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 **WIRE** Since 1971

AV, SECURITY & NETWORKING SOLUTIONS



ARROW

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MASTER CATALOG

DATA | VOICE | VIDEO | PAGING | SECURITY | FIRE | AV | PRODUCT TRAINING

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Your Link to Connectivity

West Penn Wire designs and manufactures wire, cables, harnesses and related products for small, mid-sized and Fortune 500 companies worldwide. West Penn Wire was established in 1971 and is part of the Belden group of companies (NYSE:BDC).

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

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

West Penn Wire is based in Washington, PA, near Pittsburgh, and has distribution centers in Washington, PA and Sacramento, CA.

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Environmental Compliance: RoHs

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

Application Drawings

Healthcare & Houses of Worship iii

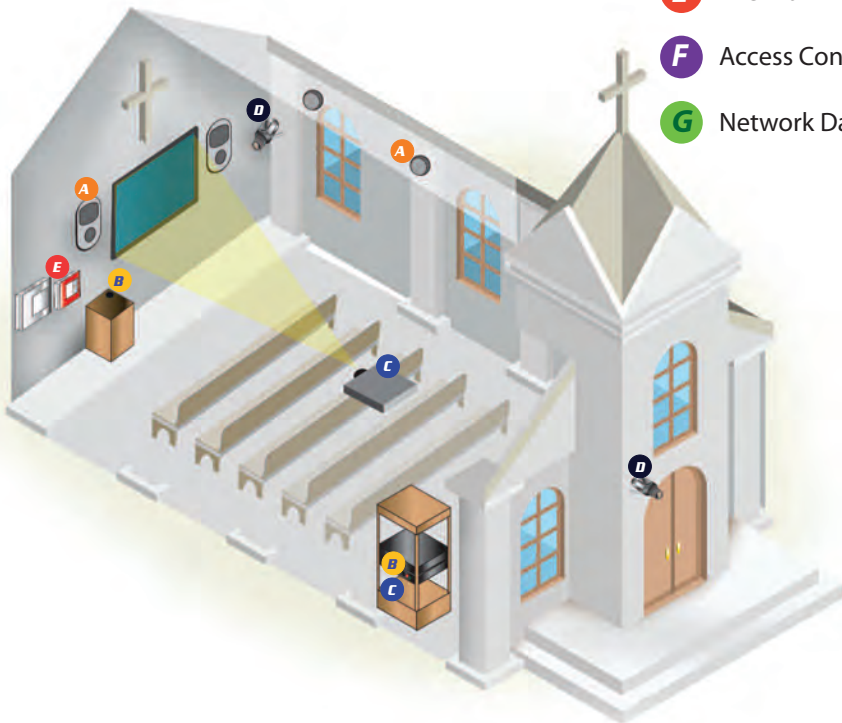
Performing Arts & Stadium/Arena iv



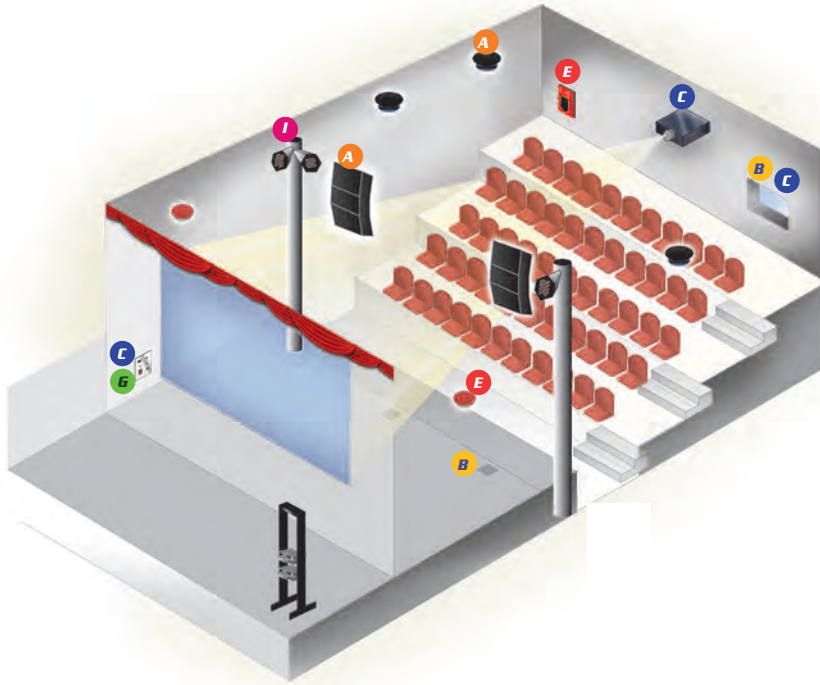
Applications | Healthcare & Houses of Worship



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Applications | Performing Arts & Stadium/Arena



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WEST PENN



WIRE Since 1971

AV, SECURITY & NETWORKING SOLUTIONS

COMMUNICATION AND CONTROL

Non-Plenum

Plenum

DATA | VOICE | VIDEO | PAGING | SECURITY | FIRE | AV | PRODUCT TRAINING

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COMMUNICATION AND CONTROL

Low Voltage & Control - Non-Plenum

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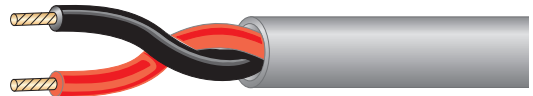


DATA | VOICE | VIDEO | PAGING | SECURITY | FIRE | AV | PRODUCT TRAINING

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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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. Red

Notes:

- Selected Plenum Versions Plenum Section
- Selected Indoor/Outdoor [Aquaseal Water Resistant®](#) Versions, see Aquaseal Catalog Section, Pages 121-122
- Zero Halogen Versions, see Page 126
- Cables are packaged in our Advantage Box. Larger AWG sized cables may be on a reel.
- Rip Cord
- 500ft 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 CL2R
- (UL)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 - Plenum Section
- Cables are packaged in our Advantage Box.
- Larger AWG sized cables may be on a reel.
- Speaker Connectors are listed in Speaker Level Section
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	--

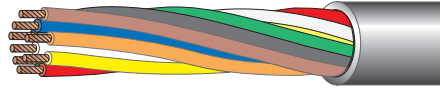
Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red
3.	White
4.	Green

Notes:

- Selected Plenum Versions - See Plenum Section
- Cables are packaged in our Advantage Box.
- Larger AWG sized cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	--

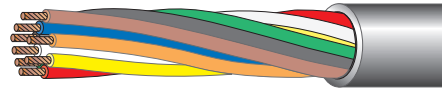
Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Notes:

- Cables are packaged in our Advantage Box.
- Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



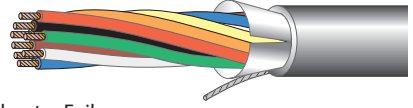
22 AWG Multiple Conductor / Overall Shielded

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 Strd. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	

* Capacitance between conductors.

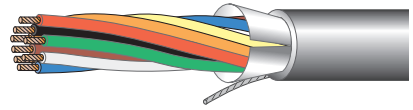
** Capacitance between one conductor and the other connected to the shield.

Notes:

- Selected Plenum Versions, see - Plenum Section
- Cables are packaged in our Advantage Box.
- Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft 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 Strd. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 sized cables and Higher Paired cables may be on a reel
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



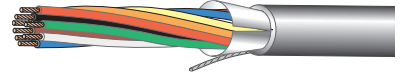
18 & 16 AWG Multiple Conductor / Overall Shielded

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 Strd. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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.

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

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

Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- Selected Indoor/Outdoor **Aquaseal Water Resistant®** Versions, see Aquaseal Section, Pages 118-122
- 500ft put up lengths may be available, minimum quantities may apply.



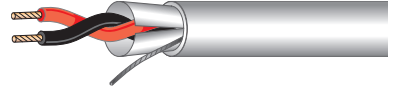
Twisted Pair Overall Shielded / Two Conductor

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 CL2R
- (UL)-C(UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd.	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 Strd.	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 Strd.	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 Strd.	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 Strd.	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 Strd.	PVC .017	.265	CL3R	88 pf/ft* 158 pf/ft

* Capacitance between conductors.

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

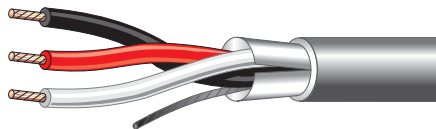
Insulation Color Code	
Primary Color Code	
290, 291, 292, 293, 294	295, 296
1. Black	1. Black
2. Red	2. Red

Notes:

- Selected Plenum Versions see - Plenum Section
- Selected Indoor/Outdoor **Aquaseal Water Resistant®** Versions, see Aquaseal Section, Page 123
- Professional Grade Versions: Pages 27-30
- Halogen Free Versions: Page 126
- Cables are packaged in our Advantage Box
Larger AWG sized cables and Higher Paired cables may be on a reel
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



Three Conductor / Overall Shield



Applications: Description:

Indoor for:

- Audio Circuits
- Low Voltage Power
- Intercom Audio
- Line Level Audio

- 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)-C(UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd.	.017	.138	CMR	55 pf/ft* 99 pf/ft**
302	3	20 AWG (7x28) BC 10.1 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.017	.152	CMR	60 pf/ft* 108 pf/ft**
303	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.017	.174	CMR	68 pf/ft* 122 pf/ft**

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

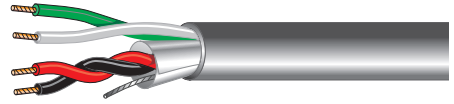
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

Notes:

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



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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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 [Aqueaseal Water Resistant](#)® Versions, see Aqueaseal Section, Page 117
- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- 500ft 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd.	.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, Pages 27-30



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) C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 or NFPA 262 Smoke & Flame Test

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
77350	4 (2 Shld)	22 AWG (7x30) 17Ω/M'	Polyolefin .025	Al. Foil-100% drain wire	PVC .030	.255	CMR	12.5 pf/ft* 22.5 pf/ft**
	(2 Unshld)	18 AWG (7x26) 6.2Ω/M'	.018	None				
D25350	4 (2 Shld)	22 AWG (7x30) 17Ω/M'	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) 6.2Ω/M'	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.

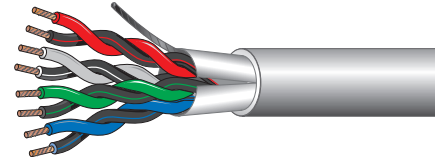
Notes:

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

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 Strd. Tinned Copper Drain Wire
- Short Overall Twist 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, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 4.	Black/Brown-Brown

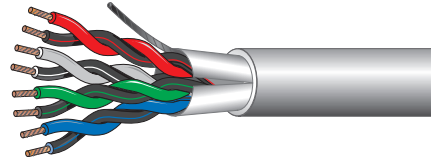
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

Notes:

- Cables are packaged in our Advantage Box.
- Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- 500ft 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 Strd. Tinned Copper Drain Wire
- Short Overall Twist 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, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

* Capacitance between conductors.

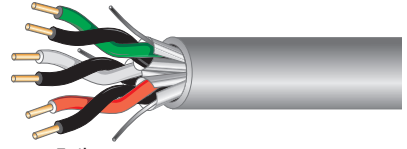
** Capacitance between one conductor and the other connected to the shield.

Notes:

- Cables are packaged in our Advantage Box.
- Rip Cord
- 500ft 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 Requirements as Specified in the NEC
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
420	2		.008	Al. Foil 100%	.017	.195	CMR	55 pf/ft* 99 pf/ft
422	6	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil 100%	.017	.285	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 4.	Black/Brown-Brown

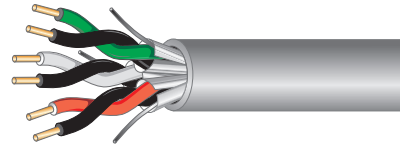
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

Notes:

- Selected Indoor/Outdoor Aquaseal Water Resistant* Versions
- Cables are packaged in our Advantage Box. Larger AWG sized cables 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 Strd. Tinned Copper Drain Wire
- Short Overall Twist 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, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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.

Notes:

- Selected Plenum Versions, see -Plenum Section
- Cables are packaged in our Advantage Box.
- Larger AWG sized cables 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	--

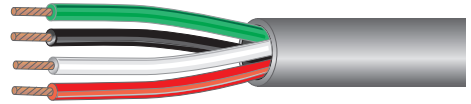
Insulation Color Code	
Primary Color Code	
1.	Black
2.	Red

Notes:

- Plenum Installation Precautions, see Technical Reference Section, Page 130
- Cables are packaged in our Advantage Box.
- Speaker Connectors Listed in Speaker Section
- 500ft put up lengths may be available, minimum quantities may apply.



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

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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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, Page 130
- Cables are packaged in our Advantage Box.
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

Notes:

- Plenum Installation Precautions, see Technical Reference Section, Page 130
- Cables are packaged in our Advantage Box.
- 500ft 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 • Division 27 41 00
 - Security Systems • Division 27 51 00
 - Sound and Audio • Division 28 05 13
 - Background Music

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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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	--

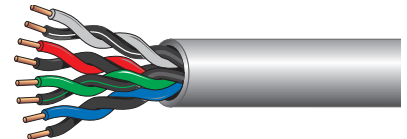
Plenum Communication & Control Cable Multiple Pair/ Unshielded 18 AWG Plenecon II[®] Extra Flexible

Description:

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

Rating:

- NEC Type CMP



Standard spool size, 1000ft.

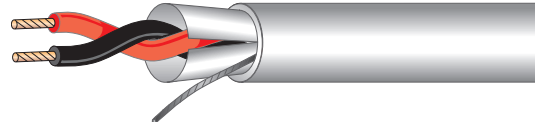
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
25751B	2	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.253	CMP	--
25752B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	None	.015	.275	CMP	--
25753B	4	18 AWG (7x26) 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

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 and CL2P
- (UL)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

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

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

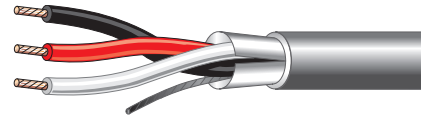
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

Notes:

- Plenum Installation Precautions, see Technical Reference Section, Page 130
- Cables are packaged in our Advantage Box.
- 500ft 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd.	.015	.130	CMP	55 pf/ft* 99 pf/ft**
253241B	4	22 AWG (7x30) 17Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.015	.141	CMP	55 pf/ft* 99 pf/ft**
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**

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	

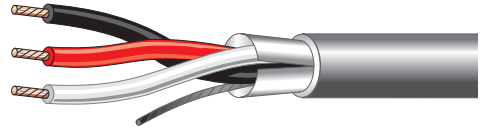
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

Notes:

- Plenum Installation Precautions, see Technical Reference Section, Page 130
- Cables are packaged in our Advantage Box.
- 500ft 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
25302B	3	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil - 100% 24 Strd.	.015	.145	CMP	60 pf/ft* 108 pf/ft**
25303B	3	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Strd.	.015	.166	CMP	68 pf/ft* 122 pf/ft**
253244B	4	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil - 100% 24 Strd.	.015	.182	CMP	68 pf/ft* 122 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	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	8. Yellow

* Capacitance between conductors.

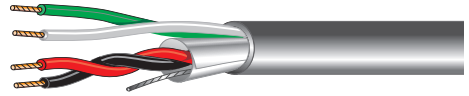
** Capacitance between one conductor and the other connected to the shield.

Notes:

- Plenum Installation Precautions, see Technical Reference Section, Page 130
- Cables are packaged in our Advantage Box.
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
25352B	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil - 100% 24 Strd.	.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 Strd.	.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% Strd. 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% Strd. 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.

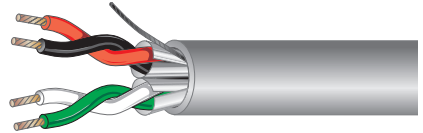
** Capacitance between one conductor and the other connected to the shield.

Notes:

- Cables are packaged in our Advantage Box.
- Plenum Installation Precautions, see Technical Reference Section, Page 130
- 500ft put up lengths may be available, minimum quantities may apply.



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

Standard spool size, 1000ft.

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



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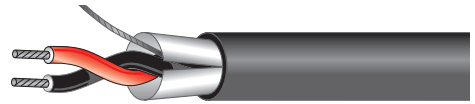
Miniature Audio / 22 AWG Shielded

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
-------------	--------------	-----------------------------	-----------------------------	-----------	-------------------------	------------------	----------	------------------

454	1 pair	22 AWG (7x30) 17 Ω/Mft	.008	Al. Foil 100% 22 Strd.	.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

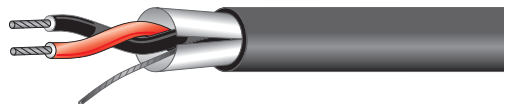
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

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.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
-------------	--------------	-----------------------------	-----------------------------	-----------	-------------------------	------------------	----------	------------------

455	1 pair	Overcoat 22 AWG (7x30) 17 Ω/Mft	.008	Al. Foil 100% 22 Strd. drain	.020	.138	CMR	34 pf/ft* 67 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.

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) - C(UL) Listed
- Meets 300 Volt
- Flame Rating: NFPA-262 Smoke & Flame Test

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
-------------	--------------	-----------------------------	-----------------------------	-----------	-------------------------	------------------	----------	------------------

D25454	1 pair	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil 100% 22 Strd.	.018	.130	CMP	35 pf/ft* 67 pf/ft**
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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

Notes:

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

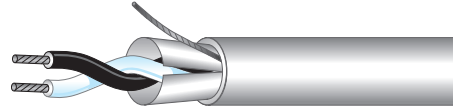
- * Capacitance between conductors.
- ** Capacitance between one conductor and the other connected to the shield.

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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
77291	1 Pair	22 AWG (7x30) 17 Ω/Mft	.016	Al. Foil 100% 22 Strd.	.025	.175	CM	24 pf/ft* 47 pf/ft**
77292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	.016	Al. Foil 100% 20 Strd.	.028	.204	CM	27 pf/ft* 49 pf/ft**
77293	1 Pair	18 AWG (16x30) 6.2 Ω/Mft	.018	100% Al. Foil 20 Strd.	.028	.222	CM	24 pf/ft* 44 pf/ft**
77294	1 Pair	16 AWG (19x29) 4.2 Ω/Mft	.032	Al. Foil 100% 18 Strd.	.032	.315	CL2	23 pf/ft* 44 pf/ft**
77295	1 Pair	14 AWG (19x27) 2.7 Ω/Mft	.032	Al. Foil 100% 16 Strd.	.035	.355	CL2	24 pf/ft* 47 pf/ft**
77510†	2 Pair	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.

Insulation Color Code

Primary Color Code	77291, 77292, 77293, 77294, 77295		77510
	1. Black	1. Black/Red	
	2. Clear	2. White/Green	

Notes:

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

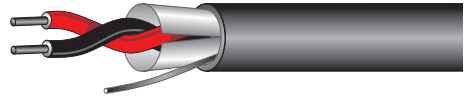
BELDEN

- 8761
- 8762
- 8760
- 8723

WPW

- 77291
- 77292
- 77293
- 77510

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

BROADCAST QUALITY

Standard spool size,1000ft.

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

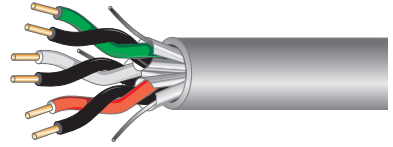
- FEP-Fluorinated Ethylene Propylene - Teflon
- 500ft put up lengths may be available, minimum quantities may apply.

BELDEN	WPW
82761	D25291
82760	D25293

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



Multiple Pair 22AWG / 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 Strd. 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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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. Vel of Propagation - 66% Nom. Impedance Ω 22 AWG (7x30) - 55Ω

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

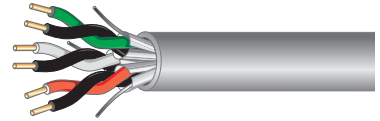
Insulation Color Code			
Pair Color Code			
1. Black-Red	9. Red-Green	17. Green-Brown	25. Blue-Orange
2. Black-White	10. Red-Blue	18. Green-Orange	26. Brown-Yellow
3. Black-Green	11. Red-Yellow	19. White-Blue	27. Brown-Orange
4. Black-Blue	12. Red-Brown	20. White-Yellow	
5. Black-Yellow	13. Red-Orange	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	

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 Strd. Drain Wire
- Twisted Pair Construction
- Flexible 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, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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. Vel of Propagation - 69%
Nom. Impedance Ω 22 AWG (7x30) - 55Ω

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



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 Strd. 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, 1000ft.

Plenum - Individually Shielded Pairs + Flexible Plenum Jacket

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 Strd. Drain Wire
- Twisted Pair Construction
- Overall Flexible Plenum Jacket

Plenum - Individually Shielded Pairs + Flexible Plenum Jacket

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

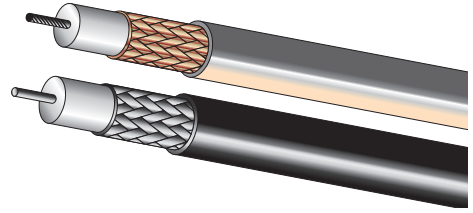
Electrical Characteristics
Nom. Vel of Propagation - 78%
Nom. Impedance Ω - 110Ω

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

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

Applications:

- RF Transmission
- Broadcast Transmission
- Wireless Communication



Standard spool size, 1000ft.

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



Audio Connectors

Line Level Audio Connectors - Cable Mount XLR - 3.5mm - RCA Phono - 1/4"

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
44-A3F	3 Position XLR Jack
44-A3M	3 Position XLR Plug



CN-NC3FX



44-A3M



CN-NYS231

3.5mm Stereo Mini Audio Connectors	
Catalog No.	Description
19-1202	Stereo Mini Plug
CN-SM3.5F	3.5 Stereo Mini Jack
CN-NYS231B	3.5mm Mini Plug - Black/Nickel
CN-NYS231	3.5mm Mini Plug Nickel/Nickel
CN-MX35M	3.5mm Mini Plug - Terminal Block
19-1201	3.5mm Mini Mono Plug



CN-NYS373-GN

RCA Audio Connectors	
Catalog No.	Description
19-1207	RCA Plug - Red
19-1268	RCA Plug - Black
CN-NYS373-xx	RCA Phono - xx-BK,BL,RD,YE,GN

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



CN-NP2XB



CN-NP3X

Panel Mount Connectors	
Catalog No.	Description
CN-35FFSP	3.5mm Panel Mount
CN-MX35	3.5mm 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" TRS - Panel Mount



CN-NC3FD-L-BAG



CN-35FFSP



CN-MX35



Audio Connectors

Line Level Audio Connectors - Panel Mount

Audio Assemblies XLR Assemblies

XLR Analog Mic. Assemblies M to F	
Catalog No.	Description
CN-XPXJ-xx	Replace xx with: 3, 6, 10, 25, 50

XLR Digital Mic. Assemblies M to F	
Catalog No.	Description
CN-XPXJDIG-10	10ft. Digital Mic Assembly



CN-XPXJ-xx

Audio Assemblies

3.5mm and RCA

ECONOMY Stereo Mini M to M	
Catalog No.	Description
CN-E3.5MM-xx	Replace xx with: 6, 12, 25

CM Stereo Mini M to M	
Catalog No.	Description
CN-4545M-xx	Replace xx with: 15,25,50,75,100,150

CMP Stereo Mini M to M	
Catalog No.	Description
CN-SMTSM-xx	Replace xx with: 15,25,50,75,100,150

CMP Stereo Mini M to 2 RCA	
Catalog No.	Description
CN-SMTRCA-xx	Replace xx with: 15,25,50,75,100,150



CN-4545M-xx

CMP RCA to RCA Phono	
Catalog No.	Description
CND25430RASxx	Replace xx with: 15,25,50,75,100,150

RF Connectors

Straight Plug Male Connectors			
Catalog No.	50Ω BNC	50Ω TNC	50Ω "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	CN-TM53-1	CN-NM53-812
25810	CN25810KBNC	CN25810KTNC	CN-NM53/110
98G8	CN-BM98G8	CN-TM98G8	CN-NMRG8
2598G8	CN-BM2598G8	CN-TM98G8	CN-NMRG8
807X	CN-BM53-8X	CN-TM53-807	CN-NM53-8X



Audio Wall Plates - Metal

XLR Wall Plates

XLR Audio Wall Plates - Stainless Steel	
CN-PL-103F	Single Plate - One Loaded XLR (Female)
CN-PL-103M	Single Plate - One Loaded XLR (Male)
CN-PL-103STF	Single Plate - One XLR (Female Screw Terminal)
CN-PL-203F	Single Plate - Two Loaded XLR (Female)
CN-PL-203M	Single Plate - Two Loaded XLR (Male)
XLR Audio Wall Plates - Aluminum	
CN-PLxx-103F	Single Plate - One Loaded XLR (Female)
CN-PLxx-103M	Single Plate - One Loaded XLR (Male)
CN-PLxx-103STF	Single Plate - One XLR (Female Screw Terminal)
CN-PLxx-203F	Single Plate - Two Loaded XLR (Female)
CN-PLxx-203M	Single Plate - Two Loaded XLR (Male)

xx - Replace with:
AC - Aluminum Clear
AW - Aluminum White
AB - Aluminum Black

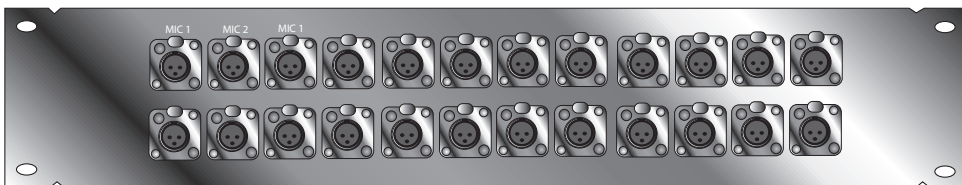


Audio Video Custom Panels & Plates

Custom Built Panels.

Please visit:

www.westpennwire.com to download PanelBuilder sE (PBsE).



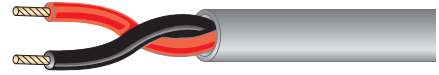
Two Conductor / Unshielded Non-Plenum

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



Standard pool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262

Standard pool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

Notes:

- 500ft 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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)-C(UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA 262

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

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



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



More Flexible

Rating:

- NEC Type CL2
- (UL) Listed
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

Description:

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

Rating:

- NEC Type CL2
- (UL) Listed
- Flame Rating: UL1685



More Flexible

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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



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
- (UL) Listed
- Meets 600 Volt - Class 1
- Approved for Direct Burial and Outdoor Use

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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) .70Ω/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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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

Banana and Binding Post Connectors

Catalog No.	Description
19-1239	Banana Red
19-1240	Banana Black
CN-MDP8	Banana Plug (8 AWG) Double
CN-BPX-24B	Binding Post with Red, Black



19-1239

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



CN-NL4FC



CN-NL4FX5

Speakon Audio Adapter

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



CN-NL4MMX

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



CN-NL4MPST

Speaker Level Audio Assemblies

Speakon to Speakon Assemblies

Catalog No.	Description
CN-SS16-xx	16 AWG Replace xx with: 6,10,25,50 ft.
CN-SS14-xx	14 AWG Replace xx with: 6,10,25,50 ft.
CN-SS12-xx	12 AWG Replace xx with: 6,10,25,50 ft.



CN-SS16-xx

Speakon to Banana Plug Assemblies

Catalog No.	Description
CN-SB16-xx	16 AWG Replace xx with: 6,10,25,50 ft.
CN-SB14-xx	14 AWG Replace xx with: 6,10,25,50 ft.
CN-SB12-xx	12 AWG Replace xx with: 6,10,25,50 ft.

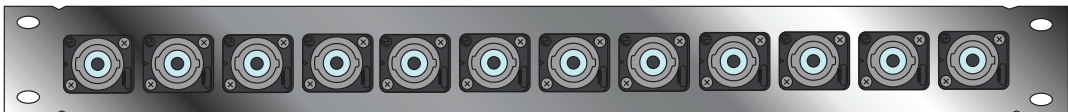


CN-SB16-xx

Speaker Panels - Metal Black 4 Pole Speakon 19" Panels

1 RU - 4 Pole Rack Panels - 12 or 16 Speakon

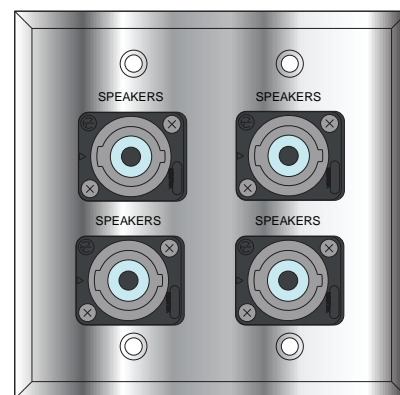
CN-1RUSPK12TB	1 RU - 12 Speakon Terminal Block Panel
CN-1RUSPK16TB	1 RU - 16 Speakon Terminal Block Panel
CN-1RUSPK12	1 RU - 12 Speakon Solder Panel
CN-1RUSPK16	1 RU - 16 Speakon Solder Panel



Speaker Level Wall Plates

Speakon Audio Wall Plates

CN-SS1GSPK	Single Plate - Two 4 Pin Speakon - Stainless
CN-SS2GSPK	Dual Plate - Four 4 Pin Speakon - Stainless



WEST PENN



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NETWORKING

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4 Pair 22 AWG S/FTP Plenum

Applications:

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

Description:

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

Rating:

- NEC Type CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test



Category 7 F/STP - Test to 600Mhz - 10G

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
254247F	4 Pair	22 AWG Solid 24 Ω/Mft	FEP	S/FTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω

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

Modular Plugs

Category 6A and Category 7 Shielded

CATEGORY 7 S/FTP Modular Plug

Catalog No.	Description
CN-MFP8	Cat 7 S/FTP Modular Plug 10G
TL-CAT6A-CRIMP	Parallel Crimp Tool for CN-MFP8



RJ45 Jacks

Category 6A Shielded and Category 7

CATEGORY 6A/7 Shielded RJ45 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
KJMT-8600	MT Series 4 Pair Punchdown Tool



4 Pair 23 AWG F/UTP and UTP

Applications:

- Indoor for:
- 10G BASET 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
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262
- Smoke & Flame Test



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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
4246AF	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.303	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
254246AF	4 Pair	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω

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

Applications:

- Indoor for:
- 10G BASET 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.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
4246A	4 Pair	23 AWG Solid 22 Ω/Mft	Thermo-Plastic	UTP	PVC	.307	CMR	Nom. Cap. 13 pf/ft* Nom. Imp 100Ω
254246A	4 Pair	23 AWG Solid 22 Ω/Mft	FEP	UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 13 pf/ft* Nom. Imp 100Ω

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



NETWORKING CABLES

CATEGORY 6A 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 UTP Modular Plug	
CN-CAPFMUL-S1	Cat6A UTP Plug Modular Plug
TL-CAT6A-CRIMP	Parallel Crimp Tool for CN-CAPFMUL-S1
CATEGORY 6A F/UTP Modular Plug	
CN-MFP8	Cat6A F/UTP Plug Modular Plug

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

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 feet

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 feet

Assemblies

Category 6A



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 feet

CATEGORY 6A UTP MD SERIES PATCH PANELS	
Catalog No.	Description
24PP6A-L	24 PORT CAT 6A UTP PATCH PANEL 1.75 - 1RU West Penn
48PP6A-L	24 PORT CAT 6A UTP PATCH PANEL 1.75 - 1RU West Penn
24458MD-C6A	24 PORT CAT 6A UTP PATCH PANEL 1.75 - 1RU
48458MD-C6A	48 PORT CAT 6A UTP PATCH PANEL 3.50 - 2RU
48458HD-C6A	48 PORT CAT 6A UTP PATCH PANEL 1.75 - 1RU
CATEGORY 6A UTP ANGLED PATCH PANELS	
24458-C6A	24 PORT CAT 6A UTP PATCH PANEL MT SERIES
48458-C6A	48 PORT CAT 6A UTP PATCH PANEL MT SERIES
CATEGORY 6A UTP ANGLED PATCH PANELS	
24458A-C6A	24 PORT CAT6A UTP ANGLED 1.75" - 1RU
48458A-C6A	48 PORT CAT6A UTP ANGLED 3.50" - 2RU
CATEGORY 6A F/UTP PATCH PANELS	
24PP6AS-L	24 PORT CAT6A F/UTP 10G - 1.75" - 1RU - West Penn
48PP6AS-L	24 PORT CAT6A F/UTP 10G - 1.75" - 1RU - West Penn
24458S-C6A	24 PORT CAT6A F/UTP 10G - 1.75" - 1RU
48458S-C6A	48 PORT CAT6A F/UTP 10G - 3.50" - 2RU

Modular Plugs

Category 6A



CN-CAPFMUL-S1



CN-MFP8

RJ45 Jacks

Category 6A

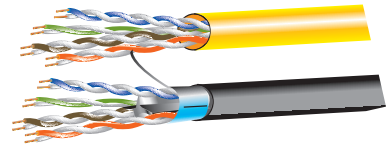


KJS458MT-C6AC

Patch Panels

Category 6A





4 Pair 23 AWG UTP and F/UTP

Applications:

- Indoor for:
- 1G BASET 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 CM and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL 1666 and NFPA262 Smoke & Flame Test
- TIA/EIA 568-B.2

Category 6 F/UTP - Test to 550Mhz

Standard spool size, 1000ft.

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

Category 6 UTP Test to 550Mhz

Description:

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

Rating:

- NEC Type CM and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test
- TIA/EIA 568-B.2

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

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



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



90170



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-111S90H34
15010C	Strip Tool for Cat6 and Cat6 A 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 - Tool 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 feet

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 feet

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 feet

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 feet

Patch Panels

Category 6

CATEGORY 6 UTP MD SERIES PATCH PANELS

Catalog No.	Description
24PP6C-L	24 PORT CAT 6 UTP PATCH PANEL 1.75" - 1RU - West Penn
48PP6C-L	48 PORT CAT 6 UTP PATCH PANEL 3.50" - 2RU - West Penn
12458MD-C6C	12 PORT CAT 6 UTP PATCH PANEL 1.75" - 1RU
24458MD-C6C	24 PORT CAT 6 UTP PATCH PANEL 1.75" - 1RU
48458MD-C6C	48 PORT CAT 6 UTP PATCH PANEL 3.50" - 2RU
48458HD-C6C	48 PORT CAT 6 UTP PATCH PANEL 1.75" - 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 EC SERIES PATCH PANELS

24458EC-C6	24 PORT CAT6 UTP EC SERIES
48458EC-C6	48 PORT CAT6 UTP EC SERIES

CATEGORY 6 UTP ANGLED PATCH PANELS

24458A-C6C	24 PORT CAT6 UTP ANGLED 1.75" - 1RU
48458A-C6C	48 PORT CAT6 UTP ANGLED 3.50" - 2RU

CATEGORY 6 F/UTP PATCH PANELS

24PP6CS-L	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU - West Penn
48PP6CS-L	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU - West Penn
24458S-C6C	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU

CATEGORY 6 UTP MINI WALL MOUNT PANELS

12458M-C6C	CAT 6 MINI PANEL w/89D Bracket
12458MH-C6C	CAT 6 MINI PANEL Hinged

MD SERIES



MT SERIES



EC SERIES



ANGLED SERIES



SHIELDED SERIES



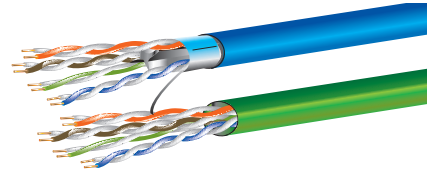
4 Pair 24 AWG UTP and F/UTP

Applications:

- Indoor for:
- 100 BASET 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 and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262
- Smoke & Flame Test
- TIA/EIA 568-B

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
4245EZ	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
254245EZ	4 Pair	24 AWG Solid 26 Ω/Mft	Flame Retardant Polyolefin/FEP	None UTP	Plenum Thermo-Plastic	.205	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
4245OSP	4 Pair	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 100Ω
4245IO	4 Pair	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 100Ω
4245F	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	100% AL.foil F/UTP	PVC	.232	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
254245F	4 Pair	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 100Ω

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

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
RJ455EU-C5E-cc	RJ45 Cat5E Jack - cc: WH, BK, BL, GY, GN, OR, RD, YE
RJ455ES-C5E	RJ45 Cat5E Jack - F/UTP Shielded
KJ458MT-C5E-cc	RJ45 Cat5E Jack - cc: WH, BK, BL, GY, GN, OR, RD, YE
KJS458TL-C5E	RJ45 Cat5E Jack - F/UTP Shielded - Tool less
CATEGORY FEED THRU ADAPTERS	
KRJ45/5S	Category 5E Feed Thru Adapter UTP
KRJ45/5S-SH	Category 5E Feed Thru Adapter Shielded F/UTP

RJ45 Jacks

Category 5E



KJS458MT-C5E-WH

Patch Cables

Category 5E



CAT5E F/UTP ASSEMBLIES - West Penn

Catalog No.	Jacket Colors	Length
C5ES-CA1-cc-xx	Replace cc: GY, BK, WH	Replace xx: 3,5,7,10,15,20,25 feet

CAT5E UTP ASSEMBLIES - West Penn

Catalog No.	Jacket Colors	Length
C5E-CA1-cc-xx	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 3,5,7,10,15,20,25 feet

CAT5E F/UTP ASSEMBLIES

Catalog No.	Jacket Colors	Length
C5ECS-314GY-cc	Replace cc: Only Gray	Replace xx: 3,7,10,15,20,25 feet

CAT5E UTP ASSEMBLIES

Catalog No.	Jacket Colors	Length
C5EC-114cc-xxFB	Replace cc: BK, BU, GY, RD, GN, WH, YE, OR	Replace xx: 3,7,10,15,20,25 feet

Patch Panels

Category 5E

CATEGORY 5E MD SERIES PATCH PANELS

Catalog No.	Description
24PP5E-L	24 PORT CAT5E UTP PATCH PANEL 1 RU - West Penn
48PP5E-L	48PORT CAT5E UTP PATCH PANEL 1 RU - West Penn
24PP5ES-L	24 PORT CAT5E F/UTP PATCH PANEL 1 RU - West Penn
48PP5ES-L	48 PORT CAT5E F/UTP PATCH PANEL 1 RU - West Penn
12458MD-C5E	12 PORT CAT 5E PATCH PANEL 1.75 - 1RU
24458MD-C5E	24 PORT CAT 5E PATCH PANEL 1.75 - 1RU
48458MD-C5E	48 PORT CAT 5E PATCH PANEL 3.50 - 2RU
48458HD-C5E	48 PORT CAT 5E PATCH PANEL 1.75 - 1RU high density
12458M-C5E	12 PORT MINI PANEL W/89D BRACKETS
12458H-C5E	12 PORT MINI HINGED PANEL
CMB-250-P	Panel Mount Cable Mng. Bar 2.50" Deep



CATEGORY 5E MT SERIES PATCH PANELS

Catalog No.	Description
24458-C5E	24 PORT CAT 5E PATCH PANEL 1.75 - 1RU
48458-C5E	48 PORT CAT 5E PATCH PANEL 3.50 - 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

CATEGORY 5E EC SERIES PATCH PANELS

24458EC-C5E	24 PORT CAT 5E PATCH PANEL 1.75 - 1RU
48458EC-C5E	48 PORT CAT 5E PATCH PANEL 3.50 - 2RU

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 - MULTIPAIR PUNCHDOWN TOOL MT SERIES
KJWP-MTOOL	MULTI-PAIR PUNCHDOWN TOOL - WEST PENN WIRE



High Pair Count Cat5E Cables



Applications:

- Indoor for:
- Analog and Digital Voice
 - Voice / Data Backbone Cabling
 - Digital Integration

Description:

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

Rating:

- NEC Type CMR and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test
- TIA/EIA 568-B

Cat 5E

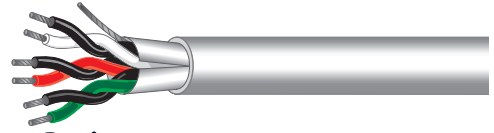
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
WP58141 Category 5E Non-Plenum	25 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin .008	None UTP	Thermo- Plastic Gray	.470	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
WP58142 Category 5E Plenum	25 Pair	24 AWG Solid 26 Ω/Mft	FEP .008	None UTP	FEP Gray	.430	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω

Insulation Color Code

Pair No.	Pair Color Code		Pair No.	Pair Color Code	
1	White/Blue	Blue-White	14	Black/Brown	Brown-Black
2	White/Orange	Orange-White	15	Black/Gray	Gray-Black
3	White/Green	Green-White	16	Yellow/Blue	Blue-Yellow
4	White/Brown	Brown-White	17	Yellow/Orange	Orange-Yellow
5	White/Gray	Gray-White	18	Yellow/Green	Green-Yellow
6	Red/Blue	Blue-Red	19	Yellow/Brown	Brown-Yellow
7	Red/Orange	Orange-Red	20	Yellow/Gray	Gray-Yellow
8	Red/Green	Green-Red	21	Purple/Blue	Blue-Purple
9	Red/Brown	Brown-Red	22	Purple/Orange	Orange-Purple
10	Red/Gray	Gray-Red	23	Purple/Green	Green-Purple
11	Black/Blue	Blue-Black	24	Purple/Brown	Brown-Purple
12	Black/Orange	Orange-Black	25	Purple/Gray	Gray-Purple
13	Black/Green	Green-Black			



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 Strd. 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: UL1685

Standard spool size, 1000ft.

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
D3651	2 Pair	22 AWG (7x30) 17 Ω/Mft	.010	Al. Foil 100%	.030	.235	CM	26 pf/ft* 47 pf/ft **
D3653	4 Pair	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. Vel of Propagation - 66%
Nom. Impedance Ω 24 AWG - 100Ω
Nom. Impedance Ω 22 AWG - 55Ω

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



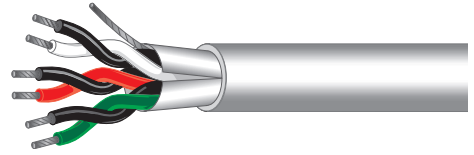
Multiple Pair / Overall Shielded

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 Strd. Drain Wire
- Twisted Pair Construction
- Flexible Plenum Jacket



Rating:

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 - 100Ω

Description:

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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. Vel of Propagation - 69%
 Nom. Impedance Ω 22 AWG - 55Ω

Notes:

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



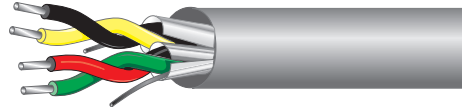
Multiple Pair / Individually Shielded

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 Strd. 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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
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D420	2	22 AWG Solid 17.5 Ω/Mft	.015	Individual Al. Foil 100%	.030	.261	CM	15.5 pf/ft* 28 pf/ft**
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* 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 Strd. Drain Wire
- Twisted Pair Construction
- Plenum PVDF Jacket

Rating:

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
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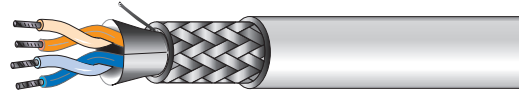
D25420	2	22 AWG Solid 17.5 Ω/Mft	.012	Individual Al. Foil 100%	.015	.185	CMP	15.5 pf/ft* 28 pf/ft**
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Insulation Color Code
Pair Color Code
1. Black/Yellow
2. Red/Green

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



Multiple Pair / Overall Shielded



Applications:

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

Description:

- ASTM Tinned Copper
- Polyolefin Insulation (Non-Plenum), FEP (Plenum)
- 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 and CMP Plenum Versions
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1685 and UL NFPA-262 Plenum Versions

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
D4851	1	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil-100% with drain wire TC Braid 90%	.032	.232	CM	12.8 pf/ft* 23 pf/ft**
D4852	2	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil-100% with drain wire TC Braid 90%	.032	.340	CM	12.8 pf/ft* 23 pf/ft**
D4853	3	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil-100% with drain wire TC Braid 90%	.032	.360	CM	12.8 pf/ft* 23 pf/ft**
D4854	4	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil-100% with drain wire TC Braid 90%	.032	.390	CM	12.8 pf/ft* 23 pf/ft**
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**
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

* 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 - 120Ω
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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)

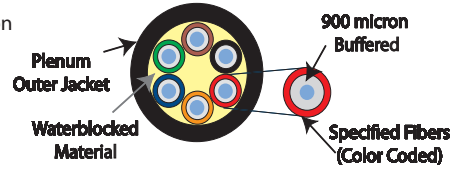
Operation: -40°C to 70°C (-40°F to 158°F)

Description:

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

Rating:

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



Catalog No.	No. of Fibers	Nom. O.D.	Min Bend Radius Short Term	Min Bend Radius Long Term	Max. Load Installation	OM Rating Available
		Inches				
WP9X043T	2	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X045T	6	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X048T	12	.225	3.4 inch 8.6 cm	2.3 inch 5.8 cm	300 lbs. 1335 Newtons	OM1 OM3 OM4 OS1/2
WP9X611T	24	.330	4.9 inch 12.4 cm	3.3 inch 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
62.5/125µm MultiMode	B	OM1	850nm/1300nm	500/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/2500	3.50/1.25	Black
50/125µm MultiMode	E	OM4	850nm/1300nm	3500/4700	3.50/1.25	Black
8/125µm SingleMode	W	OS1/2	1300nm/1550nm	--	.80/.50	Black

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

40G Ethernet
OM3: 100m
OM4: 150m

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



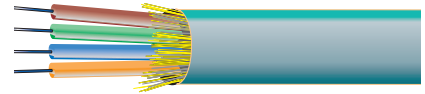
50/125µm - Digital Media Fiber Optic Type

Applications:

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

Description:

- 900µm 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. O.D.	Min Bend Radius Short Term	Min Bend Radius Long Term	UL Rating	Transmission Rating
		Inches				
WP9C006	4	.300	4.5 Inch	3.0 Inch	OFNR	OM3 50/125µm LOF
WP9C014	4	.300	4.5 Inch	3.0 Inch	OFNP	OM3 50/125µm LOF

NOTES:

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

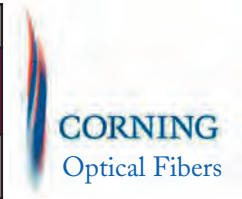
8G Fiber-Crestron

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
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Aqua



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



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

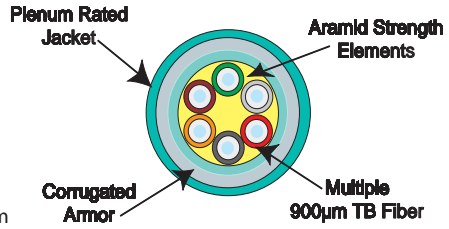
Storage: -40°C to 70°C (-40°F to 158°F)

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

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

Description:

- 900µm Tight Buffered Fibers
- Color Coded for Easy Termination
- Flame Retardant Plenum Rated
- Interlocking Armor
- UL Listed for Code Compliance
- Individual Sub -Unit 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. O.D.	Min Bend Radius Short Term	Min Bend Radius Long Term	Max. Load Installation	OM Rating Available
		Inches				
WP9X240T	6	.570	11 inch	8.5 inch	360 lbs. 1335 Newtons	OM1 OM3 SM2
WP9X241T	12	.620	12.5 inch	9.3 inch	400 lbs. 1335 Newtons	OM1 OM3 SM2
WP9X242T	24	.670	13 inch	10 inch	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
62.5/125µm MultiMode	B	OM1	850nm/1300nm	500/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/2500	3.50/1.25	Black
50/125µm MultiMode	E	OM4	850nm/1300nm	3500/4700	3.50/1.25	Black
8/125µm SingleMode	W	OS1/2	1300nm/1550nm	--	.80/.50	Black

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

40G Ethernet
OM3: 100m
OM4: 150m

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 - 62.5/125µm, 50/125µm, 50/125µm 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		
Repace X with:	Core Glass Size	Description
2	62.5µm	Standard 62.5 micron fiber optic glass type MultiMode
3	8µm	8micron SingleMode fiber optic glass type SingleMode
4	50µm LOF	OM3 Laser Optimized 50micron MultiMode
5	50µm LOF	OM4 Laser Optimized 50micron MultiMode

OM3 15ft. LC to LC Assembly

Replace xx with: 3, 6, 10, 15, 30 Feet
FI-4002-15LC

Fiber Optic Pigtaills

Fiber Optic Pigtaills	
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, 6 and 12 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 a environmentally controlled work space. All terminations are fully tested and ready for immediate installation.

We provide either 2, 6 and 12 fiber Indoor/Outdoor OFNP OM1, OM3 OM4 and OS2 (SingleMode) long length assemblies. The assemblies are terminated at each end with ST, SC, LC connectors.

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



ST TO ST		Glass Size (X)				Pull Eye Selection (P)	Length
Part Number	Cable Description	OM1	OM3	OM4	OS2	Replace With A, B or No Letter	Replace xxx:
FI-9X043-PxxxST	Indoor/Outdoor OFNP 2 Fiber - 4 ST Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X045-PxxxST	Indoor/Outdoor OFNP 6 Fiber - 12 ST Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X048-PxxxST	Indoor/Outdoor OFNP 12 Fiber - 24 ST Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
SC TO SC		Glass Size (X)				Pull Eye Selection (P)	Length
Part Number	Cable Description	OM1	OM3	OM4	OS2	Replace With A, B or None Letter	Replace xxx:
FI-9X043-PxxxSC	Indoor/Outdoor OFNP 2 Fiber - 4 SC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X045-PxxxSC	Indoor/Outdoor OFNP 6 Fiber - 12 SC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X048-PxxxSC	Indoor/Outdoor OFNP 12 Fiber - 24 SC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
LC TO LC		Glass Size (X)				Pull Eye Selection (P)	Length
Part Number	Cable Description	OM1	OM3	OM4	OS2	Replace With A, B or None Letter	Replace xxx:
FI-9X043-PxxxLC	Indoor/Outdoor OFNP 2 Fiber - 4 LC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X045-PxxxLC	Indoor/Outdoor OFNP 6 Fiber - 12 LC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft
FI-9X048-PxxxLC	Indoor/Outdoor OFNP 12 Fiber - 24 LC Connectors	B	C	E	W	A: Pulling Eye B: Pulling Eye / Connectors Staggered	50-1000ft

Other Combination of Connectors are available:

LC to SC: Use CL for Connector Type in the PN

SC to ST: Use CT for Connector Type in the PN

ST to LC: Use TL for the Connector Type in the PN



Kits and Connectors - FiberExpress - Brilliance

FiberExpress Kit	
P.N	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-3151	Fiber/Cable Stripper
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 900µm	
P.N	Description
LC Connectors	
FI-4240	LC - 900µm, MultiMode Beige Connector, 62.5um
FI-5252	LC - 900µm, MultiMode Connector, 50um OM4
FI-4242	LC - 900µm, MultiMode Aqua Connector, 50um OM3
FI-4243	LC - 900µm, SingleMode Blue Connector, 8um
SC Connectors	
FI-4244	SC - 900µm, MultiMode Beige Connector, 62.5um
FI-5253	SC - 900µm, MultiMode Connector, 50um OM4
FI-4246	SC - 900µm, MultiMode Aqua Connector, 50um OM3
FI-4247	SC - 900µm, SingleMode Connector, 8um
ST Connectors	
FI-4248	ST - 900µm, MultiMode Beige Connector, 62.5um
FI-4249	ST - 900µm, MultiMode Black Connector, 50um
FI-4250	ST - 900µm, MultiMode Aqua Connector, 50um OM3
FI-4251	ST - 900µm, SingleMode Connector, 8um



FiberExpress 2.0mm Boots	
P.N	Description
FI-5214	2.0mm boots for FiberExpress Brilliance Connectors

FI-5214 - This part is used for 2.0mm Jacketed fibers such as West Penn Wire:
WP9C006
WP9C014

Dual LC Clip	
P.N	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
SPL-WS12A	Plastic Splicing Tray 12 Fibers
Panel Mount Adaptors	
FI-8102	Adapter- ST to ST MultiMode or SingleMode
FI-8200	Adapter- ST to ST SingleMode
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.



FI-8200



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"x6"x1.5"
PP-WM2S	2 Adapter Plate - Wall Mount 15.625"x13"x2.125"
PP-WM4S	4 Adapter Plate - Wall Mount 15.625"x15"x3.5"
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" 1.15" .060"

Rack Mount Fiber Panels

Fiber Optic Adapter Plates

12LC-FT	LC MultiMode - 24 Fiber 12 Duplex 1.75" High
12SC-FT	SC MultiMode - 24 Fiber 12 Duplex 1.75" High
24LC-FT	LC MultiMode - 48 Fiber 24 Duplex 3.5" High
24SC-FT	SC MultiMode - 48 Fiber 24 Duplex 3.5" High
48LC-FT	SC Multimode - 96 Fiber 48 Duplex 5.25" High
48SC-FT	SC MultiMode - 96 Fiber 48 Duplex 5.25" High
FI-RME24STL	24 Port ST Loaded (19"- 3.470"H X 8.00D)
FI-RME48STL	48 Port ST Loaded (19"- 3.470"H X 8.00D)



West Penn Wire provides certified training for Fiber Optic Installations.

What you will learn:

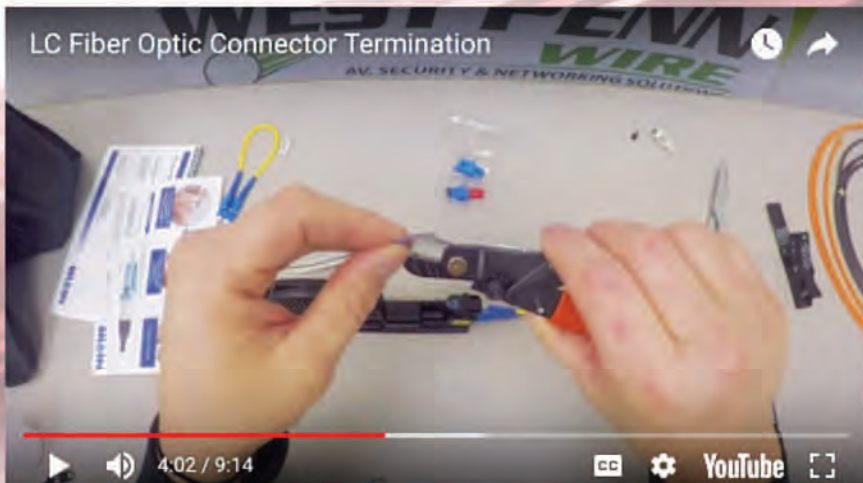
- > Optical Fiber construction
- > Advantages of a Fiber Optic Installation
- > Types of Fiber Optics
- > Connector Types
- > Connector Termination (Hands-On)
- > Splicing Fiber Optics
- > Enclosure/Panel Installation
- > System Design
- > Testing



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 Ohm BNC Termination
- > Category Cabling Terminations



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CATV/MATV

RF 50 Ohm

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VIDEO

Digital Video

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HD-SDI Video Cables

Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
HD825	CMR	25 AWG (Solid) BC 30Ω/M'	Gas Injected PE .085	Bifoil 100% Tinned Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75Ω
HD25825	CMP	25 AWG (Solid) BC 30Ω/M'	Foam FEP .078	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.146	16.2 pf/ft	82%	75Ω
819	CMR	20 AWG (Solid) BC 10Ω/M'	Gas Injected PE .142	Bifoil 100% Tinned Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75Ω
25819	CMP	20 AWG (Solid) BC 10Ω/M'	Foam FEP .135	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.200	16.2 pf/ft	84%	75Ω
AQC819 	CM	20 AWG (Solid) BC 10Ω/M'	Gas Injected PE .142	Waterblock tape + Bifoil 100% TC Braid 95	Sunlight Resistant PVC Underground In-Conduit	.242	16.2 pf/ft	82%	75Ω
6350	CMR	18 AWG (Solid) BC 6.4Ω/M'	Gas Injected PE .180	Bifoil 100% Tinned Copper Braid 95%	PVC	.275	16.2 pf/ft	82%	75Ω
256350	CMP	18 AWG (Solid) BC 6.4Ω/M'	Foam FEP .170	Bifoil 100% Tinned Copper Braid 95%	Flex Plenum	.236	16.2 pf/ft	84%	75Ω
AQC6350 	CM	18 AWG (Solid) BC 6.4Ω/M'	Foam FEP .170	Waterblock tape + Bifoil 100% TC Braid 95	Sunlight Resistant PVC Underground In-Conduit	.285	16.2 pf/ft	84%	75Ω





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
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 Ohm Impedance
- Superior Pull-out Strength
- High Definition Applications

75 Ohm BNC to 75 Ohm BNC

Digital Video MiniMax Non-Plenum		
Catalog No.	Length	Jacket Colors
CN7BHD825BK3	3 Foot	Black
CN7BHD825BK6	6 Foot	
CN7BHD825BK10	10 Foot	
CN7BHD825BK15	15 Foot	
CN7BHD825BK20	20 Foot	
CN7BHD825BK25	25 Foot	

Digital Video MiniMax Plenum		
Catalog No.	Length	Jacket Colors
CNHD25825BK-3	3 Foot	Black
CNHD25825BK-6	6 Foot	
CNHD25825BK-10	10 Foot	
CNHD25825BK-15	15 Foot	
CNHD25825BK-20	20 Foot	
CNHD25825BK-25	25 Foot	

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



HD-SDI Transmission Distances

Catalog No.	Return Loss 100kHz-1GHz 1GHz-3GHz	Attenuation (db/100ft)													
		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	>23dB >21dB	.48	.98	1.73	3.51	4.69	6.51	7.72	9.3	10.88	13.34	18.92	22.16	--	
HD25825	>23dB >21dB	.48	.99	1.75	3.54	4.73	6.57	7.79	9.38	10.98	13.46	19.28	22.80	--	
819	>23dB >21dB	.28	.44	.66	1.93	2.62	3.79	4.3	5.31	6.23	7.49	11.19	13.23	16.40	
25819	>23dB >21dB	.28	.48	1.03	2.20	2.83	4.55	5.24	6.12	7.29	9.40	17.48	21.60	--	
6350	>23dB >21dB	.23	.36	.5	1.47	1.93	2.85	3.22	3.93	4.65	5.52	8.75	10.45	13.30	
256350	>23dB >21dB	.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 apply on select jacket colors.



4 Pair 22 AWG S/FTP Plenum

Applications:

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

Description:

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



Rating:

- NEC Type CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test

Category 7 S/FTP - Test to 600Mhz - 10G

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
254247F	4 Pair	22 AWG Solid 24 Ω/Mft	FEP	S/FTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω

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

4 Pair 23 AWG F/UTP and UTP

Applications:

- Indoor for:
- 10G BASET 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
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test



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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
4246AF	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.303	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω
254246AF	4 Pair	23 AWG Solid 24 Ω/Mft	FEP	F/UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω

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

Applications:

- Indoor for:
- 10G BASET 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.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance
4246A	4 Pair	23 AWG Solid 22 Ω/Mft	Thermo-Plastic	UTP	PVC	.307	CMR	Nom. Cap. 13 pf/ft* Nom. Imp 100Ω
254246A	4 Pair	23 AWG Solid 22 Ω/Mft	FEP	UTP	Plenum Thermo-Plastic	.305	CMP	Nom. Cap. 13 pf/ft* Nom. Imp 100Ω

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



4 Pair 23 AWG UTP and F/UTP

Applications:

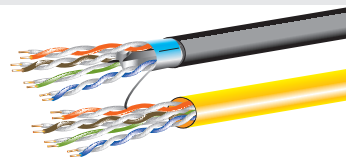
- Indoor for:
- 1G BASET Ethernet
- Horizontal LAN Cabling
- Voice Backbone Cabling
- Digital Integration
- AV Digital Video

Description:

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

Rating:

- NEC Type C and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test
- TIA/EIA 568-B.2



Category 6 F/UTP - Test to 550Mhz

Standard pool size, 1000ft.

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

Category 6 UTP Test to 550Mhz

Description:

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

Rating:

- NEC Type CM and CMP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1666 and NFPA262 Smoke & Flame Test
- TIA/EIA 568-B.2

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

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

IPBaseT® Certified Fiber Optic Assemblies

IPX System Fiber Optic Cables	
Catalog No.	Description
FI-GIG-GIDY-XX	2 x OM3 50 Micron Fiber + 18/2 Copper Power Cable. Both Ends are terminated with SFP (OM 3 LC Type). One End has a removable Pulling Eye for easy pull. Lengths: 150ft, 230ft, 330ft, 500ft, 750ft and 1000ft. Custom Lengths are Available



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 meter
CN-HDExxxWP	HDMI UltraHD and 4K Molded Assemblies xxx: Length 002, 003, 005, 007, 010, 015, 020 meters



HDMI Assemblies - Locking	
Catalog No.	Description
HD600-xxB	High Retention HDMI Assemblies Up to 1080P xx: Length 3, 6, 12 feet
HD-800-xx	HDMI Locking Assemblies 25lbs. 3D and 4K xx: Length 2, 4, 8, 16, 25, 35, 50 feet



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



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" - 1RU- West Penn
48PP6AS-L	24 PORT CAT6A F/UTP 10G - 1.75" - 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 Wire Branded
KJS458TL-C6C	RJ45 Cat6 F/UTP - Metal - Tool less

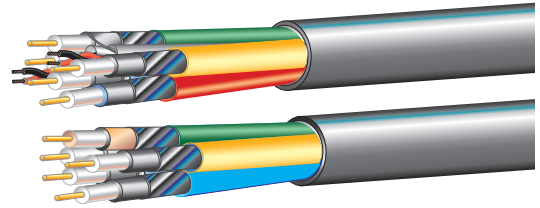
CATEGORY 6 F/UTP PATCH PANELS	
24PP6CS-L	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU - West Penn
48PP6CS-L	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU - West Penn
24458S-C6C	24 PORT CAT6 F/UTP SHIELDED - 1.75" - 1RU

For all Connectivity, Patch Cables, Patch Panels and other Network Cable Accessories see: Networking Section, Pages 45-53

RGB 25 AWG Spiral Shielded Cables

Applications:

- Standard Definition Serial Digital Video
- Digital Audio (AES3id or SPDIF)
- High Resolution RGB Component Analog Video
- Studio Interconnect, Permanent Installation
- Ideal for Broadcast Interconnection
- Division 27 41 00



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
5CRGB 5 Coax RGBHV	CM	5 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Gas Injected PE .073	Bifoil* 100% + TC Spiral Shield 95%	Overall PVC Ind. Coax PVC .105	.330	16.2 pf/ft	82%	75Ω
255CRGB 5 Coax RGBHV Plenum	CMP	5 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Foam FEP .073	Bifoil* 100% + TC Spiral Shield 95%	Overall Flex Plenum Ind. Coax Flex Plenum .105	.310	16.2 pf/ft	82%	75Ω

Connector Type 75Ω 3 Pc. Crimp BNC 75Ω Compression BNC RCA Compression HD15 Term.Block	Connectors CN-BM74-19 CN-BNCP-RGB CN-RCP-RGB CN-MX15M Male CN-MX15F Female	Strip Tool TL-KLEIN or TL-825 TL-KLEIN or TL-CSST-RGB TL-KLEIN or TL-CSST-RGB	Crimp/Comp Tool TL-105 TL-548G TL-548G CN-MX915H Hood CN-MX915H Hood
--	---	--	---

Individual Jacket Color Code
1. Red
2. Green
3. Blue
4. White
5. Yellow

Notes:

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

Electrical Specifications

Catalog No.	Return Loss 100kHz- 1GHz 1GHz-3GHz	Attenuation (db/100ft)											
		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
25 AWG	>23dB >21dB	.49	1.18	1.7	4.56	6.10	8.46	10.04	12.09	14.14	17.85	24.60	38.81

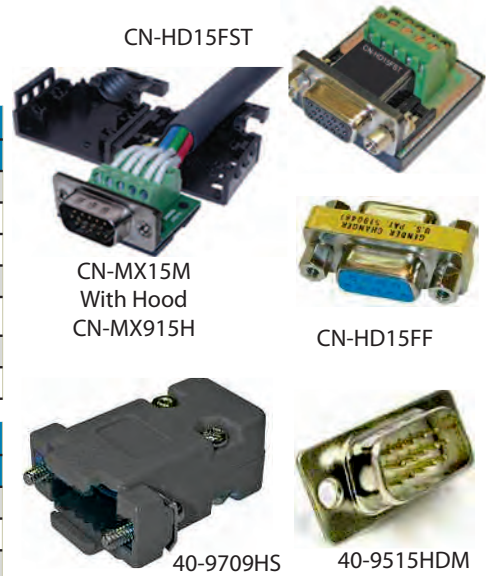


Video Connectors

HD15 - VGA And DB9

HD15 Terminal Block Connectors	
Catalog No.	Description
CN-HD15FST	HD15(F) Terminal Block
CN-MX15F	PREMIUM HD15(F) Terminal Block
CN-MX15M	PREMIUM HD15(M) Terminal Block
CN-MX9F	PREMIUM DB9(F) Terminal Block RS-232
CN-MX9M	PREMIUM DB9(M) Terminal Block - RS-232
CN-MX915H	Hood for PREMIUM Terminal Blocks
CN-HD15FF	HD15 Feed Thru

DB and HD Connectors and Hoods	
Catalog No.	Description
40-9709HS	9 Pin DB Sub Hood - BLACK HOOD
40-9515HDM	15 Pin HD Male Solder
40-9515HDS	15 Pin HD Female Solder



Video Connectors

75 Ohm BNC Crimp Style

75 Ohm BNC Crimp Style	
Catalog No.	Description
CN-BM74-19	4 Pc Miniature RGBHV 25 & 26 AWG
CN-BM74-18	4 Pc Minimax 25 AWG 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

BTN58-xx - Strain Relief Boots for Miniature Coaxial Connectors

BTN59-xx - Strain Relief Boots for RG59/U Coaxial Connectors

xx: RD,GN,BL,WH,YE,BK



Video Connectors

75 Ohm BNC and RCA Compression Style

75 Ohm 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 Window
CN-BNC59MVCV	1 Pc. RG59 / U Window - Universal - YE
CN-BNC6MVCV	1 Pc. RG6 / U Window - Universal - PU
CN-RR	Colored Rings - Bag of 100- for small profile

RCA Style - Compression - Window	
Catalog No.	Description
CN-RCP-RGB	1 Pc. Miniature RGB 25 AWG Window
CN-RCP-825	1 Pc. MiniMax 25 AWG RCA Window
CN-RCA59MVCV	1 Pc. RG59 / U Window RCA Window - Universal
CN-RCA6MVCV	1 Pc. RG6 / U Window RCA Window - Universal



VGA - HD15 To HD15

SVGA ASSEMBLIES and with Audio

HD15(M) to HD15(M) Economy		
Catalog No.	Description	Length (FT)
CN-VGAMM-xx	HD15 Male to HD15 Male	Replace xx with: 6,10,25,50

VGA 5-25 AWG RGB HD15(F) to HD15(M) Plenum		
Catalog No.	Description	Length (FT)
CN255CRGHDFMxx	HD15 (F) to HD15 (M)	Replace xx with: 25,50,75,100,150

VGA 5-25 AWG RGB HD15(M) to HD15(M) Plenum		
Catalog No.	Description	Length (FT)
CN255CRGHDMMxx	HD15 (M) to HD15 (M)	Replace xx with: 25,50,75,100,150

VGA 5-25 AWG RGB HD15(M) to HD15(M) Non-PLENUM		
Catalog No.	Description	Length (FT)
CN-5CRGHDMMxx	HD15 (M) to HD15 (M)	Replace xx with: 25,50,75,100,150

VGA with Audio		
Catalog No.	Description	Length (FT)
CN-HDVGAAP-xx	VGA with Audio HD15 (M) + 3.5mm Audio	Replace xx with: 6,10,25



CN-HDVGAAP - xx

Installation Tools

Stripping Tools	
Catalog No.	Description
TL-825	MiniMax 25 AWG
TL-CSST	Compression Strip Tool - 2 Cut - RG59 & 6
TL-KLEIN	All Purpose Strip Tool

TL-825



Tools Crimp and Compression	
Catalog No.	Description
TL-105	MiniMax 25 AWG and 26 AWG
TL-803	Universal MiniMax and RG59
TL-548G	Alternate Compression Tool

TL-SNSA



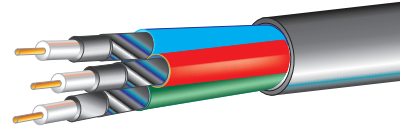
Crimp Tool Die Sizes: inches

TL-105: .068, .178

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



RGB 25 and 26 AWG Spiral Shielded Cables



Applications:

- Standard Definition Serial Digital Video
- Digital Audio (AES3id or SPDIF)
- High Resolution RGB Component Analog Video
- Studio Interconnect, Permanent Installation
- Ideal for Broadcast Interconnection

Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
3CRGB	CM	3 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Gas Injected PE .073	Bifoil 100% + TC Spiral Shield 95%	Overall PVC	.290	16.2 pf/ft	82%	75Ω
3 Coax RGB					Ind. Coax PVC .105				
253CRGB	CMP	3 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Foam FEP .073	Bifoil 100% + TC Spiral Shield 95%	Overall Flex Plenum	.260	16.2 pf/ft	82%	75Ω
3 Coax RGB Plenum					Ind. Coax Flex Plenum .105				

Individual Jacket Color Code
1. Red
2. Green
3. Blue

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC 25/26g	CN-BM74-19	TL-KLEIN or TL-825	TL-105
75Ω Compression BNC 25g	CN-BNCP-RGB	TL-KLEIN or TL-CSST	TL-548G
RCA Compression 25g	CN-RCP-RGB	TL-KLEIN or TL-CSST	TL-548G

Notes:

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

Electrical Specifications

Catalog No.	Return Loss 100kHz- 1GHz 1GHz-3GHz	Attenuation (db/100ft)											
		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
25 AWG	>23dB >21dB	.49	1.18	1.7	4.56	6.10	8.46	10.04	12.09	14.14	17.85	24.60	38.81



Video Connectors

75 Ohm BNC - Compression

75 Ohm BNC Compression Style	
Catalog No.	Description
CN-BNCP-RGB	1 Pc. Compression BNC for 25 AWG Solid RGB



Video Connectors

75 Ohm BNC - Crimp

75 Ohm BNC Crimp Style	
Catalog No.	Description
CN-BM74-19	4 Pc. Miniature RGBHV 25 & 26 AWG

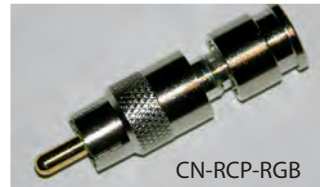


3 Pc. 75 Ohm BNC

Video Connectors

RCA - Video Connector

RCA Compression Video Style	
Catalog No.	Description
CN-RCP-RGB	Compression RCA for 25 AWG Solid RGB



CN-RCP-RGB

Installation Tools

Stripping Tools	
Catalog No.	Description
TL-825	MiniMax 25 AWG
TL-CSST	Compression Strip Tool - 2 Cut - RG59 & 6
TL-KLEIN	All Purpose Strip Tool

Tools Crimp and Compression	
Catalog No.	Description
TL-105	MiniMax 25 AWG and 26 AWG
TL-803	Universal MiniMax and RG59
TL-548G	Alternate Compression Tool

Component Video Assemblies

3 COAX Component Video RGB RCA Economy	
Catalog No.	Description
CN-E3RCA-xx	3 COAX PVC RGB Replace xx with: 3,6,12 feet

3 Miniature Component Video 26AWG RCA Plenum		
Catalog No.	Description	Length (FT)
CN253CRGBRCAxx	3 COAX PVC RGB	Replace xx with: 12, 25,50,75,100,150

3 - Miniature RGB 25 AWG PVC 75Ω BNC		
Catalog No.	Description	Length (FT)
CN-3CRGB-xx	3 COAX Plenum RGB 3 BNC (M) to 3 BNC (M)	Replace xx with: 12, 25,50,75,100,150

3 - Economy RGB PVC 75Ω BNC		
Catalog No.	Description	Length (FT)
CN-E3BNC-xx	3 COAX PVC RGB 3 BNC (M) to 3 BNC (M)	Replace xx with: 3,6,12



CN-3CRGB-xx



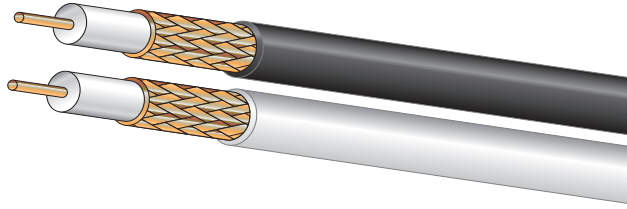
ANALOG CCTV CABLES

CCTV MINIMAX

Minimax Miniature

Applications:

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



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
825	CM	25 AWG (Solid) BC 30Ω/M'	Gas Injected PE† .085	Bare Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75Ω
25825	CMP	25 AWG (Solid) BC 30Ω/M'	Foam FEP .078	Bare Copper Braid 95%	Flex Plenum	.146	16.2 pf/ft	82%	75Ω
825182	CM	25 AWG (Solid) BC 30Ω/M'	Gas Injected PE† .085	Bare Copper Braid 95%	PVC		16.2 pf/ft	82%	75Ω



Notes:

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

Electrical Specifications

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

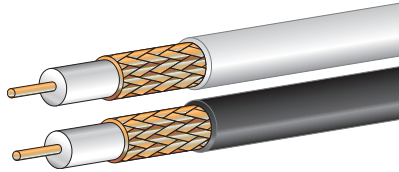
ANALOG CCTV CABLES

CCTV RG59 / U


RG59 / U Type

Applications:

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



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
815	CMR	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Bare Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75Ω
815E	CM	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Copper Alloy 95%	PVC	.232	16.2 pf/ft	82%	75Ω
AQC815	CM	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Bare Copper Braid 95% + Aquaseal Tape	Sunlight Resistant PVC	.242	16.2 pf/ft	82%	75Ω
									
4815	--	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Bare Copper Braid 95%	Inner Jkt. PVC	.242	16.2 pf/ft	82%	75Ω
					Direct Burial				
25815	CMP	20 AWG (Solid) BC 10.1 Ω/M'	Foam FEP .135	Bare Copper Braid 95%	Flex. Plenum	.198	16.2 pf/ft	82%	75Ω

Notes:

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

Electrical Specifications

Catalog No.	Return Loss 100kHz-1GHz	Attenuation (db/100ft)								
		1 Mhz	10 Mhz	50 Mhz	100 Mhz	200 Mhz	400 Mhz	700 Mhz	900 Mhz	1 Ghz
RG59/U	>23dB	.29	.68	1.8	3.0	3.54	4.71	6.40	7.33	7.80
815E	>23dB	.45	.9	1.9	3.2	4.0	4.9	8.6	9.8	10.70



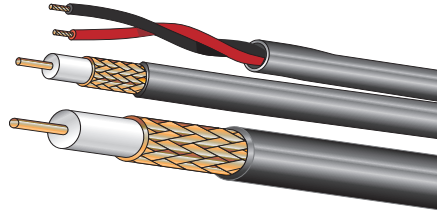
ANALOG CCTV CABLES

CCTV RG59 / U SIAMESE

Siamese Construction Video & Power

Applications:

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



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
2815B	CM	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Bare Copper Braid 95%	PVC	.232 x .465	16.2 pf/ft	82%	75Ω
2815E	CM	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142	Copper Alloy 95%	PVC	.232 x .465	16.2 pf/ft	82%	75Ω
252815	CMP	20 AWG (Solid) BC 10.1 Ω/M'	Foam FEP .135	Bare Copper Braid 95%	Flex. Plenum	.198 x .465	16.2 pf/ft	82%	75Ω

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC	CN-BM74-32	TL-7503	TL-104
75Ω Compression BNC	CN-BNC59MCV	TL-CSST	TL-548G

Notes:

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

Electrical Specifications

Catalog No.	Return Loss 100kHz-1GHz	Attenuation (db/100ft)								
		1 Mhz	10 Mhz	50 Mhz	100 Mhz	200 Mhz	400 Mhz	700 Mhz	900 Mhz	1 Ghz
RG59/U	>23dB	.29	.68	1.8	3.0	3.54	4.71	6.40	7.33	7.80
Economy RG59/U	>23dB	.45	.9	1.9	3.2	4.0	4.9	8.6	9.8	10.70
Plenum RG59/U	>23dB	.30	.68	1.80	3.00	3.91	5.30	7.24	8.29	8.76

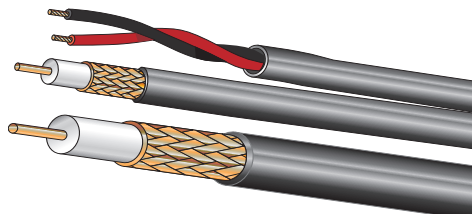
ANALOG CCTV CABLES

CCTV RG6 / U

Non-Plenum & Indoor / Outdoor

Applications:

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



Standard spool size, 1000ft.

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

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC	CN-BM73-5	TL-7503	TL-107
75Ω Compression BNC	CN-BNC6MCV	TL-CSST	TL-548G

Notes:

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

Electrical Specifications

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



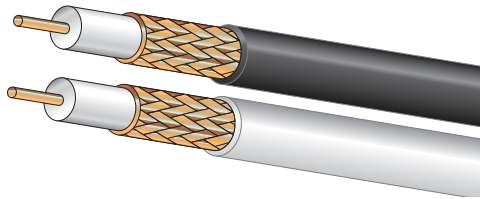
ANALOG CCTV CABLES

CCTV RG6 / U

RG6 / U Type Plenum

Applications:

- CCTV
- Security Baseband Video
- Division 28 05 13



Standard spool size, 1000ft.

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

Electrical Specifications

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

Direct Burial Outdoor

Applications:

- CCTV
- Security Baseband Video

Direct Burial RG6 / U Cables

Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
4806	--	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180	Bare Copper Braid 95%	Inner Jkt. PVC	.280	16.2 pf/ft	82%	75Ω
Direct Burial					Outer Jkt. PE	.330			

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC	CN-BM73-5	TL-7503	TL-107
75Ω Compression BNC	CN-BNC6MVCV	TL-CSST	TL-548G

Notes:

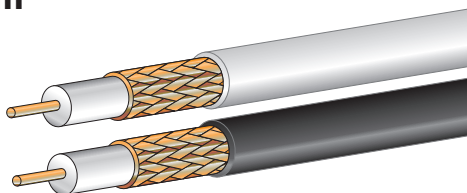
- 500ft put up lengths may be available, minimum quantities may apply.
- †- Gas Injected Polyethylene 100% Sweep Tested up to 3Ghz



RG11 / U Type Non-Plenum & Plenum

Applications:

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



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
811	CM	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE† .280	Bare Copper Braid 95%	PVC	.405	16.2 pf/ft	82%	75Ω
4811 Direct Burial	--	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE† .280	Bare Copper Braid 95%	Inner Jkt. PVC	.405	16.2 pf/ft	82%	75Ω
					Outer Jkt. PE	.455			
25811 Plenum	CL2P CMP	14 AWG (Solid) BC 2.6 Ω/M'	Foam FEP .280	Bare Copper Braid 95%	Copolymer	.352	16 pf/ft	82%	75Ω

Connectors and Tools

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

Notes:

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

Electrical Specifications

Catalog No.	Return Loss 100kHz-1GHz	Attenuation (db/100ft)								
		1 Mhz	10 Mhz	50 Mhz	100 Mhz	200 Mhz	400 Mhz	700 Mhz	900 Mhz	1 Ghz
RG11/U Non-Plenum	>23dB	.16	.35	.87	1.38	1.98	2.95	4.00	4.54	4.77
RG11/U Plenum	>23dB	.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.)
CN-7B815BK-xx	Replace xx with: 3,6,10,15,20,25

CCTV - Cable Assemblies MiniMax 25 AWG		
Catalog No.	Length	Jacket Colors
CN-7B825**-3	3 Foot	**- Jacket Colors Black-BK, Blue-BL, Red-RD, Yellow-YE, Green-GN, White-WH
CN-7B825**-6	6 Foot	
CN-7B825**-10	10 Foot	
CN-7B825**-15	15 Foot	
CN-7B825**-20	20 Foot	
CN-7B825**-25	25 Foot	

CCTV - Cable Assemblies Plenum MiniMax 25 AWG		
Catalog No.	Length	Jacket Colors
CN-7B25825**-3	3 Foot	**- Jacket Colors Black-BK, Blue-BL, Red-RD, Yellow-YE, Green-GN, White-WH
CN-7B25825**-6	6 Foot	
CN-7B25825**-10	10 Foot	
CN-7B25825**-15	15 Foot	
CN-7B25825**-20	20 Foot	
CN-7B25825**-25	25 Foot	

Security Accessories 75 Ohm BNC Compression Style

75 Ohm 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-BNC59MCV	1 Pc. RG59/U Window - Universal - YE
CN-BNC6MCV	1 Pc. RG6/U Window - Universal - PU

75 Ohm BNC Compression Style - ProSNS	
Catalog No.	Description
FS11BNC	RG11 BNC Compression
FSNS11HBCPLA	BNC RG11 Plenum Compression
FSNS6BNCU	ProSNS RG6 CCTV BNC Compression
FSNS6BNCPL	ProSNS RG6 CCTV BNC Compression Plenum
FSNS59BNC SL	ProSNS RG59 CCTV BNC Compression
FSNS59BNCPL	ProSNS RG59 CCTV BNC Compression Plenum



Security Accessories 75 Ohm BNC Crimp Style

75 Ohm 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-BM73-3	3 Pc. P806 Connector
CN-BF74-18	4 Pc. Female Minimax Miniature



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-825	MiniMax 25 AWG
TL-CSST	Compression Strip Tool - 2 Cut - RG59 & 6
TL-KLEIN	All Purpose Strip Tool
TL-121	Pro Series 3 step adjustable blades
PS11	Compression Strip Tool - 2 Cut- RG11

TL-825



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-115	RG8/U Plenum 25810
TL-119	RG8X/U
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

TL-119: .068, .110, .213, .255, .324

Notes:

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

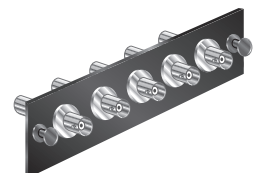
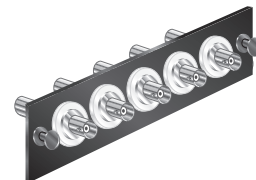
Security Accessories

Enclosures, Plates and Racks

Wall Mount Enclosures	
PP-WM1S	1 Adapter Plate - Wall Mount 7"x6"x1.5"
PP-WM2S	2 Adapter Plate - Wall Mount 15.625"x13"x2.125"
PP-WM4S	4 Adapter Plate - Wall Mount 15.625"x15"x3.5"
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-AD6PBNK	Blank Plate



Security Products Rack Mount Panels



Rack Mount Patch Panels	
PP-W1U1	Empty Rack - Load with 3 Adapter Plates 1 RU
PP-W2U1	Empty Rack - Load with 6 Adapter Plates 2 RU
PP-W4U1	Empty Rack - Load with 12 Adapter Plates 3 RU
CN-BNCL-16	16 Port BNC Loaded (19" - 1RU)
CN-BNCL-32	32 Port BNC Loaded (19" - 2RU)
CN-BNCL-48	48 Port BNC Loaded (19" - 2RU)
CN-BNCIL-16	16 Port BNC Isolated Loaded (19" - 1RU)
CN-BNCIL-32	32 Port BNC Isolated Loaded (19" - 2RU)
CN-BNCIL-48	48 Port BNC Isolated Loaded (19" - 2RU)



CN-ADP506



CN-ADP511

Accessories Adaptors

Coaxial Adaptors	
CN-ADP503	BNC Right Angle M to F
CN-ADP703	75 Ohm BNC RA M to F
CN-ADP506	BNC - T-3 Female
CN-ADP505	BNC - T-2 Female - 1 Male
CN-ADP705	75 Ohm BNC - T-2 F - 1 M
CN-ADP755	75 Ohm Splice
CN-ADP511	BNC M to M
CN-ADP504	BNC F to UHF F
CN-MT-50	50 Ohm BNC Terminator
CN-MT-75	75 Ohm BNC Terminator
CN-ADP500	BNC F to UHF M
CN-ADP756	75 Ohm BNC F to F Bulkhead
CN-ADP559	BNC F to F Bulkhead - UG49
CN-ADP516	BNC M to "F" Female
CN-ADP512	BNC M to UHF F
CN-ADP807	BNC M to "N" F
CN-ADP523	BNC 2 Female - 1 Male Goal Post
CN-ADP-ST	BNC Bulkhead - Tab
CN-ADP-ST75	75 Ohm BNC Bulkhead - Solder Tab
CN-ADP521	BNC F to F Iso. Bulkhead - 75 Ohm
CN-ADP521-50	BNC F to F Iso. Bulkhead - 50 Ohm
CN-ADP501	BNC F to RCA M
CN-ADP515	BNC M to RCA F
CN-ADP106	RCA F to "F" Male
CN-ADP103	RCA M to "F" Female



CN-ADP703



CN-ADP755



CN-ADP505



CN-MT-75



CN-ADP504



CN-ADP516



CN-ADP756



CN-ADP807



CN-ADP500



CN-ADP106



CN-ADP501



CN-ADP103



CN-ADP512



CN-ADP515



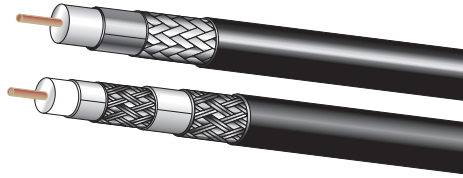
CATV / MATV CABLES

RG6 / U Cables


RG6 / U Type

Applications:

- CATV / MATV
- Division 27 41 33



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω					
										Connector Type	Connector	Strip Tool	Crimp/Comp Tool	
841	CATV CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE .180	Bifoil* 100% + Alum. Braid 65%	PVC	.265	16.2 pf/ft	82%	75Ω	Connector Type	Connector	Strip Tool	Crimp/Comp Tool	
										"F" Type	CN-F56ALM	TL-7502	TL-111	
										"F" Compression	CN-F6MVCV	TL-CSST	TL-548G	
6100	CATV	18 AWG (Solid) CCS 28.0 Ω/M'	Gas Injected PE .180	Bifoil* 100% + Alum. Braid 61%	PVC	.265	16.2 pf/ft	82%	75Ω	Connector Type	Connector	Strip Tool	Crimp/Comp Tool	
										"F" Type	CN-F56ALM	TL-7502	TL-111	
										"F" Compression	CN-F6MVCV	TL-CSST	TL-548G	
AQC841	CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE .180	Bifoil* 100% + Waterblock tape Al. Braid 65%	Underground In-Conduit					82%	75Ω			
					Sunlight Resistant PVC	.275	16.2 pf/ft	Sunlight Resistant PVC	Connector Type			Connector	Strip Tool	Crimp/Comp Tool
										"F" Type	CN-F56AQ	TL-7502	TL-111	
										"F" Compression	CN-F6MVCV	TL-CSST	TL-548G	
6140	--	18 AWG (Solid) CCS 28.0 Ω/M'	Gas Injected PE .180	Bonded Bifoil* 100% Al. Braid 61% Flooding	Sunlight Resistant PE	.275	16.2 pf/ft	82%	75Ω	Connector Type	Connector	Strip Tool	Crimp/Comp Tool	
Flooded Burial										"F" Type	CN-F56AQ	TL-7502	TL-111	
										"F" Compression	CN-F6MVCV	TL-CSST	TL-548G	
HF6100	CM-LS	18 AWG (Solid) CCS 28.0 Ω/M'	Gas Injected PE .180	Bifoil* 100% + Alum. Braid 61%	LSZH	.265	16.2 pf/ft	82%	75Ω	Connector Type	Connector	Strip Tool	Crimp/Comp Tool	
										"F" Type	CN-F56ALM	TL-7502	TL-111	
										"F" Compression	CN-F6MVCV	TL-CSST	TL-548G	

Notes:

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

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

Electrical Specifications

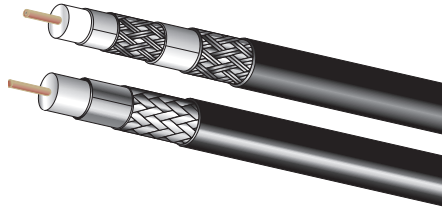
Catalog No.	Return Loss 100kHz-1GHz 1GHz-3GHz	Attenuation (db/100ft)											
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	1.8 GHz	2.25 GHz	3 GHz
Non-Plenum RG6/U Gas Injected PE	>23dB >21dB	.57	1.45	1.85	3.07	3.85	4.62	5.40	6.3	8.05	8.85	9.99	11.9



RG6 / U Type Quad-Shielded

Applications:

- CATV / MATV
- Division 27 41 33



Standard spool size, 1000ft.

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

Notes:

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

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

Electrical Specifications

Catalog No.	Return Loss 100kHz-1GHz 1GHz-3GHz	Attenuation (db/100ft)											
		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	>23dB >21dB	.57	1.45	1.85	3.07	3.85	4.62	5.40	6.3	8.05	8.85	9.99	11.9



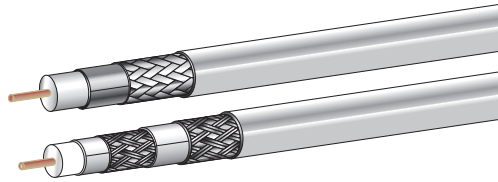
CATV / MATV CABLES

RG6 / U Plenum Cables

RG6 / U Plenum Type

Applications:

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



Standard spool size, 1000ft.

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

Notes:

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

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

Electrical Specifications

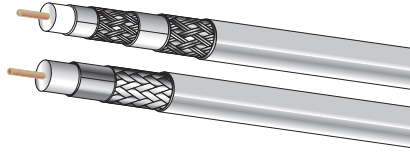
Catalog No.	Return Loss 100kHz-1GHz 1GHz-3GHz	Attenuation (db/100ft)												
		5 MHz	55 MHz	100 MHz	270 MHz	400 MHz	550 MHz	750 MHz	1 GHz	1.45 GHz	2 GHz	2.25 GHz	3 GHz	
Plenum RG6/U Foam FEP	>23dB >21dB	.45	1.6	2.0	2.9	4.5	4.9	6.6	8.0	10.3	12.6	13.36	15.42	



RG11 / U Type Non-Plenum & PLENUM Cables

Applications:

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



Standard spool size, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
1100	CATV CM	14 AWG (Solid) CCS 11.0 Ω/M'	Gas Injected PE .280	Bonded Bifoil* +Al. Braid 61%	PVC	.405	16.2 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11ALX FS11V	Strip Tool TL-124 PS11	Crimp/Comp Tool TL-112 CPLCCT-SS59/11	
821	CATV CM	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE .280	Bifoil* +Al. Braid 65%	PVC	.405	16.2 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11ALX FS11V	Strip Tool TL-124 PS11	Crimp/Comp Tool TL-112 CPLCCT-SS59/11	
1110 Flooded Burial	--	14 AWG (Solid) CCS 11.0 Ω/M'	Gas Injected PE .280	Bonded Bifoil* +Al. Braid 61% Flooding	PE	.405	16.2 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11ALX FS11V	Strip Tool TL-124 PS11	Crimp/Comp Tool TL-112 CPLCCT-SS59/11	
Q821 Quad-Shield	CATV CM	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE .280	Bifoil* +Al. Braid 65% + Bifoil* +Al. Braid 55%	PVC	.405	16.2 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11ALX FS11V	Strip Tool TL-124 PS11	Crimp/Comp Tool TL-112 CPLCCT-SS59/11	
Q821F Quad-Shield Flooded	--	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE .280	Bifoil* +Al. Braid 65% + Bifoil* +Al. Braid 55%	Polyethylene (PE)	.405	16.2 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11ALX FS11V	Strip Tool TL-124 PS11	Crimp/Comp Tool TL-112 CPLCCT-SS59/11	
25821	CATVP CMP	14 AWG (Solid) BC 2.6 Ω/M'	Foam FEP .280	Bifoil* + Alum. Braid 65%	Copolymer	.352	16 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11TFE 716SNS1P11PL-25	Strip Tool TL-124 TL-PS1	Crimp/Comp Tool TL-115 CPLCCT-SS59/11	
25Q821 Quad-Shield	CATVP CMP	14 AWG (Solid) BC 2.6 Ω/M'	Foam FEP .280	Bifoil* +Al. Braid 60% + Bifoil* +Al. Braid 40%	Copolymer	.385	16 pf/ft	82%	75Ω
					Connector Type "F" Type "F" Compression	Connector CN-F11TFE 716SNS1P11PL-25	Strip Tool TL-124 TL-PS11	Crimp/Comp Tool TL-115 TL-CCT-SS59/11	

Electrical Specifications

Catalog No.	Return Loss 100kHz-1GHz 1GHz-3GHz	Attenuation (db/100ft)											
		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	>23dB >21dB	.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	>23dB >21dB	.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	RG6/U
CN-F56ALX	RG6/U Quad Shield
CN-F59TFE/WP	RG59/U West Penn Plenum
CN-F56TFE	RG6/U Plenum
CN-F56AQ	RG6/U Zinc plated with rubber O-Ring
CN-F59T	75 Ohm "F" Terminator
CN-F11ALX	RG11/U
CN-F11TFE	RG11/U Plenum



CN-F59ALM



CN-F59T

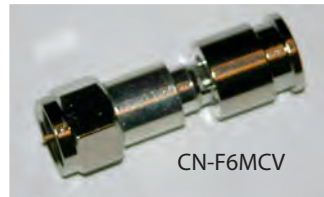


CN-F11ALX

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" 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-ADP101	"F" Right Angle 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

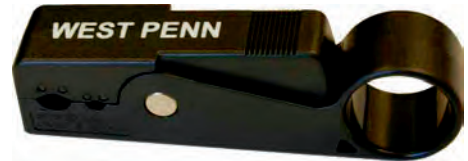
Splitters	
Catalog No.	Description
GHS-2	2 Way Splitter-1 GHZ
GHS-4	4 Way Splitter-1 GHZ
GHS-8	8 Way Splitter-1 GHZ



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



TL-CSST

Replacement Blades	
Catalog No.	Description
TL-133	TL-7502

CATV / MATV Crimp / Compression Tools

Tools Crimp and Compression	
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

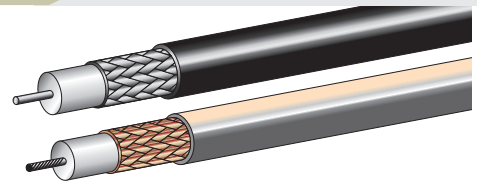
TL-115: .068, .100, .324, .384



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, 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω
812 RG58A/U Type	CM	20 (19x32) Tinned Copper 8.8 Ω/M'	Gas Injected PE .116	100% Bi-foil AL. +95% Tinned Cu Braid	PVC	.195	25 pf/ft	78%	50Ω
						50Ω BNC: CN-BM53-13 Crimp Tool: TL-105			
813 RG-58/U Type	CM	20 (Solid) Tinned Copper 10.1 Ω/M'	Gas Injected PE .116	Tinned Copper Braid 95%	PVC	.195	26 pf/ft	78%	50Ω
						50Ω BNC: CN-BM53-13 Crimp Tool: TL-105			
25812 RG-58/U Type Plenum	CMP	20 (19x32) Tinned Copper 8.8 Ω/M'	Foam FEP .102	100% Bi-foil AL. +95% Tinned Cu Braid	Flex Plenum	.158	25 pf/ft	82%	50Ω
						50Ω BNC: CN-BM53-25 Crimp Tool: TL-105			
810 RG-213/U Type	CM	12 (7x20) Bare Copper 1.9 Ω/M'	Gas Injected PE .280	Bare Copper Braid 95%	PVC	.405	26 pf/ft	80%	50Ω
						50Ω BNC: CN-BM53-8 Crimp Tool: TL-113			
25810 RG-213/U Type Plenum	CMP	12 (7x20) Bare Copper 1.9 Ω/M'	Foam FEP .280	Bare Copper Braid 95%	Copolymer	.352	25 pf/ft	80%	50Ω
						50Ω BNC: CN25810KBNC Crimp Tool: TL-115			
98G8 RG-8/U Type	CM	10AWG Solid Bare Copper .9 Ω/M'	Gas Injected PE .286	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	PVC	.405	24.5 pf/ft	84%	50Ω
						50Ω BNC: CN-BM98G8 Crimp Tool: TL-RG8-10G			
2598G8 RG-8/U Type Plenum	CMP	10AWG Solid Bare Copper .9 Ω/M'	Foam FEP .280	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	Copolymer	.360	25 pf/ft	80%	50Ω
						50Ω BNC: CN-BM2598G8 Crimp Tool: TL-RG8-10G			
807X RG-8X/U Type Flexible	CM	16 (19x29) Bare Copper 4.3 Ω/M'	Gas Injected PE .155	100% Bonded Bi- foil AL. + 90% Tinned Cu Braid	PVC	.242	25 pf/ft	82%	50Ω
						50Ω BNC: CN-BM53-8X Crimp Tool: TL-119			

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



Electrical Specifications: Attenuation (db/100ft)

CAT. 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.	50Ω BNC	50Ω TNC	50Ω "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	CN-BM53-8X	CN-TM53-807	CN-NM53-8X



Adapters

TNC Adapters	
Catalog No.	Description
CN-ADPTTJJ	TNC Jack to TNC Jack
CN-ADPTTPP	TNC Plug to TNC Plug
CN-ADPTTJT	TNC Jack Tee Adapter
CN-ADPBTF	BNC Female to TNC Female
CN-ADPBTFM	BNC Male to TNC Male
CN-ADPBTFM	BNC Female to TNC Male
CN-ADPBMTF	BNC Male to TNC Female
CN-ADPNTFF	N Female to TNC Female
CN-ADPNTMM	N Male to TNC Male
CN-ADPNTFM	N Female to TNC Male
CN-ADPNMTF	N Male to TNC Female

"N" Type Adapters	
Catalog No.	Description
CN-ADPNNJJ	N Jack to N Jack
CN-ADPNNPP	N Plug to N Plug
CN-ADPNNJT	N Jack Tee Adapter
CN-ADPBNFF	BNC Female to "N" Female
CN-ADPBNMM	BNC Male to "N" Male
CN-ADPBNFM	BNC Female to "N" Male
CN-ADP807	BNC M to "N" F



UHF Adapters	
Catalog No.	Description
CN-ADP205	UHF RA Male to Female
CN-ADP207	Inline UHF (F to F)
CN-ADP805	UHF Male to "N" Female
CN-ADP512	BNC M to UHF F
CN-ADP500	BNC F to UHF M
CN-ADP504	BNC F to UHF F





50 Ohm Coaxial Assemblies

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

N Type Assemblies		
Catalog No.	Description	Footage
CN-812NMNM-xx	RG58A/U Assembly Non-Plenum N Male to N Male	Replace xx: 1 to 50ft
CN-25812NMNM-xx	RG58A/U Assembly Plenum N Male to N Male	Replace xx: 1 to 50ft
CN-807NMNM-xx	RG8x/U Flex Assembly Non-Plenum N Male to N Male	Replace xx: 1 to 100ft
CN-810NMNM-xx	RG213/U Assembly Non-Plenum N Male to N Male	Replace xx: 1 to 200ft
CN-25810NMNM-xx	RG213/U Assembly Plenum N Male to N Male	Replace xx: 1 to 200ft
CN-98G8NMNM-xx	RG8/U Assembly Non-Plenum N Male to N Male	Replace xx: 1 to 300ft
CN-2598G8NM-xx	RG8/U Assembly Plenum N Male to N Male	Replace xx: 1 to 300ft

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

NOTES:

Other Cable Assemblies Configurations Can Be Special 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-113	RG8/U & RG11/U
TL-115	RG8/U Plenum 25810
TL-119	RG8X/U
TL-RG8-10G	RG8/U - 98G8 and 2598G8

Crimp Tool Die Sizes: Inches

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

TL-105: .068, .178

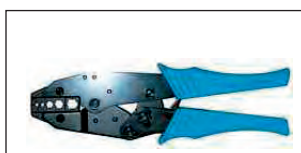
TL-112: .100, .322, .448

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

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

TL-119: .068, .110, .213, .255, .324

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



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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: UL1666



Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
980	1 Pair	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 Pair	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 Pair	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 Pair	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

* Capacitance between conductors.

Notes:

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



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 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
60980B	1 Pair	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 Pair	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 Pair	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 Pair	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

Notes:

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

Tracer Marks:

Available Upon Request: Minimum Quantities Apply.



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: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
990S	1 Pair	16 AWG Strd. 4.1 Ω/Mft	.009	None	.017	.182	FPLR	34 pf/ft*
994S	1 Pair	14 AWG Strd. 2.6 Ω/Mft	.010	None	.017	.224	FPLR	33 pf/ft*
998S	1 Pair	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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
60991BS	1 Pair	16 AWG Stranded 4.1 Ω/Mft	.008	None	.015	.180	FPLP	34 pf/ft*
60993BS	1 Pair	14 AWG Stranded 2.6 Ω/Mft	.010	None	.015	.210	FPLP	33 pf/ft*
60995BS	1 Pair	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

* Capacitance between conductors.

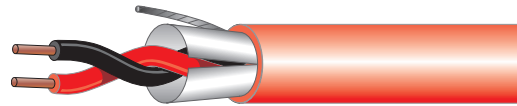
Power-Limited Multiple Conductor/ Shielded

Applications: Description:

Indoor for:

- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Division 28 05 13.23

- 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: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
975	1 Pair	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 Pair	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 Pair	14 AWG Solid 2.6 Ω/Mft	.012	Al. Foil 100%	.017	.215	FPLR	84 pf/ft* 151 pf/ft**
999	1 Pair	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

* 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, Page 128
- Select Items are Packaged in our Advantage Box
- Orange Rip Cord Under Jacket
- 500ft put up lengths may be available, minimum quantities may apply.



Tracer Marks:

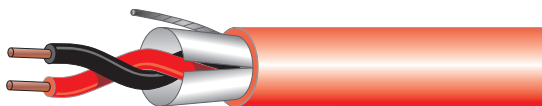
Available Upon Request: Minimum Quantities Apply



FIRE ALARM CABLES

SHIELDED PLENUM

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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
60975B	1 Pair	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 Pair	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 Pair	14 AWG Solid 2.6 Ω/Mft	.010	Al. Foil 100%	.015	.202	FPLP	84 pf/ft* 151 pf/ft**
60994B	1 Pair	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, Page 130
- 500ft put up lengths may be available, minimum quantities may apply.



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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
995S	1 Pair	14 AWG Stranded 2.6 Ω/Mft	.012	Al. Foil 100%	.017	.232	FPLR	
999S	1 Pair	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
- 500ft 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 FPLP
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

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

Notes:

- Plenum Installation Precautions, see Technical Reference.
- 500ft 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: UL1666

Standard spool size, 1000ft.

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

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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
D975	1 Pair	18 AWG Solid 6.5 Ω/Mft	.015	Al. Foil 100%	.035	.223	FPLR	25 pf/ft* 45 pf/ft**
D991	1 Pair	16 AWG Solid 4.1 Ω/Mft	.015	Al. Foil 100%	.035	.245	FPLR	30 pf/ft* 54 pf/ft**
D995	1 Pair	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

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



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

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

Fire Alarm Cables Power-Limited / Shielded

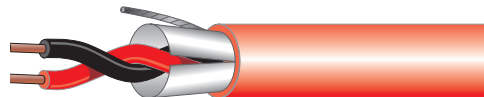
Plenecon II® Data Cable

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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
D60975	1 Pair	18 AWG Solid 6.5 Ω/Mft	.012	Al. Foil 100%	.015	.165	FPLP	25 pf/ft* 45 pf/ft**
D60990	1 Pair	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

1. Black
2. Red

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

Notes:

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



FIRE ALARM CABLES

LOCAL LAW 5 FIRE ALARM

Local Law 5 (LL5) Power-Limited / Unshielded



Applications:

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

Description:

- ASTM Bare Copper
- Fluoropolymer
- Twisted Pair or Cabled Construction
- Unshielded
- Fluoropolymer Jacket - 150 Deg.

Rating:

- Power Limited Fire Alarm Cable also Classified for use a Fire Alarm Cable in New York City.
- NEC Type FPLP
 - (UL) Listed
 - Meets 300V Requirements as Specified in the NEC
 - Flame Rating: NFPA-262 Smoke & Flame Test

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
LL5182	1 Pair	18 AWG Solid 6.5 Ω/Mft	.016	None	.026	.205	FPLP	29 pf/ft*
LL5184	4	18 AWG Solid 6.5 Ω/Mft	.016	None	.026	.238	FPLP	29 pf/ft*
LL5162	1 Pair	16 AWG Solid 4.1 Ω/Mft	.016	None	.026	.225	FPLP	32 pf/ft*
LL5164	4	16 AWG Solid 4.1 Ω/Mft	.016	None	.026	.265	FPLP	32 pf/ft*
LL5142	1 Pair	14 AWG Solid 2.6 Ω/Mft	.016	None	.026	.248	FPLP	35 pf/ft*
LL5144	4	14 AWG Solid 2.6 Ω/Mft	.016	None	.026	.302	FPLP	35 pf/ft*
LL5122	1 Pair	12 AWG Solid 1.8 Ω/Mft	.016	None	.026	.278	FPLP	45 pf/ft*

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

* Capacitance between conductors.

Notes:

- LL5 Cables are packaged on wooden reels.
- 500ft put up lengths may be available, minimum quantities may apply.



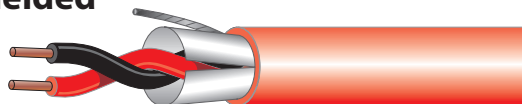
Local Law 5 (LL5) Power Limited / Shielded

Applications:

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

Description:

- ASTM Bare Copper
- Fluoropolymer
- Twisted Pair or Cabled Construction
- Overall Shield 100% Coverage of Aluminum Polyester Foil with Tinned Copper Drain Wire
- Fluoropolymer Jacket



Rating:

Power Limited Fire Alarm Cable also Classified for use as Fire Alarm Cable in New York City.

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

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
LL5182SH	1 Pair	18 AWG Solid 6.5 Ω/Mft	.016	Al. Foil 100%	.026	.210	FPLP	54 pf/ft* 97 pf/ft**
LL5184SH	4	18 AWG Solid 6.5 Ω/Mft	.016	Al. Foil 100%	.026	.245	FPLP	54 pf/ft* 97 pf/ft**
LL5162SH	1 Pair	16 AWG Solid 4.1 Ω/Mft	.016	Al. Foil 100%	.026	.230	FPLP	61 pf/ft* 110 pf/ft**
LL5164SH	4	16 AWG Solid 4.1 Ω/Mft	.016	Al. Foil 100%	.026	.272	FPLP	61 pf/ft* 110 pf/ft**
LL5142SH	1 Pair	14 AWG Solid 2.6 Ω/Mft	.016	Al. Foil 100%	.026	.258	FPLP	84 pf/ft* 151 pf/ft**
LL5122SH	1 Pair	12 AWG Solid 1.8 Ω/Mft	.016	Al. Foil 100%	.026	.285	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:

- LL5 Cables are packaged on wooden reels.
- 500ft put up lengths may be available, minimum quantities may apply.



Aquaseal® Water Resistant Cables

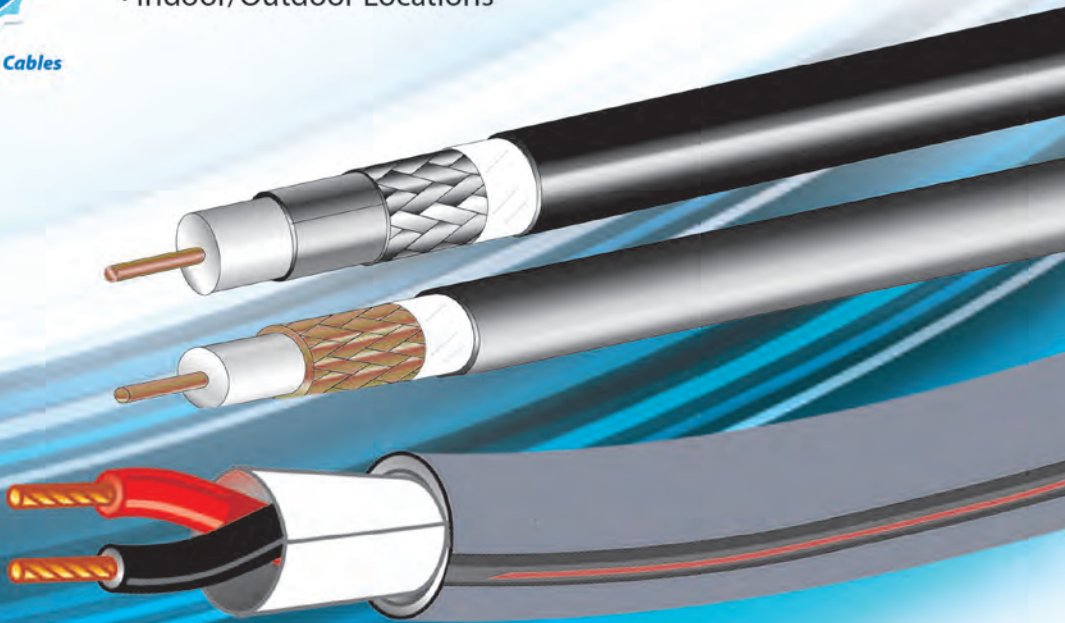
Superior UL-Rated Cables for Outdoor In-Conduit & Direct Burial Applications



Water Resistant Cables

Aquaseal® Fire Alarm Cables

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



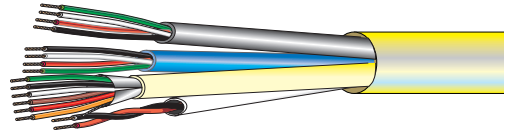
Access Control • Audio • Communications • Fire Alarm • Intercom • Video



Composite Access Control Cables

Applications:

- Access Control Systems
- Division 28 05 13.16



Standard spool size, 1000ft.

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"
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"
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"
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"
AQC1822	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	CM	.460"



All Aquaseal® Design

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:

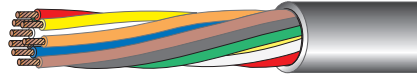
Standard Spool size, 1000ft, spools are one piece, but lengths may vary +/- 10%
PE - Polyethylene Bifoil is an Aluminum Polyester Aluminum Tape with 100% coverage 100% sweep tested.



ACCESS CONTROL CABLES

NON-PLENUM READER CABLES

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: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	--

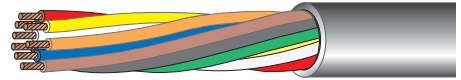
Insulation Color Code		
Primary Color Code		
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black	
7. Orange	14. White/Red	

Notes:

- Selected Plenum Versions, see - Plenum Section.
- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft 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: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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 sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	

Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



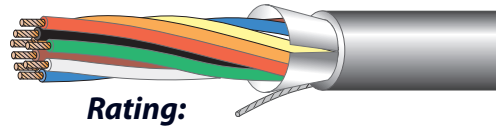
22 AWG Multiple Conductor / Overall Shielded

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 Strd. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	

* 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, Pages 119-130
- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft put up lengths may be available, minimum quantities may apply.



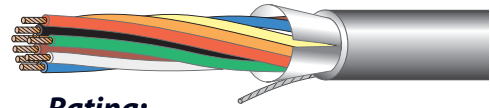
Multiple Conductor 20 & 18 AWG / Overall Shielded

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 Strd. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	7. Orange
2. Red	
3. White	
4. Green	
5. Brown	
6. Blue	

* Capacitance between conductors.

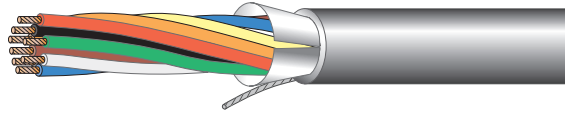
** Capacitance between one conductor and the other connected to the shield.

Notes:

- Orange Rip Cord
- Selected Indoor/Outdoor **Aquaseal Water Resistant**® Versions, see Aquaseal Catalog Section, Pages 119-130
- **Water Resistant**® Versions, see Aquaseal Section
- 500ft 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, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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	

* 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 sized cables and Higher Paired cables may be on a reel.
- Rip Cord
- 500ft 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 CL2R
- Flame Rating: UL1666

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

Standard spool size, 1000ft.

Rating:

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

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. 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

Multiple Pair Series / Overall Shielded

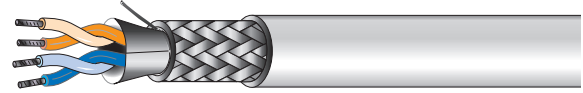
RS-485 Data Cables

Applications:

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

Rating:

- NEC Type CM
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1685



Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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**
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. Vel of Propagation - 66% - Nom. Impedance Ω 24 AWG - 120Ω

Rating:

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

Standard spool size, 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. 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**

Insulation Color Code	
Pair Color Code	
Pair 1.	Blue - White/Blue
Pair 2.	Orange - White/Orange

Electrical Characteristics
Nom. Vel of Propagation - 76%
Nom. Impedance Ω 24 AWG - 120Ω

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



WEST PENN
WIRE Since 1971

AV, SECURITY & NETWORKING SOLUTIONS

SPECIALTY APPLICATIONS

Aquaseal® Indoor/Outdoor

Halogen Free

DATA | VOICE | VIDEO | PAGING | SECURITY | FIRE | AV | PRODUCT TRAINING

SOUTHERN CA/AZ: 800.659.3655 | NORTHERN CA: 866.227.7699



SPECIALTY APPLICATIONS

Aquaseal® - Water Resistant

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Halogen Free Cables

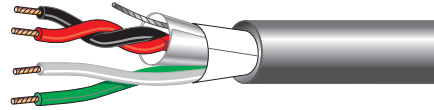
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DATA | VOICE | VIDEO | PAGING | SECURITY | FIRE | AV | PRODUCT TRAINING
SOUTHERN CA/AZ: 800.659.3655 | NORTHERN CA: 866.227.7699



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: UL1685

Standard spool size, 1000ft.

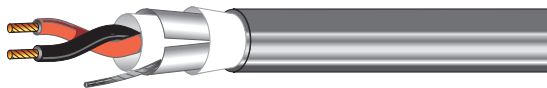
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Norm. O.D. Inches	NEC Type	Norm. Capacitance
AQC351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	.008	Al. Foil-100% 22 Solid	.025	.215	CM CL3	54 pf/ft* 97 pf/ft**
AQC352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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.

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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC290	1 Pair	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 Pair	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.205	CM CL3	55 pf/ft* 99 pf/ft**
AQC3274	15 Cond.	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.361	CM CL3	55 pf/ft* 99 pf/ft**
AQC3270	6 Cond.	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.220	CM CL3	55 pf/ft* 99 pf/ft**
AQC292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil- 100% 24 Strd.	.025	.220	CM CL3	60 pf/ft* 108 pf/ft**
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil- 100% 24 Strd.	.025	.257	CM/CL3 FPL	46 pf/ft* 83 pf/ft**
AQC3186	6 Cond.	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil- 100% 24 Strd.	.025	.323	CM CL3	68 pf/ft* 122 pf/ft**
AQC3283	12 Cond.	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil- 100% 24 Strd.	.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.

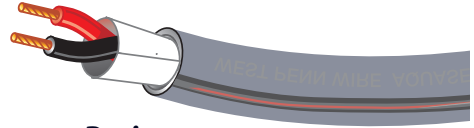
** Capacitance between one conductor and the other connected to the shield.

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



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
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1685

Standard spool size, 1000ft.

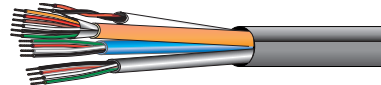
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	.010	None	.025	.218	CM/CL3 FPL	NA
AQC188	8	18 AWG (7x26) 6.2Ω/Mft	.008	None	.025	.340	CM CL3	NA
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	.010	None	.025	.242	CM/CL3 FPL	NA
AQC240	4	22 AWG Solid 17.5Ω/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

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 Cable - Access Control Design



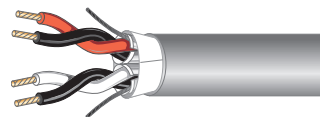
Catalog No.	Cable Types	Application	NEC Type	Nom. Jacket O.D. & Color
AQC1822	2 Cond 22 AWG 4 Cond. 18 AWG 4 Cond. 22 AWG 3 Pair 22 AWG Shielded	Door Contact Lock Power Request to Exit Card Reader	CM	.460"

Aquaseal
Water Resistant Cables

All Aquaseal® Design



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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC430	2	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.380	CM CL3	55 pf/ft* 99 pf/ft**
AQC439	4	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.427	CM CL3	55 pf/ft* 99 pf/ft**
AQC432	6	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.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**
AQC434	12	22 AWG (7x30) 17 Ω/Mft	.007	Al. Foil- 100% 24 Strd.	.025	.698	CM CL3	55 pf/ft* 99 pf/ft**
AQC424	12	22 AWG (Solid) 17.5 Ω/Mft	.008	Al. Foil- 100% 22 Solid	.025	.588	CM CL3	54 pf/ft* 97 pf/ft**

Insulation Color Code	
Pair Color Code	
1. Black-Red	7. Black-Orange
2. Black-White	8. Red-White
3. Black-Green	9. Red-Green
4. Black-Blue	10. Red-Blue
5. Black-Yellow	11. Red-Yellow
6. Black-Brown	12. Red-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.



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:

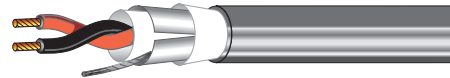
- NEC Type CM / CL3 or FPL
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	.010	None	.025	.218	CM/CL3 FPL	30 pf/ft
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	.010	None	.025	.242	CM/CL3 FPL	35 pf/ft
AQC226	1 Pair	14 AWG (19x27) 2.7Ω/Mft	.015	None	.025	.294	CL3 FPL	34 pf/ft
AQC227	1 Pair	12 AWG (19x25) 1.7Ω/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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	.010	Al. Foil-100% 24 Strd.	.025	.257	CM/CL3 FPL	39 pf/ft* 70 pf/ft**
AQC294	1 Pair	16 AWG (19x29) 4.2Ω/Mft	.010	Al. Foil-100% 24 Strd.	.025	.281	CM/CL3 FPL	46 pf/ft* 83 pf/ft**
AQC295	1 Pair	14 AWG (19x27) 2.7Ω/Mft	.015	Al. Foil-100% 24 Strd.	.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 or PLTC or CL3
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Direct Burial
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQ224	1 Pair	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 Pair	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 Pair	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 Pair	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 ripcord under jacket



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 or PLTC or CL3
- (UL) Listed
- Meets 300V Requirements as Specified in the NEC
- Direct Burial
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding	Jacket Type & Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
AQ293	1 Pair	18 AWG (7x26) 6.2Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.040	.310	CL3/FPL PLTC	32 pf/ft* 58 pf/ft**
AQ3244	4	18 AWG (7x26) 6.2Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.040	.371	CL3/FPL PLTC	32 pf/ft* 58 pf/ft**
AQ294	1 Pair	16 AWG (7x24) 4.2Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.040	.328	CL3/FPL PLTC	37 pf/ft* 67 pf/ft**
AQ3245	4	16 AWG (7x24) 4.2Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.050	.415	CL3/FPL PLTC	37 pf/ft* 67 pf/ft**
AQ295	1 Pair	14 AWG (19x27) 2.7Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.040	.350	CL3/FPL PLTC	46 pf/ft* 83 pf/ft**
AQ296	1 Pair	12 AWG (19x25) 1.7Ω/Mft	PVC .015 Nylon .005	Al. Foil- 100% 24 Strd.	.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.

Coaxial Cables / Pro-Video - CATV - CCTV



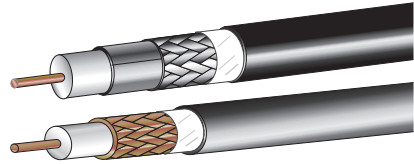
Water Resistant Cables

Applications:

- Indoor/Outdoor:
- CCTV Security
- SDI - Pro-Video
- MATV/CATV

Features:

- NEC Type CM
- Waterblocking Tape



Underground In-Conduit

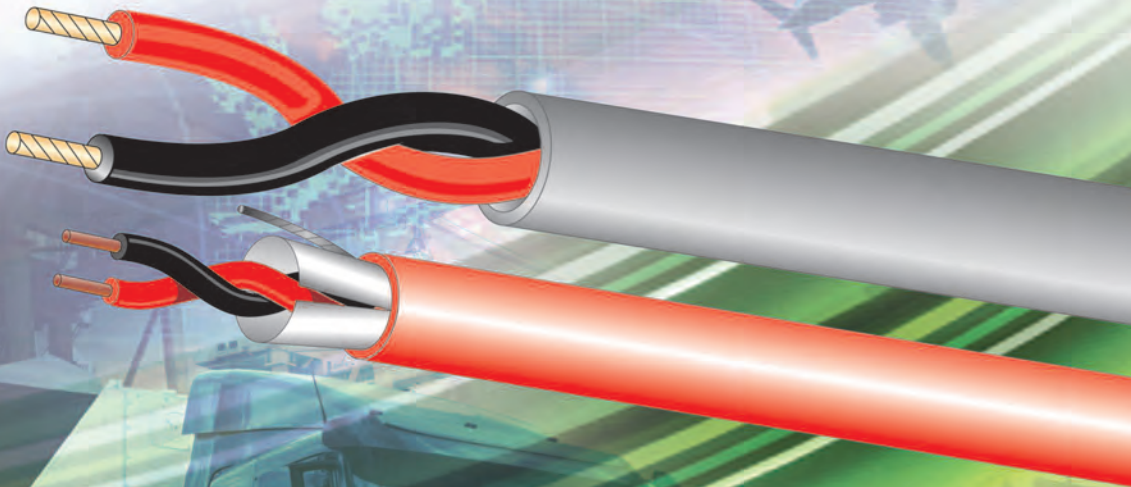
Mechanical Specifications

Standard spool size, 1000ft.

Catalog No.	Conductor Type & Nom. D.C.R	Nominal O.D Inches	Insulation Type, O.D. Inches	Shielding % Coverage	Jacket Type	Jacket Colors	NEC Type	Jacket Color
AQC819	20 AWG Solid BC 10 Ω/M'	.242	Gas Injected PE .142	Waterblocking tape + Bifoil 100% TC Braid 95%	Sunlight Resistant PVC	Black	CM	Black
					Connectors Type 75Ω 3 Pc BNC - 75Ω Compression BNC -	Connector CN-BM74-32 CN-BNC59MCV	Strip Tool TL-7503 TL-CSST	Tool TL-104 TL-SNSA
AQC815	20 AWG Solid BC 10 Ω/M'	.242	Gas Injected PE .142 + Tape Barrier	Waterblocking tape + Bare Copper Braid 95%	Sunlight Resistant PVC	Black	CM	Black
					Connectors Type 75Ω 3 Pc BNC - 75Ω Compression BNC -	Connector CN-BM74-32 CN-BNC59MCV	Strip Tool TL-7503 TL-CSST	Tool TL-104 TL-SNSA
AQC841	18 AWG Solid BC 6.5 Ω/M'	.275	Gas Injected PE .180	Waterblocking tape + 100% Al. Foil Al. Braid 65%	Sunlight Resistant PVC	Black	CM	Black
					Connectors Type "F" Type - "F" Compression -	Connector CN-F56AQ CN-F6MCV	Strip Tool TL-7502 TL-CSST	Tool TL-111 TL-548G
AQC806	18 AWG Solid BC 6.5 Ω/M'	.280	Gas Injected PE .180 + Tape Barrier	Waterblocking tape Bare Copper Braid 95%	Sunlight Resistant PVC	Black	CM	Black
					Connector Type 75Ω 3 Pc Crimp BNC 75Ω Compression BNC	Connectors CN-BM73-5 CN-BNC6MCV	Strip Tool TL-7503 TL-CSST	Tool TL-107 TL-SNSA
AQC6350	18 AWG Solid BC 6.5 Ω/M'	.280	Gas Injected PE .180 + Tape Barrier	Waterblocking tape + Bifoil 100% + TC Braid 95%	Sunlight Resistant PVC	Black	CM	Black
					Connector Type 75Ω 3 Pc Crimp BNC 75Ω Compression BNC	Connectors CN-BM73-5 CN-BNC6MCV	Strip Tool TL-7503 TL-CSST	Tool TL-107 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:

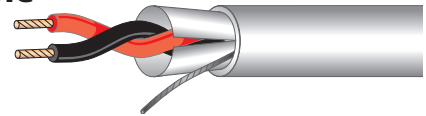
- NEC Type CM-LS, CMG-LS
- Meets 300V Requirements as Specified in the NEC
- Flame Rating: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Conductors	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. 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, 1000ft.

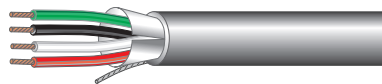
Catalog No.	No. of Conductors	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
HF293	2	18 AWG (7x26) 6.2 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.032	.190	CMG-LS	53 pf/ft* 104 pf/ft**
HF294	2	16 AWG (19x29) 4.1 Ω/Mft	.010	Al. Foil 100% 24 Strd.	.032	.211	CMG-LS	53 pf/ft* 104 pf/ft**
HF295	2	14 AWG (19x27) 2.7 Ω/Mft	.012	Al. Foil 100% 24 Strd.	.032	.255	CL3-LS	54 pf/ft* 106 pf/ft**
HF296	2	12 AWG (19x25) 1.7 Ω/Mft	.012	Al. Foil 100% 24 Strd.	.032	.301	CL3-LS	64 pf/ft* 126 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.



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: UL1685

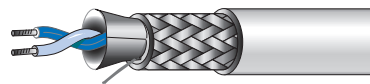
Standard spool size, 1000ft.

Catalog No.	No. of Conductors	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
HF302	3	20 AWG (7x28) 10.5 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.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 Strd.	.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 Strd.	.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 Strd.	.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

- * 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: UL1685

Standard spool size, 1000ft.

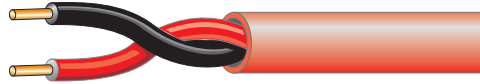
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
HFD4851	1 Pair	24 AWG (7x32) 26 Ω/Mft	.020	Al. Foil 100% + Braid 24 Strd.	.030	.255	CMG-LS	12.8 pf/ft* 23 pf/ft**

Insulation Color Code
Pair Color Code
Pair 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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Conductors	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. 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: UL1685

Standard spool size, 1000ft.

Catalog No.	No. of Conductors	Conductor Type & Nom. D.C.R	Insulation Thickness Inches	Shielding & % Coverage + Drain Wire	Jacket Thickness Inches	Nom. O.D. Inches	NEC Type	Nom. Capacitance
HF975	2	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.030	.183	FPL-LS	38 pf/ft* 69 pf/ft**
HF991	2	16 AWG Solid 4.2 Ω/Mft	.008	Al. Foil 100% 24 Strd.	.030	.201	FPL-LS	43 pf/ft* 78 pf/ft**
HF995	2	14 AWG Solid 2.7 Ω/Mft	.012	Al. Foil 100% 24 Strd.	.032	.243	FPL-LS	39 pf/ft* 70 pf/ft**
HF999	2	12 AWG Solid 1.7 Ω/Mft	.012	Al. Foil 100% 24 Strd.	.032	.277	FPL-LS	44 pf/ft* 79 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.



The know how. Understanding cable design, coaxial design and fiber optic design is pages away. You can also find the recommended connectors, tools and much more technical information that will help you understand cable design and implementation. We want to make your installation free from problems. If you are looking for more information on termination techniques, connector selection, or other technical data, see our website, www.westpennwire.com



TECHNICAL REFERENCE

Technical Reference Section

Understanding National Electrical Code (NEC)	130-131
Conduit Capacity	132-133
Shipping Policy and Warranty Info	134-135
Cable Index	136-138
Cable Accessories Index	138-140



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 from the cable manufacturer engineer and distributor, to the designer and installer. Anyone involved in specifying cable to installation of cable should be aware of the basics of the code.

In 1987, the National Electrical Code introduced some major 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 have 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 space used for environmental air without conduit and has adequate fire-resistant and low-smoke producing characteristics. It can also be used for applications below.

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. It can also be used for applications below.

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. It can also be used for all applications below.

Restricted Applications - This listing is for limited use and is suitable for use in dwellings and for use in 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" for a residential dwelling.

SPECIAL NOTES FOR COMMUNICATION CABLES:

* MULTI-CONDUCTOR CABLES WITH 24-16 AWG CONDUCTORS CAN BE RATED UL AND C(UL).

* MULTI-CONDUCTOR CABLES WITH 14-8 AWG CONDUCTORS ARE UL LISTED ONLY

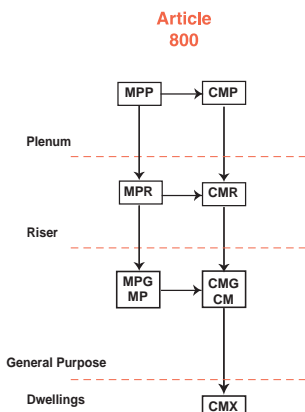
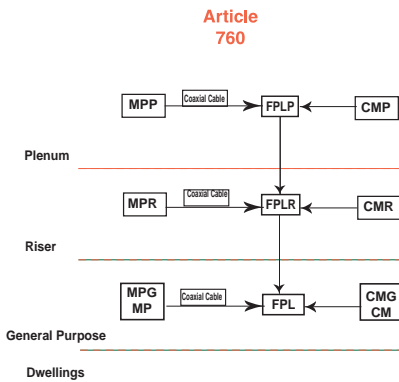
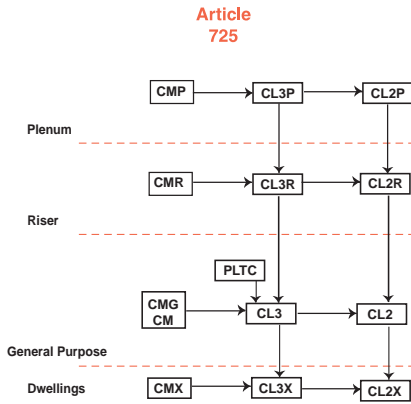
* 10-8 AWG SPEAKER CABLES ARE CL2 ONLY AND MUST INDICATE AUDIO USE ONLY



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.



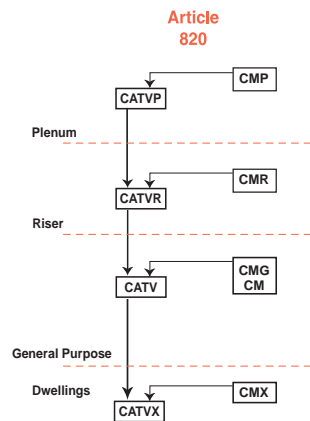
Final Considerations

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 municipal 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 Electric Code or on the 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 O.D. column, and find the exact or next largest diameter cable O.D. 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 O.D. 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 which 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 O.D. 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	.011045	1	1	3	5	7	12	21	32	42	53
.400	.012566	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" O.D.

Go down the Cable O.D. inch column. Find the number equal to or greater than the cable O.D. Go across to find the number of cables in the appropriate conduit size.

.269" - Closest .275"
13 in a 1 1/2" Conduit.

Example B.

Three different Cables:

227 - .260" sqd. = .0676
D434 - .411" sqd. = .1689
6350 - .275" sqd. = .0756
+
.3169
x .7854
= .2489

On the Permissible Area-equal to or greater. The closest area is .034
Use a 1" 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, and 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.



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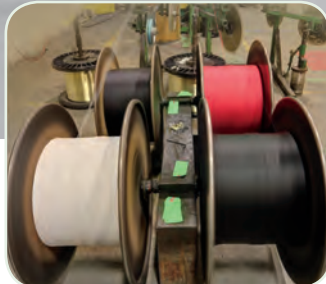
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