL3/FPL PLTC	28 pf/ft*
AQ226	1	14 AWG (19x27) 2.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.310	CL3/FPL PLTC	32 pf/ft*
AQ246	4	14 AWG (19x27) 2.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.395	CL3/FPL PLTC	32 pf/ft*
AQ227	1	12 AWG (19x25) 1.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.340	CL3/FPL PLTC	36 pf/ft*

Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White
4.	Green

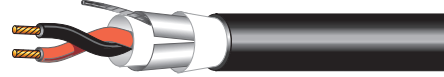
* Capacitance between conductors

Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange rip cord under jacket

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

Multi-Conductor / 300 Volts Power-Limited Shielded



Aquaseal®



Water Resistant Cables
**Underground -
Direct Burial**

Applications:

- Indoor/Outdoor Use:
- Low-Voltage Industrial Process Control
 - Power-Limited Circuits
 - Power-Limited Fire Alarm Circuits
 - Power-Limited Tray Cable PLTC
 - Line-Level Audio
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13

Description:

- ASTM Bare Copper
- PVC Insulation with Nylon
- Twisted-Pair or Cabled Construction
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Drain Wire
- Waterblocked Construction
- Overall Sunlight - Moisture-Resistant PVC Jacket

Rating:

- NEC Type FPL, PLTC or CL3
- UL Listed
- Meets 300V Requirements as Specified in the NEC
- Direct Burial
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
AQ293	1	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.040	.310	CL3/FPL PLTC	32 pf/ft* 58 pf/ft**
AQ3244	4	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.040	.371	CL3/FPL PLTC	32 pf/ft* 58 pf/ft**
AQ294	1	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.040	.328	CL3/FPL PLTC	37 pf/ft* 67 pf/ft**
AQ3245	4	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.050	.415	CL3/FPL PLTC	37 pf/ft* 67 pf/ft**
AQ295	1	14 AWG (19x27) 2.7 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.040	.350	CL3/FPL PLTC	46 pf/ft* 83 pf/ft**
AQ296	1	12 AWG (19x25) 1.7 Ω/Mft	PVC .015 Nylon .005	Al. Foil - 100% 24 Standard	.040	.375	CL3/FPL PLTC	54 pf/ft* 97 pf/ft**

Insulation Color Code

Primary Color Code

1. Black
2. Red
3. Brown
4. Blue

* Capacitance between conductors

** Capacitance between one conductor and the other connected to the shield

Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange rip cord under jacket

Jacket Color Code

Stocked jacket colors vary by item.
For available jacket colors, please contact our Customer Service Department:
800-245-4964



Coaxial Cables / Pro-Video - CATV - CCTV



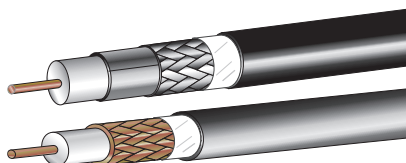
Water Resistant Cables

Applications:

- Indoor/Outdoor:
- CCTV Security
 - SDI - Pro-Video
 - MATV/CATV

Features:

- NEC Type CM
- Waterblocking Tape



Underground In-Conduit

Mechanical Specifications

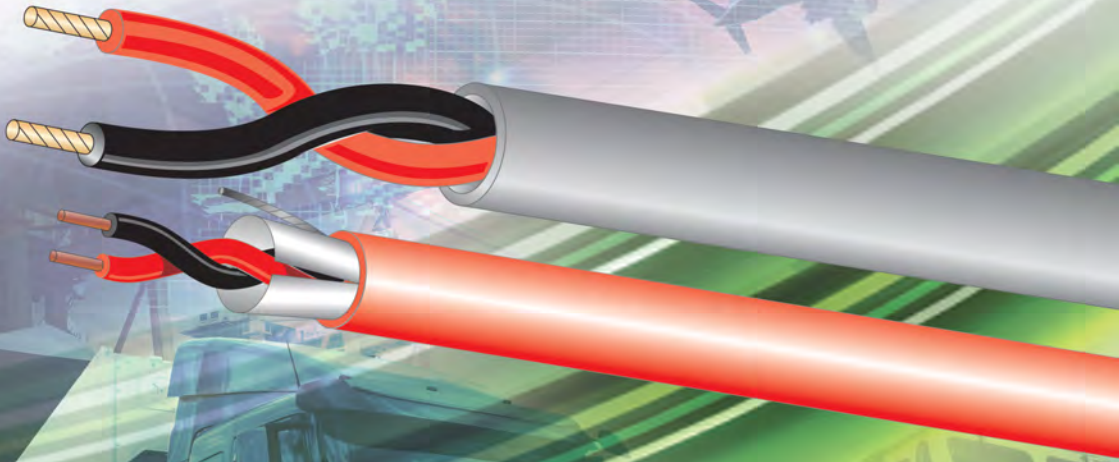
Standard spool size, 1000 ft

Catalog No.	Conductor Type & Nom. DCR	Nominal OD Inches	Insulation Type, OD Inches	Shielding % Coverage	Jacket Type	Jacket Colors	NEC Type	Jacket Color
AQC819	20 AWG Solid BC 10 Ω/Mft	.242	Gas Injected PE .142	Waterblocking tape + Bifoil 100% TC Braid 95%	Sunlight- Resistant PVC	Black	CM	Black
					75 Ω 3 Pc BNC -	CN-BM74-32	TL-7503	TL-104
					75 Ω Compression BNC -	CN-BNC59MVCV	TL-CSST	TL-SNSA
AQC815	20 AWG Solid BC 10 Ω/Mft	.242	Gas Injected PE .142 + Tape Barrier	Waterblocking tape + Bare Copper Braid 95%	Sunlight- Resistant PVC	Black	CM	Black
					75 Ω 3 Pc BNC -	CN-BM74-32	TL-7503	TL-104
					75 Ω Compression BNC -	CN-BNC59MVCV	TL-CSST	TL-SNSA
AQC841	18 AWG Solid BC 6.5 Ω/Mft	.275	Gas Injected PE .180	Waterblocking tape + 100% Al. Foil Al. Braid 65%	Sunlight- Resistant PVC	Black	CM	Black
					"F" Type -	CN-F6MVCV	TL-7502	TL-111
					"F" Compression -		TL-CSST	TL-548G
AQC806	18 AWG Solid BC 6.5 Ω/Mft	.280	Gas Injected PE .180 + Tape Barrier	Waterblocking tape Bare Copper Braid 95%	Sunlight- Resistant PVC	Black	CM	Black
					75 Ω 3 Pc Crimp BNC	CN-BM73-5	TL-7503	TL-107
					75 Ω Compression BNC	CN-BNC6MVCV	TL-CSST	TL-SNSA



Halogen-Free

Cable for Confined Areas & Critical Applications



Transportation • Telecommunications • Infrastructure
Oil & Gas • Petrochemical

Two Conductor / Unshielded



Applications:

- Indoor for:
- Speaker Level
- Audio Circuits
- Low Voltage Power

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Short Overall Twist Lengths
- Overall LSZH Halogen-Free Jacket

Rating:

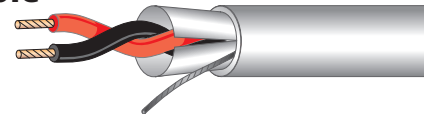
- NEC Type CM-LS, CMG-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HF224	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.046	.214	CM-LS CMG-LS	20 pf/ft
HF225	2	16 AWG (19x29) 4.2 Ω/Mft	PP* .008	None	.046	.238	CM-LS CMG-LS	22 pf/ft
HF226	2	14 AWG (19x27) 2.7 Ω/Mft	PP* .012	None	.046	.280	CL3-LS	22 pf/ft
HF227	2	12 AWG (19x25) 1.7 Ω/Mft	PP* .012	None	.046	.326	CL3-LS	22 pf/ft

Halogen-Free Communication & Control Cable

Twisted-Pair Overall Shielded / Two Conductor



Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with TC Drain Wire
- Twisted-Pair Construction
- Overall LSZH Halogen-Free Jacket

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HF293	2	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100% 24 Standard	.032	.190	CMG-LS	53 pf/ft* 104 pf/ft**
HF294	2	16 AWG (19x29) 4.1 Ω/Mft	.010	Al. Foil 100% 24 Standard	.032	.211	CMG-LS	53 pf/ft* 104 pf/ft**
HF295	2	14 AWG (19x27) 2.7 Ω/Mft	.012	Al. Foil 100% 24 Standard	.032	.255	CL3-LS	54 pf/ft* 106 pf/ft**
HF296	2	12 AWG (19x25) 1.7 Ω/Mft	.012	Al. Foil 100% 24 Standard	.032	.301	CL3-LS	64 pf/ft* 126 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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

Multi-Conductor / Shielded



Applications:

- Indoor/Outdoor Use:
- Speaker Level
- Audio Circuits
- Low Voltage Power

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with TC Drain Wire
- Twisted-Pair Construction
- Overall LSZH Halogen-Free Jacket

Rating:

- NEC Type CM-LS, CMG-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft.

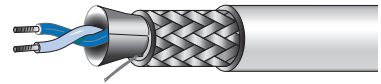
Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HF302	3	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.032	.179	CM-LS CMG-LS	32 pf/ft* 58 pf/ft**
HF303	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.032	.198	CM-LS CMG-LS	36 pf/ft* 65 pf/ft**
HF3244	4	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.032	.214	CM-LS CMG-LS	36 pf/ft* 65 pf/ft**
HF3245	4	16 AWG (19x29) 4.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.032	.240	CM-LS CMG-LS	42 pf/ft* 76 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red
3. White
4. Green

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield

Halogen-Free Communication & Control Cable



RS-485 Serial Data

Applications:

- Indoor/Outdoor Use:
- RS-485
- Low-Speed Data

Description:

- ASTM Bare Copper
- Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with TC Drain Wire
- Twisted-Pair Construction
- Overall LSZH Halogen-Free Jacket

Rating:

- NEC Type CM-LS, CMG-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000ft.

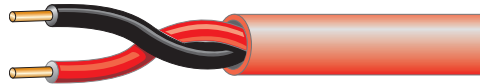
Catalog No.	Pair	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
HFD4851	1	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil 100% + Braid 24 Standard	.030	.255	CMG-LS	12.8 pf/ft* 23 pf/ft**

Insulation Color Code
Pair Color Code
1. Blue - White/Blue

- * Capacitance between conductors
- ** Capacitance between one conductor and the other connected to the shield



Two Conductor / Unshielded



Applications:

- Indoor for:
- Fire Alarm Signaling

Description:

- ASTM Bare Copper
- Thermoplastic Insulation
- Short Overall Twist Lengths
- Overall LSZH Halogen-Free Jacket

Rating:

- NEC Type FPL-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HF980	2	18 AWG Solid 6.5 Ω/Mft	.008	None	.046	.204	FPL-LS	19 pf/ft
HF990	2	16 AWG Solid 4.2 Ω/Mft	.008	None	.046	.226	FPL-LS	20 pf/ft
HF994	2	14 AWG Solid 2.7 Ω/Mft	.012	None	.046	.268	FPL-LS	23 pf/ft
HF998	2	12 AWG Solid 1.7 Ω/Mft	.012	None	.046	.302	FPL-LS	23 pf/ft

Halogen-Free Fire Alarm

Two Conductor / Shielded



Applications:

- Indoor for:
- Fire Alarm Signaling

Description:

- ASTM Bare Copper
- Polypropylene Insulation
- Overall Shield 100% Coverage of Aluminum Polyester Foil with TC Drain Wire
- Twisted-Pair Construction
- Overall LSZH Halogen-Free Jacket

Rating:

- NEC Type FPL-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1685

Standard spool size, 1000 ft

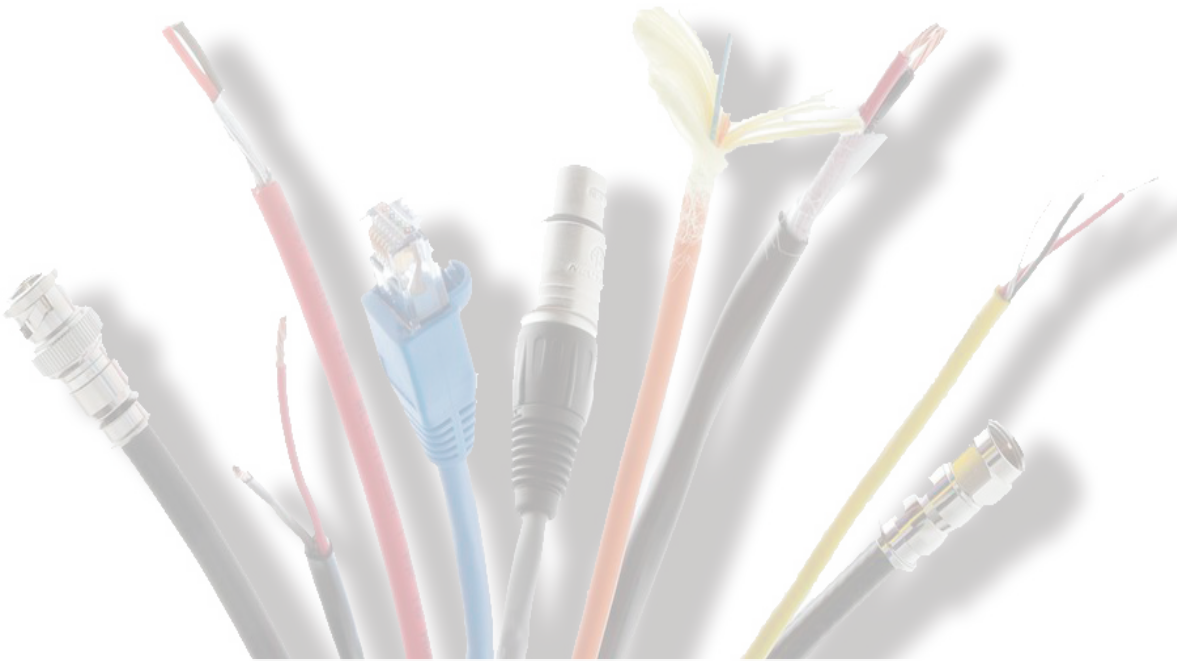
Catalog No.	Pair	Conductor Type & Nom. DCR	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. OD Inches	NEC Type	Nom. Capacitance
HF975	2	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.030	.183	FPL-LS	38 pf/ft* 69 pf/ft**
HF991	2	16 AWG Solid 4.2 Ω/Mft	.008	Al. Foil - 100% 24 Standard	.030	.201	FPL-LS	43 pf/ft* 78 pf/ft**
HF995	2	14 AWG Solid 2.7 Ω/Mft	.012	Al. Foil - 100% 24 Standard	.032	.243	FPL-LS	39 pf/ft* 70 pf/ft**
HF999	2	12 AWG Solid 1.7 Ω/Mft	.012	Al. Foil - 100% 24 Standard	.032	.277	FPL-LS	44 pf/ft* 79 pf/ft**

Insulation Color Code
Primary Color Code
1. Black
2. Red

Jacket Color Code
Stocked jacket colors vary by item. For available jacket colors, please contact our Customer Service Department: 800-245-4964

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

The know-how. Understanding cable design, coaxial design and fiber optic design is pages away. You can also find recommended connectors, tools and much more technical information that will help you understand cable design and implementation. We want to make your installation free of problems. If you are looking for more information on termination techniques, connector selection or other technical data, see our website at www.westpennwire.com.



TECHNICAL REFERENCE

Technical Reference Section

Understanding National Electrical Code (NEC)	123-124
Conduit Capacity	125-126
Shipping Policy and Warranty Info	127-128
Cable Index	129-131
Cable Accessories Index	131-133

The National Electrical Code (NEC) is a set of guidelines written to govern the installation of wiring and equipment in commercial buildings and residential areas. These guidelines were developed to ensure the safety of humans as well as property against fires and electrical hazards. Understanding the National Electrical Code is important for everyone, from the cable manufacturer, engineer and distributor, to the designer and installer. Anyone involved in specifying or installing of cable should be aware of the basics of the code.

In 1987, the National Electrical Code introduced some changes that had a major impact on the wire and cable industry. The code now has listing requirements for communication and power-limited circuit cable. These requirements developed fire-resistance levels for cable. The code covers initiation of fire by electronic cable as well as flame spread characteristics of the cable.

Code Organization

The NEC code book is made up of nine chapters, with each chapter divided into separate articles pertaining to specific subjects. There are about five articles that pertain to communication and power-limited cable. Each article describes wire and cable construction, material use, cable markings, installation environments and applications.

Article Categories

There are four articles that cover communication, power-limited and CATV wiring. There is another category that deals strictly with optical fiber. The following is a list of those articles and the applications or systems they cover:

Article 725 - Class 1, Class 2, Class 3, Remote-control, Signaling and Power-Limited circuits

Article 760 - Fire Protective Signaling Systems

Article 770 - Fiber Optic Systems

Article 800 - Communication Circuits

Article 820 - Community Antenna Television

Article Overviews

The NEC code can be somewhat confusing to the novice who has not studied the code in depth. In most cases, within an article, a listing will allow for a higher listed cable to be substituted for lower listed cable. Or some listings from one article may be substituted for another article listing with possible restrictions. This section will briefly cover the basis of the code to try to make things clearer for you. You should consult the NEC book for exact specifications, wording, and accuracy of the code. This is not in any way an exact excerpt from the code.

Article 725

Article 725 covers Class 1, Class 2, and Class 3 remote control and signaling cables, as well as power-limited tray cable. Power-limited tray cable can be used as a Class 3 or Class 2 cable. Cable listed multi-purpose, communications, or power-limited fire protective can be used for Class 2 and Class 3 applications. A Class 3 listed cable can be used as a Class 2 cable.

Article 760

Article 760 covers power-limited fire protective cable. Cable listed as power-limited fire protective cable can also be used as Class 2 and Class 3 cable. Cable listed as communications and Class 3 can

be used as power-limited fire protective cable with restrictions to conductor material and type, gauge size and number of conductors.

Article 770

Article 770 covers fiber optic cable. This article covers three general types: non-conductive, conductive, and composite. Non-conductive type refers to cable containing no metallic members and no other electrically conductive materials. Conductive type refers to cable containing non-current carrying conductive members, such as metallic strength members, etc. Composite type refers to cable containing optical fibers and current carrying electrical conductors. Composite types are classified according to the type of electrical circuit that the metallic conductor is designed for.

Article 800

Article 800 covers multi-purpose and communication cable. Multi-purpose cable is the highest listing for a cable and can be used for communication, Class 2, Class 3, and power-limited fire protective cable. Communication cable can be used for Class 2 and Class 3 cable and also as a power-limited fire protective cable with restrictions.

Article 820

Article 820 covers community antenna television and RF cable. CATV cable may be substituted with multi-purpose or communication listed coaxial cable.

Designation and Environmental Areas

Not only does listing by circuit types have to be adhered to, but installation in various environments has to also be considered. The NEC has designated four categories for various environments. These will be listed from the highest to the lowest listing. A higher listing can be used as a substitute for a lower listing.

Plenum - This listing is suitable for use in ducts, plenums and other spaces used for environmental air without conduit and has adequate fire-resistant and low-smoke producing characteristics.

Riser - This listing is suitable for use in a vertical run, in a shaft or from floor to floor, and has fire-resistant characteristics capable of preventing the carrying of fire from floor to floor.

General Purpose - This listing is suitable for general-purpose use, with the exception of risers, ducts, plenums, and other space used for environmental air, and is resistant to the spread of fire.

Restricted Applications - This listing is for limited use and is suitable for use in dwellings and raceways and is flame retardant. Restricted use is limited to non-concealed spaces of 10 feet or less, fully enclosed in conduit or raceway, or cable with diameters less than .25 in for a residential dwelling.

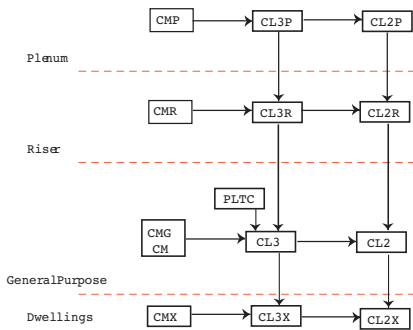
SPECIAL NOTES FOR COMMUNICATION CABLES:

- * MULTI-CONDUCTOR CABLES WITH 24-16 AWG CONDUCTORS CAN BE RATED UL AND cUL.
- * MULTI-CONDUCTOR CABLES WITH 14-8 AWG CONDUCTORS ARE UL LISTED ONLY
- * 10-8 AWG SPEAKER CABLES ARE CL2 ONLY AND MUST INDICATE AUDIO USE ONLY

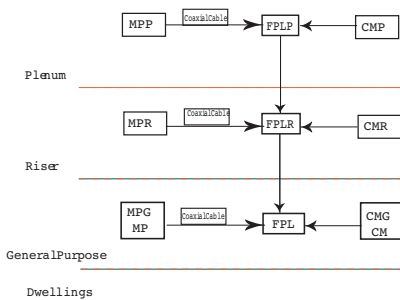
National Electrical Code Substitution Chart

The following chart explains the NEC cable hierarchy and will give you a "picture" view of how this all fits together. The chart starts with the higher listed cable at the top descending to the lower listed cable. Following the arrows will allow you to find what listing can be substituted for others. Also note restrictions in which case you will have to review the NEC code in order to see if your cable is applicable.

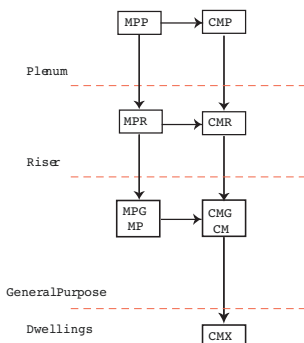
Article 725



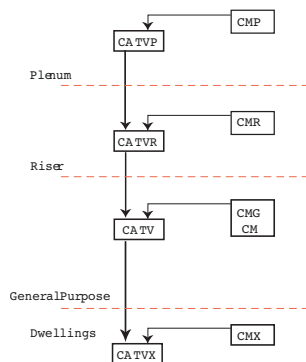
Article 760



Article 800



Article 820



Final Considerations

The National Electrical Code is widely accepted as the suggested regulations governing the proper installation of wire and cable in the United States. The code is revised every three years to keep safety in the forefront in wire and cable manufacturing and installation. Even though the code is generally accepted, each state, county, city and municipality has the option to adopt all of the code, part of the code, or develop one of its own. The local inspectors have final authority of your installation. Therefore, the NEC is a good reference when questions arise about the proper techniques for a particular installation, but local authorities should be contacted for verification.

When choosing cable for your installation, there are four guidelines to follow to keep problems to a minimum:

- 1 The application and environment determines which type of cable you can use and what rating it should have. Make sure the cable you're installing meets the proper ratings for your application.
- 2 If you will be substituting a cable with another, you must have a cable that is rated higher than what the code calls for. Check with your local inspector as to what is allowed in your local area.
- 3 The NEC code is a general guideline that can be adopted in whole or in part. Your local state, county, city, or municipa-approved code is what you must follow. Contact your local authorities for verification of the code in your area.
- 4 The local inspector or fire marshal has the final authority to approve or disapprove any installation of cable based on the National Electrical Code or local code.

If you remember these four guidelines, you should have fewer complications and headaches when installing cable in your area. Remember to always work closely with your local authorities.



Calculating Conduit Capacity

One Cable Type in Conduit

The following information is to provide you with a quick and easy reference for conduit fill requirements. This information is to be used as a general guideline. Each installation has different restrictions for installation environments and/or local codes to follow.

The Conduit Capacity Chart provided on the following page is for applications when only one type of cable is to be used in a conduit. For example, if you know the diameter of the cable you will be installing, use the cable OD column, and find the exact or next-largest diameter cable OD. Follow this row over to the number of cables you need to install in a conduit. Then follow this column to the top of the chart and read the conduit size required for the number of cables you need to install.

Multiple Types of Cable in One Conduit

If you will be mixing various cable diameters in a conduit, then this overall chart does not apply. You will have to use the following guidelines to calculate the conduit fill requirements.

To determine the conduit size required for a particular installation of cable, follow these steps:

1. Square the OD of each cable and total the results.
2. Multiply the total by .7854. This is the total area of the cables in square inches.
3. From the Permissible Area row on the Conduit Capacity Chart shown on the following page, select the conduit size with an area equal to or greater than the total area you calculated.
* See Important Notes and Installation Suggestions
** Permissible Area to be occupied (sq. in.) is based on the NEC standard of 40% fill, which applies to three or more non-lead covered cable installed in the same conduit.

Important Notes and Installation Suggestions

- A single cable is permitted to occupy 53% and two cables are limited to 31% conduit fill. For a single cable, use .5927 in step 2, for two cables use 1.1034, and three or more cables use .7854.
- This chart is based on the maximum number of cable permitted in conduit under the National Electrical Code, and is calculated on the area of the cable with 40% of the conduit filled. For conduit runs of 50 to 100 feet, the installed number should be reduced by 15%, or use the next larger size conduit. If more than two 90-degree bends are to be used in the conduit run, or if the run is to be over 100 feet in length, insert a pull box.
- An anti-friction agent is recommended in pulling operations.

***CAUTION:** Select an anti-friction agent is suitable for the cable jacket material. The electronic characteristics of unjacketed cable may change due to the application of anti-friction agents.

***COLD ENVIRONMENT PRECAUTION:** Due to the nature of PVC compounds to become non-pliable when stored or handled in ambient temperatures of 32 degrees F or less, we recommend the following:

Prior to installation, condition the cable for at least 24 hours at room temperature to provide the best flex properties for ease of installation.

- Permissible area chart does not apply to metallic and non-metallic surface raceways; consult the NEC for recommendations.

THE NATIONAL ELECTRICAL CODE FORBIDS THE INSTALLATION OF COMMUNICATION CABLE IN THE SAME CONDUIT AS POWER CABLE.

Pulling Tensions

Under the stress of approximately 15,000 lbs./sq. in., annealed copper will begin to permanently stretch. The table below lists the absolute maximum recommended pulling tensions for conductor sizes. For multiple conductor cable, multiply the appropriate value by the total number of conductors. These pulling tensions must be equally distributed among the conductors.

THESE LIMITS MUST NEVER BE EXCEEDED EVEN MOMENTARILY! DON'T JERK THE CABLE!

The electronic characteristics of a cable may change due to excessive tension and crushing.

Gauge	Max. Pulling Tension
24 AWG	4 lbs
22 AWG	7 lbs
20 AWG	12 lbs
18 AWG	19 lbs
16 AWG	30 lbs
14 AWG	48 lbs
12 AWG	77 lbs

Conduit Capacity Chart

Conduit Size		1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
I.D. Inches		.622	.824	1.049	1.380	1.610	2.067	2.469	3.068	3.548	4.026
Permissible Area*		0.12	0.21	0.34	0.60	0.82	1.34	1.92	2.95	3.96	5.09
Cable OD Inch	Cable Area Sq. Inch										
.100	.00785	15	27	44	76	103	171	298	450	588	751
.125	.01227	10	17	28	48	66	109	191	288	376	481
.150	.01767	7	12	19	34	46	76	132	200	261	334
.175	.02405	5	9	14	25	34	56	97	147	192	245
.200	.03142	4	6	11	19	26	42	74	112	147	188
.225	.03976	3	5	8	15	20	33	59	89	116	148
.250	.04909	2	4	7	12	16	27	47	72	94	120
.275	.0594	1	3	6	10	13	22	39	59	77	99
.300	.07069	1	3	5	8	11	19	33	50	65	83
.325	.08296	1	2	4	7	10	16	28	42	55	71
.350	.09621	1	1	3	6	8	14	24	36	48	61
.375	.11045	1	1	3	5	7	12	21	32	42	53
.400	.12566	1	1	2	4	6	10	18	28	36	47
.425	.14186	1	1	2	4	5	9	16	25	32	41
.450	.15904	1	1	1	3	5	8	14	22	29	37
.475	.17721	1	1	1	3	4	7	13	20	26	33
.500	.19635	1	1	1	3	4	7	12	18	23	30
.525	.21648	0	1	1	2	3	6	11	16	21	27
.550	.23758	0	1	1	2	3	5	10	15	19	25
.575	.25967	0	1	1	1	3	5	9	13	17	22
.600	.28274	0	1	1	1	3	4	8	12	16	21
.625	.3068	0	1	1	1	2	4	7	11	15	19
.650	.33183	0	1	1	1	2	4	7	10	14	17
.675	.35785	0	0	1	1	1	3	6	10	13	16
.700	.38484	0	0	1	1	1	3	6	9	12	15
.725	.41282	0	0	1	1	1	3	5	8	11	14
.750	.44179	0	0	1	1	1	3	5	8	10	13
.775	.47173	0	0	1	1	1	3	5	7	9	12
.800	.50265	0	0	1	1	1	2	4	7	9	11
.825	.53456	0	0	1	1	1	2	4	6	8	11
.850	.56745	0	0	1	1	1	2	4	6	8	10
.875	.60132	0	0	0	1	1	1	4	6	7	10
.900	.63617	0	0	0	1	1	1	3	5	7	9
.925	.67201	0	0	0	1	1	1	3	5	7	9
.950	.70882	0	0	0	1	1	1	3	5	6	8
.975	.74662	0	0	0	1	1	1	3	4	6	8
1.00	.7854	0	0	0	1	1	1	3	4	6	7
1.025	0.825	0	0	0	0	0	1	3	4	6	7
1.05	0.866	0	0	0	0	0	1	2	3	4	5
1.075	0.908	0	0	0	0	0	1	2	3	4	5
1.100	0.950	0	0	0	0	0	1	2	3	4	5
1.125	0.994	0	0	0	0	0	1	1	2	3	5
1.150	1.039	0	0	0	0	0	1	1	2	3	4
1.175	1.084	0	0	0	0	0	1	1	2	3	4
1.20	1.131	0	0	0	0	0	1	1	2	3	4
1.225	1.179	0	0	0	0	0	1	1	2	3	4
1.250	1.227	0	0	0	0	0	1	1	2	3	4
1.275	1.277	0	0	0	0	0	1	1	2	3	3
1.300	1.327	0	0	0	0	0	1	1	2	3	3
1.325	1.379	0	0	0	0	0	0	1	2	3	3
1.350	1.431	0	0	0	0	0	0	1	2	2	3
1.375	1.485	0	0	0	0	0	0	1	1	2	3
1.400	1.539	0	0	0	0	0	0	1	1	2	3
1.425	1.595	0	0	0	0	0	0	1	1	2	3
1.450	1.651	0	0	0	0	0	0	1	1	2	3
1.475	1.709	0	0	0	0	0	0	1	1	2	2
1.500	1.767	0	0	0	0	0	0	1	1	2	2

EXAMPLES:

Example A

Sample Cable:
227 - .260" OD

Go down the Cable OD inch column. Find the number equal to or greater than the cable OD Go across to find the number of cables in the appropriate conduit size.

.269 in - Closest .275 in
13 in a 1-1/2 in Conduit.

Example B

Three Different Cables:

227 - .260 in sqd. = .0676
D434 - .411 in sqd. = .1689
6350 - .275 in sqd. = .0756
+
.3169
x .7854

.2489

On the Permissible Area-equal to or greater. The closest area is .034 Use a 1-in Conduit

Important Note: This conduit capacity chart is to be used as a general guideline. Because local codes can vary from the NEC, West Penn Wire cannot be held responsible for this information as it pertains to your installation. Proper conduit fill is the sole responsibility of the installer, and it is your responsibility to see that your installation will pass local codes.



Request to Return Material

Customers wishing to return material to West Penn Wire are required to obtain a “Return Material Authorization” (RMA) number prior to the material being returned. RMA numbers are issued in numerical sequence and expire 90 days from the date of issuance.

All material must be returned in original unopened West Penn Wire packaging. Returned material will only be accepted if received within six months of the original invoice date.

The issued RMA will provide instructions as to where and how the material is to be returned. No return authorizations will be issued for discontinued items, warehouse clearance items, special made lengths, non-catalog items or fiber.

Returns Due to West Penn Wire Error

If a return is necessary due to an error by West Penn Wire, the customer will be reimbursed through trade credits for the material returned and any freight originally paid by the customer. The RMA will provide instructions as to where and how the material is to be returned. If the material is not returned pursuant to the provided instructions, the customer will be responsible for all freight charges incurred.

Returns Due to Customer Decision

If a return is requested by the customer due to any reason other than a WPW error, the customer will be responsible for the pro rata share of the original outbound freight if prepaid by WPW and the return freight. Returns will also be subject to the following restocking charges if received in conformity with the return policy:

- * 25% restock charge if there is no replacement order.
- * 10% restock charge if there is an equal dollar amount replacement order.
- * No restock charge if there is a replacement order that is twice the dollar amount of the original order.

All content is subject to change. Consult West Penn Wire.

Limited Product Warranty - West Penn Wire

I. Limited Product Warranty

The following warranty is exclusive and in lieu of all other warranties, whether express or implied, or statutory, including, but not by way of limitation, any warranty of merchantability or fitness for any particular purpose.

West Penn Wire (WPW) warrants that the Products are, at the time of delivery to Buyer, free of material and workmanship defects, provided that no warranty is made with respect to:

- (a) any Product which has been repaired or altered in such a way, in WPW's judgment, as to affect the Product adversely;
- (b) any Product which has, in WPW's judgment, been subject to negligence, accident or improper storage;
- (c) any Product which has not been installed, operated and maintained in accordance with normal practice and in conformity with recommendations and published specifications of WPW.

At its option, WPW shall repair, replace or refund the purchase price of any non-conforming Products for a period of ten (10) years from the date of shipment of the Products to Buyer, and such obligation shall be the full extent of WPW's liability. WPW's liability with respect to any material not of WPW's manufacture shall be limited to the liability assumed by the vendor(s) of such material. Repairs to, alteration of, or work done on Products warranted by WPW but without WPW's prior written authorization shall void WPW's warranty on the Products.

Upon discovery of a defect, Buyer shall notify WPW in writing within 30 days of discovery of the defect of any claim whatsoever that Buyer may have with respect to any Products delivered hereunder, and failure to give such notice within the specified time shall constitute an unqualified acceptance and waiver of all claims with respect to the Products. Upon receipt of notice from Buyer of non-conforming Products, WPW may inspect such Products at Buyer's location or require that they be returned to WPW F.O.B. WPW's designated location.

II. Exclusivity of Remedy; Limitation of Liability

The remedies provided for in the preceding paragraph shall constitute the sole recourse of Buyer against WPW for breach of any of WPW's obligations under this Agreement, whether the claim is made in tort or in contract, including claims based on warranty, negligence, strict liability, fraud, misrepresentation, or otherwise.

In no event shall WPW be liable for special, indirect, incidental, consequential or punitive damages (regardless of the form of action, whether in contract or in tort, including negligence), nor for lost profits, nor shall WPW's liability for any claims or damage arising out of or connected with this Agreement or the manufacture, sale, delivery or use of the Products exceed the purchase price of the Products.





About West Penn Wire

West Penn Wire designs and manufactures wires, cables, harnesses and related products for small, mid-size and Fortune 500 companies worldwide, as well as for higher education, healthcare and government organizations, and houses of worship.

Our design, engineering and manufacturing excellence enable customers to obtain solutions that meet the most demanding requirements for audio, video, security and networking applications. To help meet customers' wire and cabling needs, we also offer value-added services, including custom labeling (barcodes, logos, private labeling), special packaging and custom kitting. With distribution centers located strategically throughout the country, West Penn Wire products can reach customers' places of business or jobsites quickly.



© 2023 West Penn Wire

WEST PENN WIRE MASTER CATALOG-2023

For more information, visit us at:

[westpennwire.com](https://www.westpennwire.com)

or call us at: **800.245.4964**

[westpennwire.com](https://www.westpennwire.com)