



MASTER CATALOG

Audio | Video | Security | Networking | Communication & Control | Special Applications

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Your Link to Connectivity

West Penn Wire (WPW) designs and manufactures wires, cables, harnesses and related products for small, mid-size and Fortune 500 companies worldwide. WPW was established in 1971 and is 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 data, audio and video applications.

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

WPW is based in Washington, PA, near Pittsburgh, and has distribution centers in Washington; Flowery Branch, GA (Atlanta); Sacramento; and Elgin, IL (Chicago).



800.245.4964 | sales@westpenn-wpw.com | www.westpenn-wpw.com

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www.westpenn-wpw.com

Hours of Operation:

8am to 6pm EST. Monday through Friday
24 hour product selection through our eCommerce site.

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 a restricted materials specifications to encompass all raw materials, parts, components, or products that are ultimately incorporated into West Penn Wire Product.

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- B** Pro-Audio Line Level Pg.2-14
- C** Digital Video Distributor Pg.33-60

- D** CCTV- IP CCTV Pg. 89-110
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Stadium | Arena

- A** Speaker Cables Pg. 16-26
- B** Pro-Audio Line Level Pg.2-14

- C** Digital Video Distributon Pg.33-60
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- D** CCTV- IP CCTV Pg. 89-110
- E** Fire Alarm Pg.111-124
- F** Access Control Pg.125-136
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Health Care | Hospice

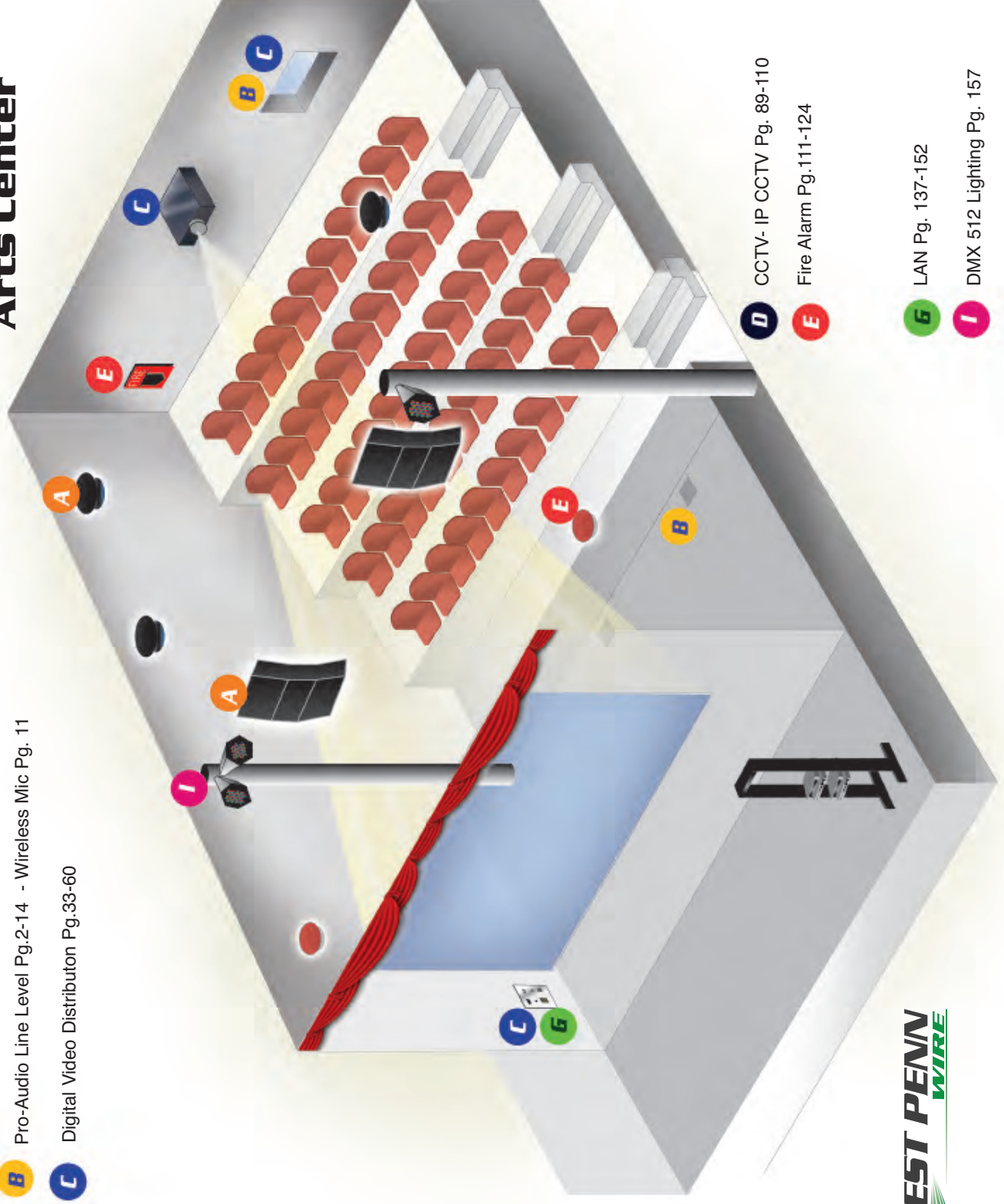
Theater | Performing Arts Center

- A**
- B**
- C**

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Digital Video Distributor Pg.33-60



D CCTV- IP CCTV Pg. 89-110

E Fire Alarm Pg.111-124

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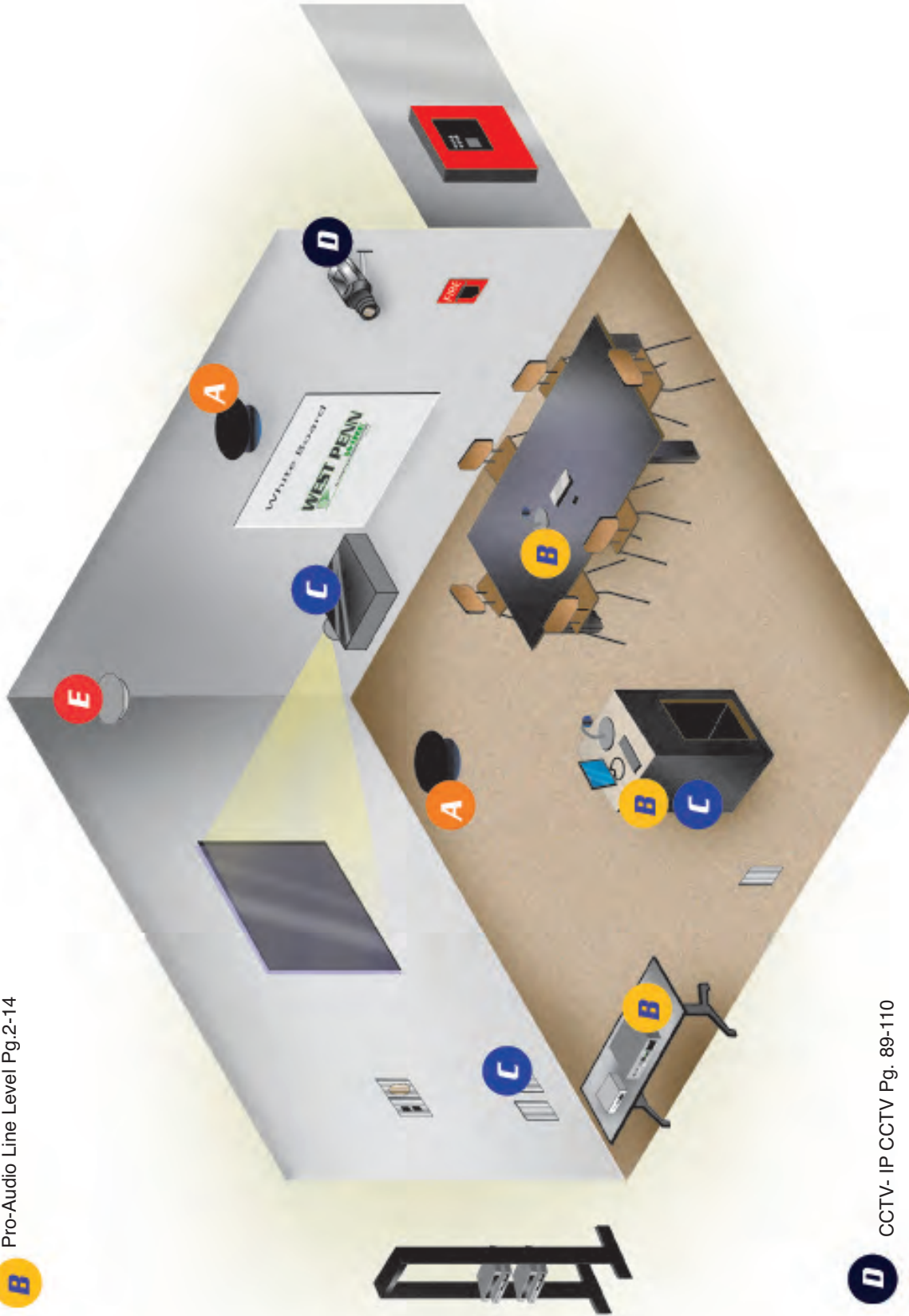
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A Speaker Cables Pg. 16-26

B Pro-Audio Line Level Pg.2-14

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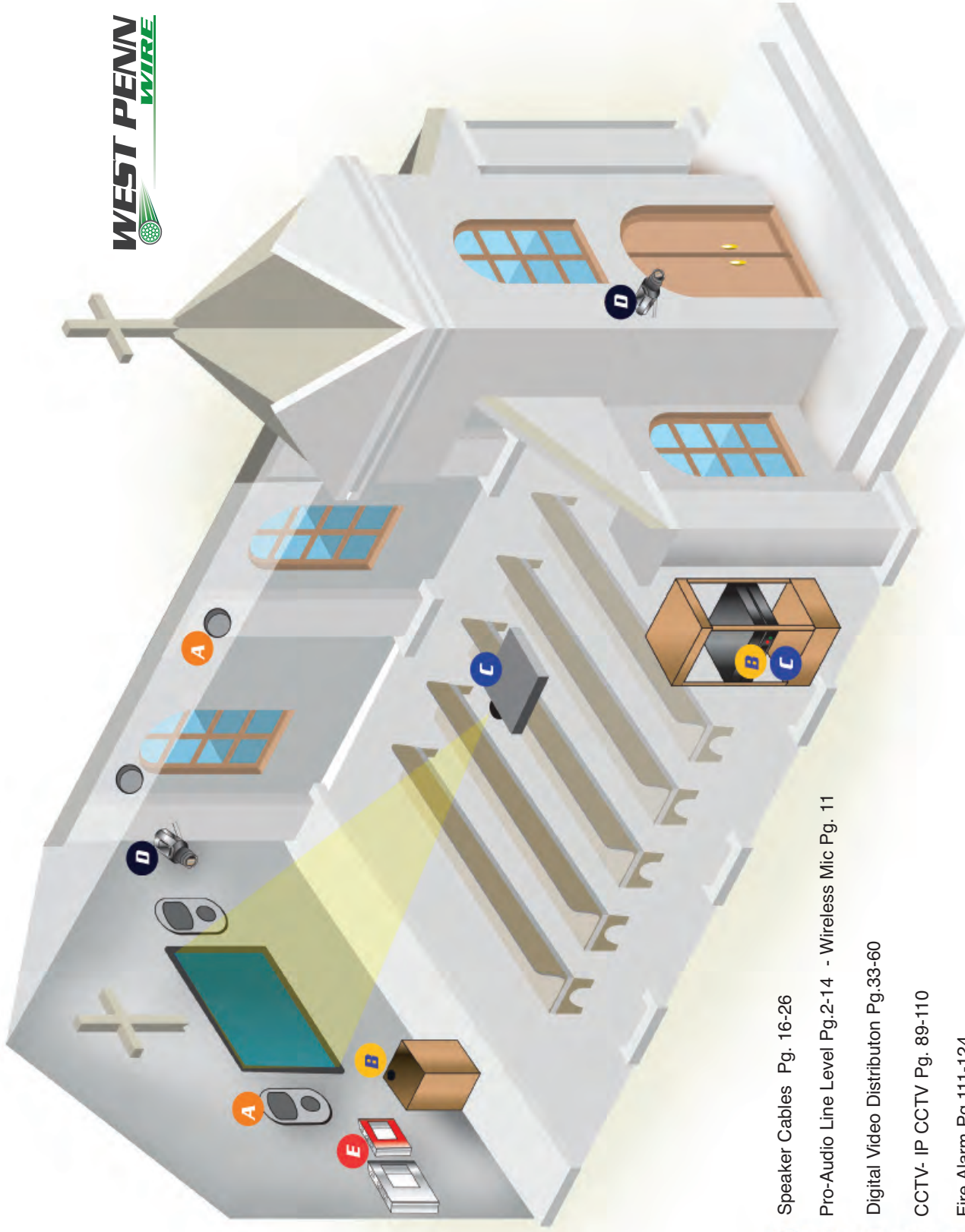
D CCTV- IP CCTV Pg. 89-110



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Boardroom | Classroom



- A** Speaker Cables Pg. 16-26
- B** Pro-Audio Line Level Pg.2-14 - Wireless Mic Pg. 11
- C** Digital Video Distributor Pg.33-60
- D** CCTV- IP CCTV Pg. 89-110
- E** Fire Alarm Pg.111-124

Aurora Multimedia:

Auroram is a manufacturer of devices for HDBaseT, digital video distribution, video scaling and switching equipment, control systems, touchpanels and much more. Our partnership with Aurora brings value to our customers with access to many of Aurora Multimedia award winning equipment.

RCI Custom:

RCI is a manufacturer of custom panels and plates. RCI and West Penn Wire offer our unique panel design program, PanelBuilder sE (PBsE). Our partnership with RCI allows our customers to design and purchase a system with cables, connectors, assemblies and plates/panels.

SignaMax:

Signamax is a manufacturer of Networking Devices that include: Ethernet switches, Media converters, Network patch panels, Network wall plates - along with a 25 year warranty. Our partnership with Signamax allows our customers to access and purchase all networking cables, connectors, panels and much more to complete a data center or an IP CCTV installation.

Other Significant Partners:

- PPC (F-CONN, ICM, PerfectPath)
 - Compression BNC, F and RCA
 - Locking HDMI Assemblies
- Wirewerks
 - Fiber Optic Assemblies
 - Fiber Optic Adapters
- Platinum Tools
 - Network Connectivity and Tools
- Holland Electronics
 - CATV Distribution Devices and Connectors

Direct Response Partner:

End to End Solutions: Bulk Cable, Cable Accessories, Distribution Equipment, Patch panels and More!

Spec Position: Ensuring that our quality products meet and exceed your job requirements

Custom Manufacturing: Choose exactly what you want and how you want it. Tracers, special print, and different colors

Available Inventory: Four Regionally located distribution centers

Quick Pay Discounts: Simply paying your bills on time can earn you deeper discounts

Incentive Programs: Project Packages with our Partners (AuroraMM, RCI, Signamax and others).

Shipping Policy: One of the most aggressive freight policies in the industry

Technical Assistance: Specialty workshops, on-line video demos, and personal office visits. Keeping you abreast on emerging technologies.

e-commerce: e-commerce makes doing business easy and convenient.

Informative Resources: Technical bulletins, e-newsletters, and product bulletins

Sales Force: Experienced, knowledgeable, and friendly sales team

Manufacturer Representatives: Reps bring updated technologies and information on future projects in your area.

Competitive Pricing: We use printable price sheets, e-commerce, and large project quotes to keep you updated on pricing.

NATIONAL ELECTRICAL CODE MARKINGS

NEC Type

Description

CM, CMR, CMP
TC

Communication Cables - Audio, Control, Speaker, and Video
Tray Cables

PLTC

Power-Limited Tray Cables

FPL, FPLR, FPLP

Power-Limited Fire Alarm Cables

NPLF, NPLFP

Non Power-Limited Fire Alarm Cables

CATV, CATVX, CATVP

Community Antenna Television Cables

CL2, CL2R, CL3, CL2P

Power-limited Cables (Classes)

OFN, OFNR, OFNP

Optical Fiber Non-Conductive

OFC, OFCR, OFCP

Optical Fiber Conductive



AUDIO

Pro-Audio

Speaker Audio

Intercom Audio

AUDIO

West Penn Wire has been manufacturing line level, speaker level and intercom products for applications in:

- > **Corporate Environments**
- > **Schools**
- > **Houses of Worship**
- > **Performing Arts Centers**
- > **Stadiums & Arenas**
- > **Many Other Settings**

Our Audio Cables use quality materials to meet the highest standards. We also provide connectors and other accessories such as Audio Panels & Assemblies.

Line Level Audio Products

Cables.....	2-11
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Assemblies.....	13
Panels and Plates.....	14

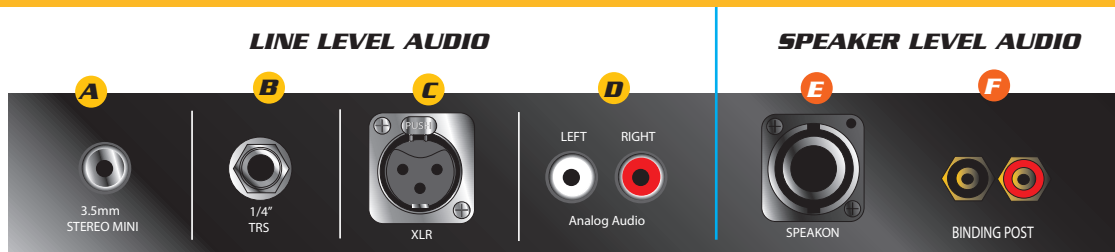
Speaker Level Audio Products

Cables.....	16-24
Connectors	25
Assemblies.....	26
Panels and Plates.....	26

Intercom Products

Cables.....	28-30
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AUDIO CABLES



- A** 3.5mm - Stereo Mini Jack or Plug
Application: Audio from computer to output - Line Level Small Size
- B** 1/4" - Phone Jack or Plug
Application: Microphone inputs - Nurse Call Systems
- C** XLR- 3 Pin Cannon "X" Series Latched Rubber Connector
Application: Most common audio connector used in Professional, Commercial and music. Line level balanced audio signalling
- D** RCA- Phono - Audio Style
Application: L/R stereo audio
- E** SPEAKON - Locking Analog Audio Speaker Connector - Neutrik Branded
- F** Binding Post (Banana Plugs) - Single Conductor Audio Connector

PRODUCT INDEX: LINE LEVEL AUDIO

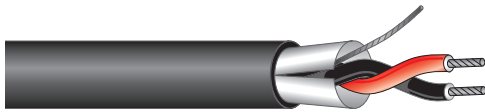
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PRODUCT INDEX: INTERCOM..... 27-32



Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Broadcast Audio
Miniature Audio / 22 Awg. Shielded**

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

Applications:

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

COMMERCIAL/ PROFESSIONAL GRADE

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shield & % Coverage Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
454	1 pair	22 AWG (7x30) 17 Ω/Mft	PP .008	Al. Foil 100% 22 Strd.	PVC .020	.135	CMR	34pf/ft* 67pf/ft**	See Color Code Chart
<p>The Aluminum polyester shield is bonded to the jacket so both can be removed with automatic stripping equipment</p>									

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

GRAY, BLACK AND WHITE ARE STANDARD STOCKED ITEMS.

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

BELDEN 9451 **WPW** 454

**Broadcast Audio
Miniature Conformable Rack Cable / 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 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 Type & Thickness	Shield & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
455	1 pair	Overcoat 22 AWG (7x30) 17 Ω/Mft	PP .008	Al. Foil 100% 22 Strd. drain	PVC .020	.138	CMR	34pf/ft* 67pf/ft**	Black

• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Broadcast Audio - Plenecon II® Extra Flex
Miniature Audio / 22 Awg. Shielded Plenum**



Rating:

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

Description:

- ASTM Tinned Copper • FEP Insulation • Overall shield 100% coverage of aluminum polyester foil with drain wire • Twisted Pair Construction • Overall Flexible Plenum Jacket

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness	Shielding & % Coverage Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches Flex Plenum				
D25454	1 pair	22 AWG (7x30) 17 Ω/Mft	FEP .007	Al. Foil 100% 22 Strd.	.130 .018	CMP	35pf/ft* 67pf/ft**	●	BLACK
The Aluminum polyester shield is bonded to the jacket so both can be removed with automatic stripping equipment									

Special Notes:

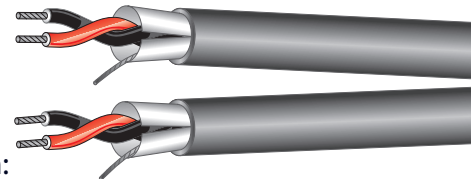
- The drain wire on these products are on the inside of the foil shield
- Minimum order quantities may apply on select jacket colors.

Color Code	
D25454	1. Black, 2. Red
JACKET: Black, Red, Gray, White	

BELDEN
9451P

WPW
D25454

**Broadcast Audio
Miniature Dual Audio / shielded**



Applications:

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

BELDEN 9451D **WPW** 210454

Description:

- ASTM Tinned Copper • Polypropylene insulation
- Each Pair shield 100% coverage of aluminum polyester foil with 22 AWG TC drain wire • Figure 8 ZIP CONSTRUCTION • Twisted pair construction
- Overall PVC jacket

Rating:

- NEC Type CMR
- (UL) - C(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	Shield & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
210454	2 pair	22 AWG (7x30) 17 Ω/Mft	PP .008	Each Pair Al. Foil 100% 22 Strd. drain	PVC .020	.135 x .280	CMR	34pf/ft* 67pf/ft**	● Gray

Color Code	
210454	1. Black, Red 2. Black, White
JACKET: Gray	

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

Special Notes:

- The Aluminum polyester foil is bonded to the jacket- 210454 only
- 210454 Overall jacket is Gray with one channel imprinted for identification



**Professional Audio
Twisted Pair / Overall Shielded**

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

Applications:

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

BROADCAST QUALITY

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shield & % Coverage Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
77291	1 Pair	22 AWG (7x30) 17 Ω/Mft	PE .016	Al. Foil 100% 22 Strd.	PVC .025	.175	CM	24pf/ft* 47pf/ft**	Gray
77292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	PE .016	Al. Foil 100% 20 Strd.	PVC .028	.204	CM	27pf/ft* 49pf/ft**	Gray
77293	1 Pair	18 AWG (16x30) 6.2 Ω/Mft	PE .018	100% Al. Foil 20 Strd.	PVC .028	.222	CM	24pf/ft* 44pf/ft**	Gray
77294	1 Pair	16 AWG (19x29) 4.2 Ω/Mft	PE .032	Al. Foil 100% 18 Strd.	PVC .032	.315	CL2	23pf/ft* 44pf/ft**	Gray
 77295	1 Pair	14 AWG (19x27) 2.7 Ω/Mft	PE .032	Al. Foil 100% 16 Strd.	PVC .035	.355	CL2	24pf/ft* 47pf/ft**	Gray
77510†	2 Pair	22 AWG (7x30) 17 Ω/Mft	PP .008	Ind. Shielded Al. Foil 100% with 1 drain wire	PVC .020	.189	CM	35pf/ft* 62pf/ft**	Gray

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

Special Notes:

- PE- Polyethylene
- PP- Polypropylene

BELDEN	WPW
8761	77291
8762	77292
8760	77293
8723	77510

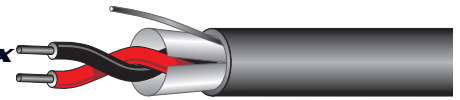
Color Code		
Catalog No.	77291, 77292, 77293, 77294, 77295	77510
Primary Color Code	1. Black, 2. Clear	1. Black-Red, 2.White-Green
	JACKET: Gray	JACKET: Gray

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Professional Audio Plenum Cable
Twisted Pair / Overall Shielded - Plenecon II® Extra Flex



Applications:

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

BROADCAST QUALITY



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

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shield & Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
D25291	1 Pair	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100% 24 Strd.	Flexible Plenum .017	.134	CMP	25 pf/ft* 45 pf/ft **	● Gray
 D25292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	Teflon .010	Al. Foil 100% 22 Strd.	Flexible Plenum .017	.148	CMP	27 pf/ft* 49 pf/ft **	● Gray
D25293	1 Pair	18 AWG (7x26) 6.6 Ω/Mft	Teflon .010	Al. Foil 100% 22 Strd.	Flexible Plenum .017	.168	CMP	30 pf/ft* 54 pf/ft **	● Gray
 D25294	1 Pair	16 AWG (19x29) 4.4 Ω/Mft	Teflon .010	Al. Foil 100% 22 Strd.	Flexible Plenum .017	.188	CMP	36 pf/ft* 65 pf/ft **	● Gray

Color Code	
Pair No.	Colors
1	Black/ Red
JACKET: Gray	


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

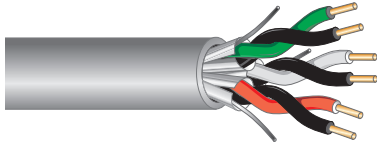
BELDEN	WPW
82761	D25291
82760	D25293

Special Notes:

- Teflon®- Dupont Tradename for FEP-Fluorinated Ethylene Propylene

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

 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
Multiple Pair 22AWG / Each Pair Shielded**

Description:

- ASTM Tinned Copper • Polyolefin insulation • Each pair shielded 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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

Applications:


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

Standard spool size 1000ft.

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

Special Notes:

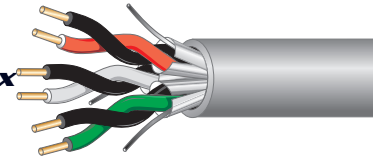
- Selected Indoor/Outdoor Aquaseal Water Resistant* Versions available - See Aquaseal Section or Pg.9
- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord

 Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Professional Audio Plenum Cable
Multiple Pair / Individually Shielded - Plenecon II® Extra Flex



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 Type & Thickness	Shield & Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
D25430	2	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Each Pair Al. Foil 100%	Flex Plenum .017	.218	CMP	25 pf/ft* 45 pf/ft**	Gray
 D25431	3	22AWG (7x30) 17 Ω/Mft	Teflon .010	Each Pair Al. Foil 100%	Flex Plenum .017	.232	CMP	25 pf/ft* 45 pf/ft**	Gray
D25439	4	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Each Pair Al. Foil 100%	Flex Plenum .017	.256	CMP	25 pf/ft* 45 pf/ft**	Gray
 D25432	6	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Each Pair Al. Foil 100%	Flex Plenum .017	.304	CMP	25 pf/ft* 45 pf/ft**	Gray
D25510‡	2	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Each Pair Al. Foil 100%	Flex Plenum .017	.214	CMP	25 pf/ft* 45 pf/ft**	Gray

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

Special 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.
- Select cables are available in our Advantage Box.

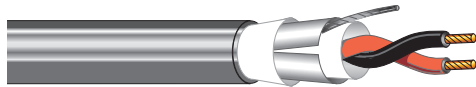
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Color Code

D25510		All Others	
Pair No.	Colors	Pair No.	Colors
1	Black/Red	1	Black/Red
2	White/Green	2	Black/White
		3	Black/Green
		4	Black/Blue
		5	Black/Yellow
		6	Black/Brown

JACKET: Gray



Aquaseal® Water Blocking Cable
1 Pair / Shielded

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



Underground- In-Conduit

Applications:

- Indoor/ Outdoor for:
- Audio Circuits
 - Low Voltage Power
 - Line Level Audio
 - Audio Rack Cabling
 - Division 28 05 13.23
 - Division 27 41 00
 - Division 27 51 00

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQC290	1 Pair	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil-100% 22 Solid	PVC .025	.200	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC291	1 Pair	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.205	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.220	CM CL3	60 pf/ft* 108 pf/ft**	Gray
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .010	Al. Foil-100% 24 Strd.	PVC .025	.257	CM/CL3 FPL	39 pf/ft* 70 pf/ft**	Gray



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



Underground - Direct Burial

Rating:

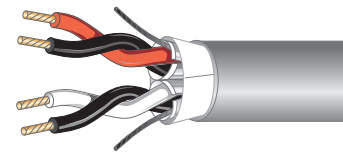
- NEC Type FPL or PLTC or CL3
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Direct Burial
- Flame Rating: UL1685

Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
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**	Black
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**	Black
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**	Black
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**	Black

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

Aquaseal® Water Blocking Cable
Multiple Pair / Each Pair Individually Shielded



Applications:

- Indoor / Outdoor for:
- Audio Circuits
 - Low Voltage Power
 - Line Level Audio
 - Line Level Snake
 - Division 28 05 13.23
 - Division 27 41 00
 - Division 27 51 00



Underground- In-Conduit

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 Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQC430	2	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.380	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC439	4	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.427	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC432	6	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.520	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC434	12	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.698	CM CL3	55 pf/ft* 99 pf/ft**	Gray

Color Code	
Colors	Colors
1. Black/Red-Red	8. Red/White-White
2. Black/White-White	9. Red/Green-Green
3. Black/Green-Green	10. Red/Blue-Blue
4. Black/Blue-Blue	11. Red/Yellow-Yellow
5. Black/Yellow-Yellow	12. Red/Brown-Brown
6. Black/Brown-Brown	
7. Black/Orange-Orange	
JACKET: Gray	

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange ripcord under jacket



**Broadcast Audio
AES/EBU Digital Audio
Cable Applications:**

Description:

- ASTM Tinned Copper • Low Loss Foam 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

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

Standard spool size 1000ft.

Non-Plenum - Individually Shielded Pairs + PVC Jacket

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
DA2401	1 Pair	24 AWG (7x32) 26 Ω/Mft	Foam PE .020	Each Pair & Overall Al. Foil 100%	PVC .030	.182	CM	12.5pf/ft* 22.5pf/ft**	Gray
DA2402	2 Pair	24 AWG (7x32) 26 Ω/Mft	Foam PE .020	Each Pair & Overall Al. Foil 100%	PVC .030	.298	CM	12.5pf/ft* 22.5pf/ft**	Gray
DA2406	6 Pair	24 AWG (7x32) 26 Ω/Mft	Foam PE .020	Each Pair & Overall Al. Foil 100%	PVC .045	.439	CM	12.5pf/ft* 22.5pf/ft**	Gray



**Broadcast Audio
AES/ EBU Digital Audio Cable - Plenum**

Plenecon II® Extra Flex

Description:

- ASTM Tinned Copper • Low Loss Foam 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 Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
DA252401	1 Pair	24 AWG (7x32) 26 Ω/Mft	Foam FEP .020	Each Pair & Overall Al. Foil 100%	Flex Plenum .018	.141	CMP	12.5pf/ft* 22.5pf/ft**	Gray, Violet
DA252402	2 Pair	24 AWG (7x32) 26 Ω/Mft	Foam FEP .020	Each Pair & Overall Al. Foil 100%	Flex Plenum .018	.238	CMP	12.5pf/ft* 22.5pf/ft**	Gray
DA252406	6 Pair	24 AWG (7x32) 26 Ω/Mft	Foam FEP .020	Each Pair & Overall Al. Foil 100%	PVDF .010	.350	CMP	12.5pf/ft* 22.5pf/ft**	Gray



Color Code

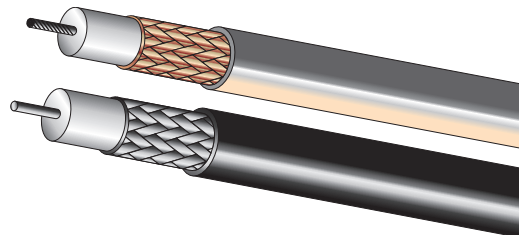
Pair Colors

Pair 1	Black/Red	Pair 4	Black/Blue
Pair 2	Black/White	Pair 5	Black/Yellow
Pair 3	Black/Green	Pair 6	Black/Brown
Jacket: Gray			

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

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

RF Transmission 50 Ohm Coaxial
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	Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches							
812 RG58A/U Type	CM	20 (19x32) Tinned Copper 8.8 Ω/M'	Gas Injected	Tinned Copper Braid 95%	PVC	.195	25 pf/ft	78%	50Ω	Black
			PE† .116							
813 RG-58/U Type	CM	20 (Solid) Tinned Copper 10.1 Ω/M'	Gas Injected	Tinned Copper Braid 95%	PVC	.195	26 pf/ft	78%	50Ω	Black
			PE† .116							
25812 RG-58/U Type Plenum	CMP	20 (19x32) Tinned Copper 8.8 Ω/M'	Foam FEP	Tinned Copper Braid 95%	Flex Plenum	.158	25 pf/ft	82%	50Ω	Ivory
			FEP .102							
810 RG-213/U Type	CM	12 (7x20) Bare Copper 1.9 Ω/M'	Gas Injected	Bare Copper Braid 95%	PVC	.405	26 pf/ft	80%	50Ω	Black
			PE† .280							
25810 RG-213/U Type Plenum	CMP	12 (7x20) Bare Copper 1.9 Ω/M'	Foam FEP	Bare Copper Braid 95%	Copolymer	.352	25 pf/ft	80%	50Ω	Natural
			FEP .280							
98G8 RG-8/U Type	CM	10AWG Solid Bare Copper .9 Ω/M'	Gas Injected	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	PVC	.405	24.5 pf/ft	84%	50Ω	Black
			PE† .286							
2598G8 RG-8/U Type Plenum	CMP	10AWG Solid Bare Copper .9 Ω/M'	Foam FEP	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	Copolymer	.360	25 pf/ft	80%	50Ω	Natural
			FEP .280							
807X RG-8X/U Type Flexible	CM	16 (19x29) Bare Copper 4.3 Ω/M'	Gas Injected	100% Bonded Bi-foil AL. + 90% Tinned Cu Braid	PVC	.242	25 pf/ft	82%	50Ω	Black
			PE† .155							

Connectors see page 87

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



Neutrik Branded



Switchcraft Branded

4 PIN XLR Style Connectors- Cable Mount	
Catalog No.	Description
CN-NC4MXB	4 Position XLR Male Black-Gold Contact
CN-NC4MXBAG	4 Position XLR Male Black-Nickel Contact
CN-NC4MX	4 Position XLR Male Nickel-Nickel Contact
CN-NC4FXB	4 Position XLR Female Black-Gold Contact
CN-NC4FXBAG	4 Position XLR Female Black-Nickel Contact
CN-NC4FX	4 Position XLR Female Nickel-Nickel Contact

5 PIN XLR Style Connectors- Cable Mount	
Catalog No.	Description
CN-NC5MXB	5 Position XLR Male Black-Gold Contact
CN-NC5MXBAG	5 Position XLR Male Black-Nickel Contact
CN-NC5MX	5 Position XLR Male Nickel-Nickel Contact
CN-NC5FXB	5 Position XLR Female Black-Gold Contact
CN-NC5FXBAG	5 Position XLR Female Black-Nickel Contact
CN-NC5FX	5 Position XLR Female Nickel-Nickel Contact

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	3.5 mm Mini Mono Plug



CN-NYS231

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
25-7290	RCA RG59/U Male Plug



CN-NYS373-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

Audio Connectors

**Line Level Audio Connectors-
Panel Mount**



CN-NC3FD-L-BAG



CN-35FFSP



CN-NYS230



CN-MX35

Panel Mount Connectors	
Catalog No.	Description
CN-342B-xx	RCA- xx: YE, WH or RD
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

**Audio Assemblies
XLR Assemblies**



CN-XPXJ-xx

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

**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-454SM-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

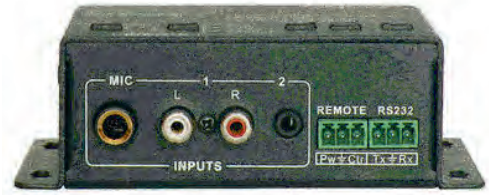


CN-454SM-xx

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

Audio Amplifier

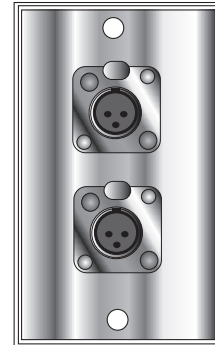
Audio Amplifier	
Catalog No.	Description
AS-AMP1	Small Digital amplifier (ClassD) with EQ control and Mic mixer Functions.



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)

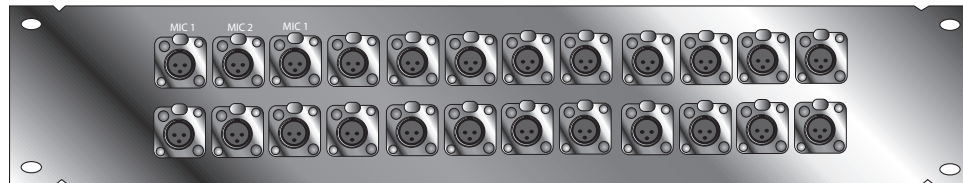
xx - Replace with:
 AC - Aluminum Clear
 AW - Aluminum White
 AB - Aluminum Black



Audio Video Custom Panels & Plates

Custom Built Panels.

Please visit: www.rcicustom.com or www.westpenn-wpw.com to download PanelBuilder sE (PBsE).



AUDIO CABLES - SPEAKER LEVEL



- E** **SPEAKON - Loudspeaker**
Application: Connection between amplifier and loudspeaker. Long wear, locking connector
- F** **Binding Post- For Banana Plugs**
Application: Commercial and Residential Speaker Connections



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• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Non-Plenum Speaker & Control Cable
Two Conductor / Unshielded**

Rating:

- NEC Type CMR or CL2R
- (UL)-C(UL) Listed SEE PG 252
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Applications:

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

Standard pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
224	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.156	CMR	20pf/ft	GY, BK, WH
225	2	16 AWG (19x29) 4.2 Ω/Mft	PP* .008	None	PVC .017	.182	CMR	22pf/ft	GY, BK, WH
226	2	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	None	PVC .017	.230	CL2R*	22pf/ft	GY, BK, WH
227	2	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	None	PVC .017	.260	CL2R*	22pf/ft	GY, BK

Rating:

- NEC Type CMP or CL2P
- (UL)-C(UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA 262

**Plenum Speaker & Control Cable
Two Conductor / Unshielded**

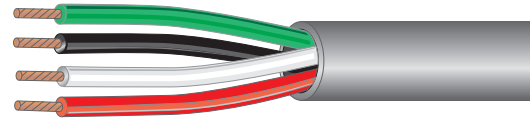
Standard pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.154	CMP	--	GY, BK, WH, YE
25225B	2	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.176	CMP	--	GY, BK, SGN
25226B	2	14 AWG (19x27) 2.7 Ω/Mft	Polymer alloy .010	None	Plenum PVC .015	.218	CL2P*	--	GY, BK
25227B	2	12 AWG (19x25) 1.7 Ω/Mft	Polymer alloy .010	None	Plenum PVC .015	.256	CL2P*	--	GY, BK

CL2R(P)* - UL Listed Only

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

**Non-Plenum Speaker & Control Cable
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

Rating:

- NEC Type CMR or CL2R
- (UL)-C(UL) Listed SEE PG 252
- 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
244	4	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.183	CMR	--	Gray
245	4	16 AWG (19x29) 4.2 Ω/Mft	PP* .009	None	PVC .017	.217	CMR	--	Gray
246	4	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	None	PVC .017	.278	CL2R*	--	Gray
248	4	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	None	PVC .017	.320	CL2R*	--	Gray

Rating:

- NEC Type CMP or CL2P
- (UL)-C(UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA 262

**Plenum Speaker & Control Cable
Four Conductor / Unshielded**

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.180	CMP	--	Gray
25245B	4	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.208	CMP	--	Gray
25246B	4	14 AWG (19x27) 2.7 Ω/Mft	Polymer alloy .010	None	Plenum PVC .015	.260	CL2P*	--	Gray
25248B	4	12 AWG (19x25) 1.7 Ω/Mft	Polymer alloy .010	None	Plenum PVC .015	.304	CL2P*	--	Gray

- 500ft LENGTHS MAYBE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

CL2R(P)* - UL Listed Only



Aquaseal® Water Blocking Cable
1 Pair / Unshielded

Applications:

- Indoor/ Outdoor 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 • PVC Insulation • Short overall twist construction • Unshielded • Waterblocked Construction
- Overall Sunlight/ Moisture Resistant PVC Jacket

Rating:

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



Underground- In-Conduit

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	PVC .010	None	PVC .025	.218	CM CL3/FPL	30pf/ft	Gray
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010	None	PVC .025	.242	CM CL3/FPL	35pf/ft	Gray

Color Code	
All Cables	1. Black, 2. Red
	JACKET: Gray

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

Aquaseal® Water Blocking Cable
Multi-Conductor/ 300 Volts Power-Limited



Applications:

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



Underground - Direct Burial

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 pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding	Jacket Type & Thickness		Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches			Inches	Inches				
AQ224	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .015	Nylon .005	None	.035	.270	CL3/FPL PLTC	25 pf/ft*	● Black	
AQ244	4	18 AWG (7x26) 6.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.327	CL3/FPL PLTC	25 pf/ft*	● Black	
AQ225	1 Pair	16 AWG (7x24) 4.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.295	CL3/FPL PLTC	28 pf/ft*	● Black	
AQ245	4	16 AWG (7x24) 4.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.355	CL3/FPL PLTC	28 pf/ft*	● Black	
AQ226	1 Pair	14 AWG (19x27) 2.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.310	CL3/FPL PLTC	32 pf/ft*	● Black	
AQ246	4	14 AWG (19x27) 2.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.395	CL3/FPL PLTC	32 pf/ft*	● Black	
AQ227	1 Pair	12 AWG (19x25) 1.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.340	CL3/FPL PLTC	36 pf/ft*	● Black	

Color Code	
All Cables	1. Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Black

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange ripcord under jacket



Home Speaker Cable

Two Conductor / Unshielded

Description:

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

Rating:



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

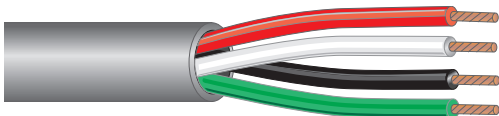
Applications:

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

Standard pool size 1000ft.

More Flexible

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 HA225	2	16 AWG (65x34) BC 4.02 Ω/Mft	PP* .015	None	PVC .025	.199	CM	--	○ ● White, Black
 HA226	2	14 AWG (65x32) BC 2.58 Ω/Mft	PP* .015	None	PVC .025	.250	CL3	--	○ ● White, Black
HA227	2	12 AWG (65x30) BC 1.7 Ω/Mft	PP* .015	None	PVC .025	.280	CL3	--	● Black
HA210	2	10 AWG (65x28) BC 1.1 Ω/Mft	PP* .012	None	PVC .020	.280	CL2	--	● Gray



Home Speaker Cable

Four Conductor / Unshielded

Description:



- ASTM Bare Copper • Polypropylene insulation • Cabled Construction
- Overall PVC jacket


Rating:

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

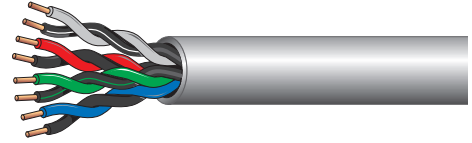
Standard pool size 1000ft.

More Flexible

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 HA245	4	16 AWG (65x34) BC 4.02 Ω/Mft	PP* .015	None	PVC .025	.242	CM	--	○ White
 HA246	4	14 AWG (65x32) BC 2.58 Ω/Mft	PP* .015	None	PVC .025	.307	CL3	--	○ White

 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Communication & Control Cable
18 AWG Multiple Pair/ Unshielded
featuring the PERFECT PAIR[®]



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 • Polypropylene insulation • 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	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
751	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.257	CMR	22 pf/ft*	● Gray
752	3	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.275	CMR	22 pf/ft*	● Gray

Special Notes:

- Cables are packaged in our Advantage Box.
- Orange Rip Cord

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

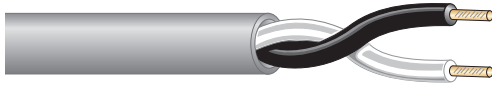
Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25751B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.253	CMP	--	● Gray
25752B	3	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.275	CMP	--	● Gray
25753B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Plenum PVC .015	.304	CMP	--	● Gray

Special Notes:

- Plenum Installation Precautions see Technical Reference Section Page 254
- Cables are packaged in our Advantage Box.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.





**Communication & Control Cable
Cluster Speaker Cable / Twisted Pair
8 and 10 AWG.**

Description:

- ASTM Bare Copper • Polypropylene 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

Applications:

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

Standard pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
C210	2	10 AWG (65x28) 1.10 Ω/Mft	PVC .020 Nylon .005	None	.047	.357	Tray Cable TC	--	Gray
HA210	2	10 AWG (65x28) BC 1.1 Ω/Mft	PP* .012	None	PVC .020	.280	CL2	--	Gray
C208	2	8 AWG (65x26) .70Ω/Mft	PVC .032 Nylon .006	None	.062	.498	Tray Cable TC	--	Gray

Color Code	
C210	1. Black, 2. White
C208	JACKET: Gray

Description:

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

Ratings:

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

Applications:

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

Standard pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25210	2	10 AWG (65x28) 1.10 Ω/Mft	.012	None	Plenum PVC .015	.275	CL2P	--	Ivory

Color Code	
	1. Black, 2. White
Color Code	HA210 JACKET: Gray 25210 JACKET: Ivory

Communication & Control Cable
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 • PVC 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	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 C205	1	16 AWG (19x29) 4.2 Ω/Mft	PVC .015 Nylon .005	None	None	.194	CL2	--	Unjacketed
 C206	1	14 AWG (41x30) 2.7 Ω/Mft	PVC .015 Nylon .005	None	None	.222	CL2	--	Unjacketed
C207	1	12 AWG (65x30) 1.7 Ω/Mft	PVC .015 Nylon .005	None	None	.260	CL2	--	Unjacketed

Color Code	
All Cables	1. Black, 2. White
	JACKET: Unjacketed

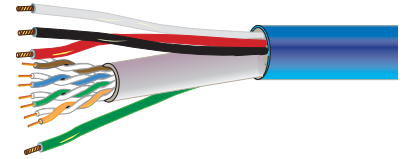


• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Keypad with Volume Controls

Description:

- ASTM Bare Copper • Polyolefin Insulation • Composite cable construction • 4 Pair 24 Awg. Category 5E cable + 4 conductor 16 AWG • Overall Blue PVC jacket



Rating:

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

Standard spool size 1000ft.



Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
HA1624	4 Cond.	16 AWG (65x34)	.015	None	PVC .020	.385	CM	--	Blue
	4 Pair	24 AWG Solid	.008	None				14 pf/ft*	

Color Code	
4 Cond.	1. Black, 2. Red, 3. White, 4. Green
4 Pair	1. Blue/ White-Blue, 2. Orange/ White-Orange, 3.Green/ White-Green, 4. Brown/ White-Brown

Liberty

AUDIOCAT-HT

WPW

HA1624



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**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



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



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



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

**Speaker Level Audio Connectors
Panel Mount**

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



CN-NL4MPST

Speaker Level Audio Assemblies

Speakon to Speakon Assemblies

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



CN-SS16-xx

Speakon to Banana Plug Assemblies

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

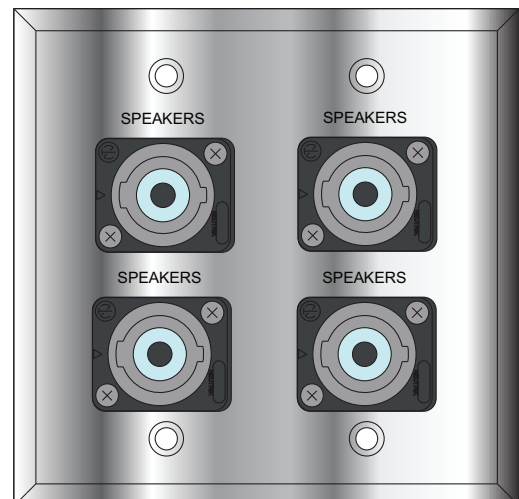
CN-1RUSPK12TB	1 RU - 12 Speakon Terminal Block Panel
CN-1RUSPK16TB	1 RU - 16 Speakon Terminal Block Panel
CN-1RUSPK12	1 RU - 12 Speakon Solder Panel
CN-1RUSPK16	1 RU - 16 Speakon Solder Panel



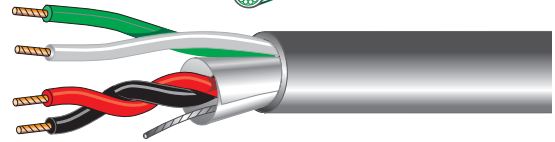
Speaker Level Wall Plates

Speakon Audio Wall Plates

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



**Communication & Control Cable
Sound and Audio / Special Cable**



Applications:

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




Description:

- ASTM Bare Copper • Polypropylene 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 pool size 1000ft.

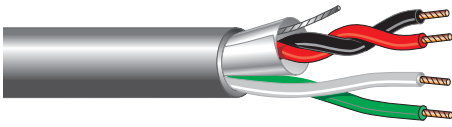
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.157	CMR	34 pf/ft* 67pf/ft**	Gray
 352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.162	CMR	35 pf/ft* 69 pf/ft**	Gray
355	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .007	Al. Foil 100% 22 Solid	PVC .017	.150	CMR	34 pf/ft* 67pf/ft**	Gray
356	4 (2 Shld) (2 Unshld)	20 (7x28) 18 (7x26)	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.196	CMR	40 pf/ft* 79 pf/ft**	Gray
357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.162	CMR	35 pf/ft* 69 pf/ft**	Gray
358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.182	CMR	40 pf/ft* 79 pf/ft**	Gray
359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.186	CMR	40 pf/ft* 79 pf/ft**	Gray
360	4 (2 Shld) (2 Unshld)	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.205	CMR	53 pf/ft* 104 pf/ft**	Gray
 369	6 (2 Shld) (4 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.170	CMR	34 pf/ft* 67 pf/ft**	Gray

Special Notes:

- Selected Plenum Versions see pages 33
- Selected Indoor/Outdoor Aquaseal Water Resistant* Versions see Aquaseal Section pg.44
- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- PP* - Polypropylene
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Color Code		
Catalog Number	351, 352, 355, 356, 357, 358, 359, 360	369
Primary Color Code	Shielded: Black, Red Unshielded: White, Green	Shld:1. Black, 2. Red Unshld: 3. White,4. Green, 5. Brown, 6. Blue
JACKET: GY-Gray		



**Plenum Communication & Control Cable
Combination/ Shielded and Unshielded
Plenecon II® Extra Flexible**

Description:

- ASTM Bare Copper • Polymer Alloy Insulation • Cabled construction • Unshielded/Shielded coverage 100% aluminum polyester foil with TC drain wire • Overall plenum PVC jacket

Rating:

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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25352B	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Plenum PVC .015	.156	CMP	55 pf/ft* 99 pf/ft**	Gray
25355B	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 22 Solid	Plenum PVC .015	.145	CMP	54 pf/ft* 97 pf/ft**	GY, YE
25357B	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Plenum PVC .015	.154	CMP	55 pf/ft* 99 pf/ft**	GY, BL
25358B	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	Polymer alloy .008	Al. Foil - 100% Strd. Drain	Plenum PVC .015	.176	CMP	60 pf/ft* 108 pf/ft**	Gray
25359B	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	Polymer alloy .008	Al. Foil - 100% Strd. Drain	Plenum PVC .015	.180	CMP	60 pf/ft* 108 pf/ft**	Gray
25372B	5 (3 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 22 Solid	Plenum PVC .015	.172	CMP	54 pf/ft* 97 pf/ft**	Gray

Color Code		
Catalog No.	All Cables	25372B
Primary Color Code	1. Black, 2. Red 3.White, 4. Green	Under Shield: 1.Black, 2.Red, 3.White, Outside Shield: 1.Black, 2.Green
JACKET: GY-Gray, BL-Blue		

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

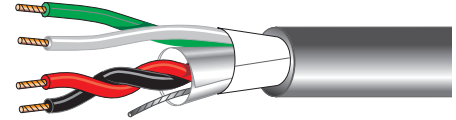
Special Notes:

- Cables are packaged in our Advantage Box.
- Plenum Installation Precautions see Technical Reference
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Aquaseal® Water Blocking Cable
Combination / Shielded and Unshielded**



Applications:

- Indoor for: Indoor/Outdoor
- 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



Underground- In-Conduit

Standard spool size 1000ft.

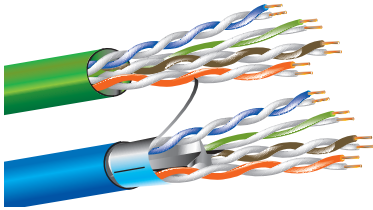
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 22 Solid	PVC .025	.215	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil- 100% 24 Strd.	PVC .025	.230	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC355	4 (2 Shld) (2 Unshld)	22 AWG. Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 22 Solid	PVC .025	.220	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil- 100% 24 Strd.	PVC .025	.235	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC369	6 (2 Shld) (4 Unshld)	22 AWG. Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Solid	PVC .025	.240	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC373	6 (1 Pr. Shld) (2 Pr. Unsh)	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.260	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.266	CM CL3	60 pf/ft* 108 pf/ft**	Gray
AQC358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.260	CM CL3	60 pf/ft* 108 pf/ft**	Gray

Color Code			
Catalog No.	AQC351, AQC352, AQC358, AQC355, AQC357, AQC359	AQC369	AQC373
Primary Color Code	Shielded: Black, Red Unshielded: White, Green	Black, Red, White, Green, Brown, Blue	Shielded: Black, Red Unshielded: Black, Green & Black, White
JACKET: Gray			

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket



Category 5E UTP and F/UTP

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	Jacket Color
4245	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT, SGN
254245	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	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT, SGN
M57562	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.267	Armored Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245-OSP	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.255	Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245-IO	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant Polyolefin	.251	Indoor/Outdoor CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245F-GY	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	 GRAY
4245F-BL									 BLUE
254245F-GY	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	 GRAY
254245F-BL									 BLUE

• CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Modular Plugs
Category 5E



CATEGORY 5E MODULAR PLUGS	
Catalog No.	Description
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
32-5998UL	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

- Meet or exceed TIA-568-C.2
- Supports Cat 5E 100 meter channel performance
- Overall solid shielding design
- Solid or Stranded wires
- EZ Termination
- Termination Tool: TL-EZRJ45PROCT

Division 27 51 00 Distributed AV Communication Systems

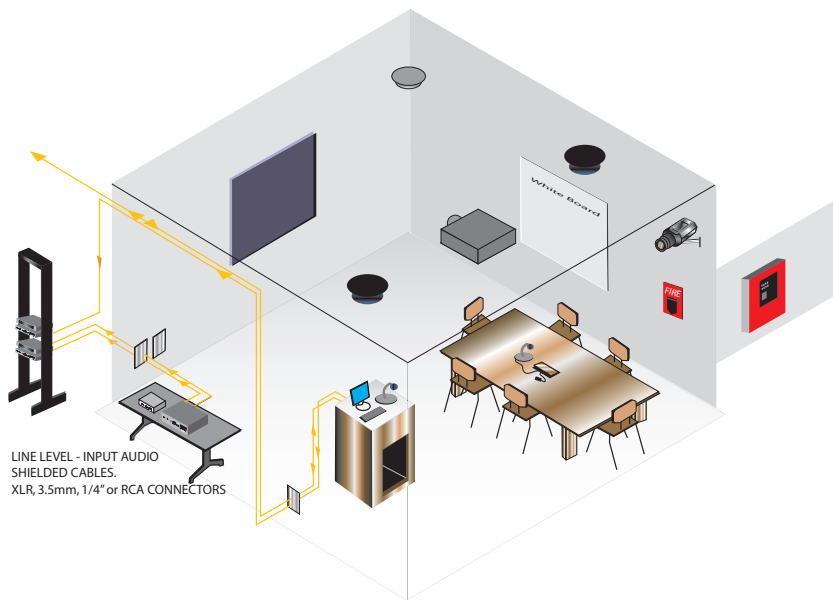
Division 27 51 13: Paging Systems
 Division 27 51 16: Public Address & Mass Notification
 Division 27 51 19: Sound Masking

For more information, please visit www.westpenn-wpw.com or contact our Engineering Office: 800-245-4964

DIVISION 27 51 00- AUDIO LINE LEVEL	
Catalog No.	Description
77291	1Pr. 22AWG Shielded High Perf. CMR
D25291	1Pr. 22AWG Shielded High Perf. CMP
AQC291	1Pr. 22AWG Shielded Indoor/Outdoor CM
77292	1Pr. 20AWG Shielded High Perf. CMR
D25292	1Pr. 20AWG Shielded High Perf. CMP
AQC292	1Pr. 20AWG Shielded Indoor/Outdoor CM
77293	1Pr. 18AWG Shielded High Perf. CMR
D25293	1Pr. 18AWG Shielded High Perf. CMP
AQC293	1Pr. 18AWG Shielded Indoor/Outdoor CM
454	1Pr. 22AWG Shielded High Perf. CMR
D25454	1Pr. 22AWG Shielded High Perf. CMP
210454	2Pr. 22AWG Shielded High Perf. CMP

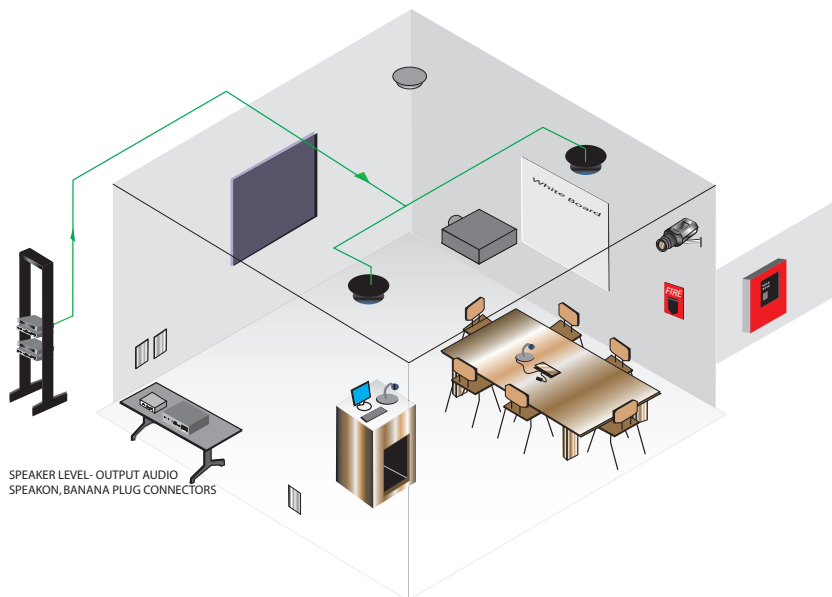
DIVISION 27 51 00- INTERCOM	
Catalog No.	Description
355	4 Cond. (2 Shld/2Unshld) 22AWG Solid CMR
25355B	4 Cond. (2 Shld/2Unshld) 22AWG Solid CMP
AQC355	4 Cond. (2 Shld/2Unshld) 22AWG Solid CM Indoor/Out
357	4 Cond. (2 Shld/2Unshld) 22AWG Strd CMR
25357B	4 Cond. (2 Shld/2Unshld) 22AWG Strd CMP
AQC357	4 Cond. (2 Shld/2Unshld) 22AWG Strd CM Indoor/Out
359	4 Cond. (2 Shld/2Unshld) 20AWG Strd CMR
25359B	4 Cond. (2 Shld/2Unshld) 20AWG Strd CMP
AQC359	4 Cond. (2 Shld/2Unshld) 20AWG Strd CM Indoor/Out
4245	4 Pair Cat5E UTP CMR
254245	4 Pair Cat5E UTP CMP

DIVISION 27 51 00- AUDIO SPEAKER LEVEL	
Catalog No.	Description
224	18/2 Speaker CMR
25224B	18/2 Speaker CMP
AQC224	18/2 Speaker CM Indoor/Outdoor
225	18/2 Speaker CMP
25225B	18/2 Speaker CMP
AQC225	18/2 Speaker CM Indoor/Outdoor
226	16/2 Speaker CMR
25226B	16/2 Speaker CMP
AQC226	14/2 Speaker CL3 Direct Burial
227	14/2 Speaker CL2P
25227B	12/2 Speaker CL2R
AQC227	12/2 Speaker CL3 Direct Burial
HA210	10/2 Speaker CL2
25210	10/2 Speaker CL2P
C210	10/2 Speaker TC
C208	8/2 Speaker TC



LINE LEVEL AUDIO

Line Level Audio or Input Audio requires a shield to protect against unwanted noise. The cable is constructed to provide a low capacitance and frequency response. The Impedance of a Line Level Audio cables is near 60 ohms. Connectors primarily used for line level audio are: XLR, 3.5mm Stereo Mini, 1/4" TRS or TS, and RCA. Input Audio: Audio coming from a source. This source may be a Microphone, Stereo, Laptop or other devices.



SPEAKER LEVEL AUDIO

Speaker Level Audio or Output Audio does not require a shield or external noise protection. Speaker Level is outputting audio and only requires enough power to feed the sound through the loadspeaker. The AWG size is important to the distance that is required to feed the loadspeaker. Connectors primarily used for speaker level audio are: SPEAKON, Binding Post and Banana Plugs



VIDEO

Digital Video

Analog Pro-Video

CATV/MATV

RF 50 ohm Coax

VIDEO

West Penn Wire provides video cables for a variety of applications, including:

- > Coaxial Video Transmission (HD-SDI, CATV/DBS)
- > Twisted Pair Video Transmission (HDBaseT, IP AV Networks)
- > Fiber Optic Video Transmission (IPBaseT)

Signaling can be accomplished using coaxial cables or twisted pair networking cables. Transmission, such as HDBaseT, has become vital to corporate, education and entertainment applications. To provide end-to-end HDBaseT solutions, West Penn Wire also provides IPAV offers streaming products, as well as fiber optic-based IPBaseT, and partners with Aurora Multimedia on select projects.

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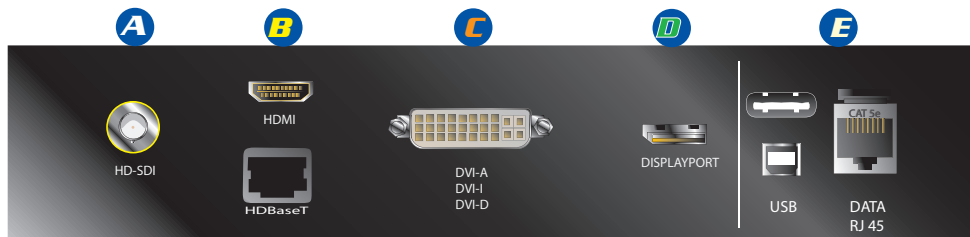
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DIGITAL VIDEO PRODUCTS



- A** **SDI or HD-SDI: Serial Digital Interface:** Set of video standards defined by the SMPTE. SDI is for serial transmission of video and audio over standard RG59/ or RG6/U.
Connector: 75 Ω BNC
- B** **HDMI: High Definition Multimedia Interface:** The signaling process TMDS (Transition-Minimized Differential Signalling) creates three channels digital (RGB). Other signals carry digital audio over the same link.
Connector: 19 pin - Various Styles and Dimensions
HDBaseT: Digital Video/Audio, 100BaseT LAN, IR/Control and Power over a single Category Cable.
- C** **DVI: Digital Visual Interface:** Uses the same process of video signaling as HDMI. DVI does not carry digital video over the same link.
DVI-A - Analog DVI-I - Analog and Digital DVI-D - Digital
- D** **DisplayPort:** A royalty free digital Interface. This is a lower cost alternative to HDMI. This format carries digital video as well as digital audio.
Connector: 20 pin - Similar to a HDMI Type A and C
- E** **USB: Universal Serial Bus -** USB connects computer peripherals such as mice, keyboards, cameras, printers, flash & hard drives using USB cables and Extenders
Connectors: Type A and B, Micro A and B, others
i-Extenders: i-Pad®, i-Pod® Products

Features:

- HDBaseT Certified Cables and Connections
- HDBaseT Technologies with 1080p full resolution up to 600ft from TX to RX.
- Most HDBaseT Wallplate configurations in the industry. Nine total wall plate designs.
- Most HDBaseT Receiving Devices with multiple capabilities.
- Industries BEST AV Tuner with 4K capabilities.
- HDMI Digital Ribbon Fiber Optic extension cables.



Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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Applications:

- Digital Video-SDI
- AES3id & SPDIF Digital Audio
- CCTV
- CATV

Broadcast Video Cable

Pro-Video/ Serial Digital SDI

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.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
						Inches				
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	Black ●
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	Black ●
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	Black ●
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	Ivory ●
AQC819	CM	20 AWG (Solid) BC 10Ω/M'	Gas Injected PE+ .142	Waterblock tape + Bifoil 100% TC Braid 95	Sunlight Resistant PVC	.242	16.2 pf/ft	82%	75Ω	Black ●
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	Black ●
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	Ivory ●

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	--

SDI JACKET COLORS

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



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Video Connectors

**75 Ohm BNC Compression Style-Double Bubble
High Definition**



BNC Style Compression- 360 Double Bubble	
Catalog No.	Description
CN-DB15BNCHD	MiniMax 25 Awg. Cables- Purple Band
CN-DB59BNCHD	RG59/U - Red Band
CN-DB6BNCHD	RG6/U - Green Band
CN-DB6BNCPL2	RG6/U Plenum

TL-CPLRBC- 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

**Pro-Audio/Video and Digital Video
Cable Assemblies:**

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	



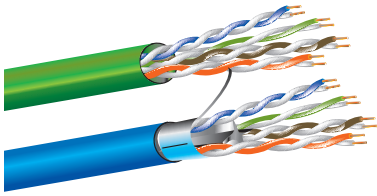
HD-SDI /HDMI Converters

DigitalXtreme HDMI / HD-SDI Converters	
Catalog No.	Description
DXE-STH	3Ghz HD-SDI to HDMI Converter
DXE-HTS	HDMI to 3Ghz HD-SDI Converter



Belden to West Penn SDI cross-reference:

Belden	West Penn
1505A	819
1506A	25819
1694A	6350
1695A	256350



Category 5E UTP and F/UTP

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4245	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT, SGN
254245	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	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT, SGN
M57562	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.267	Armored Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245-OSP	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.255	Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245-IO	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant Polyolefin	.251	Indoor/Outdoor CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4245F-GY	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	 GRAY
4245F-BL									 BLUE
254245F-GY	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	 GRAY
254245F-BL									 BLUE

Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
4245	VT	1000	4245VT1000

Modular Plugs
Category 5E

CATEGORY 5E MODULAR PLUGS	
Catalog No.	Description
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
32-5998UL	8 POSITION CAT 5E MODULAR PLUG
TL-EZRJ45PROCT	EZ RATCH MODULAR PLUG CRIMP TOOL
32-1900-xx	BOOTS: xx: WH, BK, BU, RD, GY, OR, YE, GN



- Meet or exceed TIA-568-C.2
- Supports Cat 5E 100 meter channel performance
- Overall solid shielding design
- Solid or Stranded wires
- EZ Termination
- Termination Tool: TL-EZRJ45PROCT

RJ45 Jacks

Category 5E



CATEGORY 5E JACKS	
Catalog No.	Description
KJ458MT-C5E-xx	SignaMax RJ45 Cat5E Jack- xx: WH, BK, BL, GY, GN, OR, RD, YE
KJS458TL-C5E	SignaMax RJ45 Cat5E Jack - F/UTP Shielded - Tool less
CATEGORY 5E FEED THRU ADAPTERS	
KRJ45/5S	Category 5E Feed Thru Adapter UTP
KRJ45/5S-SH	Category 5E Feed Thru Adapter F/UTP Shielded

Patch Cables

Category 5E

CATEGORY 5E UTP ASSEMBLIES - SNAG-PROOF

Catalog No.	Length	Jacket Colors
C5EC-114CC-3	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C5EC-114CC-6	6 Foot	
C5EC-114CC-10	10 Foot	
C5EC-114CC-15	15 Foot	
C5EC-114CC-20	20 Foot	
C5EC-114CC-25	25 Foot	



REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED -RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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CATEGORY 5E F/UTP ASSEMBLIES

Catalog No.	Length	Jacket Colors
C5ECS-314GY-3	3 Foot	SIGNAMAX Gray
C5ECS-314GY-6	6 Foot	
C5ECS-314GY-10	10 Foot	
C5ECS-314GY15	15 Foot	
C5ECS-314GY-20	20 Foot	
C5ECS-314GY-25	25 Foot	

Patch Panels

Category 5E

CATEGORY 5E PATCH PANELS	
Catalog No.	Description
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
24458S-C5E	24 PORT CAT 5E Shielded F/UTP PATCH PANEL 1.75 - 1RU
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



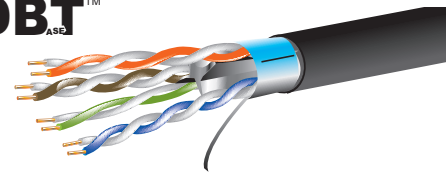
Installation Tools

NETWORK CONNECTIVITY TOOLS

Catalog No.	Description
TL-110/66	110 PUNCHDOWN TOOL
TL-3650	110 ADJUSTABLE PUNCHDOWN TOOL
TRJ45P	RATCHET TYPE RJ45 CRIMP TOOL
TL-EZRJ45PROCT	EZ RATCH MODULAR PLUG CRIMP TOOL
KJMT-8600	SIGNAMAX- MULTIPAIR PUNCHDOWN TOOL

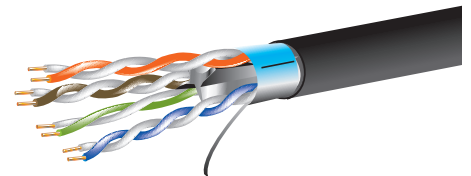
Cables

Category 6A and Category 6



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

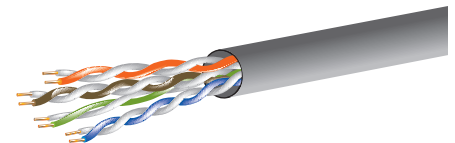
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4246AF	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	F/UTP	PVC	.303	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω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



Category 6 F/UTP- Test to 550Mhz



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



Category 6 UTP

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4246	4 Pair	23 AWG Solid 24 Ω/Mft	Polyolefin	None UTP	PVC	.220	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● ● ● ● ● ● ● ● GY, BL, WH, BK, GN, OR, YE, PK, RD, VT
254246	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	● ● ● ● ● ● ● ● GY, BL, WH, BK, GN, OR, YE, PK, RD, VT

OTHER CAT 6 CABLES - See Network Section

4246-OSP - CAT 6 OUTDOOR

4246-IO- CAT 6 INDOOR/ OUTDOOR CM RATED

Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
4246	RD	1000	4246RD1000

**Modular Plugs
Category 6A and Category 6**



CN-B0051



32-6EZP



TL-EZRJ45PROCT



900020



12515C



TL-CATWIREST



KJS458TL-C6A



KJ458MT-C6C-xx

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	
32-6EZP	Cat6 UTP EZ Plug Modular Plug
32-6198UL	Cat6 UTP Modular Plug with Load Bar
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

**Plug Installation Tools
Category 6A and Category 6**

INSTALLATION TOOLS	
Catalog No.	Description
TL-EZRJ45PROCT	EZ RATCH MODULAR PLUG CRIMP TOOL
900020	Modular Crimp Tool With External Ground Crimping Mechanism 1 Step for CN-111S90H34 Cat6 F/UTP Plugs
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

**RJ45 Jacks
Category 6A and Category 6**

CATEGORY 6A F/UTP Jacks	
Catalog No.	Description
KJS458TL-C6A	SignaMax RJ45 Cat6A F/UTP- 10G - Metal - Tool less
KJS458MT-C6A	SignaMax RJ45 Cat6A F/UTP- 10G - Metal MT Style Puchdown
CATEGORY 6 F/UTP Jacks	
KJS458TL-C6C	SignaMax RJ45 Cat6 F/UTP- Metal - Tool less
CATEGORY 6 UTP Jacks	
KJ458MT-C6C	SignaMax Cat6 Jack- xx: 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

Patch Cables

Category 6A and Category 6

Category 6A - Only offered in F/UTP Version

CAT6A F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6AS-314GY-3FB	3 Foot	SIGNAMAX Color: Gray
C6AS-314GY-7FB	7 Foot	
C6AS-314GY-10FB	10 Foot	
C6AS-314GY-15FB	15 Foot	
C6AS-314GY-20FB	20 Foot	
C6AS-314GY-25FB	25 Foot	



CAT6 F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6CS-314GY-3FB	3 Foot	SIGNAMAX Color: Gray
C6CS-314GY-7FB	7 Foot	
C6CS-314GY-10FB	10 Foot	
C6CS-314GY-15FB	15 Foot	
C6CS-314GY-20FB	20 Foot	
C6CS-314GY-25FB	25 Foot	



Category 6

CATEGORY 6 UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6C-114CC-3FB	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C6C-114CC-7FB	7 Foot	
C6C-114CC-10FB	10 Foot	
C6C-114CC-15FB	15 Foot	
C6C-114CC-20FB	20 Foot	
C6C-114CC-25FB	25 Foot	



REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED -RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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Patch Panels
Category 6A



CATEGORY 6A UTP PATCH PANELS	
Catalog No.	Description
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	
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	
24458S-C6A	24 PORT CAT6A F/UTP 10G - 1.75" - 1RU
48458S-C6A	48 PORT CAT6A F/UTP 10G - 3.50" - 2RU



Patch Panels
Category 6

CATEGORY 6 UTP PATCH PANELS	
Catalog No.	Description
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 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	
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



Cable Management

HINGED WALL MOUNT BRACKETS	
Catalog No.	Description
HWB-175	1 RMS 1.75"H x 6" D
HWB-350	2 RMS 3.50"H x 6" D
HWB-525	3 RMS 5.25"H x 6" D

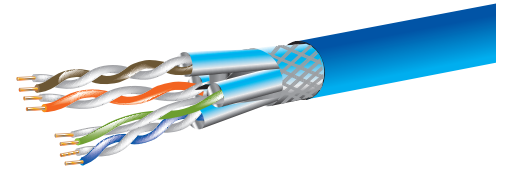
DISTRIBUTION RINGS	
Catalog No.	Description
CMP-175-A	PANEL W 5 1.75"X3" RINGS 1 RMS
CMP-350-A	PANEL W 5 3"X3" RINGS 2 RMS
CMP-175-AD	PANEL W 5 1.75"X3" RINGS 1 RMS - 1.5"Wx4"H WIRING DUCT
CMP-350-AD	PANEL W 5 3"X3" RINGS 2 RMS - 3"Wx4"H WIRING DUCT





Cables

Category 7 F/STP

Digital Video Media 4K Solution



Category 7 F/UTP - 10G

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
 4247F	4 Pair	23 AWG Solid 24 Ω/Mft	Foam Polyolefin	F/STP Ind. Shield >40% Coverage Tinned Cu	PVC	.311	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
 254247F	4 Pair	23 AWG Solid 24 Ω/Mft	FEP	F/STP Ind. Shield >40% Coverage Tinned Cu	PVDF	.305	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	

CATEGORY 7 F/STP Modular Plug	
Catalog No.	Description
CN-MFP8	10G Tool less Modular Plug
CAT CABLE PAIR SEPARATION TOOL	
TL-CATWIREST	Cat Cable Pair Separation and Straightening Tool



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

HDMI Products

HDBaseT Extenders - Box Set

HDMI - HDBaseT Extenders	
Catalog No.	Description
DXE-CAT-S1	HDBaseT Lite Extender up to 230ft Range
DXE-CAT-S2	HDBaseT with 2 LAN Ports up to 600ft Range
DXE-CAT-S2L	HDBaseT with 2 LAN Ports + 8Mb of Storage up to 600ft Range

DXE-CAT-S1

- Transmit HDMI up to 1080p 60Hz 48bit 230ft over one CAT 5e/6/7 cable
- Supports 4K x 2K & HDMI 3D
- HDCP Compliant
- All connectors on one side for easier installation
- Bi-directional RS-232 & IR
- Power both units from TX or RX side with wall power supply (HDBaseT POH)
- Status LED for all connections on front
- Various mounting options
- Comes in a variety of models for different features & cost savings
- Use HDBaseT Certified Cables



DXE-CAT-S1

DXE-CAT-TX
DXE-CAT-RX

Transmitter Unit
Receiver Unit

DXE-CAT-S2 and DXE-CAT-S2L

- Transmit HDMI up to 1080p 60Hz 48bit 330ft over one CAT 5e/6/6A cable 4245 or 254245
- Transmit HDMI up to 1080p 60Hz 24bit 500ft over one CAT 6 cable 4246F or 254246F
- Transmit HDMI up to 1080p 60Hz 24bit 600ft over one CAT 6A Shielded cable 4246AF or 254246AF
- Supports 4K x 2K & HDMI 3D
- HDCP Compliant
- All connectors on one side for easier installation
- Bi-directional RS-232 & IR & LAN
- Power both units from TX or RX side with wall power supply (HDBaseT PoH)
- LAN PoE (Flex Power) can power both TX & RX without wall supplies (Patents Pending)
- Status LED for all connections on front
- Various mounting options
- Comes in a variety of models for different features & cost savings
- Use HDBaseT Certified Cables
- DXE-CAT-S2L - has 8Mb of storage capability for hosting a web control page



**DXE-CAT-S2
and
DXE-CAT-S2L**

DXE-CAT-TX2
DXE-CAT-RX2

Transmitter Unit
Receiver Unit

DXE-CAT Series

- **Dimensions:** 4.7" x 3.03" x 1.1"
- **Weight:** .87lbs
- **Mounting:** Wall mounting tabs included
Rack mounting brackets included

Rack Unit

Rack Unit for DXE-CAT Series Extenders	
Catalog No.	Description
DXE-CAT-RK3	3RU 19"W - Fits 16 DXE-CAT Series Extenders

DXE-CAT-RK3- 3RU unit to hold up to 16 Extenders. The DXE-CAT Series Extenders have all connection on the back to allow for a clean, organized rack installation



HDMI Products

HDBaseT Extenders - 1 and 2 Gang Wall Plate - 4Kx2K Resolution



HDMI - HDBaseT Wall Plate Extender Transmitters	
Catalog No.	Description
DXW-1	HDMI Input - HDBaseT Lite - 230ft 1 Gang Decora
DXW-2	HDMI + VGA (Component+S-Video+ Composite) + Audio 2 Gang Decora
DXW-2E	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN - 2 Gang Decora
DXW-2EU	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN + 2 USB - 2 Gang Decora
DXW-2EUH	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN + 2 USB - 2 Gang Decora - Hosting USB - Pair with DXE-USB-D1P USB Destination Side

Plates are available in White (W) or Black (B)



DXW-2 HDMI +VGA with Audio

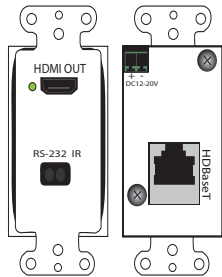
- 2 Gang AV Wall plate- Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- HDBaseT UTP Signal Distribution 330ft.-600ft.
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables

DXW-2E HDMI +VGA with Audio + LAN

- 2 Gang AV Wall plate- Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- 10/100 BaseT Ethernet - DATA
- HDBaseT UTP Signal Distribution 330ft.-600ft.
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables

DXW-2EU(H) HDMI +VGA with Audio + LAN + USB 2.0 (480Mb/s)

- 2 Gang AV Wall plate - Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- 10/100 BaseT Ethernet - DATA
- 2 -USB Connection - Independently 280ft.
- HDBaseT UTP Signal Distribution 330ft.-600ft
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables



DXW-1 HDMI

- 1 Gang AV Wall plate- Decora Style
- HDMI Digital AV
- HDBaseT UTP Signal Distribution 230ft.
- Bi-directional RS-232 and IR

DXW-2 Series

- **Dimensions:** 2 Gang Decora® 3.397" x 1.066" Depth - RJ45 Back Plate Entrance(Right Angle)
- **Mounting:** Fits in standard 2 Gang Decora® style wall plate
- **Buttons:** Backlit buttons - Select Green, Blue or Red
- **IR Remote Window:** Plate can receive IR remote at 38kHz up to 40ft. away

4K Resolution:

Cat6, Cat6 Shielded: 230ft
Cat6A, Cat7 Shielded: 330ft

NOTE: DXW Series comes with a paintable plastic decora plate. Metal Decora Plates are available. Pg. 46

Wallplate Break-Away Assemblies - For DXW-Series Plates	
Catalog No.	Description
CA0054-1	VGA to Yb,Pb,Y and Composite Video Breakaway

DXE-CAT Series Cable Assemblies	
Catalog No.	Description
CA0012-1	Single IR Emitter
CA0026-1	Single IR Receiver
CA0049-1	IR Blaster
CA0052-F2T3R	3.5mm TRS to Female DB9 2-TX-3
CA0052-F3T2R	3.5mm TRS to Female DB9 3-TX-2
CA0052-M2T3R	3.5mm TRS to Male DB9 2-TX-3
CA0052-M3T2R	3.5mm TRS to Male DB9 3-TX-2



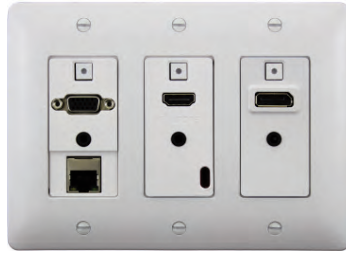
HDMI Products

HDBaseT Extenders - 3 Gang Wall Plate - 4Kx2k Resolution



HDBaseT Wall Plate Extender Transmitters - 3 Gang	
Catalog No.	Description
DXW-3	HDMI + VGA (Component+S-Video+ Composite) + Audio + Displayport 3 Gang Decora
DXW-3E	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN + Displayport 3 Gang Decora
DXW-3EU	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN + 2 USB + Displayport 3 Gang Decora
DXW-3EUH	HDMI + VGA (Component+S-Video+ Composite) + Audio + LAN + 2 USB + Displayport 3 Gang Decora - Hosting USB - Pair with DXE-USB-D1P USB Destination Side

Plates are available in White (W) or Black (B)



DXW-3 HDMI +VGA+DP with Audio

- 3 Gang AV Wall plate- Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- HDBaseT UTP Signal Distribution 330ft.-600ft.
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables

DXW-3E HDMI +VGA with Audio + LAN+DP

- 3 Gang AV Wall plate- Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- 10/100 BaseT Ethernet - DATA
- HDBaseT UTP Signal Distribution 330ft.-600ft.
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables

DXW-3EU(H) HDMI +VGA with Audio + LAN + USB 2.0 (480Mb/s)+DP

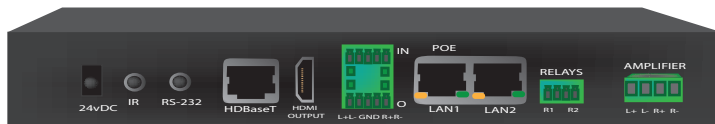
- 3Gang AV Wall plate - Decora Style
- VGA (Component Video) Distribution with Audio
- HDMI Digital AV - DVI with Audio
- 10/100 BaseT Ethernet - DATA
- 2 -USB Connection - Independently 280ft.
- HDBaseT UTP Signal Distribution 330ft.-600ft
- Bi-directional RS-232 and IR
- 4K over HDBaseT Certified WPW Cables

DXW-3 Series

- **Dimensions:** 3 Gang Decora® 5.54"x 2.83" x 1.404" Depth - RJ45 Back Plate Entrance(Right Angle)
- **Mounting:** Fits in standard 2 Gang Decora® style wall plate
- **Buttons:** Backlit buttons - Select Green, Blue or Red
- **IR Remote Window:** Plate can receive IR remote at 38kHz up to 40ft. away

DIGITAL VIDEO: HDBaseT Receiving Units

HDMI - HDBaseT Receivers	
Catalog No.	Description
DXE-CAT-RX1	HDBaseT Lite Receiver up to 230ft Range - ONLY DXW-2
DXE-CAT-RX2	HDBaseT Receiver Up to 600ft - DXW-2, 2E, and 2EU
DXE-CAT-RX3	HDBaseT Receiver Up to 600ft - DXW-2, 2E, and 2EU - Line IN/OUT 2 relays
DXE-CAT-RX3L	HDBaseT Receiver Up to 600ft - DXW-2, 2E, and 2EU - with Web Control
DXE-CAT-RX3-A	HDBaseT Receiver Up to 600ft - DXW-2, 2E, and 2EU - with Audio de-embed Amplified
DXE-CAT-RX3L-A	HDBaseT Receiver Up to 600ft - DXW-2, 2E, and 2EU - with Audio de-embed Amplified + Web Control
DXW-2-RX1	2 Gang HDBaseT Receiver Unit
DXW-2E-RX2	2 Gang HDBaseT Receiver Unit with Ethernet



DXE-CAT-RX3 Series

- **Dimensions:** 8.46 x 3.82" x 1.3"
- **Weight:** 2 lbs
- **Mounting:** Wall mounting tabs included
Rack mounting brackets included



DXW-2E-RX2-B

Wall Plate Kits

HDBaseT Wall Plate Kits for AV - TX/RX Kits



Classroom Products	
Catalog No.	Description
DXW-2E-S2	Includes: DXW-2E + DXE-CAT-RX2 - Available in White or Black
DXW-2E-S3-A	Includes: DXW-2E + DXE-CAT-RX3-A - Available in White or Black
DXW-2E-S3L	Includes: DXW-2E + DXE-CAT-RX3L - Available in White or Black
DXW-2E-S3L-A	Includes: DXW-2E + DXE-CAT-RX3L-A - Available in White or Black
DXW-2EU-S2	Includes: DXW-2EU + DXE-USB-H1 - Available in White or Black

Plates are available in White (W) or Black (B)

Wall Plate Kits

HDBaseT Wall Plate One Room Kits Complete



Classroom Products - One Room Kits	
Catalog No.	Description
ORC-1	Includes: DXW-2 + DXE-CAT-RX3A + SKR-22T + DXB-8
ORC-2	Includes: DXW-2E + DXE-CAT-RX3A + SKR-22T + DXB-8
ORC-3	Includes: DXW-2EUH + DXE-CAT-RX3A + SKR-22T + DXB-8 + DXE-USB-D1P

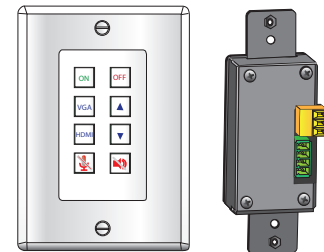
Plates are available in White (W) or Black (B)

Wall Button Control Panel

Used with the DXW Series Wall Plates

Classroom Wall Control Panel	
Catalog No.	Description
DXB-8	8 Button Wall Control Panel - RS-232 - Backlit - Available in WH or BK

DXB-8 Wall Button Control Panel is used to control via RS-232 the video content from the DXW-Series wall plates. The DXB-8 is designed to work with just about any RS-232 device on the market. The buttons can be individually be lit red, green, or blue so in dimly lit areas can be seen. Buttons can be customized laser etched.



Classroom Products- Accessories

Classroom Products	
Catalog No.	Description
DXE-USB-S2	USB Extender Kit (TX/RX)
DXE-USB-H2	USB Host Side (PC) extender unit for DXW-2EU
DXE-USB-D2P	USB Destination Side extender unit for DXW-2EUH with P.S.
DKFD-1-XX	2 Gang Plastic Decora® - Replace XX- WH (White), BK (Black)
CN-XX2GDECORA	2 Gang Metal Plate- Replace XX: AW- Anodized White, AB- Anodized Black
CN-XX3GDECORA	3 Gang Metal Plate- Replace XX: AW- Anodized White, AB- Anodized Black



USB Extenders require Category 6 F/UTP Shielded 4246F or 254246F.

Ceiling Speaker	
Catalog No.	Description
SKR-22T	2 x 2 Tile Ceiling Speaker - 20Watt - 360° Coverage - 2.2" Depth 4 Ohm
SKR-22XFR	2 x 2 Tile Ceiling Speaker - 20Watt - 360° Coverage - 2.2" Depth 70V/100V



Cable Assemblies

HDBaseT Certified Assemblies

HDBaseT Long Length Assemblies	
Catalog No.	Description
CN-4246F-XX	Cat6 Shielded CMR - XX: 75,100,150,165,230,330
CN-254246F-XX	Cat6 Shielded CMP- XX: 75,100,150,165,230,330
CN-4246AF-XX	Cat6A Shielded CMR - XX: 75,100,150,165,230,330
CN-254246AF-XX	Cat6A Shielded CMP- XX: 75,100,150,165,230,330



Cable Assemblies

HDMI to HDMI

HDMI Assemblies	
Catalog No.	Description
CN-HD700-XX	Locking HDMI + Ethernet Channel - 25lbs Replace XX: 2,4,8,16,25,35,50
CN-CPHMHMETH-XX	Pleunum HDMI Assemblies Replace XX: 15,25,35,50
CN-40HDMI-XX	Economy HDMI Assemblies Replace XX: 3,6,10,15,25



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



Cable Assemblies

DXW-Series Assemblies

Wallplate Assemblies	
Catalog No.	Description
CN-HDVGAAP-XX	VGA+Audio Assembly (xx- 3, 6 or 12)
CNHD825YERCA-XX	RCA TO RCA YELLOW -Composite Video
CN-E3.5MM-XX	Stereo Mini Assembly (XX- 6,12,25)
CN-SMTRCA-XX	Stereo Mini to 2 RCA Audio (XX- 6,15,25)



Power Adapter Cables

DXE-CAT SERIES AND DXW SERIES

Wallplate Assemblies	
Catalog No.	Description
PS-0080-1	Power Supply cable for: DXE-CAT and DXW Series Plates
PS-0077-1	Power Supply cable for: DXE-CAT-RX3-A, RX3L-A
PS-0062-1	Power Supply cable for: DXW-2EU, RX3, RX3L

DigitalXtreme Matrix Cages - G2 Series

Matrix Cages	
Catalog No.	Description
DXM-88-G2	8x8 Digital media card cage matrix system
DXM-1616-G2	16x16 Digital media card cage matrix system
DXM-3232-G2	32x32 Digital media card cage matrix system

- Redundant Power Supplies are available - Call Engineering
- Easy access to the front and/or rear of cage
- Easy use, set-up and card input/output exchange - (Hot Swap)



DigitalXtreme Input Cards

Input Cards	
Catalog No.	Description
DXCI-4-HDMI-G2	4 Input HDMI Digital Video/Audio Input Card
DXCI-4-LHDMI-G2	4 Input HDMI Digital Video/Audio Input Card-Loop Thru allowing cascading of card cages
DXCI-4-HDBT1-G2	4 Input HDBaseT Lite Card - Up to 230ft (70m) Input Card
DXCI-4-HDBT2-G2	4 Input HDBaseT Card - Up to 600ft - Cat6A F/UTP HDBaseT Cert
DXCI-4-HDBT2E-G2	4 Input HDBaseT Card - Up to 600ft - Cat6A F/UTP HDBaseT Cert. Ethernet Pass thru.
DXCI-4-2V2H-G2	4 Input - 2 VGA + 2 HDMI Input Card with Audio breakout tails
DXCI-4-VGA-G2	4 Input VGA Video with Audio breakout tails Input Card

- HD-SDI Versions are available - Please Contact WPW Engineering for Part Numbers

DigitalXtreme Output Cards

Output Cards	
Catalog No.	Description
DXCO-4-HDMI-G2	4 Output HDMI Digital Video/Audio De-embed
DXCO-4-HDBT1-G2	4 Output HDBaseT Lite Card - Up to 230ft (70m) Card
DXCO-4-HDBT2-G2	4 Output HDBaseT Card - Up to 600ft - Cat6A F/UTP HDBaseT Cert
DXCO-4-HDBT2E-G2	4 Output HDBaseT Card - Up to 600ft - Cat6A F/UTP HDBaseT Cert. Ethernet Pass thru.



HDMI - Matrix Switches

HDMI Matrix Switch	
Catalog No.	Description
ASP-44-4K	4K - 4x4 HDMI 3D Matrix - HDCP compliant, RS-232 and IR Control
ASP-88-4K	4K - 4x4 HDMI 3D Matrix - HDCP compliant, RS-232 and IR Control- 7.1Ch. Digital Audio



AV Scaler

HDBaseT AV Scalers	
Catalog No.	Description
ASP-S123VK	Presentation Scaler- 12 Inputs and 3 Outputs - DXE-CAT-RX1 Included

The ASP-S123V is a presentation scaler switcher designed for multi-signal processing of Composite Video, S-Video, Component Video (YPbPr), VGA (Computer Graphics), and HDMI inputs which can be scaled to 1080p in VGA/HDMI format. It has an integrated HDBaseT extender allowing the output to extend up to 230ft [70m] at 1080p 60Hz. In addition, the microphone input, and 20 Watt amplifier makes the ASP-S123V a complete cost effective solution for education, commercial, and digital signage.



AV Converters/Scaler

Converters	
Catalog No.	Description
ASP-HTV	HDMI to VGA Converter
ASP-VTHS	VGA to HDMI Scaler Converter



Video Wall Processors

Video Wall Processors	
Catalog No.	Description
DIDO-LT	Up to 64 Monitors - Cost Effective Solution - Landscape
DIDO-JR	Up to 64 Monitors- Image Rotation
DIDO-PRO	Quad-Image and Image Rotation



DIDO-LT

DIDO LT is the ideal video wall processor when budget is a concern, but sacrificing quality is not an option. Integrators can design video walls with up to 64 monitors. DIDO LT's image quality is visibly superior to much more expensive video wall processors and it gives any integrator the ability to produce a high quality video wall with ease.

On-screen display menus make the DIDO LT a breeze to set up. Input and output resolutions are completely customizable to match the displays optimal resolutions. User presets allow for simple manipulation of the video wall. You can easily set it up to go from a single large image shown across all monitors to unique images on several groups of monitor.

DIDO-JR

DIDO Jr. is the ideal video wall processor and video image rotation engine. Integrators can design video walls with up to 64 monitors and the monitors can even be mounted in portrait position. DIDO Jr's image quality is visibly superior to much more expensive video wall processors and it gives any integrator the ability to produce a high quality video wall.

On-screen display menus make the DIDO Jr. a breeze to set up. Input and output resolutions are completely customizable to match the displays optimal resolutions. User presets allow for simple manipulation of the video wall. You can easily set it up to go from a single large image shown across all monitors to unique images on several groups of monitor.

DIDO-PRO

The DIDO Pro is an extremely compact and powerful, multipurpose video processor. It is a high resolution, quad image scaler with the ability to rotate the displayed image windows in ninety degree increments.

DIDO Pro can show up to 4 high resolution/full motion images on a single display with great flexibility in any format. Up to 6 inputs can be selected using the included IR remote or serial control with Aurora's WACI NX or other high end control systems. Store up to 99 presets and link together multiple DIDO's for control via a single RS-232 port.

DIDO -Optional Accessories

- CA0020-1** DVI-I to DVI-D breakout cable
- CA0022-1** DVI-I to DVI-D RCA breakout cable
- CA0021-1** DVI-I to DVI-D BNC breakout cable

Splitter - Amps

HDMI SPLITTER/DISTRIBUTION AMP

4k x 2k HDMI Splitters	
Catalog No.	Description
ASP-12H-4K	1x2 HDMI Distribution Amp. with EDID manager
ASP-14H-4K	1x4 HDMI Distribution Amp. with EDID manager
ASP-18H-4K	1x8 HDMI Distribution Amp. with EDID manager



ASP-12H-4K 1x2

The ASP-12H-4K 1x2 HDMI 4K2K Splitter with EDID Management provides one of the most advanced HDMI splitter solutions by which the Ultra High Definition video and high quality audio can be transmitted to multiple locations without losing quality. The ASP-12H-4K supports all 3D formats and true 4K2K video.

The ASP-12H-4K firmware upgrade capability via the USB port ensures compatibility now and in the future. With 48 bit deep color video and high definition audio support the ASP-12H-4K is suitable for high quality HDMI broadcasting, conference room, digital signage and education applications.

ASP-14H-4K 1x4

The ASP-14H-4K 1x4 HDMI 4K2K Splitter with EDID Management provides one of the most advanced HDMI splitter solutions by which the Ultra High Definition video and high quality audio can be transmitted to multiple locations without losing quality. The ASP-14H-4K supports all 3D formats and true 4K2K video.

The ASP-14H-4K firmware upgrade capability via the USB port ensures compatibility now and in the future. With 48 bit deep color video and high definition audio support the ASP-14H-4K is suitable for high quality HDMI broadcasting, conference room, digital signage and education applications..

ASP-18H-4K 1x8

The ASP-18H-4K 1x8 HDMI 4K2K Splitter with EDID Management provides one of the most advanced HDMI splitter solutions by which the Ultra High Definition video and high quality audio can be transmitted to multiple locations without losing quality. The ASP-18H-4K supports all 3D formats and true 4K2K video.

The ASP-18H-4K firmware upgrade capability via the USB port ensures compatibility now and in the future. With 48 bit deep color video and high definition audio support the ASP-18H-4K is suitable for high quality HDMI broadcasting, conference room, digital signage and education applications.

Best 4k AV Tuner in the Industry!!!

AV TUNER - 4K

AV Tuner with IPTV	
Catalog No.	Description
V-TUNEPRO-4K	Total tuning solution with IPTV - 4 Tuners in 1 Box

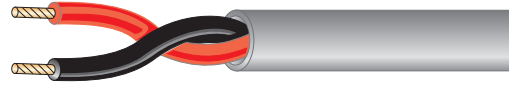


The V-Tune Pro 4K delivers a total 4K2K High Definition worldwide tuning solution for any integrated system which requires IPTV, ATSC, QAM, DVB, NTSC & PAL. The tuner is capable of decoding MPEG2, MPEG4, VC-1, H.264, and H.265 with resolutions up to 4K @ 60Hz via RF and LAN.

The V-Tune 4K is integrator-friendly with IR, RS-232 and IP-based control. The video outputs are HDMI 2.0 for the latest connectivity and composite/YPbPr video for legacy. Audio is provided with unbalanced stereo RCA connections, S/PDIF, and optical. The VTune Pro 4K defines versatility as it can be fit into nearly any integrated system topology. There is no other tuner on the market which can support all these features at a cost effective price.

Bulk Speaker Cables

Non-Plenum

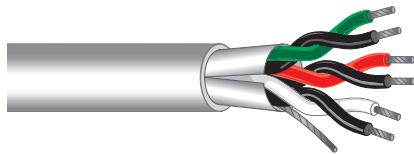


Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
224	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.156	CMR	20pf/ft	● ● ○ GY, BK, WH
225	2	16 AWG (19x29) 4.2 Ω/Mft	PP* .008	None	PVC .017	.182	CMR	22pf/ft	● ● ○ GY, BK, WH, SGN


Bulk Speaker Cables

Plenum

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.154	CMP	--	● ● ○ GY, BK, WH
25225B	2	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.176	CMP	--	● ● ○ GY, BK, WH, SGN



Bulk RS-232 Control Cables

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 D2404	4 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.268	CM	14.5pf/ft* 26pf/ft **	● Gray

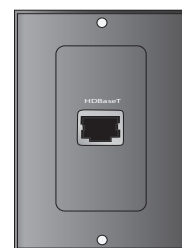
Custom Plates and Panels

RCI Custom

West Penn Wire has established a strong partnership with RCI Custom to supply quality wall plates, and panels.

To receive a Quote please submit you drawings to West Penn Wire Engineering, or download RCI Custom PBsE (PanelBuilder SE). RCI Provides: www.rcicustom.com

- State of the art panel building software: PBsE
- Competitive pricing
- Quick panel/plate turnaround
- Strong Partnership with West Penn Wire
- Warranty



HDBaseT Economy Products

HDBaseT Matrix and RX Units Economy

HDBaseT Economy Matrix	
Catalog No.	Description
CN-R014MTXVR404	HDMI Matrix 4x4 HDMI In - HDBaseT Our 4K Resolution
CN-R014MTXVR402	HDMI Matrix 4x2 HDMI In - HDBaseT Our 4K Resolution
HDBaseT Economy RX Units	
CN-R014-VR-S-RX	HDBaseT RX Unit Short Distance - 4K-40m Cat6A Shld.
CN-R014-VAIR-RX	HDBaseT RX Unit Short Distance - 4K-100m Cat6A Shld.
CN-R014-150SRX	HDBaseT RX Unit Short Distance - 1080P-150m Cat6A Shld.



HDMI Extender- Short Distant Products

HDMI EXTENDERS

HDMI - UTP EXTENDERS	
Catalog No.	Description
ASP-CATx1RS	HDMI EXTENDER WITH IR SERIAL PASS THRU - 130ft. 1080p -24bit
CN-R01EXT-HSL	HDMI Extender- UTP- Box Style - 150ft 1080p 12bit
HDMI - HDMI EXTENDERS	
CN-R013EQLFF-B	HDMI-HDMI - Extender Box Set - 1080p/60 -125ft
CN-R013EQLFA-B	HDMI-HDMI Wallplate - 1080p/60 -125ft
CN-R013EQLMF-01	HDMI M- HDMI F - Pigtail - 1080p/60 125ft



DisplayPort and Mini-Displayport Adapter Cables

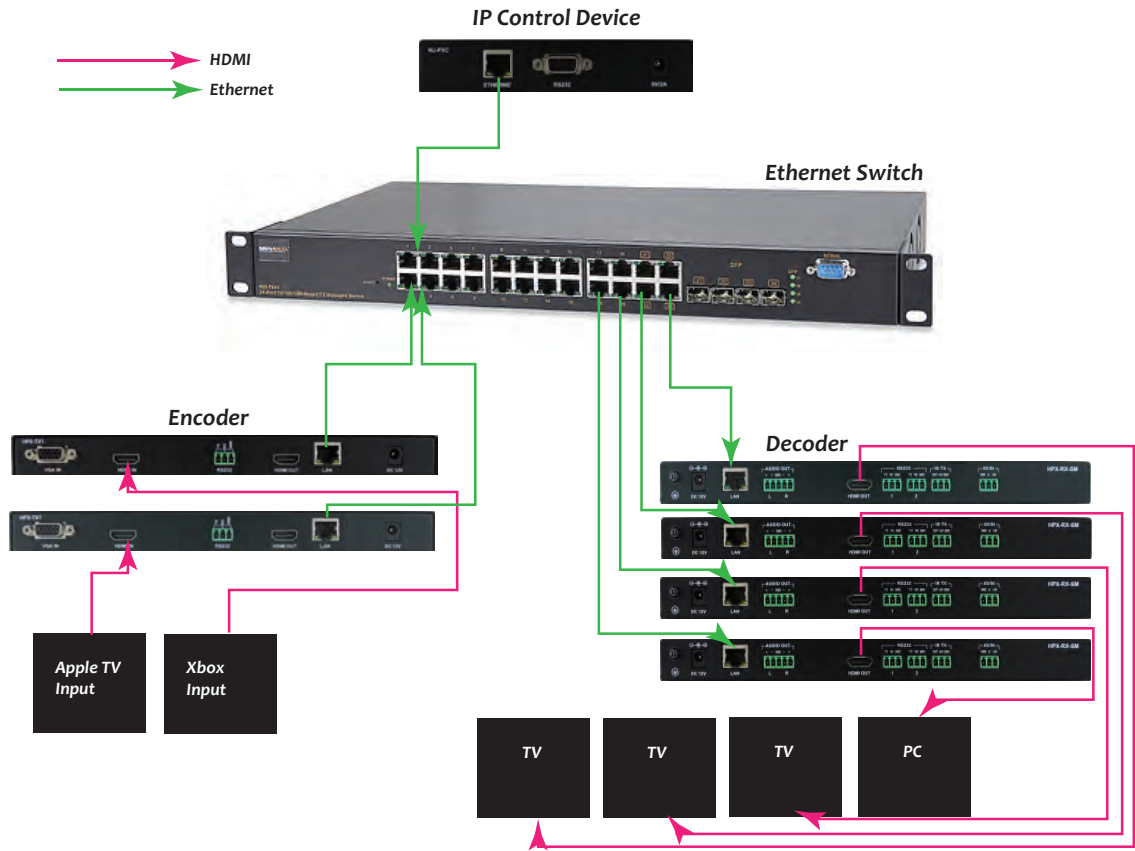
DISPLAYPORT EXTENDERS & ADAPTER CABLES	
Catalog No.	Description
CN-R06SPL-102	DISPLAYPORT 1X2 SPLITTER OVER CAT5E/6 CABLES
CN-R06EXT-C5E1	EXTENDER TX/RX BOX STYLE 100FT 1920X1200
CN-R06CVTVGA	DISPLAYPORT TO VGA ADAPTER CABLE
CN-R06CVTHDMI	DISPLAYPORT TO HDMI ADAPTER CABLE
CN-R06CVTDVI	DISPLAYPORT TO DVI ADAPTER CABLE
CN-R06CVTVGA-xx	DISPLAYPORT TO VGA CABLE: xx: 6 or 10 ft
CN-R06CVTHDMI-xx	DISPLAYPORT TO HDMI CABLE: xx: 6 or 10 ft
MINI-DISPLAYPORT ADAPTER CABLES	
CN-MDPM-VGAF	MINI DISPLAYPORT M TO VGA F
CN-MDPM-HDMI	MINI DISPLAYPORT M TO HDMI
CN-MDPM-DVIF	MINI DISPLAYPORT M TO DVI F
DISPLAYPORT EXTENDERS/SPLITTERS	
CN-R06SPL-C5E102	1X2 SPLITTER- DISPLAYPORT TO 2 RJ45 100ft.
CN-R06EXT-C5E1	DISPLAYPORT EXTENDER TX/RX 100ft.
CN-R06EXT-C5E1RX	DISPLAYPORT EXTENDER RX



i-Pad Products

i-EXTENDERS - i-Pad Products	
Catalog No.	Description
CN-R09IPAD4IN1	i-PAD 4 IN 1 APPLE DIGITAL AV ADAPTER- HDMI, VGA, DVI, USB
CN-R09EXTIP-HSL	APPLE TO HDMI UTP BOX SET TX/RX EXTENDER
CN-R01EXT-HSLRX	HDMI RECEIVER ONLY BOX STYLE
CN-R01EXTL-RX-J	HDMI RECEIVER WALL PLATE RJ45 STYLE
CN-R09EXTIPHSLJ	APPLE TO HDMI UTP WALL PLATE SET TX/RX EXTENDER
CN-R02EXT-35JR	VGA + AUDIO WALL PLATE STYLE RX ONLY
CNR09EXTIPVGA35	APPLE TO VGA + AUDIO UTP BOX SET TX/RX EXTENDER

IP AV NETWORKING



Features:

- IP Streaming 1080p Video capabilities
 - JPEG2000 Design
 - H.264 Design
 - IPBaseT Design
- IPBaseT offers the industries first wallplate and box unit transceivers.
- IPBaseT is offered in a Copper (C) or Fiber Optic (F) Versions.

PRODUCT INDEX:

IP AV CONTROLLER DEVICE	54
H.264 IP AV STREAMING SOLUTION.....	55-56
JPEG2000 IP AV STREAMING SOLUTION	57
IPBaseT IP AV STREAMING SOLUTION	58
ETHERNET SWITCHES	59
DESIGN	60

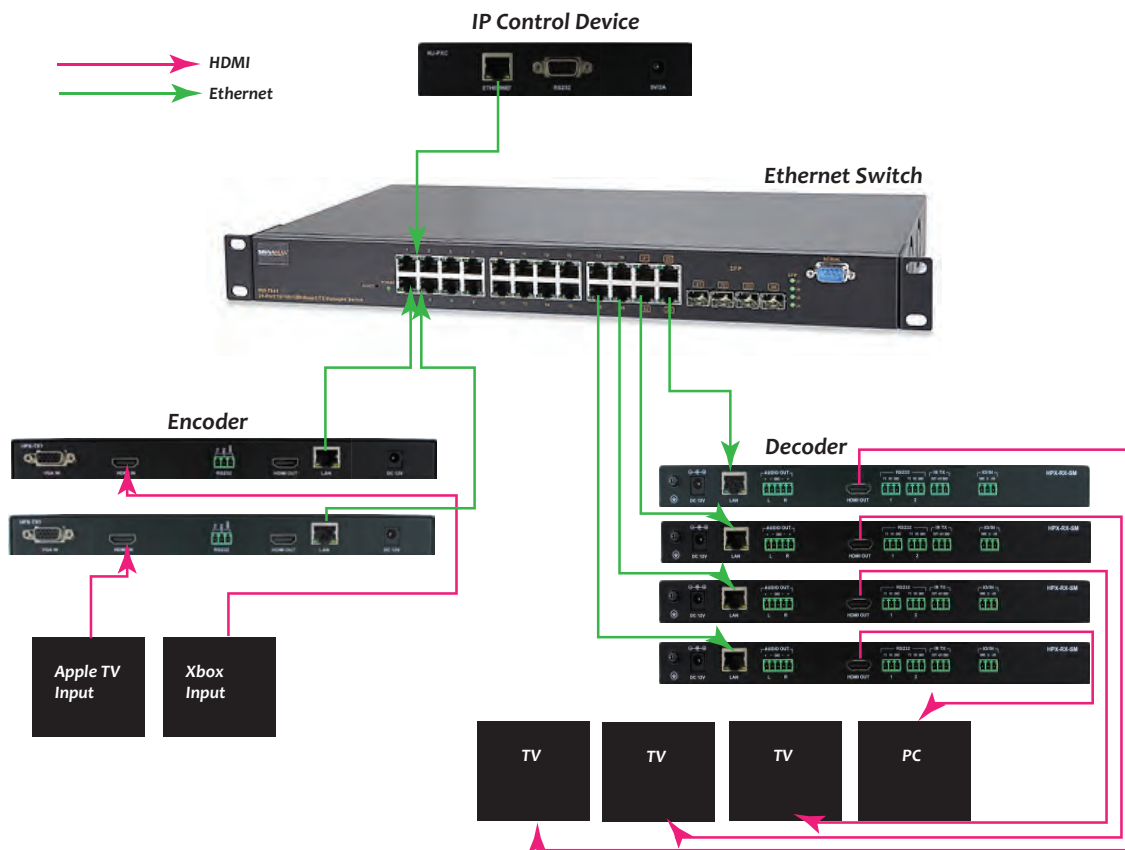


IP Control Device
Controls both JPEG2000 and H.264 Systems



IP Control Unit	
Catalog No.	Description
HJ-PXC	IP Control Device - For HPX and JPX Series Systems

The HJ-PXC is an IP control device to manage HPX and JPX Series products residing on the same local area network. It can automatically search and display the various devices and perform operations on the TX/RX units. Some of the operations are switching between multiple input sources and setting videowall configurations. This device can be controlled by web browser, a telnet client, or a control system. The optional WACI PAD 12LRM can be used with the HJ-PXC in a rack for full tactile button control of a system to give a front panel switching feel.



H.264 Encoders	
Catalog No.	Description
HPX-TX1	High Performance H.264 Streaming Media Encoder for HD Signal delivery over IP Networks. TX1 has on HDMI and One HDMI Loop-Thru - VGA
HPX-TX2	High Performance H.264 streaming media encoder for HD signal delivery over IP networks - TX2 has two HDMI, One Loop Thru HDMI and one VGA Input with VGA Loop Thru.

HPX-TX1

Encoder

- Streams HDMI & VGA signals over IP networks.
- Supports H.264/MPEG-4 AVC compression standard.
- Use with H.264 decoder HPX-RX-VW to provide features, such as extending HDMI signals over IP networks and matrix switching control over LAN by the control software and Videowall effects. • Use with H.264 decoder HPX-RX-SM to provide multi-picture viewing effects (up to 16 pictures) in a single screen.
- Supports the input resolutions, 480i, 480p, 576i, 576p, 720p, 1080i, 1080p.
- Supports output resolutions from 480p to 1920x1200 scaled based on the sink EDID.
- Scales and optimizes video input signals for the intended viewing effects.
- Auto input format detection to provide the appropriate decoding and signal processing.
- Encoding bit rate is selectable from 1K~40Mbps.
- Supports TCP/IP, Telnet, UDP, IGMP and H.264
- Supports AutoIP configuration.
- Automatically detected by the control software.
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.



HPX-TX1

Dimensions: 9.96" x 6.11" x .984"

Weight: 4lbs.

Mounting: Ear Tabs

HPX-TX2

Encoder

- Streams HDMI, VGA, & Composite Video signals over IP networks.
- Supports H.264/MPEG-4 AVC compression standard.
- Use with H.264 decoder HPX-RX-VW to provide features, such as extending HDMI signals over IP networks and matrix switching control over LAN by the control software and Videowall effects. • Use with H.264 decoder HPX-RX-SM to provide multi-picture viewing effects (up to 16 pictures) in a single screen.
- Supports the input resolutions, 480i, 480p, 576i, 576p, 720p, 1080i, 1080p.
- Supports output resolutions from 480p to 1920x1200 scaled based on the sink EDID.
- Scales and optimizes video input signals for the intended viewing effects.
- Auto input format detection to provide the appropriate decoding and signal processing.
- Encoding bit rate is selectable from 1K~40Mbps.
- Supports TCP/IP, Telnet, UDP, IGMP and H.264
- Supports AutoIP configuration.
- Automatically detected by the control software.
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.



HPX-TX2

Dimensions: 17.73" x 8.3" x 1.7"

Weight: 4.85lbs.

Mounting: Ear Tabs

Decoders

H.264 Decoders	
Catalog No.	Description
HPX-RX-SM	High Performance H.264 decoder used with HPX-TX series encoders to provide complete end-to-end streaming media transmission.
HPX-RX-VM	High Performance H.264 decoder used with HPX-TX series encoders to provide complete end-to-end streaming media transmission - With Video Wall functionality.

HPX-RX-SM

Decoder



- Supports live IP video stream decoding
- Uses with encoder(s) HPX-TX1 / TX2 to provide a complete end-to-end stream transmission system, supporting seamless switching.
- Supports streaming resolutions and refresh rates up to 1080p@60.
- Supports output resolutions from 480p up to 1920x1200 based on the sink EDID.
- Supports multi-picture viewing effects in a single screen by automatically dividing the screen into 1, 4, 9 or 16 complete pictures based on the number of IP streams.
- RS232 for debug or to control a RS232 device.
- Automatic aspect ratio filling, following and fitting management.
- Support TCP/IP, Telnet, UDP, IGMP and H.264 • Supports PoE (Power over Ethernet)
- Supports AutoIP configuration. • Automatically detected by control software.
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.

HPX-RX-VM

Decoder



- Supports live IP video stream decoding.
- Uses with encoder(s) HPX-TX1 / TX2 to provide a complete end-to-end stream transmission system, supporting seamless switching.
- Supports streaming resolutions and refresh rates up to 1080p@60.
- Supports output resolutions from 480p up to 1920x1200 based on the sink EDID.
- Supports video wall functionality. • RS232 for debug or to control a RS232 device.
- Automatic aspect ratio filling, following and fitting management. • Support TCP/IP, Telnet, UDP, IGMP and H.264
- Supports PoE (Power over Ethernet) • Supports AutoIP configuration.
- Automatically detected by control software.
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.

HPX-RX-SM AND HPX-RX-VM

Dimensions: 15.4" x 8.7" x 3.6"

Weight: 1.72lbs.

Mounting: Ear Tabs

JPEG2000 Encoder and Decoder	
Catalog No.	Description
JPX-TX1	JPEG2000 visually lossless HDMI over IP Transmitter Encoder
JPX-RX1	JPEG2000 visually lossless HDMI over IP Receiver Decoder
JPX-RK4	4 RU Rack Mount for JPX JPEG2000 IP video streaming units - 9 Units

JPX-TX1 and JPX-RX1
Dimensions: 5.51" x 4.53" x .98"
Weight: 1.98lbs.
Mounting: Ear Tabs

JPX-TX1

Encoder

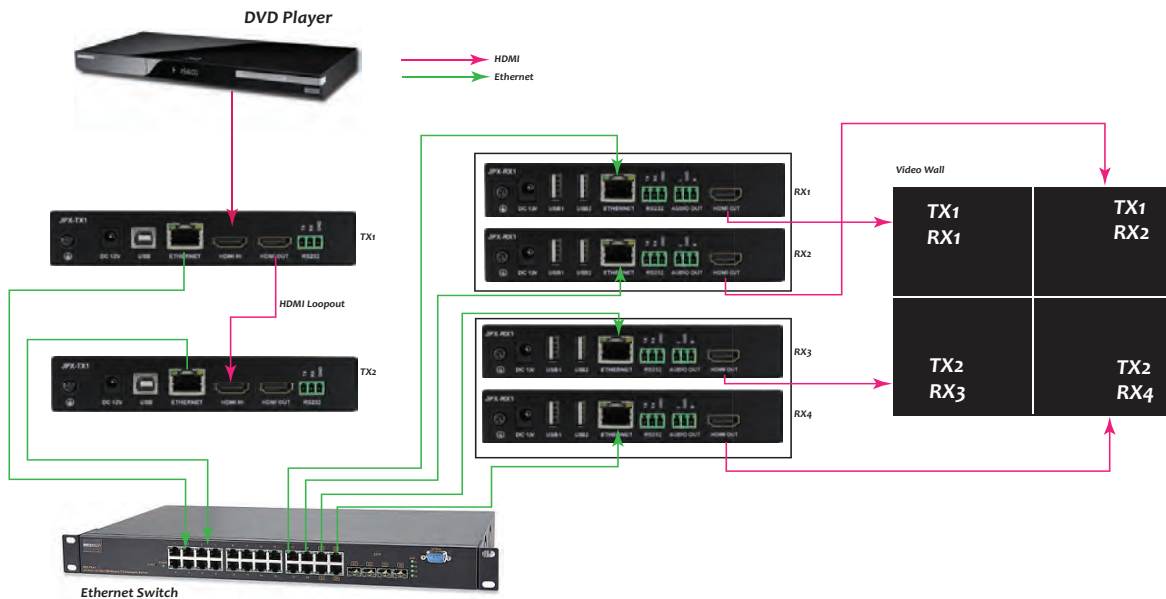
- JPEG2000 Encoding Visually Lossless
- Seamless Switching
- HDMI In
- HDMI Loop Output
- HDCP Compliant
- Supports All High Definition Resolutions: 1080p, 1080i and 720p
- USB 2.0 Host (PC Side Connection) • RS-232 Control Over IP
- PoE (Power over Ethernet)
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.



JPX-RX1

Decoder

- JPEG2000 Decoding Visually Lossless
- Video Wall Modes
- Seamless Switching
- HDMI Output
- HDCP Compliant
- Supports All High Definition Resolutions: 1080p, 1080i and 720p
- Supports USB 2.0 (4 Ports)
- RS-232 Control Over IP • PoE (Power over Ethernet)
- Optional IP control box (HJ-PXC) to allow matrix control and management via LAN for control systems.



IPX System	
Catalog No.	Description
IPX-TCW3 (F or C)	4K Streaming - 3 Gang Input Switching Transceiver Wallplate. Two HDMI Input, HDMI Output, LAN, and optional USB IPBaseT FIBER OPTIC CABLING (F), or Category 6A Shielded (C version)
IPX-TC1 (F or C)	4K Streaming Transceiver with IPBaseT, SFP, + 10G Fiber, 1G LAN, 2 HDMI In, 1 HDMI out, RS-232, IR, and Audio
IPX-FSW-8	10G 8 Port Layer 3 SFP + Fiber Switch wit 8 1G RJ45 Ports
IPX-FSW-12	10G 12 Port Layer 3 SFP + Fiber Switch wit 8 1G RJ45 Ports
IPX-FSW-24	10G 24 Port Layer 3 SFP + Fiber Switch wit 4 1G RJ45 Ports

Plates are available in White (W) or Black (B)

IPX-TCW3

Transceiver Plate
(F) Fiber Optic Version
(C) Copper Version

- 3Gang Input Switching Plate
- Zero Compression/Latency 4K2K streaming over 10G Fiber Network
- 10G Fiber switch is required
- (F Version) Multi-Mode SFP + module included for the Fiber Version.
- (C Version) Copper version requires Cat6A Shielded Cables
- USB Port requires USB TC1 option

IPBaseT™



IPX-TC1

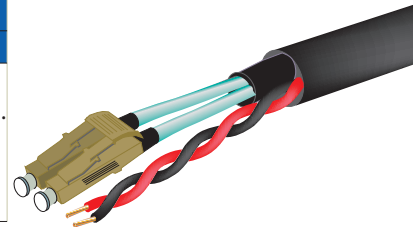
Transceiver
(F) Fiber Optic Version
(C) Copper Version

- Zero Compression/Latency 4K2K streaming over 10G Fiber Network
- Seamless Switching up to 128x128 w/HDCP
- Supports Video Wall Modes
- Stereo De-embedded Audio Output
- (F Version) Multi-Mode SFP + Module included
- (C Version) Cat6A Shielded Used for the Copper Version
- Perfect for large video distribution applications
 - Confrence Centers, Retail, Theme Parks, Hotel/Hospitality



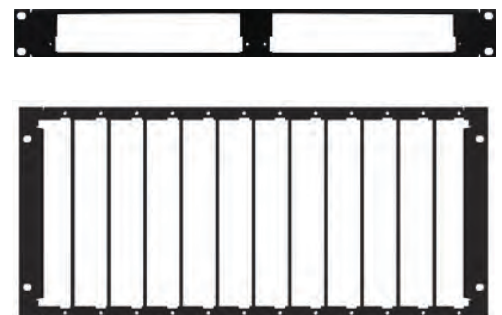
The IPX-TC1 provides one of the most advanced IP Streaming solutions on the market utilizing Aurora's IPBaseT™ technology, which synergizes various IP/AV standards to work together as one. It is the industry's first 4K2K transceiver with zero compression and latency based on BlueRiver NT™ platform. Using a transmitter (encoder) and receiver (decoder), respectively, used to be the standard – until now. The IPX-TC1 can be set up as either one to make installation, inventory, and troubleshooting easier. Another industry first is the option slot to add other IP capabilities, like ExtremeUSB® (USB 2.0 over IP) or Dante® audio, for a more complete, distributed system.

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



Plug-and-Play - Reduces Installation Cost
IPBaseT Certified

IPX System Accessories	
Catalog No.	Description
IPX-TC1-RK1	IPX-TC1 1 RU Dual Rack Mount Kit - 2 Units
IPX-TC1-RK5	IPX-TC1 5 RU Rack Mount Kit - 12 Units
FI-3002-3LC	OM3 Dual LC assembly 3ft



Managed GigaBit Ethernet Switches	
Catalog No.	Description
065-7861	26 Port Stackable - Gigabit - 4 SFP Dual Media Ports
065-7861POE	26-Port 10/100/1000 Stackable PoE/PoE+ Managed Switch with 4 SFP Dual Media Ports + 2 SFP Ports; 185 watts PoE power.
065-7861POE-FP	26-Port 10/100/1000 Stackable PoE/PoE+ Managed Switch with 4 SFP Dual Media Ports + 2 SFP Ports; 370 watts PoE power.



Unmanaged GigaBit Ethernet Switches	
Catalog No.	Description
065-7012G	8-Port 10/100/1000 Compact Unmanaged Switch

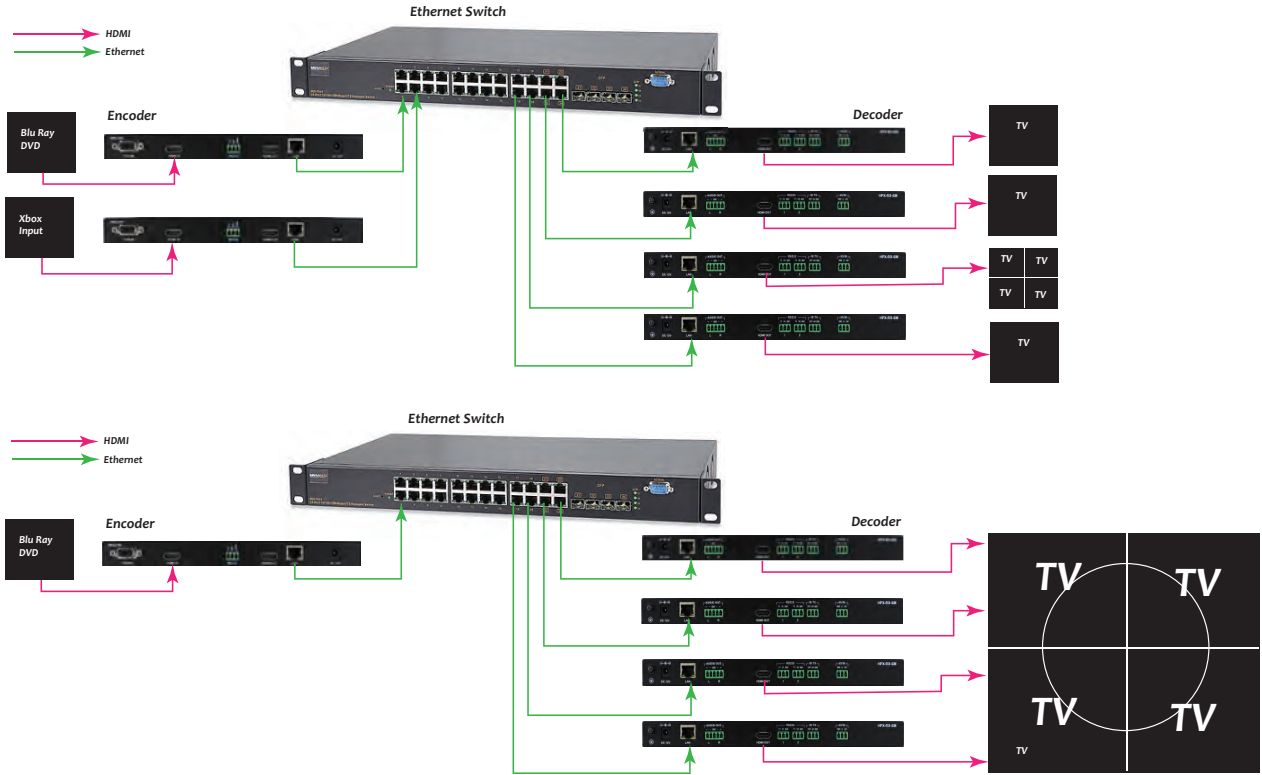


10G Ethernet Switches - Fiber Optic AV Distribution	
Catalog No.	Description
IPX-FSW-8	10G 8 Port Layer 3 SFP + Fiber Switch wit 8 1G RJ45 Ports
IPX-FSW-12	10G 12 Port Layer 3 SFP + Fiber Switch wit 8 1G RJ45 Ports
IPX-FSW-24	10G 24 Port Layer 3 SFP + Fiber Switch wit 4 1G RJ45 Ports
IPX-SFP-10GMM-1	10G SFP+Multi-Mode LC 50/125 Module

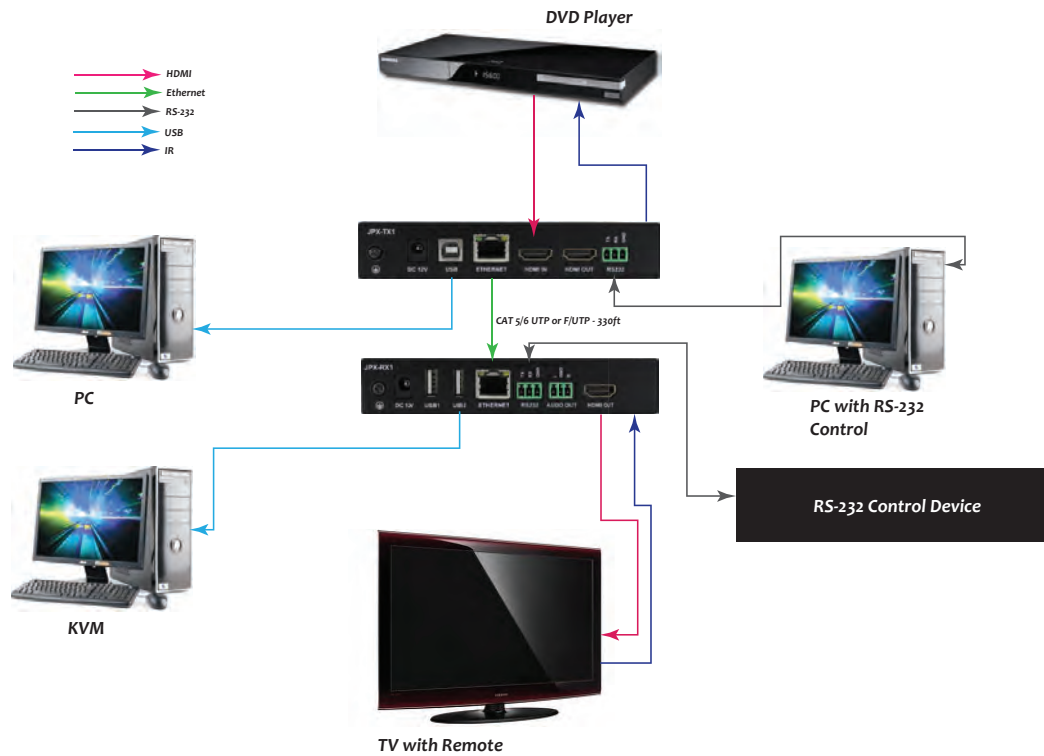


IPBT
ASE

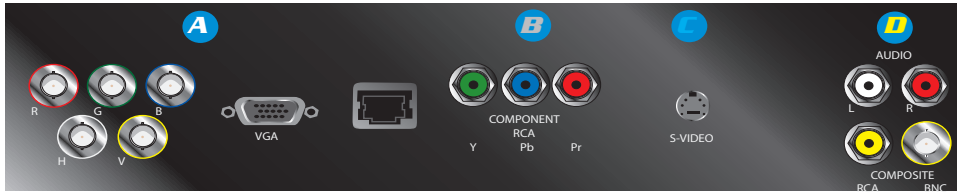
HPX SERIES DESIGN



JPX SERIES DESIGN



PROFESSIONAL ANALOG VIDEO



- A** RGBHV / SVGA- RGBHV signals are separated into five signal paths
- B** Component Video- RGB - Color and video information split into three signal paths
- C** S-Video - Y/C - Luminance and Chrominance split into two signal paths
- D** Composite Video - All video signaling through 1 signal path

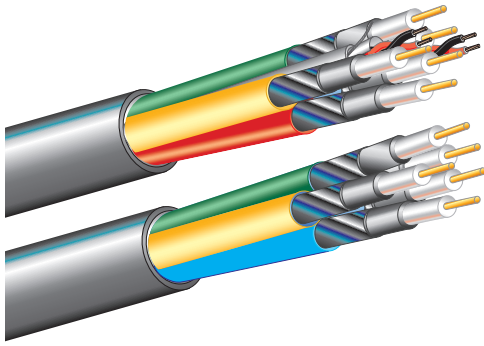
PRODUCT INDEX:

A	Minature RGBHV/VGA Non Plenum Bulk	62
A	Miniature RGBHV/SVGA Plenum	63
	HD15 Connectors- VGA	64
	VGA and RGBHV Connectors and Assemblies	64-65
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	VGA Switch and Installation Tools.....	67
	NANOSKEW - VGA OVER UTP.....	68
	VGA EXTENDERS.....	69
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	Component Video Connectors and Accessories	71-72
C	S-VIDEO (Y/C) CABLES.....	73
	S-VIDEO CONNECTORS/ASSEMBLIES.....	73
D	COMPOSITE VIDEO CABLES.....	74
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Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.





RGBHV/SVGA Video Cable
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	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
5CRGB	CM	5 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Gas Injected	Bifoil* 100% + TC Spiral Shield 95%	Overall PVC	.330	16.2 pf/ft	82%	75Ω	● Black
5 Coax RGBHV			PE† .073	Ind. Coax PVC .105						
6CRGB2P	CM	6 Cond. 25 AWG (Solid) BC 32.5Ω/M'	Gas Injected	Bifoil* 100% + TC Spiral Shield 95%	Overall PVC	.410	16.2 pf/ft	82%	75Ω	● Black
6 Coax RGBHV + Composite + 2 Pair Audio			PE† .073	Ind. Coax PVC .105	Twisted Pair Construction 2 Pair 22 Awg. (7x30) Bare Copper, Shielded, PVC Jackets (Black, Red)					

Individual Jacket Colors

Coax 1 : Red	Coax 2 : Green
Coax 3 : Blue	Coax 4 : White
Coax 5 : Yellow	Coax 6 : Black


Connectors and Tools

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

Order Number Builder

Catalog Number	Color	Put Up Length	Order Number
5CRGB	BK	500	5CRGBBK500

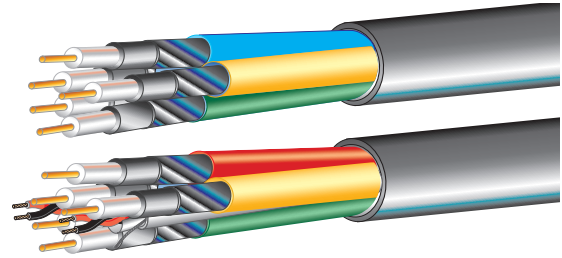
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

• Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities 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
WP258255	>23dB >21dB	.49	.98	1.7	3.51	4.69	6.51	7.72	9.30	10.88	13.34	18.92	22.16

RGBHV/SVGA Video Cable
RGB 25 Awg. Plenum 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 Inches	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Overall Jacket Color																				
255CRGB	CMP	5 Conductor 25 AWG (Solid) BC 32.5Ω/M'	Foam FEP .073	Bifoil* 100% + TC Spiral Shield 95%	Overall Flex Plenum	.310	16.2 pf/ft	82%	75Ω	Black																				
5 Coax RGBHV Plenum					Ind. Coax Flex Plenum	.105																								
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RGBHV/SVGA Video Cable
RGB 26 Awg. Stranded Spiral Shielded Cables

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness Inches	Shielding & % Coverage	Jacket Type Inches	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Overall Jacket Color
WP258265	CMP	5 Conductor 26 AWG (7x34) TC 41Ω/M'	Foam FEP .073	Bifoil* 100% + TC Spiral Shield 95%	Overall Flex Plenum	.310	16.1 pf/ft	82%	75Ω	Black
5 Coax RGBHV Plenum					Ind. Coax Flex Plenum	.108				

Individual Jacket Colors

Coax 1 : Red	Coax 2 : Green
Coax 3 : Blue	Coax 4 : White
Coax 5 : Yellow	

Connectors and Tools

Connector Type	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC	CN-BM74-19	TL-KLEIN or TL-825	TL-105
75Ω Compression BNC	CN-CSBNC-26	TL-KLEIN or TL-CSST-RGB	TL-SNSA
RCA Compression	CN-CSRCA-26	TL-KLEIN or TL-CSST-RGB	TL-SNSA
HD15 Term.Block	CN-MX15M Male CN-MX15F Female	CN-MX915H Hood	CN-MX915H Hood

EXTRON **WPW**
22-103-03 WP258265
MHR-5

Video Connectors
HD 15- 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



CN-MX15M
With Hood
CN-MX915H



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

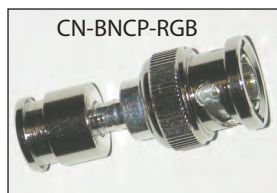


BTN58-xx - Strain Relief Boots for Miniature Coaxial Connectors
 BTN59-xx - Strain Relief Boots for RG59/U Coaxial Connectors
 xx: RD,GN,BL,WH,YE,BK

Video Connectors
75 Ohm BNC and RCA Compression Style

75 Ohm BNC Compression Style	
Catalog No.	Description
CN-CSBNC-26	Multi-Piece Miniature 26Awg. RGBHV - OR
CN-FSCR	Colored Rings- Bag of 100- for ICM
75 Ohm BNC Compression Style- Window	
CN-BNCP-RGB	1 Pc. Miniature 25Awg. RGB- Window
CN-BNCP-825	1 Pc. MiniMax 25Awg. Window
CN-BNC59MCV	1 Pc. RG59/U Window- Universal -YE
CN-BNC6MCV	1 Pc. RG6/U Window - Universal -PU
CN-RR	Colored Rings- Bag of 100- for small profile

RCA Style - Compression	
Catalog No.	Description
CN-CSRCA-26	Multi-Piece 26Awg. RGB
RCA Style - Compression - Window	
CN-RCP-RGB	1 Pc. Miniature RGB 25Awg. Window
CN-RCP-825	1 Pc. MiniMax 25Awg. RCA Window
CN-RCA59-MCV	1 Pc. RG59/U Window RCA Window - Universal
CN-RCA6-MCV	1 Pc. RG6/U Window RCA Window- Universal



**RGBHV- 5 Coaxial Cable
75 Ohm BNC**



5 - Miniature RGBHV PVC 75Ω BNC		
Catalog No.	Description	Length (FT)
CN-5CRGB-xx	5 COAX PVC RGBHV 5 BNC (M) to 5 BNC (M)	Replace xx with: 12, 25,50,75,100,150

5 - Miniature RGBHV Plenum 75Ω BNC		
Catalog No.	Description	Length (FT)
CN-255CRGB-xx	5 COAX Plenum RGBHV 5 BNC (M) to 5 BNC (M)	Replace xx with: 12, 25,50,75,100,150

**VGA- HD 15 To 5 BNC
SVGA ASSEMBLIES**



HD15(M) to 5-BNC (F) Economy		
Catalog No.	Description	Length (FT)
CN-EVGA-xx	ECONOMY HD15 (M) to 5 BNC (F)	Replace xx with: 1,3,6,10,15



5 - 25Awg RGB BNC to HD15(F) Plenum		
Catalog No.	Description	Length (FT)
CN255CRGBHDFxx	5 BNC (M) to HD15 (F)	Replace xx with: 25,50,75,100,150

5 - 25Awg RGB BNC to HD15(M) Plenum		
Catalog No.	Description	Length (FT)
CN255CRGBHDMxx	5 BNC (M) to HD15 (M)	Replace xx with: 25,50,75,100,150

**VGA- HD 15 To HD 15
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 with Audio		
Catalog No.	Description	Length (FT)
CN-HDVGAAP-xx	VGA with Audio HD15 (M) + 3.5mm Audio	Replace xx with: 6,10,25

VGA 5 - 25Awg 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 with Audio and Composite Video -L/R Audio		
Catalog No.	Description	Length (FT)
CN-VGAAVA-xx	VGA+AUDIO+VIDEO + L/R AUDIO	Replace xx with: 6,10,25,35,50

VGA 5 - 25Awg RGB HD15(M) to HD15(M) Plenum		
Catalog No.	Description	Length (FT)
CN255CRGHDMxx	HD15 (M) to HD15 (M)	Replace xx with: 25,50,75,100,150

CN-25VGAAVA-xx	VGA+AUDIO+VIDEO + L/R AUDIO PLENUM	Replace xx with: 6,10,25,35,50
----------------	---------------------------------------	-----------------------------------

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



VGA Install Kits- 25 AWG Plenum- 255CRGB

HD 15 Male to 5 BNC 75Ω		
Catalog No.	Description	Length (FT)
CN255CRGKBHMxx	HD 15 Male to 5 BNC	Replace xx with: 25,50,75,100,150,175

Note: HD15 (M) to 5- BNC 255CRGB Install Kit Includes:

- 1- Length of RGBHV 25AWG. Plenum Cable Connected with 1 HD15 Male.
- 5- 75Ω BNC Connectors- Crimp or Compression
- 5- Colored Connector Boots
- 1- Piece of Heat Shrink Tube

Note: Crimp is the Standard. For Compression Connectors contact WPW Engineering.



EXTRON
SY ISTP/xx
26-512

WPW
CN255CRGKBHMxx

HD 15 Male to HD 15 Male or Female		
Catalog No.	Description	Length (FT)
CN255CRGKHMfxx	HD 15 M- HD15 M/F	Replace xx with: 25,50,75,100,150,175

Note: HD15 (M) to HD15 (M or F) 255CRGB Install Kit Includes:

- 1- Length of RGBHV 25AWG. Plenum Cable Connected with 1 HD15 Male.
- The other end is prepared for field termination
- 1- HD15 Male/ 1 HD15 Female
- 1- Piece of Heat Shrink Tube
- 1- HD15 Hood



EXTRON
VGA ISTP/xx
26-514

WPW
CN255CRGKHMfxx

HD 15 Male to HD 15 Terminal Block		
Catalog No.	Description	Length (FT)
CN255CRGKHTBxx	HD 15 M- HD15 TB	Replace xx with: 25,50,75,100,150,175

Note: HD15 (M) to HD15 Terminal Block 255CRGB Install Kit Includes:

- 1- Length of RGBHV 25AWG. Plenum Cable Connected with 1 HD15 Male.
- The other end is prepared for field termination
- 1- HD15 Terminal Block (F)- Works with WPW AV WallPlates Pg. 113-115



HD 15 Male to HD 15 MaxBlox		
Catalog No.	Description	Length (FT)
CN255CRGKHMxxx	HD 15 M- HD15 MaxBlox	Replace xx with: 25,50,75,100,150,175

Note: HD15 (M) to HD15 Terminal Block 255CRGB Install Kit Includes:

- 1- Length of RGBHV 25AWG. Plenum Cable Connected with 1 HD15 Male.
- The other end is prepared for field termination
- 1- HD15 MaxBlox Terminal Block (F) with Hood



Installation Tools

Stripping Tools	
Catalog No.	Description
TL-124	3 Cut Tool RG8, RG11, RG213
TL-825	MiniMax 25Awg.
TL-CSST	Compression Strip Tool- 2 Cut- RG59 & 6
TL-KLEIN	All Purpose Strip Tool
TL-7503	Pro Series 3 step adjustable blades



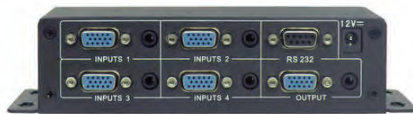
Tools Crimp and Compression	
Catalog No.	Description
TL-104	RG58, RG59/U, RG59 Plenum
TL-105	MiniMax 25Awg.and 26Awg.
TL-803	Universal MiniMax and RG59
TL-107	Universal RG59, RG6
TL-SNSA	Compression Tool BNC, RCA, F
TL-548G	Alternate Compression Tool
TL-CSBNC-11	RG11/U Comp. Tool



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

VGA Switch - 4x1 RGBHV Switch



The AS-41V is a 4 x 1 VGA switcher with front panel and RS-232 control. In addition, the AS-41V has volume, bass, and treble control along with break away switching. Its small and compact size allows it to fit nicely in carts, racks, and under tables.

- 4x1 RGBHV Switcher
- Max Resolution 3200x2400 MHz
- Volume Control
- Bass & Treble Control
- Audio Break-away Switching
- H/V Sync Skew-free
- Front Button Control
- RS-232 Control

VGA Switch	
Catalog No.	Description
AS-41V	4 x 1 VGA Switch

VGA Converters

VGA Converters	
Catalog No.	Description
ASP-HTV	HDMI to VGA Converter
ASP-VTHS	VGA to HDMI Converter Scaler

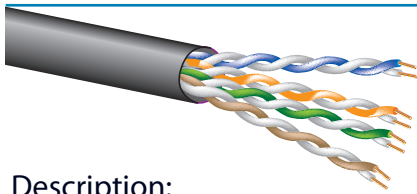


VGA/DVI Products

Adapters and Accessories

VGA to DVI ADAPTERS	
Catalog No.	Description
CN-E09AF-HD15M	DVI-A F - VGA -M ADAPTER
CN-E09AM-HD15F	DVI-A M - VGA -F ADAPTER





**Digital Signage Video Cable
4 Pair 24 AWG UTP- NanoSkew WPW Cable**

Description:

- ASTM Solid Bare Copper • Plenum and Non-Plenum Versions • 4 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

Applications:

- UTP Based Video
- RGB over UTP
- Non-Plenum Versions for use in vertical run in a shaft and for general purpose communications use in accordance with Article 800 of the NEC
- Plenum Version for use in air handling ducts and spaces in accordance with Article 800 of the NEC

NOT USED IN DATA APPLICATIONS

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
 NS424	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP	PVC	.190	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● BLACK
NS25424	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic Plenum	None UTP	Thermo-Plastic	.185	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● BLACK
 NS424-IO	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic Plenum	None UTP Water-blocking	Thermo-Plastic	.250	CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● BLACK

Indoor/Outdoor

EXTRON
22-141-03
UTP23SF-4
22-142-03
UTP23SF-4P

WPW
NS424
NS25424

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Connectors see Pg. 36-37

Physical Characteristics	
Cable Weight	PL- 23 lbs/1000ft NPL- 20 lbs/1000ft
Bend Radius	1" Min (4 x Cable O.D.)
Nom. Vel. of Prop.	PL- 72% NPL - 68%
Pulling Tension	25 lbf Max.

Propagation Delay (Skew) 2.2ns/100m Nominal

Color Code		
Pair No.	1st Cond. Base/Band	2nd Cond.
1	White/Blue	Blue
2	White/Orange	Orange
3	White/Green	Green
4	White/Brown	Brown
JACKET: Maroon		

Notes:

West Penn Wire's low skew video twisted pair cable is a proven cost-effective alternative to coax for RGB video applications. This cable was developed in response to the increasing digital signage applications for marketing and advertising. Low skew cable supports longer cable runs than currently available with coax or data cables, has a smaller outside diameter than coax, and can be hidden via plenums or in walls. Made with 24 AWG solid copper cable, it is listed by Underwriters Laboratories as either plenum (CMP) or riser (CMR) applications

Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
NS424	BK	1000	NS424BK1000

LENGTHS OTHER THAN 1000FT. ARE AVAILABLE

Digital Signage Products

VGA over NanoSkew West Penn Cable

VGA Extender over NanoSkew Cables	
Catalog No.	Description
CN-R02EXT-C5E	VGA UTP Extender - Box Style 1000ft. over NanoSkew WPW Cables (TX & RX Included)

500ft over Cat5E

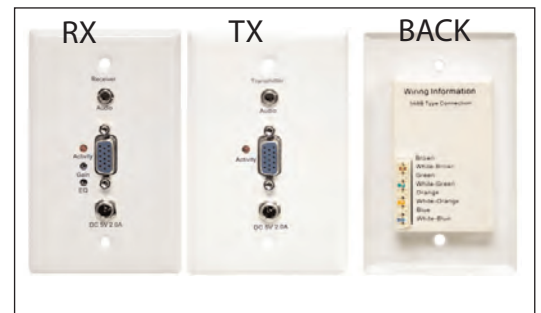


VGA + Audio Extender over NanoSkew Cables	
Catalog No.	Description
CN-R02EXT-C5E35	VGA + Audio UTP Extender - Box Style 1000ft. over NanoSkew WPW Cables (TX & RX Included)

CNR02EXTC5E35T VGA + Audio UTP Extender - Box Style - TX ONLY
 CNR02EXTC5E35R VGA + Audio UTP Extender - Box Style - RX ONLY



VGA + Audio Extender over NanoSkew Cables - Wall Plate	
Catalog No.	Description
CN-R02EXT-35FP	VGA + Audio UTP Extender - Wall Plate - 110 STYLE 1000ft. over NanoSkew WPW Cables (TX & RX Included)
CN-R02TEXT-35JP	VGA + Audio UTP Extender - Wall Plate -RJ45 STYLE 1000ft. over NanoSkew WPW Cables (TX & RX Included)
CN-R02EXT-35JT	VGA + Audio UTP Extender - Wall Plate -RJ45 STYLE TX ONLY
CN-R02EXT-35JR	VGA + Audio UTP Extender - Wall Plate -RJ45 STYLE RX ONLY



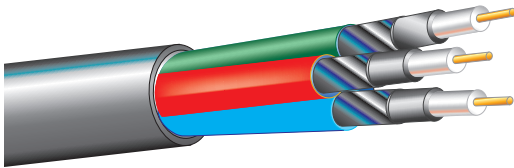
VGA + RS-232 Extender over NanoSkew Cables	
Catalog No.	Description
CN-R02TEXT-RS	VGA + RS-232 UTP Extender - BOX STYLE 1000ft. over NanoSkew WPW Cables (TX & RX Included)
CN-R02TEXT-RSFP	VGA + RS-232 UTP Extender - Wall Plate - 110 STYLE 1000ft. over NanoSkew WPW Cables (TX & RX Included)

**VGA Extender
Over Category 5E/6 Cables**

VGA Extender over Category 5E/6 Cables	
Catalog No.	Description
AS-CAT1-VGA	Supports VGA and UXGA, RS-232, Audio, IR - 1000ft

Supports up to WUXGA [1920x1200@60] or UXGA [1600x1200@60] to 1,000ft (330m)
 Supports 720p component video signal to 1,000ft (330m)
 Supports RS-232 half-duplex & bi-directional IR pass-through
 Supports analog stereo audio and digital S/PDIF stereo audio
 Video and audio local out on transmitting unit for easy monitoring
 Adjustable equalization and gain control on receiving unit for signal tuning
 De-skew compensation for RGB delay control
 Wall mounting case & interlocked power jack





**Component Video Cable
RGB 25 And 26Awg. 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

NON-PLENUM VERSION

Standard spool size 1000ft.

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

PLENUM VERSION

Standard spool size 1000ft.

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

Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
3CRGB	BK	500	3CRGBBK500

LENGTHS OTHER THAN 1000FT. ARE AVAILABLE



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Individual Jacket Colors

Coax 1 : Red	Coax 2 : Green
Coax 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

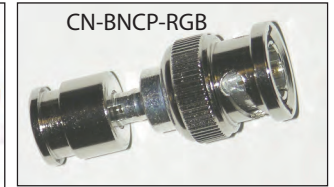
Electrical Specifications

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
26 Awg Plenum	>23dB >21dB	.5	1.19	1.71	4.7	6.3	9.1	10.62	13.62	16.2	19.5	35.3	43.7

Video Connectors

75 Ohm BNC - Compression

75 Ohm BNC Compression Style	
Catalog No.	Description
CN-BNCP-RGB	1 P.C. Compression BNC for 25AWG Solid RGB
75 Ohm BNC Compression Style- Window	
CN-RR	Colored Rings- Bag of 100- for small profile



Video Connectors

75 Ohm BNC - Crimp

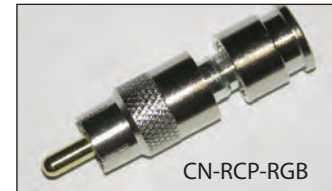
75 Ohm BNC Crimp Style	
Catalog No.	Description
CN-BM74-19	4 P.C. Miniature RGBHV 25 & 26 AWG



Video Connectors

RCA - Video Connector

RCA Compression Video Style	
Catalog No.	Description
CN-RCP-RGB	Compression RCA for 25AWG Solid RGB
CN-CSRCA-26	Compression RCA for 26AWG RGB



Installation Tools

Stripping Tools	
Catalog No.	Description
TL-825	MiniMax 25Awg.
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 25Awg.and 26Awg.
TL-803	Universal MiniMax and RG59
TL-SNSA	Compression Tool BNC, RCA, F
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

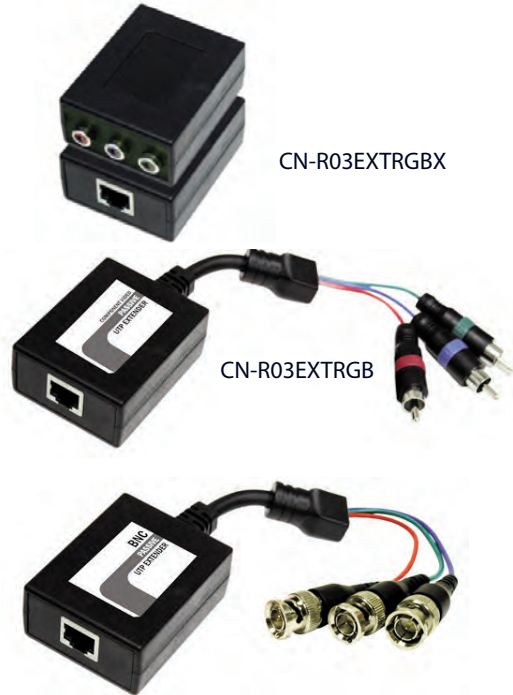
3 Miniature Component Video 26Awg. RCA Plenum		
Catalog No.	Description	Length (FT)
CN253CRGBRCAxx	3 COAX PVC RGB	Replace xx with: 12, 25,50,75,100,150

3 - Miniature RGB 25Awg. PVC 75Ω BNC		
Catalog No.	Description	Length (FT)
CN-3CRGB-xx	3 COAX PlenumRGB 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



RGB Extenders over Network Cabling

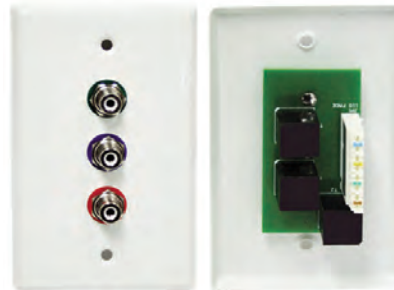


CN-R03EXTRGBX

CN-R03EXTRGB

Component Video over Network Cable	
Catalog No.	Description
CN-R03EXTRGBX	Box Set TX/RX RGB - 3 RCA to RJ45
CN-R03EXT3BNCX	Box Set TX/RX RGB - 3 BNC to RJ45
CN-R03EXTRGB	Pigtail Box TX/RX RGB - 3 RCA Pigtail to RJ45
CN-R03EXT3BNC	Pigtail Box TX/RX RGB - 3 BNC Pigtail to RJ45
CN-R03EXTRGB-FP	Wall Plate TX/RX RGB - 3 RCA to RJ45
CN-R03EXT3BNCFP	Wall Plate TX/RX RGB - 3 BNC to RJ45

- Works with ONE Category 5e/6 Cable
- Category 5E Cables: 4245 CMR 254245 CMP
- Category 6 Cables: 4246 CMR 254246 CMP
- Distances:
 - 720P 400ft
 - 1080i 350ft
 - 1080p 300ft



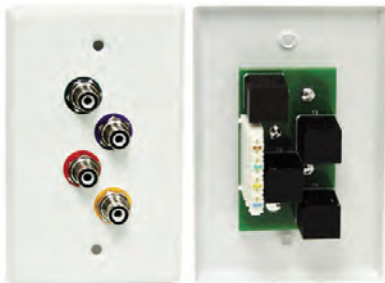
CN-R03EXTRGB-FP



CN-R03EXT4RCA

Component Video & Digital Audio Extenders	
Catalog No.	Description
CN-R03EXT4RCAAX	Box Set TX/RX RGB + Digital Audio- 4 RCA to RJ45
CN-R03EXT4RCA	Pigtail Box TX/RX RGB+ Digital Audio - 4 RCA Pigtail to RJ45
CN-R03EXT4RCAFP	Wall Plate TX/RX RGB + Digital Audio - 4 RCA to RJ45

- Works with ONE Category 5e/6 Cable
- Category 5E Cables: 4245 CMR 254245 CMP
- Category 6 Cables: 4246 CMR 254246 CMP
- Distances:
 - 720P 400ft
 - 1080i 350ft
 - 1080p 300ft

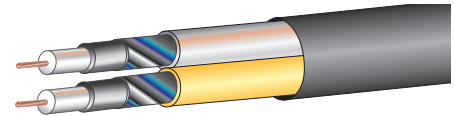


CN-R03EXT4RCAFP



S-Video Cable


S-Video Cable



Applications:

- Pro-Video
- SVHS
- CCTV

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
 252CSVHS Dual SVHS Plenum	CMP	25 AWG (Solid) BC 32.5Ω/M'	Foam FEP	Bare Copper Braid 95%	Flexible Plenum	.150 x .260	16.2 pf/ft	82%	75Ω	Black
			Connector Type 75Ω BNC 4 Pin Mini Din			Connectors CN-BNCP-RGB CN-SVHS-M				

Notes: 252CSVHS

Overall Black Jacket
Yellow Coax- Luminance
White Coax:- Chrominance



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

S-Video Connectors

CN-MD4FFN



S-Video Connectors	
Catalog No.	Description
CN-SVHS-M	4 PIN MINI DIN SVHS
CN-MD4FFN	4 PIN MINI DIN SVHS Panel Mt. feed Thru
CN-TCS415PST	SVHS Female to Terminal Block Panel Mt.
CN-BNCP-825	75 Ohm BNC Compression for 252825
CN-BNCP-RGB	75 Ohm BNC for 252CSVHS.



Applications:

- Digital Video-SDI
- AES3id & SPDIF Digital Audio
- CCTV
- CATV

Broadcast Video Cable Pro-Video/ Serial Digital SDI

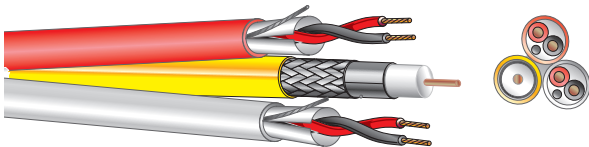
Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches								
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	Black
						75Ω 3 Pc. Crimp BNC	CN-BM74-18	TL-KLEIN or TL-825	TL-105		
						75Ω Compression RCA	CN-RCP-825	TL-CSST	TL-548G		
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	Black
						75Ω 3 Pc. Crimp BNC	CN-BM74-18	TL-KLEIN or TL-825	TL-105		
						75Ω Compression RCA	CN-RCP-825	TL-CSST	TL-548G		
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	Black
						75Ω 3 Pc. BNC	CN-BM74-32	TL-7503	TL-104		
						75Ω Compression RCA	CN-RCA59MCV	TL-CSST	TL-SNSA		
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	Ivory
						75Ω 3 Pc. Crimp BNC	CN-BM74-32	TL-7503	TL-104		
						75Ω Compression RCA	CN-RCA59MCV	TL-CSST	TL-SNSA		

• Black • Red • Green • Blue • White • Yellow
Other colors available upon request, minimum quantities may apply

SDI JACKET COLORS

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



Standard spool size 1000ft.

Composite Audio/ Video Cables

Applications:

- Audio and Video

Catalog No.	Cable Types	Application	Connectors	NEC Type	Nom. Jacket O.D. & Color
LSAV	1- MiniMax SDI Coaxial Cable 2- 1 Pair 22 AWG Shielded Cables	Video	CN-RCP-RGB	CM	.316 " Unjacketed Lickity Split Bonded Cable
		Audio	CN-NYS373-RD CN-NYS373-BK		
LS25AV	1- MiniMax SDI PlenumCoaxial Cable 2- 1 Pair 22 AWG Shielded Cables- Plenum	Video	CN-RCP-RGB	CMP	.300" Unjacketed Lickity Split Bonded Cable
		Audio	CN-NYS373-RD CN-NYS373-BK		

Cable Types	Conductor Colors	Jacket Colors
Video Minimax SDI	--	Yellow
Audio Pair 1	1. Black, 2. Red	White
Audio Pair 2	1. Black, 2. Red	Red

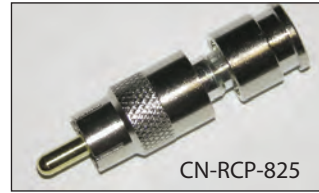


• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Video Connectors

RCA - Video Connector

RCA Style - Compression	
Catalog No.	Description
CN-RCA59MCV	1 Pc. Universal RCA RG59/U
RCA Style - Compression - Window	
CN-RCP-825	1 Pc. MiniMax 25Awg. RCA Window



Composite Video Assemblies

RCA To RCA

MiniMax Non-Plenum			MiniMax Plenum		
Catalog No.	Length	Jacket Colors	Catalog No.	Length	Jacket Colors
CNHD825BKRCA3	3 Foot	BLACK	CNHD25825BKR3	3 Foot	BLACK
CNHD825BKRCA6	6 Foot		CNHD25825BKR6	6 Foot	
CNHD825BKRCA10	10 Foot		CNHD25825BKR10	10 Foot	
CNHD825BKRCA15	15 Foot		CNHD25825BKR15	15 Foot	
CNHD825BKRCA20	20 Foot		CNHD25825BKR20	20 Foot	
CNHD825BKRCA25	25 Foot		CNHD25825BKR25	25 Foot	

Economy AV DUBBING Cables	
Catalog No.	Description
CN-ERCA-AVxx	3 RCA- 3 RCA AV Replace xx with: 3,6,12 feet
AV RCA Dubbing Plenum	
Catalog No.	Description
CNLS25AVRCAxx	1 Coax + 2- Twisted Pair Plenum Replace xx with: 15,25,50,75,100 feet



Extenders over Network Cabling



Composite Video +L/R Audio Extenders	
Catalog No.	Description
CN-R03EXTRWYX	Box Set TX/RX RWY - 3 RCA to RJ45
CN-R03EXTRWY	Pigtail Box TX/RX RWY - 3 RCA Pigtail to RJ45
CN-R03EXTRWY-JP	Wall Plate TX/RX RWY - 3 RCA Pigtail to RJ45
CN-RCARJ45	RCA -F- TO RJ45 JACK Video Balun
CN-RCATL	RCA -F- TO IDC Clamp Down - Video Balun
CN-RCAMTL	RCA -M- TO RJ45 JACK Video Balun

- Works with ONE Category 5e/6 Cable
- Category 5E Cables: 4245 CMR 254245 CMP
- Category 6 Cables: 4246 CMR 254246 CMP
- Distances:
 - 480p 500ft



Custom Built Plates and Panels

West Penn Wire and RCI custom has a strategic partnership to provide a complete installation package.

Single Gang AV Plates	
Catalog No.	Description
CN-xxHDTB3RS3.5	1G HD15 Term.Block, 3RCA(RWY)TB, S-Video, 3.5mm TB
CN-xxHD3RS3.5	1G HD15 , 3RCA(RWY), S-Video, 3.5mm Feed Thru
CN-xxHDTB3R3.5T	1G HD15 Term.Block, 3RCA(RWY)TB, 3.5mm TB
CN-xxHD3R3.5	1G HD15 , 3RCA(RWY), 3.5mm Feed Thru
CN-xxHDTB3.5	1G HD15 Term.Block, 3.5mm Feed Thru
CN-xxHD3.5	1G HD15, 3.5mm Feed Thru
CN-xxHDTB3.5T	1G HD15 Term.Block, 3.5mm Term. Block
CN-xxHDTBAH	1G HD15 Term.Block, 3.5mm Term. Block, HDMI Feed Thru
CN-xxHDAH	1G HD15, 3.5mm, HDMI Feed Thru
CN-xxHDTBAD	1G HD15 Term.Block, 3.5mm Term. Block, RJ45 Cat5E
CN-xxHDAD	1G HD15, 3.5mm, RJ45 Cat5E

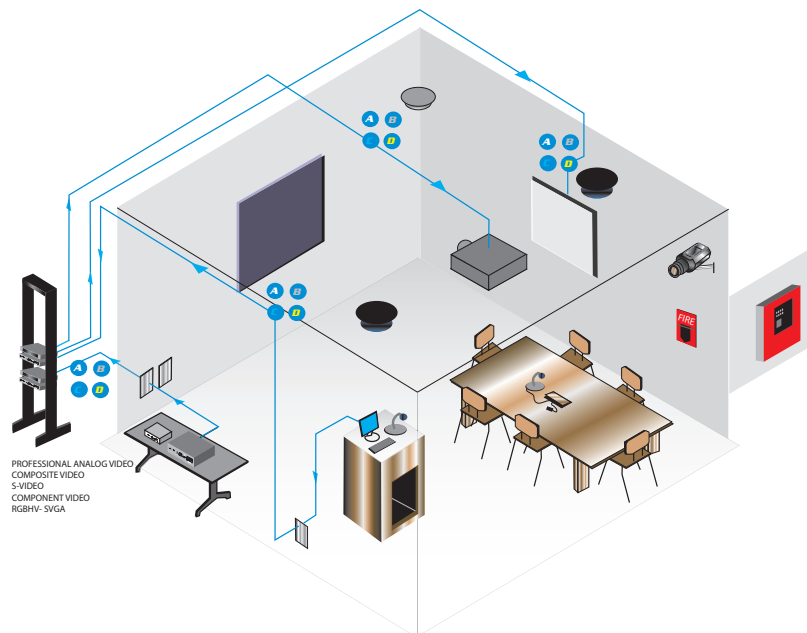
Dual Gang AV Plates	
Catalog No.	Description
CN-xx2GCL3	2G HD15, 3RCA(RWY), 3.5mm Feed Thru
CN-xx2GCL3TB	2G HD15 Term.Block, 3RCA(RWY)TB, 3.5mm TB
CN-xx2GCL2	2G HD15, 3RCA(RWY), 3.5mm Feed Thru, S-Video, RJ45, "F"
CN-xx2GCL2TB	2G HD15 TB, 3RCA(RWY)TB, 3.5mm TB, S-Video, RJ45, "F"
CN-xx2GCL4	2G HD15, 3RCA(RWY), 3.5mm Feed Thru, RJ45 Cat5E
CN-xx2GCL4TB	2G HD15 TB, 3RCA(RWY) TB, 3.5mm TB, RJ45 Cat5E
CN-xx2GCL7	2G HD15, 3RCA(RWY), 3.5mm Feed Thru, RJ45 Cat5E, HDMI
CN-xx2GCL7TB	2G HD15 TB, 3RCA(RWY) TB, 3.5mm TB, RJ45 Cat5E, HDMI

Replace xx with type of metal needed:

- SS- Stainless Steel
- AC - Anodized Al. Clear
- AB - Anodized Al.Black
- AW - Powder Coated Al. White



DIVISION 27 41 16- PRO VIDEO CABLES	
Catalog No.	Description
5CRGB	RGBHV 5 COAX MINIATURE CMR
255CRGB	RGBHV 5 COAX MINIATURE CMP
3CRGB	RGB 3 COAX MINIATURE CMR
253CRGB	RGB 3 COAX MINIATURE CMP
NS424	4PR. 24AWG UTP NANO SKEW CMR
NS25424	4PR. 24AWG UTP NANO SKEW CMP
252CSVHS	S-VIDEO 2 COND. CMP
HD825	MINIMAX COMPOSITE VIDEO CMR
HD25825	MINIMAX COMPOSITE VIDEO CMP
819	RG59 COMPOSITE VIDEO CMR
25819	RG59 COMPOSITE VIDEO CMP
6350	RG6 COMPOSITE VIDEO CMR
256350	RG6 COMPOSITE VIDEO CMP



CATV/MATV PRODUCTS

Application is the key. Many times a system calls out for a particular coaxial cable, for example RG6/U. This system may be compromised unless the appropriate cable is selected and installed. For a MATV/CATV system, a cable that will contain broadband signals and block unwanted RFI is recommended. Before you install a coaxial system, you need to match the cable to the system. It will make a difference.



PRODUCT INDEX:

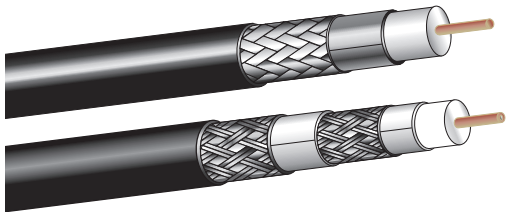
A	CATV/ MATV Broadband Cables	
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B		
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Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**CATV/MATV
RG6/U Type**

Applications:
• CATV / MATV



Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
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	BK
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	BK
AQC841 Aquaseal	CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180	Bifoil* 100% + Waterblock tape Al. Braid 65%	Sunlight Resistant PVC	.275	16.2 pf/ft	82%	75Ω	Black
6140 Flooded Burial	--	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	Black

Underground- In-Conduit



Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
841	WH	1000	841WH1000

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Notes:

Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
†- Gas Injected Polyethylene
*-Bifoil is an aluminum polyester aluminum tape with 100% coverage
100% Sweep Tested, 0.3MHz to 3GHz



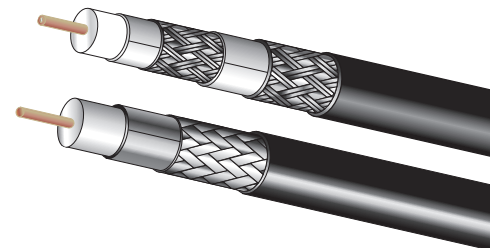
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

CATV/MATV



RG6/U Type Quad Shielded

Applications:

- CATV / MATV



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	Jacket Color
 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	● ○ BK, WH
					Connector Type "F" Type "F" Compression	Connector CN-F56ALX CN-F6MCV	Strip Tool TL-7502 TL-CSST	Crimp/Comp Tool TL-111 TL-548G		
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	● ○ BK, WH
					Connector Type "F" Type "F" Compression	Connector CN-F56ALX CN-F6MCV	Strip Tool TL-7502 TL-CSST	Crimp/Comp Tool TL-111 TL-548G		
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	● ○ BK, WH
					Connector Type "F" Type "F" Compression	Connector CN-F56ALX CN-F6MCV	Strip Tool TL-7502 TL-CSST	Crimp/Comp Tool TL-111 TL-548G		
 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	● ○ Black
					Connector Type "F" Type "F" Compression	Connector CN-F56ALX CN-F6MCV	Strip Tool TL-7502 TL-CSST	Crimp/Comp Tool TL-111 TL-548G		

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

Notes:

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

†- Gas Injected Polyethylene

*-Bifoil is an aluminum polyester aluminum tape with 100% coverage

100% Sweep Tested, 0.3MHz to 3GHz

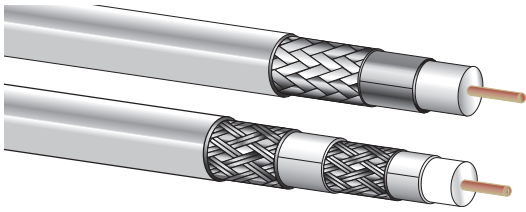
• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**CATV/MATV
RG6/U Plenum Type**

Applications:

- CATV / MATV for Plenum Spaces



Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Shielding		Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color				
			Thickness Inches	% Coverage										
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	Ivory				
											Connector Type	Connector	Strip Tool	Crimp/Comp Tool
											"F" Type	CN-F56TFE	TL-7502	TL-111
				"F" Compression	CN-F6MCV	TL-CSST	TL-SNSA							
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	Ivory				
											Connector Type	Connector	Strip Tool	Crimp/Comp Tool
											"F" Type	CN-F56TFE	TL-7502	TL-111
				"F" Compression	CN-F6MCV	TL-CSST	TL-SNSA							
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	Ivory, Black				
											Connector Type	Connector	Strip Tool	Crimp/Comp Tool
											"F" Type	CN-F56ALM	TL-7502	TL-111
				"F" Compression	CN-F6MCV	TL-CSST	TL-SNSA							
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	Ivory, Black				
											Connector Type	Connector	Strip Tool	Crimp/Comp Tool
											"F" Type	CN-F56ALM	TL-7502	TL-111
				"F" Compression	CN-F6MCV	TL-CSST	TL-SNSA							

Order Number Builder

Catalog Number	Color	Put Up Length	Order Number
256100	IV	1000	256100IV1000

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

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

Notes:

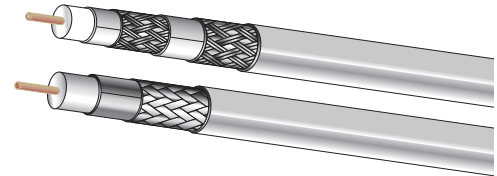
- Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
- †- Gas Injected Polyethylene
- *-Bifoil is an aluminum polyester aluminum tape with 100% coverage
- 100% Sweep Tested, 0.3MHz to 3GHz

CATV/MATV

RG11/U Type Non Plenum & Plenecon® PLENUM Cables

Applications:

- CATV / MATV Non-Plenum and Plenum



Standard spool size 1000ft.

Non-Plenum

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches	Inches							
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	Black ●
					Connector Type "F" Type "F" Compression		Connector CN-F11ALX CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-112 TL-CCT-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	Black ●
					Connector Type "F" Type "F" Compression		Connector CN-F11ALX CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-112 TL-CCT-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	Black ●
					Connector Type "F" Type "F" Compression		Connector CN-F11ALX CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-112 TL-CCT-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	Black ●
					Connector Type "F" Type "F" Compression		Connector CN-F11ALX CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-112 TL-CCT-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	Black ●
					Connector Type "F" Type "F" Compression		Connector CN-F11ALX CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-112 TL-CCT-SS59/11

Plenum

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches	Inches							
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	Natural ●
					Connector Type "F" Type "F" Compression		Connector CN-F11TFE CN-FS11PL		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-115 TL-CCT-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	Natural ●
					Connector Type "F" Type "F" Compression		Connector CN-F11TFE CN-FS11V		Strip Tool TL-124 TL-PS11		Crimp/Comp Tool TL-115 TL-CCT-SS59/11

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

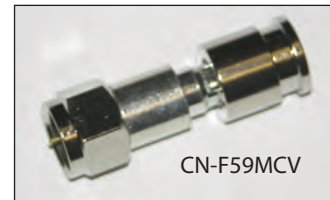


CN-F11ALX

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
CN-FS11V	RG11/U, Quad-Shield Plenum
CN-FS11PL	RG11 Plenum
CN-DB6PL2 *	Double Bubble 25Q841 & 256300



CN-F59MCV

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-F81NW



CN-F71



CN-ADP106



CN-ADP103



CN-ADP100



CN-ADP102

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

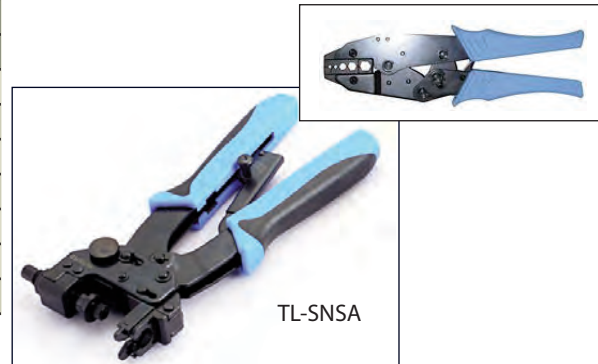
Stripping Tools	
Catalog No.	Description
TL-7502	2 Cut Tool- RG59, RG6, RG58
TL-124	3 Cut Tool RG8, RG11, RG213
TL-CSST	Compression Strip Tool- 2 Cut RG59 & RG6
TL-PS11	Compression Strip Tool RG11/U
TL-59-6	Miniature Strip Tool RG59 and 6



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-SNSA	Compression Tool RG59 / RG6
TL-SNS11	Compression Tool RG11- CN-FSNS-11
TL-CCT-SS59/11	Compression Tool RG11- CN-FS11V & CN-FS11PL
TL-548G	Alternate Compression Tool



TL-SNSA

Notes:

TL-SNSA and TL-8808 - Accepts RG59, & RG6

TL-548G- Accepts RG59, RG6, & RG11

Crimp Tool Die Sizes:

TL-111: .324, .359

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

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

AV TUNER - 4K

AV Tuner with IPTV	
Catalog No.	Description
V-TUNEPRO-4K	Total tuning solution with IPTV - 4 Tuners in 1 Box



Best 4k AV Tuner in the Industry!!!

The V-Tune Pro 4K delivers a total 4K2K High Definition worldwide tuning solution for any integrated system which requires IPTV, ATSC, QAM, DVB, NTSC & PAL. The tuner is capable of decoding MPEG2, MPEG4, VC-1, H.264, and H.265 with resolutions up to 4K @ 60Hz via RF and LAN.

The V-Tune 4K is integrator-friendly with IR, RS-232 and IP-based control. The video outputs are HDMI 2.0 for the latest connectivity and composite/YPbPr video for legacy. Audio is provided with unbalanced stereo RCA connections, S/PDIF, and optical. The VTune Pro 4K defines versatility as it can be fit into nearly any integrated system topology. There is no other tuner on the market which can support all these features at a cost effective price.

CATV/MATV

Racks

Free Standing Racks	
XDR-4819	19" Free Standing Rack- 48"
XDR-7219	19" Free Standing Rack- 72"
XDR-8419	19" Free Standing Rack- 84"
XCR-8419	19" Cable Management Rack- 84"



CATV/MATV

Empty Patch Panels Enclosures

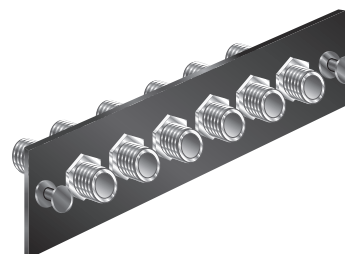
Rack Mount Patch Panels	
PP-W1U1	Empty Rack - Load with 3 Adapter Plates 1 RU
PP-W2U1	Empty Rack - Load with 6 Adapter Plates 2 RU
PP-W4U1	Empty Rack - Load with 12 Adapter Plates 3 RU



CATV/MATV

Adaptor Plates 5.0625" X 1.125"

"F" Type Adapter Plates	
CN-ADPF81	6 "F" Type Female to Female Plate Installed
CN-ADPF81E	6 "F" Type Position Plate Empty
CN-ADP6BNK	Blank Plate



CN-ADPF81

CATV/MATV - Over UTP Cables

Baluns

CATV/MATV Passive Balun- "F" Type	
CN-CATVF	"F" Type to RJ45

Category 5 or Better UTP
Bandwidth: 5MHz to 862MHz



CN-CATVF

CATV/MATV Passive Balun- RCA	
CN-CATVRCAS	RCA Type to RJ45 Keystone Insert Design

Category 5 or Better UTP
Bandwidth: 5MHz to 862MHz

RF - 50 Ohm Coaxial Cables



A TNC - Threaded Neill-Concelman - Threaded Version of a BNC (Bayonet Style). A TNC can be either 50Ω or 75Ω Impedance, but most applications will call for a 50Ω Impedance. The TNC has great performance at microwave frequencies.

B "N"Type - Neill Connector - Threaded RF connector. The "N"Type connector is used for microwave frequencies.

C UHF and/or Mini UHF - Threaded RF connector. The UHF connector is used widely in band radio frequencies.

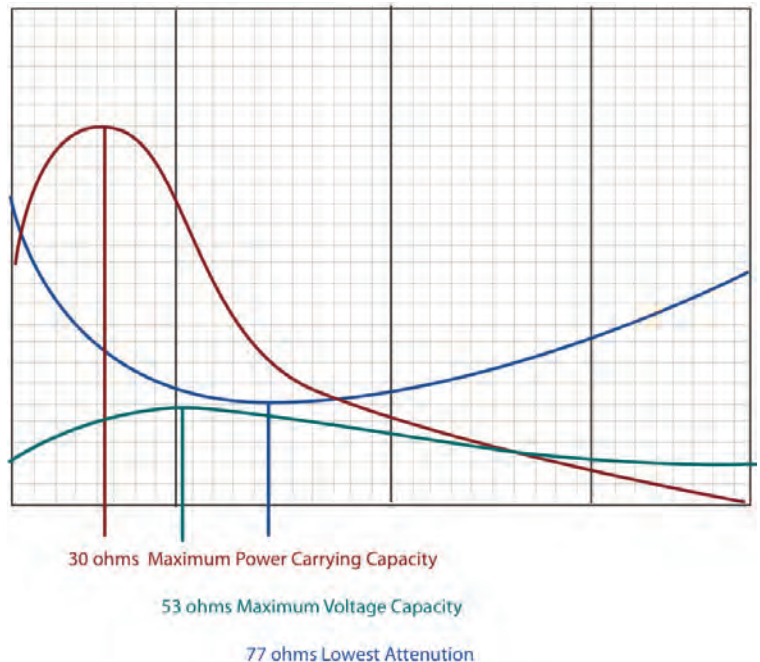
RF 50Ω Coaxial cables are designed and intended to carry power and voltage. 50Ω is a compromise in the impedance of the cable to allow these functions to be performed.

50Ω cables can range in their impedance from 47Ω to 52Ω. There is not an ideal impedance, but 50Ω has been set for a performance benchmark.

There are many 50Ω applications:

- Wireless Microphones
- RF - Radio
 - Low Power
 - Emergency Antenna
 - Repeater/Translator
- Television
 - Low Power
 - Repeater/Translator
- STL - Studio Transmitter Link
- Microwave Links
- RPU - Remote Program Units

West Penn Wire offers a line of RG8/U RG/213 Type, RG8x/U, and RG58/U - 50Ω coaxial cables. Also included are 50Ω BNC, TNC, N and UHF Connectors, Adapters, and Cable Assemblies.



PRODUCT INDEX:

RF Coaxial Cables

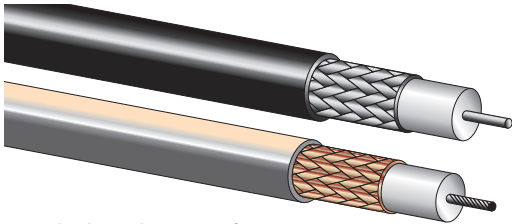
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RG8x/U Type.....	86

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Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



RF Transmission 50 Ohm Coaxial
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	Jacket Color
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	Black
See connector listings										
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	Black
See connector listings										
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	Ivory
See connector listings										
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	Black
See connector listings										
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	Natural
See connector listings										
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	Black
See connector listings										
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	Black
See connector listings										
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	Black
See connector listings										

Order Number Builder

Catalog Number	Color	Put Up Length	Order Number
25810	NT	1000	25810NT1000



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

- 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	4 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	UHF Type	Mini UHF Type
812	CN-BM53-13	CN-TM53-1	CN-NM53-812	CN-PL259-1	CN-MUHF-1
25812	CN-BM53-25	CN-TM53-25812	CN-NM53-25812		
813	CN-BM53-13	CN-TM53-1	CN-NM53-812	CN-PL259-1	CN-MUHF-1
810	CN-BM53-8	CN25810KTNC	CN-NM53/110	CN-UM52-810	
25810	CN25810KBNC	CN25810KTNC	CN-NM53-25810	CN-UM52-25810	
98G8	Call WPW				
2598G8	Call WPW				
807X	CN-BM53-8X	CN-TM53-807	CN-NM53-8X	CN-UM52-807	CN-MUHF-807



Adapters



TNC Adapters	
Catalog No.	Description
CN-ADPTTJJ	TNC Jack to TNC Jack
CN-ADPTTTP	TNC Plug to TNC Plug
CN-ADPTTJTT	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-ADPNNJTT	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

TNC Assemblies		
Catalog No.	Description	Footage
CN-812TMTM-xx	RG58A/U Assembly Non-Plenum TNC Male to TNC Male	Replace xx: 1,3,5,7,10,15,20,25
CN-807TMTM-xx	RG8x/U Flex Assembly Non-Plenum TNC Male to TNC Male	Replace xx: 1,3,5,7,10,15,20,25

"N" Type Assemblies		
Catalog No.	Description	Footage
CN-810NMNM-xx	RG8/U Assembly Non-Plenum N Male to N Male	Replace xx: 5,10,15,20,25
CN-807NMNM-xx	RG8x/U Flex Assembly Non-Plenum N Male to N Male	Replace xx: 1,3,5,7,10,15,20,25

UHF Type Assemblies		
Catalog No.	Description	Footage
CN-812UMUM-xx	RG58A/U Assembly Non-Plenum UHF Male to UHF Male	Replace xx: 1,3,5,7,10,15,20,25
CN-807UMUM-xx	RG8x/U Flex Assembly Non-Plenum UHF Male to UHF Male	Replace xx: 1,3,5,7,10,15,20,25

TNC to "N" Type Assemblies		
Catalog No.	Description	Footage
CN-807TMNM-xx	RG8x/U Flex Assembly Non-Plenum TNC Male to N Male	Replace xx: 1,3,5,7,10,15,20,25

BNC to TNC Type Assemblies		
Catalog No.	Description	Footage
CN-812BMTM-xx	RG58A/U Assembly Non-Plenum BNC Male to TNC Male	Replace xx: 1,3,5,7,10,15,20,25
CN-807BMTM-xx	RG8x/U Flex Assembly Non-Plenum BNC Male to TNC Male	Replace xx: 1,3,5,7,10,15,20,25

BNC to "N" Type Assemblies		
Catalog No.	Description	Footage
CN-810BMNM-xx	RG8/U Assembly Non-Plenum BNC Male to N Male	Replace xx: 5,7,10,15,20,25
CN-807BMNM-xx	RG8x/U Flex Assembly Non-Plenum BNC Male to N Male	Replace xx: 1,3,5,7,10,15,20,25

NOTE: OTHER CABLE ASSEMBLIES CONFIGURATIONS CAN BE SPECIAL MADE. CONTACT WPW ENGINEERING

Installation Tools

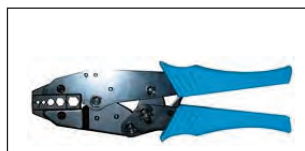
Crimp Tools	
Catalog No.	Description
TL-104	RG58 Crimp Tool
TL-105	RG58/U Plenum Crimp Tool
TL-112	RG8/U "N" Crimp Tool
TL-113	RG8/U & RG11/U
TL-115	RG8/U Plenum 25810
TL-119	RG8X/U

Strip Tools	
Catalog No.	Description
TL-7503	3 Blade Strip Tool
TL-124	RG8/ U Strip Tool



Crimp Tool Die Sizes: inches

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



SECURITY

Analog CCTV Security

IP CCTV Security

Fire Alarm

Access Control

SECURITY

West Penn Wire manufactures a wide range of cables, accessories and fiber optic products for these types of circuits used in CCTV, fire alarm and access control systems:

- > **IP-Based Cables & Related Products**
- > **Analog & Addressable Systems**
- > **High Temperature Cables**
- > **Access Control Cables & RS-485 Communications**

CCTV Products

Analog CCTV Coaxial Cables	90-97
Coaxial Cable Accessories	98-102
IP CCTV Copper Products.....	103-108
IP CCTV Fiber Optic Products.....	109-110

Fire Alarm Products

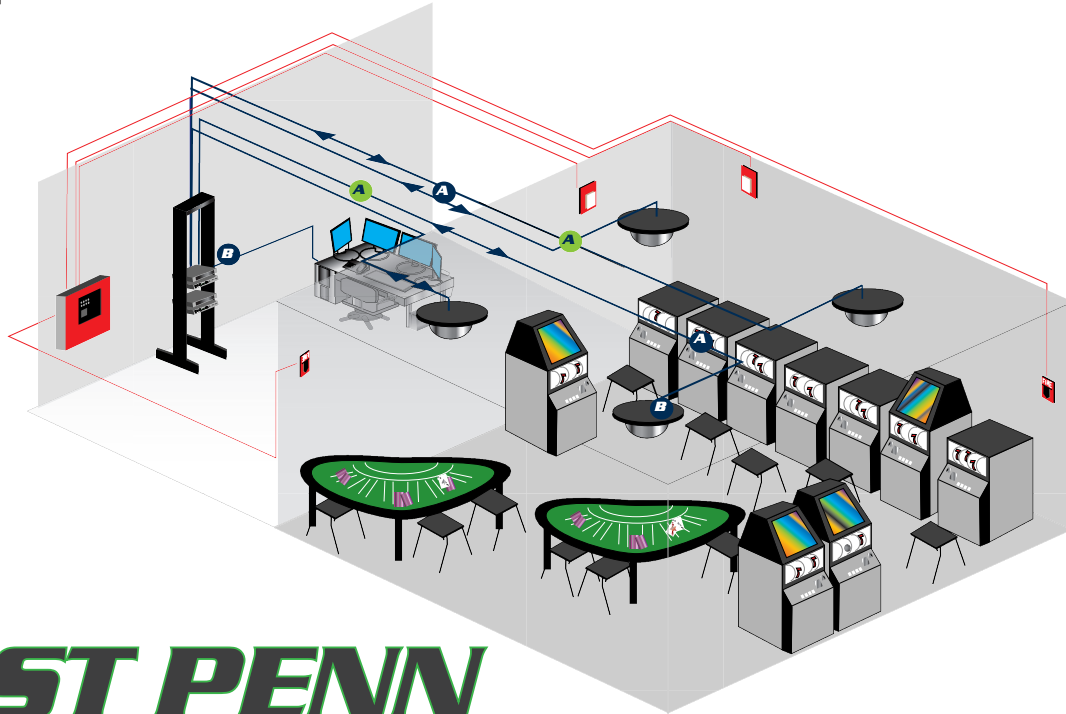
Fire Alarm Cables.....	113-124
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Access Control Products

Access Control Cables.....	126-136
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CCTV PRODUCTS

Identifiable. Reliable. Surveillance is a primary function in safety and security for many environments such as schools, casinos, prisons and businesses. The selection of cameras and other electronic equipment is a primary concern, but the link between the electronics should be taken with extreme caution. West Penn Wire provides CCTV coaxial cables from short run applications, IP Network Cables and Fiber Optic Products to the most critical long distance applications.



Features:

- MiniMax 25AWG- Ideal for runs up to 500ft.
- Copper tape barrier for improved shield effectiveness
- Plenum design
- Non-Plenum design
- Indoor/Outdoor design
- Outdoor design
- Video over UTP design- V/CAT
- CCTV Accessories

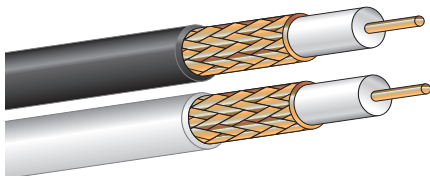
- IP CCTV Cables Cat5E, Cat6, Fiber Optics
- IP CCTV Accessories

PRODUCT INDEX:

A	Analog CCTV Security Cables	
	MiniMax 25AWG	90
	RG59/U Type	91-92
	RG59/U Type Plenum	93
	RG6/U Type (Non Plenum and Plenum).....	94-95
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	V/Cat Video over UTP (Non Plenum and Plenum).....	101
B	Analog CCTV ACCESSORIES	
	BNC Connectors	98
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A	IP CCTV Security Cables	
	IP CCTV Products Copper.....	103-108
	IP CCTV Fiber Optic Products.....	109-110



Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



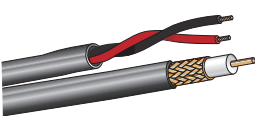
CCTV/ Security Video
Minimax Miniature
Applications:

- CCTV - Up to 500ft.
- Security Baseband Video
- Rack Building Cables

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding & % Coverage	Jacket Type	Nom. O.D. Inches	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches	Inches							
825	CM	25 AWG (Solid) BC 30Ω/M'	Gas Injected PE†	.085	Bare Copper Braid 95%	PVC	.146	16.2 pf/ft	82%	75Ω	Black
						Flex Plenum	.146	16.2 pf/ft	82%	75Ω	Black
25825	CMP	25 AWG (Solid) BC 30Ω/M'	Foam FEP	.078	Bare Copper Braid 95%						
						Connector Type	Connectors	Strip Tool	Crimp/Comp Tool		
						PVC	x .302	16.2 pf/ft	82%	75Ω	Black
Note: This cable contains 1 coax unit plus 1 pair 22 Awg. Shielded						Connector Type	Connectors	Strip Tool	Crimp/Comp Tool		

825182	CM	25 AWG (Solid) BC 30Ω/M'	Gas Injected PE†	.085	Bare Copper Braid 95%						
						Connector Type	Connectors	Strip Tool	Crimp/Comp Tool		
						PVC		16.2 pf/ft	82%	75Ω	Black, White
Note: This cable contains 1 coax unit plus 1 pair 18 Awg. Unshielded						Connector Type	Connectors	Strip Tool	Crimp/Comp Tool		



Order Number Builder

Catalog Number	Color	Put Up Length	Order Number
825	BK	1000	825BK1000

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Electrical Specifications

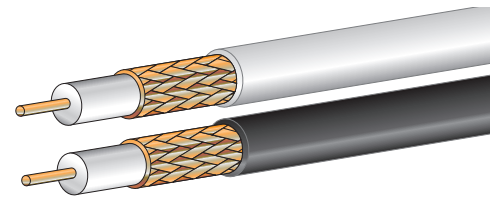
Catalog No.	Return Loss 100kHz-1GHz	Attenuation (db/100ft)								
		1 Mhz	10 Mhz	50 Mhz	100 Mhz	200 Mhz	400 Mhz	700 Mhz	900 Mhz	1 Ghz
Non-Plenum	>23dB	.5	1.8	3.12	4.19	5.79	8.59	11.14	13.22	14.41
Plenum	>23dB	.5	1.8	3.12	4.40	6.41	9.66	12.61	14.95	16.18

CCTV/ Security Video



RG59/U Type

Applications:

- CCTV- Up to 1200ft.
- Security Baseband Video




Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches		Inches					
815	CMR	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142 + Tape Barrier	Bare Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75Ω	● ○ BK, WH
										Connector Type 75Ω 3 Pc. Crimp BNC 75Ω Compression BNC
 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	● Black
										Connector Type 75Ω 3 Pc. Crimp BNC 75Ω Compression BNC
AQC815 Aquaseal® Indoor/ Outdoor	CM	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142 + Tape Barrier	Bare Copper Braid 95% + Aquaseal Tape	Sunlight Resistant PVC	.242	16.2 pf/ft	82%	75Ω	● Black
					Underground- In-Conduit					
 4815 Direct Burial	-	20 AWG (Solid) BC 10.1 Ω/M'	Gas Injected PE† .142 + Tape Barrier	Bare Copper Braid 95%	Inner Jkt. PVC	.242	16.2 pf/ft	82%	75Ω	● Black
					Outer Jkt. PE					

Notes:
Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
†- Gas Injected Polyethylene
100% Sweep Tested

Order Number Builder			
Catalog Number	Color	Put Up Length	Order Number
815	WH	500	815WH500

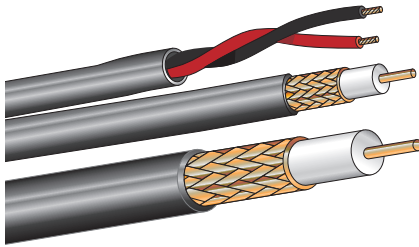
 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Applications:

- CCTV
- Security Baseband Video
- Economy CCTV - Up to 750ft.



Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches	% Coverage	Inches					
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	● ○ Black, White
			Siamese Construction This cable contains 1 coax unit plus 1 pair 18 Awg.(7x26) Unshielded							
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	● Black
			Siamese Construction This cable contains 1 coax unit plus 1 pair 18 Awg.(7x26) Unshielded							

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-BNC59MVCV	TL-CSST	TL-SNSA

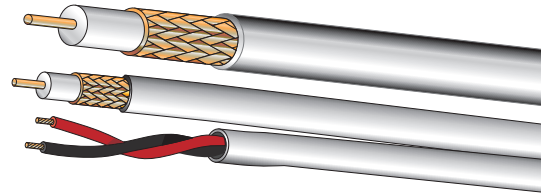
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

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

Notes:
Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
†- Gas Injected Polyethylene
100% Sweep Tested

CCTV/ Security Video
RG59/U Type Plenecon® PLENUM Cables



Applications:

- CCTV
- Security Baseband Video

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color	
			Inches	Inches								
25815	CMP	20 AWG (Solid) BC 10.1 Ω/M'	Foam FEP .135 + Tape Barrier		Bare Copper Braid 95%	Flex. Plenum	.198	16.2 pf/ft	82%	75Ω	Ivory	
252815	CMP	20 AWG (Solid) BC 10.1 Ω/M'	Foam FEP .135 + Tape Barrier		Bare Copper Braid 95%	Flex. Plenum	.198 x .465	16.2 pf/ft	82%	75Ω	Ivory Black	
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;"> Siamese Construction This cable contains 1 coax unit plus 1 pair 18 Awg.(7x26) Unshielded Fluoropolymer </td> </tr> </table>												Siamese Construction This cable contains 1 coax unit plus 1 pair 18 Awg.(7x26) Unshielded Fluoropolymer
Siamese Construction This cable contains 1 coax unit plus 1 pair 18 Awg.(7x26) Unshielded Fluoropolymer												

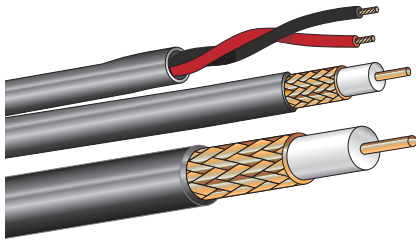
Connectors and Tools

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-SNSA

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 RG59/U	>23dB	.30	.68	1.80	3.00	3.91	5.30	7.24	8.29	8.76

Notes:
 Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
 †- Gas Injected Polyethylene
 100% Sweep Tested



**CCTV/ Security Video
RG6/U Type**

Applications:

- CCTV- Up to 1600ft.
- Security Baseband Video

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
806	CMR	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE † .180 + Tape Barrier	Bare Copper Braid 95%	PVC	.270	16.2 pf/ft	82%	75Ω	● Black
2806B	CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180 + Tape Barrier	Bare Copper Braid 95%	PVC	.280 x .580	16.2 pf/ft	82%	75Ω	● Black
AQC806 Aquaseal Indoor/ Outdoor	CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180 + Tape Barrier	Bare Copper Braid 95% Aquaseal Tape	Sunlight Resistant PVC	.280	16.2 pf/ft	82%	75Ω	● Black
AQC2806 Aquaseal	CM	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180 + Tape Barrier	B.C Braid 95% Aquaseal Tape	Sunlight Resistant PVC	.280 x .580	16.2 pf/ft	82%	75Ω	● Black

Underground- In-Conduit

Underground- In-Conduit

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-SNSA

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

Notes:

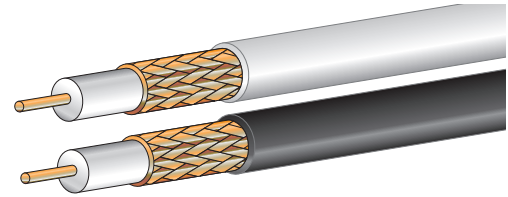
Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
 †- Gas Injected Polyethylene
 100% Sweep Tested

CCTV/ Security Video

RG6/U Type Plenecon® PLENUM Cables

Applications:

- CCTV
- Security Baseband Video



Standard spool size 1000ft.

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

Electrical Specifications

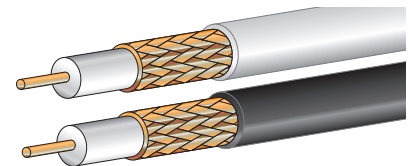
Catalog No.	Return Loss 100kHz-1GHz	Attenuation (db/100ft)								
		1 Mhz	10 Mhz	50 Mhz	100 Mhz	200 Mhz	400 Mhz	700 Mhz	900 Mhz	1 Ghz
Plenum RG6/U	>23dB	.24	.52	1.18	1.93	3.02	4.45	6.09	6.93	7.24

CCTV/ Security Video

RG6/U Type Outdoor- Burial

Applications:

- CCTV
- Security Baseband Video



Direct Burial RG6/U Cables

Standard spool size 1000ft.

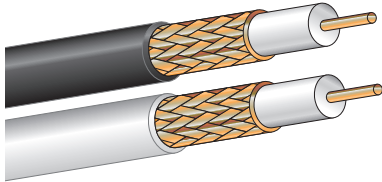


Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
4806	--	18 AWG (Solid) BC 6.5 Ω/M'	Gas Injected PE† .180	Bare Copper Braid 95% + Tape Barrier	Inner Jkt. PVC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

• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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-SNSA



CCTV/ Security Video
RG11/U Type Non-Plenum & Plenum

Applications:

- CCTV - Up to 2000ft.
- Security Baseband Video

Non-Plenum

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
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	● Black
4811 Direct Burial	--	14 AWG (Solid) BC 2.6 Ω/M'	Gas Injected PE+ .280	Bare Copper Braid 95%	Inner Jkt. PVC Outer Jkt. PE	.405 .455	16.2 pf/ft	82%	75Ω	● Black

Connectors and Tools

	Connectors	Strip Tool	Crimp/Comp Tool
75Ω 3 Pc. Crimp BNC	CN-BM53-26	TL-124	TL-113
75Ω Compression BNC	CN-CSBNC-11	TL-PS11	TL-CSBNC11

Plenum

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
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	Natural

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

• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**PTZ Security Video
Minimax & RG59/U Type Composite PTZ (Pan Tilt Zoom)**

Applications:

- CCTV/ Data/ Power
- Security Baseband Video

Standard spool size 1000ft.

Catalog No.	NEC Type	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type	Nom. O.D.	Nom. Capacitance	Nom. VP	Nom. Imp. Ω	Jacket Color
			Inches			Inches				
PTZ815	CCTV Coaxial RG59/U	20 AWG (Solid) BC 10.1 Ω/M'	Gas Inj. PE† .142 +Tape Barrier	Bare Copper Braid 95%	PVC	.232	16.2 pf/ft	82%	75Ω	● Black
	Data Control Cable	1 Pair 18 AWG (7x26) TC	PE† Insulation .018	Al. Foil 100% with drain wire	PVC	.222	24 pf/ft* 44 pf/ft**	66%	50Ω	● Blue
CM	Power Control Cable	1 Pair 18 AWG (7x26) BC	PVC .008	None	PVC	.155	--	--	--	● Gray

PTZ815 - Nom. O.D. .451"

Cable Types	Conductor Colors	Jacket Colors
CCTV Coaxial	--	Black
PTZ815 Data Control Cable	1.Black, 2. Clear	Blue
Power Control Cable	1.Black, 2. Red	Gray

Notes:

Standard Spool size 1000ft, spools are one piece, but lengths may vary +/- 10%
100% Sweep Tested

• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



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

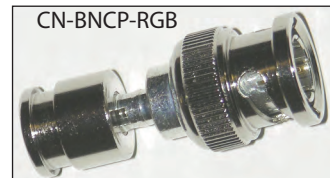


CCTV - Cable Assemblies MiniMax 25AWG		
Catalog No.	Length	Jacket Colors
CN-7B825**-3	3 Foot	**- Jacket Colors Black-BK, Blue-BL, Red-RD, Yellow-YE, Green-GN, White-WH
CN-7B825**-6	6 Foot	
CN-7B825**-10	10 Foot	
CN-7B825**-15	15 Foot	
CN-7B825**-20	20 Foot	
CN-7B825**-25	25 Foot	

CCTV - Cable Assemblies Plenum MiniMax 25AWG		
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	

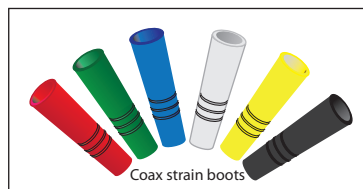
Security Accessories
75 Ohm BNC Compression Style

75 Ohm BNC Compression Style	
Catalog No.	Description
CN-CSBNC-11	RG11/U - Use TL-CSBNC-11 Tool
75 Ohm BNC Compression Style- Window	
CN-BNCP-RGB	1 Pc. Miniature 25Awg. RGB- Window
CN-BNCP-825	1 Pc. MiniMax 25Awg. 825 -Window
CN-BNC59MCV	1 Pc. RG59/U Window - Universal - YE
CN-BNC6MCV	1 Pc. RG6/U Window- Universal - PU



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

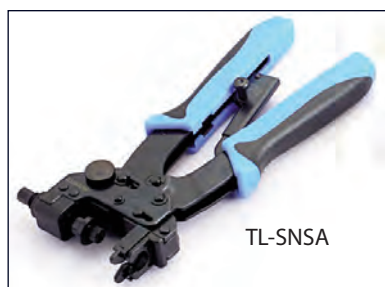
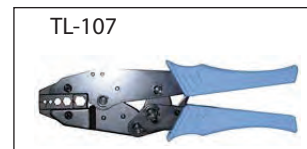
Security Accessories
Stripping Tools

Stripping Tools	
Catalog No.	Description
TL-124	3 Cut Tool RG8, RG11, RG213
TL-825	MiniMax 25Awg.
TL-CSST	Compression Strip Tool- 2 Cut- RG59 & 6
TL-KLEIN	All Purpose Strip Tool
TL-7503	Pro Series 3 step adjustable blades
TL-PS11	Compression Strip Tool- 2 Cut- RG11



Security Accessories
Crimp Tools

Tools Crimp and Compression	
Catalog No.	Description
TL-104	RG58, RG59/U, RG59 Plenum
TL-105	MiniMax 25Awg.and 26Awg.
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-SNSA	Compression Tool BNC, RCA, F
TL-548G	Alternate Compression Tool
TL-CSBNC-11	RG11/U Comp. 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:

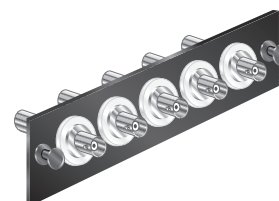
- TL-SNSA - Accepts RG59, & RG6
 - TL-548G- Accepts RG59, RG6, & RG11
- RECOMMENDED FOR WINDOW STYLE

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 - Wallmount 15.625"x13"x2.125"
PP-WM4S	4 Adapter Plate - Wallmount 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	100/120Port 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-ADPBNCE	5 BNC Position Empty
CN-AD6PBNK	Blank Plate



Free Standing Racks	
XDR-4819	19" Free Standing Rack- 48"
XDR-7219	19" Free Standing Rack- 72"
XDR-8419	19" Free Standing Rack- 84"
XCR-8419	19" Cable Management Rack- 84"



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-BNCE-16	16 Port BNC Empty (19"- 1RU)
CN-BNCE-32	32 Port BNC Empty (19"- 2RU)
CN-BNCE-48	48 Port BNC Empty (19"- 2RU)
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 Adapters	
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
CN-ADP721	75 ohm BNC F to F Iso.Bulkhead
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-ADP705



CN-MT-75



CN-ADP504



CN-ADP516



CN-ADP756



CN-ADP807



CN-ADP500



CN-ADP106



CN-ADP501



CN-ADP103

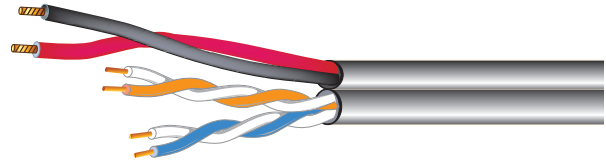


CN-ADP512



CN-ADP515





V-Cat- Video Over UTP Cables
2 Pair + 2 Conductors - Siamese Construction
Non-Plenum and Plenum



Applications:

- Video Over UTP

Standard spool size 1000ft.

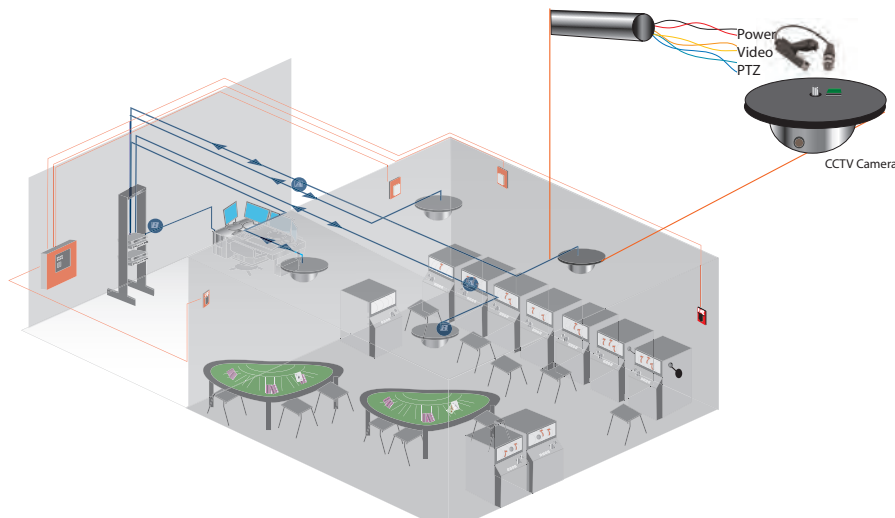
Catalog No.	NEC Type	Cable Type & Description	Dielectric Type	Jacket Type	Nom. O.D.	Nom. Capacitance 2 Pair	Nom. VP 2 Pr.	Nom. Imp.Ω 2 Pair	Jacket Color
					Inches				
 CC2418	CM	2 Pair 24 Awg Solid Cat 5E Type UTP + 2 Cond. 18 Awg unshielded	Thermo-Plastic	PVC	.180 x .340	14 pf/ft	66%	100Ω	● Gray
 CC252418 Plenum	CMP	2 Pair 24 Awg Solid Cat 5E Type UTP + 2 Cond. 18 Awg Unshielded	Plenum Thermo-Plastic	Plenum PVC	.185 x .345	14 pf/ft	72%	100Ω	● Gray
 CC2416	CM	2 Pair 24 Awg Solid Cat 5E Type UTP + 2 Cond. 16 Awg Unshielded	Thermo-Plastic	PVC	.192 x .355	14 pf/ft	66%	100Ω	● Gray
 CC252416 Plenum	CMP	2 Pair 24 Awg Solid Cat 5E Type UTP + 2 Cond. 16 Awg Unshielded	Plenum Thermo-Plastic	Plenum PVC	.190 x .350	14 pf/ft	72%	100Ω	● Gray

Applications:

- Pair 1 - Category 5E type 100Ω - Used for Video Transmission
- Pair 2- Category 5E type 100Ω - Used for Video Transmission or Data Transmission, such as RS-422 or RS-485 or PTZ (Pan, Tilt, Zoom Controls)
- Two Conductors- 18 or 16 Awg. Solid bare copper conductors- Used for Power to the camera



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Security - CCTV Accessories - Baluns



CCTV Passive Device	
CN-BNCJ	BNC Female to RJ45

Category 5 or Better UTP
Distance: 2230ft

CCTV Passive Device	
CN-BNCJKS	BNC Female to RJ45 Keystone Mount

Category 5 or Better UTP
Distance 2230ft



CCTV Passive Device	
CN-MTL	Miniature - BNC Male to IDC Clamp Down
CN-MTL2	Miniature - BNC Male to screw terminals- Sold in Pairs

CN-MTL2- Economy- Category 5 or Better UTP
Distance: 2230ft

CCTV Passive Device	
CN-RJ45PT	BNC Male to RJ45 IDC Clamp Down Pigtail
CN-STPT2	BNC Male to Screw Terminal Pigtail- Sold in Pairs

Category 5 or Better UTP
Distance: 2230ft



CCTV Passive Device	
CN-TL	BNC Male to IDC Clamp Down
CN-50VB10	Economy BNC Male to Spring Clamps- Sold in Pairs up to 1250ft.

Category 5 or Better UTP
Distance: 2230ft

CCTV Passive Device	
CN-PVRJ45	BNC Male to RJ45 - Power Thru and Video

Category 5 or Better UTP: Distance: 2230ft
Power: 3 Pair - 24VDC.
5VA: 519ft. (170mm), 10VA: 258ft. (85mm),
20VA: 130ft. (43mm), 30VA: 86ft



CCTV Passive Device	
CN-RJ45	BNC Male to RJ45
CN-50VBRJ45	Economy BNC Male to RJ45 - Sold in Pairs - Up to 1250ft.

CCTV Passive Device	
CN-VPDRJ45	BNC Male to RJ45 - Power Thru , Video, and Data



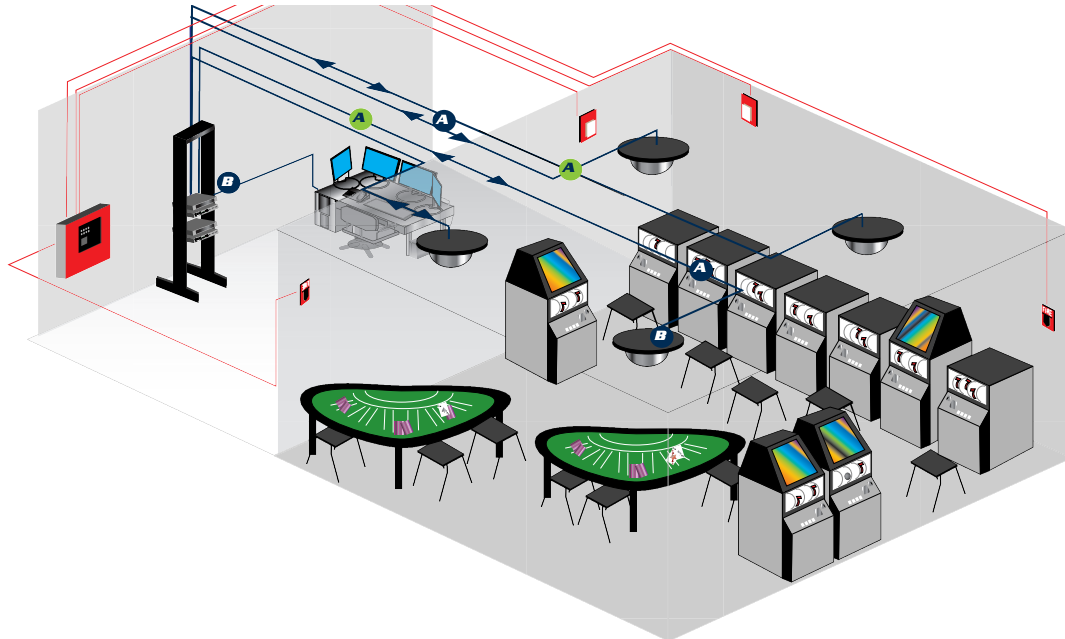
CCTV Passive Patch Panel	
CN-H16PRJ45BNC	16 Port RJ45 to 16 Port BNC PatchPanel
CN-H16STRJ45	16 Port RJ45 With Power and Control Screw Terminal
CN-H16PRJ45	16 Port RJ45 to RJ45 PatchPanel

CCTV Active Receiver Hub	
CN-AH16PRJ45BNC	16 Port Active Reciever Hub
CN-AH32PRJ45BNC	32 Port Active Receiver Hub



IP CCTV NETWORK

IP Video Systems. IP-Surveillance systems are relatively new to the market. In a typical IP- based video surveillance system, network (IP) cameras are connected directly to the Local Area Network (LAN) and transport digital video across the IP network via UTP cabling and switches, recording video to any PC or server on the network. Since the cameras are IP addressable, they are able to be accessed from anywhere in the world, provided the user has the sufficient network access and security privileges.



PRODUCT INDEX:

Features:

- IP CCTV Cables Cat5E, Cat6, Fiber Optics
- Complete Category Cabling Accessories
 - Connectors
 - Patch Cables
 - Patch Panels
- Excellent Quality Ethernet Switches and Media Converters (SignaMax)

IP CCTV Cables

Category 5E Cables	104
Category 5E Connectors & Accessories	105
Category 6 Cables	106
Category 6 Connectors & Accessories	107
Ethernet Switches	108
Fiber Optic Cables and Connection Kit.....	109-110

Cables

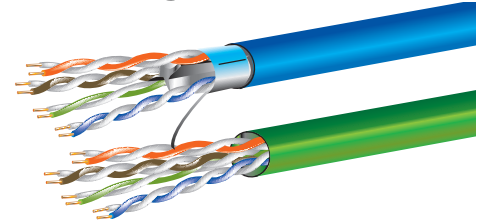
Category 5E - IP CCTV Distribution

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 -



Applications:

Indoor for:

- 100 BASET Ethernet
- Horizontal LAN Cabling
- Voice Backbone Cabling
- Digital Integration
- AV Digital Video

Category 5E UTP and F/UTP Cables

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4245	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
254245	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	
M57562	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.267	Armored Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
4245-OSP	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.255	Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
4245-IO	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant Polyolefin	.251	Indoor/Outdoor CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	

Modular Plugs

Category 5E

CATEGORY 5E MODULAR PLUGS	
Catalog No.	Description
32-EZP	EZ 8 POSITION CAT 5E MODULAR PLUG- BAGS OF 50
32-5998UL	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



- Meet or exceed TIA-568-C.2
- Supports Cat 5E 100 meter channel performance
- Overall solid shielding design
- Solid or Stranded wires
- EZ Termination
- Termination Tool: TL-EZRJ45PROCT

RJ45 Jacks
Category 5E



KJS458MT-C5E-WH

CATEGORY 5E JACKS	
Catalog No.	Description
KJS458MT-C5E-xx	SignaMax RJ45 Cat5E Jack- xx: WH, BK, BL, GY, GN, OR, RD, YE
KJS458TL-C5E	SignaMax RJ45 Cat5E Jack - F/UTP Shielded - Tool less
CATEGORY 5E JACKS - Tool less	
CN-705xx	Cat5E Toolless RJ45 Jacks - xx: BK, BL, GN, RD, YE, WH, OR
CATEGORY FEED THRU ADAPTERS	
KRJ45/5S	Category 5E UTP Feed Thru Adapter

Patch Cables
Category 5E

CATEGORY 5E UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C5EC-114CC-3	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C5EC-114CC-6	6 Foot	
C5EC-114CC-10	10 Foot	
C5EC-114CC-15	15 Foot	
C5EC-114CC-20	20 Foot	
C5EC-114CC-25	25 Foot	



REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED - RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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CATEGORY 5E F/UTP ASSEMBLIES		
Catalog No.	Length	Jacket Colors
C5ECS-314GY-3	3 Foot	SIGNAMAX Gray
C5ECS-314GY-6	6 Foot	
C5ECS-314GY-10	10 Foot	
C5ECS-314GY15	15 Foot	
C5ECS-314GY-20	20 Foot	
C5ECS-314GY-25	25 Foot	

Patch Panels
Category 5E

CATEGORY 5E PATCH PANELS	
Catalog No.	Description
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
24458S-C5E	24 PORT CAT 5E Shielded FTP PATCH PANEL 1.75 - 1RU
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



24458MD-C5E



NETWORK CONNECTIVITY TOOLS	
Catalog No.	Description
TL-110/66	110 PUNCHDOWN TOOL
TL-3650	110 ADJUSTABLE PUNCHDOWN TOOL
TRJ45P	RATCHET TYPE RJ45 CRIMP TOOL
TL-EZRJ45PROCT	EZ RATCH MODULAR PLUG CRIMP TOOL
KJMT-8600	SIGNAMAX- MULTIPAIR PUNCHDOWN TOOL

Cables

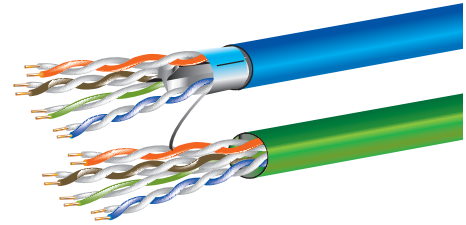
Category 6 UTP

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



Applications:

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

Category 6 UTP Test to 550Mhz

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4246	4 Pair	23 AWG Solid 24 Ω/Mft	Polyolefin	None UTP	PVC	.220	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT
254246	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	 GY, BL, WH, BK, GN, OR, YE, PK, RD, VT
4246-OSP Outdoor	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Water-Blocked	UV Resistant PE	.266	-	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black
4246-IO Indoor/Outdoor	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Water-Blocked	UV Resistant Polyolefin .040"	.271	CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	 UV Black

Modular Plugs

Category 6



32-6EZP



TL-CATWIREST

CATEGORY 6 UTP Modular Plug	
Catalog No.	Description
32-6EZP	Cat6 UTP EZ Plug Modular Plug
32-6198UL	Cat6 UTP Modular Plug
CABLE/CONNECTOR BOOTS	
32-1900-xx	CAT6 UTP BOOTS - xx: WH,BK, BU, RD, GY, OR, YE, GN
CAT CABLE PAIR SEPARATION TOOL	
TL-CATWIREST	CAT CABLE PAIR SEPARATION AND STRAIGHTENING TOOL



TL-EZRJ45PROCT

Plug Installation Tools
Category 6

INSTALLATION TOOLS	
Catalog No.	Description
TL-EZRJ45PROCT	Modular Crimp Tool- Pro Series

RJ45 Jacks
Category 6



KJ458MT-C6C-xx

CATEGORY 6 UTP Jacks	
KJ458MT-C6C	SignaMax Cat6 Jack- xx: 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

Patch Cables
Category 6



CATEGORY 6 UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6C-114CC-3FB	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C6C-114CC-7FB	7 Foot	
C6C-114CC-10FB	10 Foot	
C6C-114CC-15FB	15 Foot	
C6C-114CC-20FB	20 Foot	
C6C-114CC-25FB	25 Foot	

REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED - RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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Patch Panels
Category 6



CATEGORY 6 UTP PATCH PANELS	
Catalog No.	Description
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 ANGLED PATCH PANELS	
24458A-C6C	24 PORT CAT6 UTP ANGLED 1.75" - 1RU
48458A-C6C	48 PORT CAT6 UTP ANGLED 3.50" - 2RU

Managed Ethernet Switches

Managed Gigabit Ethernet Switches	
	4 SFP Dual Media Ports
065-7861	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports
065-7861POE	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports 185w
065-7861POE-FP	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports 370w
Managed Fast Ethernet Switches	
	4 Gigabit Ports Managed Switch w/ Redundant Power Supply
065-7734R	24 Port 10/100 Managed Switch - Redundant PS
065-777344TR	24 Port 10/100 Managed Switch +4 1000BaseT Port - Redundant PS
065-77344DMR	24 Port 10/100B SFP Slots + 4 10/100/1GT/TX Dual Media Ports w/1000Base SFP Slots and Redundant PS- Managed Switch
065-77344FSFPR	24 Port 100B SFP Slots + 4 10/100/1GT/TX Dual Media Ports w/10/100/1000Base SFP Slots and Redundant PS-
	2 SFP/RJ45 - Managed PoE Switch
065-7726SPOE	24 Port 10/100 Managed Switch PoE - 2 SFP/RJ45 Dual Media Ports
065-7726SPOE-FP	24 Port 10/100 Managed Switch Full Powered PoE 2 SFP/RJ45
	Web-Smart Switch - 4 SFP Ports
065-7904C-WS	24 Port 10/100/1000 WebSmart Switch - 4 SFP Dual Ports



Unmanaged Gigabit Ethernet Switches

Unmanaged Ethernet Switches	
	8 PoE Ports
065-7308POE-FP	8 Port 10/100 Full Power PoE Switch w/ 8 PoE Port
065-7308POEFPRM	Rack Mount Kit for 065-7308POE-FP
	8 Port 10/100/1000Base Compact Gigabit Switch
065-7012G	8 Port 10/100/1000Base Compact Gigabit Switch
	24 Port 10/100
065-7341A	24 Port 10/100T/TX Unmanaged Switch



Two Strand SFP Gigabit Ethernet Modules

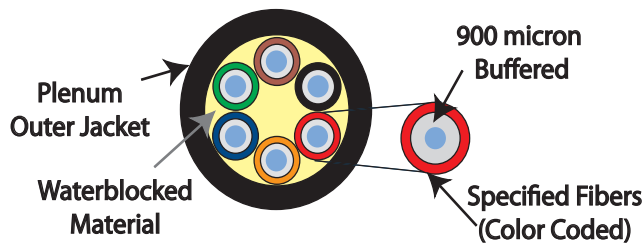
2 Strand Gigabit SFP - Modules	
	SFP Modules - 2 Strand Fiber
065-79SXMG	1000BaseSX SFP Module 850nm - MM/LC - 220m
065-79SXEDMG	1000BaseLX SFP Module 1310nm MM/LC - 2km
065-79LXMG	1000BaseLX SFP Module 1310nm SM/LC - 10km
065-79LXEDMG	1000BaseLX SFP Module 1310nm SM/LC - 40km
065-79ZXMG	1000BaseLX SFP Module 1550nm SM/LC - 80km



Add a -H to the end of th P.N for Harden Temperature Ranges --40C to 85C -
065-79SXMG-H

Fast Ethernet and Gigabit Ethernet Copper SFP Modules

Copper SFP - Modules	
	SFP Modules - 2 Strand Fiber
065-73TXMG	10/100BaseT/TX SFP- RJ45 100m
065-791000TMG	1000BaseT SFP - RJ45 - Cat5E or Better 100m



Fiber Optic Cables
Indoor/Outdoor Tight Buffer
Distribution Cable

Applications:

- Building interconnection
- Telecommunication and Data
- Long haul networking
- Ducts between buildings

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

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)

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				
M9X043T [†]	2	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X045T [†]	6	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X048T [†]	12	.225	3.4 inch 8.6 cm	2.3 inch 5.8 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X611T [†]	24	.330	4.9 inch 12.4 cm	3.3 inch 8.4 cm	600 lbs. 2700 Newtons	OM1 OM3 SM2

Other constructions available
(Minimum order quantities may apply).
Custom Cuts are Available upon request.

Notes:

† - See Optical Characteristics Chart for selecting proper Part No. for your application

Optical Characteristics						
Glass Type	Code (X)	OM Size	Operating Wave-length (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)	Jacket Color
62.5/125µm MultiMode	B	OM1	850nm/1300nm	200/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Black
8/125µm SingleMode	W	OS2	1300nm/1550nm	--	.80/.50	Black



ADDITIONAL FIBER CABLES AND ACCESSORIES ARE LISTED IN THE FIBER OPTIC SECTION.

When ordering: In ordering to specify the correct optical fiber, replace "X" in catalog number with the proper code number.

Example: WP9X611T WP9W611T = 24 Fiber 8/125 Fiber Cables

Fiber Optic Kits

Kits and Connectors - FiberExpress - Brilliance

Description:

Indoor termination of fiber cables: Patch panels, Communication outlets, Fiber-to-the-desk, Distribution frames, Direct termination to equipment, Fiber cable repair, Campus, Customer premise / Access network.



FiberExpress Kit and Connectors 900µm	
P.N	Description
FI-4270	FiberExpress Field Installable Complete Kit
LC Connectors	
FI-4240	LC - 900µm, Multimode Beige Connector, 62.5um
FI-4241	LC - 900µm, Multimode Black Connector, 50um
FI-4242	LC - 900µm, Multimode Aqua Connector, 50um OM3
FI-4243	LC - 900µm, Single-mode Blue Connector, 8um
SC Connectors	
FI-4244	SC - 900µm, Multimode Beige Connector, 62.5um
FI-4245	SC - 900µm, Multimode Black Connector, 50um
FI-4246	SC - 900µm, Multimode Aqua Connector, 50um OM3
FI-4247	SC - 900µm, Single-mode 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, Single-mode Connector, 8um



FI-4270

FiberExpress Accessories	
P.N	Description
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

ADDITIONAL FIBER CABLES AND ACCESSORIES ARE LISTED IN THE FIBER OPTIC SECTION.

Media Converters

Unmanaged Media Converters - Standalone and/or Chassis Mount

10/100BaseT TX to 100BaseFX Converters	
065-1100	10/100BaseT TX to 100BaseFX MM ST
065-1110	10/100BaseT TX to 100BaseFX MM SC
065-1174	10/100BaseT TX to 100BaseFX MM LC
065-1120	10/100BaseT TX to 100BaseFX SM SC 15km
065-1100FS	10/100BaseT TX to 100BaseFX MM ST USB power option
065-1110FS	10/100BaseT TX to 100BaseFX MM SC USB power option
065-1174FS	10/100BaseT TX to 100BaseFX MM LC USB power option
065-1120FS	10/100BaseT TX to 100BaseFX SM SC 15km USB power option
DIN Rail Mount Bracket	
065-11DINNMT	16 Bay DIN Rail Mount Brackets for 065-11xx converters



Unmanaged Standalone Media Converters

10/100BaseT TX to 100BaseFX Mini Converters	
065-1000	10/100BaseT TX to 100BaseFX MM ST Mini Converter
065-1010	10/100BaseT TX to 100BaseFX MM SC Mini Converter

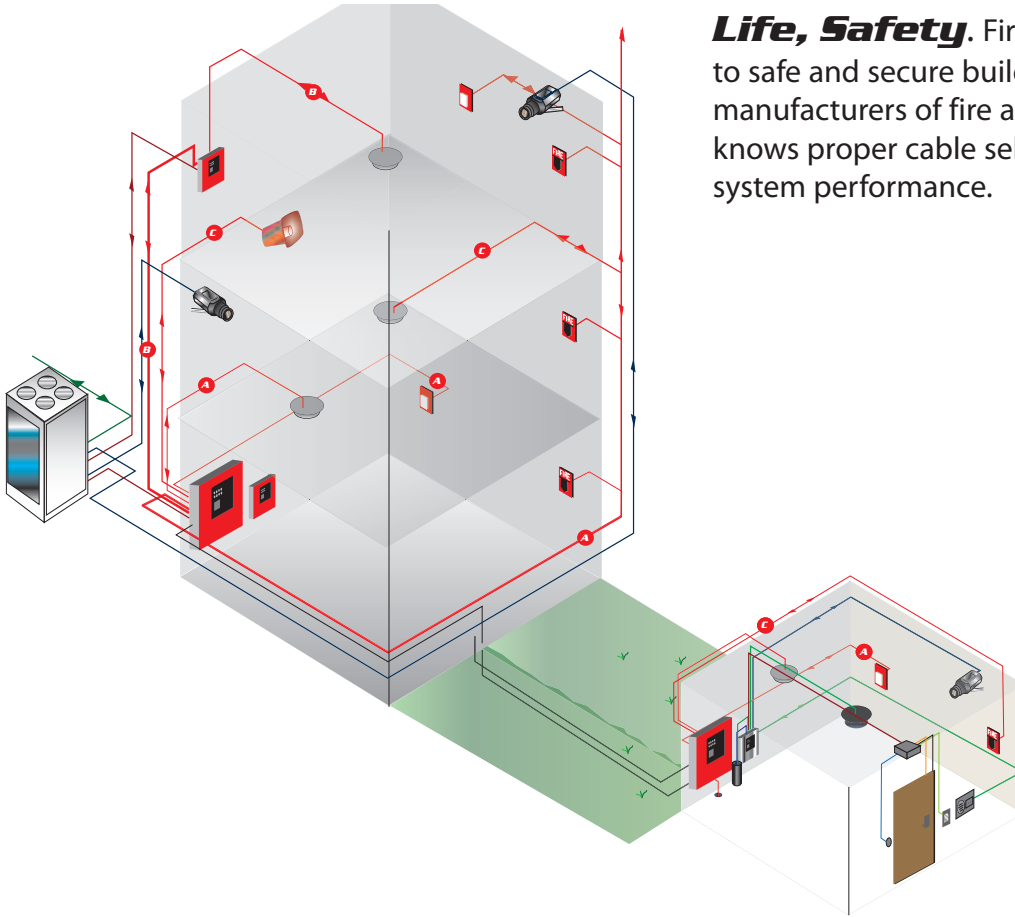
10/100BaseT TX to 100BaseFX PoE Converters	
PSE Power Source Equipment	
065-1050ST	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter ST MM
065-1050SC	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC MM
065-1050SM	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC SM
PD Powered Devices	
065-1052ST	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter ST MM
065-1052SC	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter SC MM
065-1052SM	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter SC MM



SignaMax Products
www.signamax.com

FIRE ALARM CABLES

Life, Safety. Fire alarm systems serve as life lines to safe and secure buildings. As one of the original manufacturers of fire alarm cable, West Penn Wire knows proper cable selection is critical to effective system performance.



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Fire Alarm Cables Power-Limited Multiple Conductor/ Unshielded

Description:

- ASTM bare copper • Polypropylene 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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
980	1 Pair	18 AWG Solid 6.5 Ω/Mft	PP* .008	None	PVC .017	.146	FPLR	19 pf/ft*	● RED
982	4	18 AWG Solid 6.5 Ω/Mft	PP* .008	None	PVC .017	.170	FPLR	19 pf/ft*	● RED
990	1 Pair	16 AWG Solid 4.1 Ω/Mft	PP* .008	None	PVC .017	.168	FPLR	20 pf/ft*	● ● ○ RD, BL, WH
992	4	16 AWG Solid 4.1 Ω/Mft	PP* .008	None	PVC .017	.198	FPLR	20 pf/ft*	● Red
994	1 Pair	14 AWG Solid 2.6 Ω/Mft	PP* .012	None	PVC .017	.210	FPLR	22 pf/ft*	● ● ● RD, BL, YE
700	4	14 AWG Solid 2.6 Ω/Mft	PP* .012	None	PVC .017	.246	FPLR	22 pf/ft*	● Red
998	1 Pair	12 AWG Solid 1.8 Ω/Mft	PP* .012	None	PVC .017	.244	FPLR	22 pf/ft*	● Red

Color Code	
All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red
Select Cables	INDICATOR CODE: RD- Red, BL-Blue, OR-Orange, WH-White, YE-Yellow

Special Notes:

- Selected Plenum Versions see pages 113
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Section pg.115
- Select Items are Packaged in our Advantage Box
- Orange rip cord under jacket
- PP* - Polypropylene
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Fire Alarm Cables
Power-Limited/ Unshielded
Plenecon II® Extra Flexible



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 pool size 1000ft.

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

Special Notes:

- Plenum Installation precautions see Technical Reference Section
- Select Items are Packaged in our Advantage Box

Tracer Marks:

Available upon Request: Minimum Quantities Apply

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Color Code	
All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red
Select Cables	INDICATOR CODE: RD- Red, BL-Blue, OR-Orange, WH-White, YE-Yellow



**Stranded Conductor Fire Alarm Cables
Power-Limited Multiple Conductor/
Unshielded**

Description:

- ASTM Stranded bare copper • Polypropylene 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.

Applications:

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

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
990S	1 Pair	16 AWG Strd. 4.1 Ω/Mft	PP* .009	None	PVC .017	.182	FPLR	20 pf/ft*	Red
994S	1 Pair	14 AWG Strd. 2.6 Ω/Mft	PP* .010	None	PVC .017	.224	FPLR	22 pf/ft*	Red
998S	1 Pair	12 AWG Strd. 1.8 Ω/Mft	PP* .010	None	PVC .017	.260	FPLR	22 pf/ft*	Red



**Stranded Conductor Fire Alarm Cables
Plenum Power-Limited/ Unshielded
Stranded Conductors Extra Flexible**

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.

Applications:

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

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

 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Aquaseal® Water Blocking Cable
Multi-Conductor / 300 Volts Power-Limited



Applications:

- Indoor / Outdoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Speaker Level
- Indoor/Outdoor Communications
- Division 28 05 13.23
- Division 27 41 00
- Division 27 51 00



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

Underground - Direct Burial

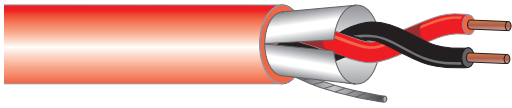
Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding	Jacket Type & Thickness		Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches			Inches	Inches				
AQ224	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .015	Nylon .005	None	.035	.270	CL3/FPL PLTC	25 pf/ft*	Black	
AQ244	4	18 AWG (7x26) 6.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.327	CL3/FPL PLTC	25 pf/ft*	Black	
AQ225	1 Pair	16 AWG (7x24) 4.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.295	CL3/FPL PLTC	28 pf/ft*	Black	
AQ245	4	16 AWG (7x24) 4.2 Ω/Mft	PVC .015	Nylon .005	None	.040	.355	CL3/FPL PLTC	28 pf/ft*	Black	
AQ226	1 Pair	14 AWG (19x27) 2.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.310	CL3/FPL PLTC	32 pf/ft*	Black	
AQ246	4	14 AWG (19x27) 2.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.395	CL3/FPL PLTC	32 pf/ft*	Black	
AQ227	1 Pair	12 AWG (19x25) 1.7 Ω/Mft	PVC .015	Nylon .005	None	.040	.340	CL3/FPL PLTC	36 pf/ft*	Black	

Underground- In-Conduit

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness		Shielding	Jacket Type & Thickness		Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches			Inches	Inches				
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	PVC .010		None	PVC .025	.218	CM/CL3 FPL	30pf/ft	Gray	
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010		None	PVC .025	.242	CM/CL3 FPL	32pf/ft	Gray	
AQC226	1 Pair	14 AWG (19x27) 2.7Ω/Mft	PVC .015		None	PVC .025	.294	CL3 FPL	34pf/ft	Gray	



**Fire Alarm Cables
Power-Limited Multiple Conductor/
Shielded**

Description:

- ASTM bare copper • Polypropylene insulation • Twisted pair or cabled construction • Overall shield 100% coverage of aluminum polyester foil with 24 AWG TC drain wire • Overall PVC jacket




Rating:

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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
975	1 Pair	18 AWG Solid 6.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.150	FPLR	38 pf/ft* 69 pf/ft**	Red
 977	4	18 AWG Solid 6.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.180	FPLR	38 pf/ft* 69 pf/ft**	Red
991	1 Pair	16 AWG Solid 4.1 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.172	FPLR	43 pf/ft* 78 pf/ft**	RD, YE
 993	4	16 AWG Solid 4.1 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.200	FPLR	43 pf/ft* 78 pf/ft**	Red
995	1 Pair	14 AWG Solid 2.6 Ω/Mft	PP* .012	Al. Foil 100%	PVC .017	.215	FPLR	39 pf/ft* 70 pf/ft**	Red
 999	1 Pair	12 AWG Solid 1.8 Ω/Mft	PP* .012	Al. Foil 100%	PVC .017	.248	FPLR	44 pf/ft* 79 pf/ft**	Red

Color Code	
All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red
Select Cables	INDICATOR CODE: RD- Red, BL-Blue, OR-Orange, WH-White, YE-Yellow

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

Special Notes:

- Selected Plenum Versions see pages 117
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Section pg.119
- Select Items are Packaged in our Advantage Box
- Orange rip cord under jacket
- PP* - Polypropylene

Tracer Marks:

Available upon Request: Minimum Quantities apply

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



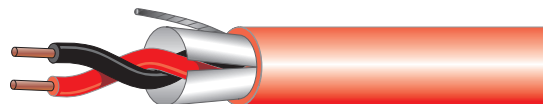
• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Fire Alarm Cables
Power-Limited / Shielded**

Plenecon II® Extra Flexible

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 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
60975B	1 Pair	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.015	.148	FPLP	66 pf/ft* 119 pf/ft**	Red
 60977B	4	18 AWG Solid 6.5 Ω/Mft	.008	Al. Foil 100%	.015	.170	FPLP	66 pf/ft* 119 pf/ft**	Red
60990B	1 Pair	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.015	.168	FPLP	77 pf/ft* 139 pf/ft**	Red
603164B	4	16 AWG Solid 4.1 Ω/Mft	.008	Al. Foil 100%	.015	.195	FPLP	77 pf/ft* 139 pf/ft**	Red
60992B	1 Pair	14 AWG Solid 2.6 Ω/Mft	.010	Al. Foil 100%	.015	.202	FPLP	84 pf/ft* 151 pf/ft**	Red
 60994B	1 Pair	12 AWG Solid 1.8 Ω/Mft	.010	Al. Foil 100%	.015	.243	FPLP	96 pf/ft* 173 pf/ft**	Red

Color Code

All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red

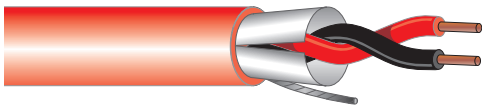
* Capacitance between conductors.
** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Plenum Installation precautions see Technical Reference
- Select Items are Packaged in our Advantage Box
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Stranded Conductor Fire Alarm Cables
Power-Limited Multiple Conductor/
Shielded**

Description:

- ASTM Stranded bare copper • Polypropylene insulation • Twisted pair
- Overall shield 100% coverage of aluminum polyester foil with 24 AWG TC drain wire • Flexible plenum jacket

Rating:

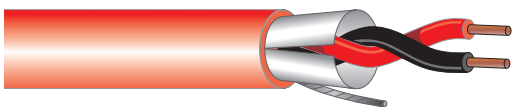
- NEC Type FPLR
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Standard spool size 1000ft.

Applications:

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

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
995S	1 Pair	14 AWG Stranded 2.6 Ω/Mft	PP* .012	Al. Foil 100%	PVC .017	.232	FPLR	39 pf/ft* 70 pf/ft**	● Red
999S	1 Pair	12 AWG Stranded 1.8 Ω/Mft	PP* .012	Al. Foil 100%	PVC .017	.264	FPLR	44 pf/ft* 79 pf/ft**	● Red



**Stranded Conductor Fire Alarm Cables
Plenum Power-Limited/ shielded
Stranded Conductors Extra Flexible**

Description:

- ASTM Stranded bare copper • Polymer Alloy insulation • Twisted pair
- 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

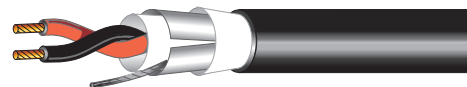
Standard spool size 1000ft.

Applications:

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

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

Aquaseal® Water Blocking Cable
Multi-Conductor / 300 Volts Power-Limited
Shielded



Applications:

- Indoor / Outdoor for:
- Fire Alarm Circuits
- Initiating Devices
- Notification Devices
- Line Level Audio
- Indoor/Outdoor Communications
- Division 28 05 13.23
- Division 27 41 00
- Division 27 51 00



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

Underground - Direct Burial

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
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**	Black
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**	Black
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**	Black
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**	Black
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**	Black
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**	Black

Underground- In-Conduit

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .010	Al. Foil-100% 24 Strd.	PVC .025	.257	CM/CL3 FPL	46 pf/ft* 83 pf/ft**	Gray
AQC294	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010	Al. Foil-100% 24 Strd.	PVC .025	.281	CM/CL3 FPL	54 pf/ft* 97 pf/ft**	Gray
AQC295	1 Pair	14 AWG (19x27) 2.7Ω/Mft	PVC .015	Al. Foil-100% 24 Strd.	PVC .025	.333	CL3 FPL	59 pf/ft* 106 pf/ft**	Gray

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



**Power-Limited / Unshielded
Addressable Systems / Data Cable**

Description:

- ASTM bare copper • Polyolefin insulation • Short overall twist lengths • Unshielded construction • Overall PVC jacket

Rating:

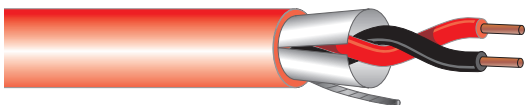
- NEC Type FPLR
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Applications:

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

Standard spool size 1000ft.

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



**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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
D975	1 Pair	18 AWG Solid 6.5 Ω/Mft	Polyolefin .015	Al. Foil 100%	PVC .035	.223	FPLR	25 pf/ft* 45 pf/ft**	Red
D991	1 Pair	16 AWG Solid 4.1 Ω/Mft	Polyolefin .015	Al. Foil 100%	PVC .035	.245	FPLR	30 pf/ft* 54 pf/ft**	Red
D995	1 Pair	14 AWG Solid 2.6 Ω/Mft	Polyolefin .020	Al. Foil 100%	PVC .035	.281	FPLR	30 pf/ft* 54 pf/ft**	Red

Color Code	
All Cables	1.Black, 2. Red
	JACKET: Red

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

Special Notes:

- Orange rip cord under jacket
- Select Items are Packaged in our Advantage Box

Fire Alarm Cables
Power-Limited / Unshielded
Plenecon II® Extra Flexible- Data Cable



Applications:


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

Description:

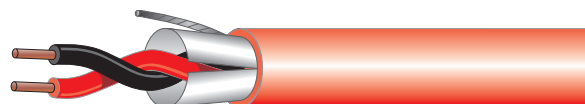
- ASTM bare copper • Teflon Insulation • Twisted pair construction
- Flexible plenum jacket

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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance Nom. Impedance	Jacket Color
			Inches		Inches				
D60980	1 Pair	18 AWG Solid 6.5 Ω/Mft	.012	None	.015	.160	FPLP	16 pf/ft 105 Ohms	Red
 D60991	1 Pair	16 AWG Solid 4.1 Ω/Mft	.012	None	.015	.181	FPLP	17 pf/ft	Red

Fire Alarm Cables
Power-Limited / Shielded
Plenecon II® Extra Flexible- Data Cable



Rating:

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

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


Standard spool size 1000ft.

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

Color Code	
All Cables	1.Black, 2. Red
	JACKET: Red

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

Special Notes:

- Plenum Installation precautions see Technical Reference
- Select Items are Packaged in our Advantage Box
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Fire Alarm Cables
Local Law 5 (LL5) Power-Limited/
Unshielded

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

Applications:

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

Standard spool size 1000ft.

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

Color Code	
All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red

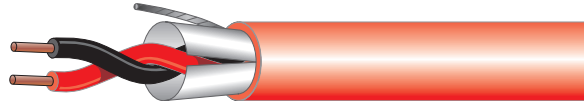
Special Notes:

- Orange rip cord under jacket
- Select Items are Packaged in our Advantage Box
- Non-Standard/Stocked Items- Non-Returnable



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Fire Alarm Cables
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 TC 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
LL5182SH	1 Pair	18 AWG Solid 6.5 Ω/Mft	.016	Al. Foil 100%	.026	.210	FPLP	54 pf/ft* 97 pf/ft**	Red
LL5184SH	4	18 AWG Solid 6.5 Ω/Mft	.016	Al. Foil 100%	.026	.245	FPLP	54 pf/ft* 97 pf/ft**	Red
LL5162SH	1 Pair	16 AWG Solid 4.1 Ω/Mft	.016	Al. Foil 100%	.026	.230	FPLP	61 pf/ft* 110 pf/ft**	Red
LL5164SH	4	16 AWG Solid 4.1 Ω/Mft	.016	Al. Foil 100%	.026	.272	FPLP	61 pf/ft* 110 pf/ft**	Red
LL5142SH	1 Pair	14 AWG Solid 2.6 Ω/Mft	.016	Al. Foil 100%	.026	.258	FPLP	84 pf/ft* 151 pf/ft**	Red
LL5122SH	1 Pair	12 AWG Solid 1.8 Ω/Mft	.016	Al. Foil 100%	.026	.285	FPLP	96 pf/ft* 173 pf/ft**	Red

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

Color Code	
All Cables	1.Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Red

Special Notes:

- Orange rip cord under jacket
- Select Items are Packaged in our Advantage Box
- Non-Standard/Stocked Items- Non-Returnable



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Fire Alarm Cables
Power-Limited Two Conductor/
Parallel**

Description:

- ASTM bare copper • PVC insulation
- Two conductor parallel features- PERFECTSTRIPE®

Rating:



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

Applications:

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

Parallel Construction- Two Conductor

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 970	2	18 AWG Solid 6.5 Ω/Mft	PVC .032	None	--	.104x.204	FPL	--	● Red
 971	2	16 AWG Solid 4.1 Ω/Mft	PVC .032	None	--	.115x.225	FPL	--	● Red
972	2	14 AWG Solid 2.6 Ω/Mft	PVC .032	None	--	.128x.250	FPL	--	● Red

Colors	
Jacket Colors	Red

Special Notes:


- Additional Colored Jackets are available upon request.
- Minimum quantity orders may apply.
- Select Items are Packaged in our Advantage Box

**Fire Alarm Cables
Nonpower-Limited / Shielded**

Rating:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
1975	2	18 AWG Solid 6.5 Ω/Mft	PVC .016 Nylon .005	Al. Foil 100%	PVC .037	.244	NPLF	52pf/ft* 94pf/ft**	● Red
 1991	2	16 AWG Solid 4.1 Ω/Mft	PVC .016 Nylon .005	Al. Foil 100%	PVC .037	.264	NPLF	57pf/ft* 103pf/ft**	● Red
1995	2	14 AWG Solid 2.6 Ω/Mft	PVC .016 Nylon .005	Al. Foil 100%	PVC .037	.284	NPLF	64pf/ft* 115pf/ft**	● Red

Color Code	
All Cables	1.Black, 2. Red
	JACKET: Red

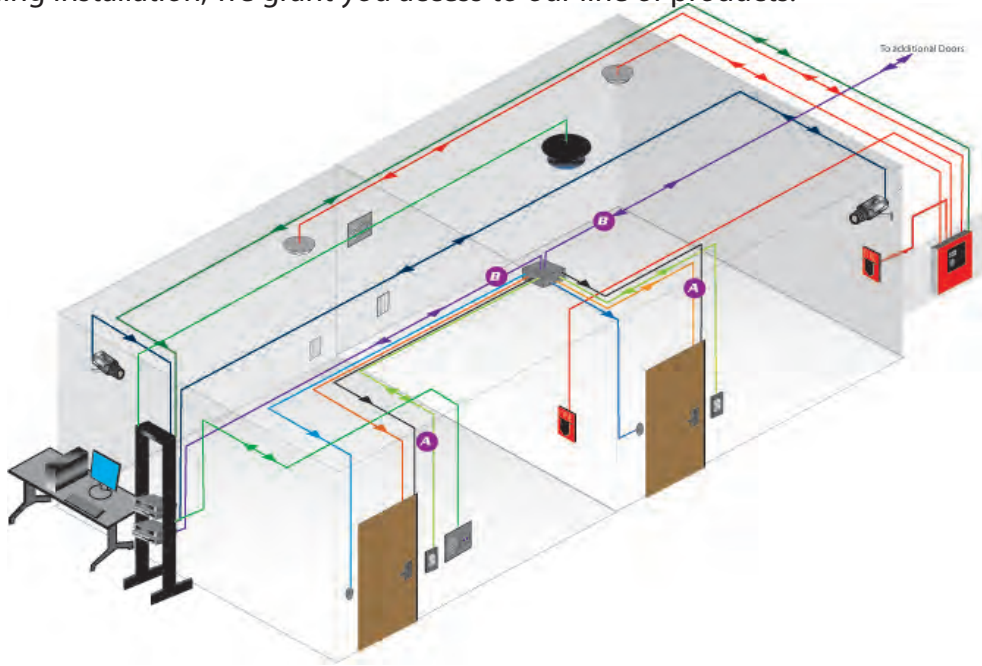
* Capacitance between conductors.
** Capacitance between one conductor and the other connected to the shield



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

ACCESS CONTROL CABLES

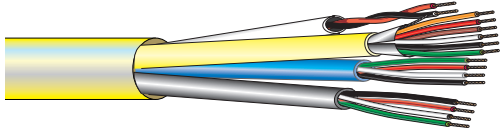
Access Granted. Security, life safety, and access entry are all part of securing a school, hospital, house of worship, Government facility and more. West Penn Wire provides many cabling options for communication in an access control system. If it is a small installation or large scale multi-building installation, we grant you access to our line of products.



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Composite Access Control Cables



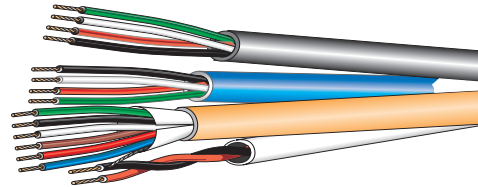
Applications:

- 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" Overall PVC Jacket Blue
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" Overall Plenum PVC Jacket Yellow
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" Overall Plenum PVC Jacket Yellow

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



Standard spool size 1000ft.

Catalog No.	Cable Types	Application	NEC Type	Nom. Jacket O.D. & Color
 LS1822	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	.430" Unjacketed Lickity Split Bonded Cable

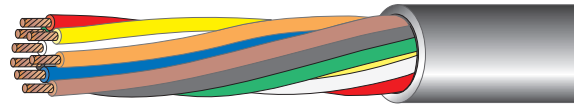
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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



Communication & Control Cable
Multiple Conductor 22 AWG / Unshielded
 featuring the **PERFECT STRIPE**®



Applications:

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

Description:

- ASTM Bare Copper • Polypropylene 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
855	5	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.150	CMR	--	Gray
270	6	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.163	CMR	--	Gray
271	8	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.176	CMR	--	Gray
272	10	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.218	CMR	--	Gray
274	15	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.251	CMR	--	Gray

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
270	GY	1000	270GY1000

Color Code		
Colors	Colors	Colors
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black*	
7. Orange	14.. White/ Red	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange ripcord under jacket
- PP* - Polypropylene



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
18 AWG Multiple Conductor / Unshielded**

Description:

- ASTM Bare Copper • Polypropylene 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

Applications:

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


Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 280	5	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.205	CMR	--	● Gray
281	7	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.225	CMR	--	● Gray
 282	9	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.263	CMR	--	● Gray
 283	12	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.298	CMR	--	● Gray
284	15	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .020	.348	CMR	--	● Gray

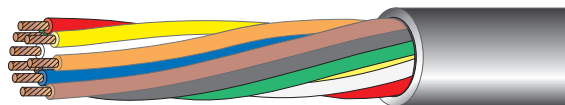
Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
281	GY	1000	281GY1000

Color Code		
Colors	Colors	Colors
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	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange ripcord under jacket
- PP* - Polypropylene
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.

Plenum Communication & Control Cable
Multiple Conductor/ Unshielded
22 AWG and 18 AWG Plenecon II® Extra Flexible



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.

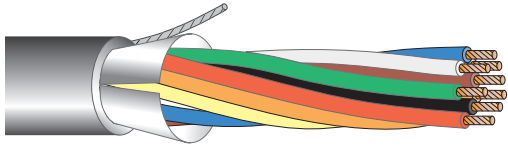
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25855B	5	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.146	CMP	--	Gray ●
25270B	6	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.157	CMP	--	Gray ●
25271B	8	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.172	CMP	--	Gray ●
25272B	10	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.213	CMP	--	Gray ●
25273B	12	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.220	CMP	--	Gray ●
25274B	15	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.246	CMP	--	Gray ●
25186B	6	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.216	CMP	--	Gray ●
25188B	8	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.235	CMP	--	Gray ●

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

Special Notes:

- Plenum Installation Precautions see Technical Reference
- Cables are packaged in our Advantage Box.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.





Communication & Control Cable
22 AWG Multiple Conductor / Overall Shielded
 featuring the **PERFECT STRIPE®**

Applications:

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

Description:

- ASTM Bare Copper • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
3241	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.142	CMR	34 pf/ft* 67 pf/ft**	Gray
3855	5	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.154	CMR	34 pf/ft* 67 pf/ft**	Gray
3270	6	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.167	CMR	34 pf/ft* 67 pf/ft**	Gray
3271	8	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.182	CMR	34 pf/ft* 67 pf/ft**	Gray
3272	10	22 AWG (7x30) 17 Ω/Mft	PP* .010	Al. Foil 100%	PVC .017	.222	CMR	34 pf/ft* 67 pf/ft**	Gray
3274	15	22 AWG (7x30) 17 Ω/Mft	PP* .010	Al. Foil 100%	PVC .020	.255	CMR	34 pf/ft* 67 pf/ft**	Gray

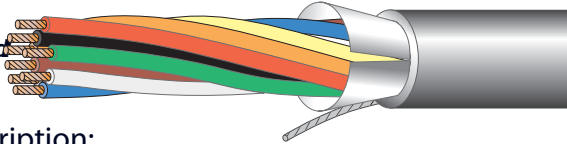
* Capacitance between conductors.
 ** Capacitance between one conductor and the other connected to the shield

Color Code		
Colors	Colors	Colors
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black*	
7. Orange	14. White/ Red	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special Notes:

- Selected Plenum Versions see pages 132
- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- PP* - Polypropylene
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

**Communication & Control Cable
Multiple Conductor 20 AWG / Overall Shielded**



Applications:

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

Description:

- ASTM Bare Copper • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
3011	4	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.163	CMR	40 pf/ft* 79 pf/ft**	Gray
3262	5	20AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.179	CMR	40 pf/ft* 79 pf/ft**	Gray
3263	7	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.198	CMR	40 pf/ft* 79 pf/ft**	Gray

Part Number Builder

Catalog Number	Color	Put Up Length	Order Part Number
3262	GY	1000	3262GY1000

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

**Communication & Control Cable
Multiple Conductor 18 AWG / Overall Shielded**

Standard spool size 1000ft.

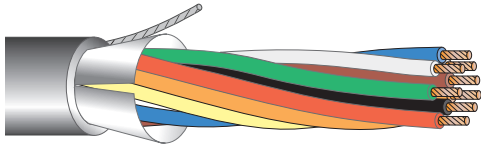
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
3280	5	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.209	CMR	27 pf/ft* 53 pf/ft**	Gray
3021	6	18 AWG (7x26) 6.6 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.225	CMR	27 pf/ft* 53 pf/ft**	Gray
3281	7	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.230	CMR	27 pf/ft* 53 pf/ft**	Gray

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- PP* - Polypropylene
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Color Code

Colors	Colors
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	
JACKET: Gray	



Plenum Communication & Control Cable
Multiple Conductor/ shielded
22 AWG and 18AWG Plenecon II® Extra Flexible

Description:

- ASTM Bare Copper • Polymer Alloy Insulation • Cabled construction • Overall shield coverage 100% aluminum polyester foil with TC 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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
253855B	5	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.154	CMP	55 pf/ft* 99 pf/ft**	Gray
253270B	6	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.162	CMP	55 pf/ft* 99 pf/ft**	GY, WH
253271B	8	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.184	CMP	55 pf/ft* 99 pf/ft**	Gray
253272B	10	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.213	CMP	55 pf/ft* 99 pf/ft**	Gray
253274B	15	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.244	CMP	55 pf/ft* 99 pf/ft**	Gray
253186B	6	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.221	CMP	68 pf/ft* 122 pf/ft**	Gray
253188B	8	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.244	CMP	68 pf/ft* 122 pf/ft**	Gray

Part Number Builder

Catalog Number	Color	Put Up Length	Order Part Number
253270	WH	500	253270WH500

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

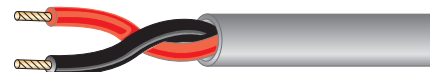
Color Code

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

Special Notes:

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

Communication & Control Cable
Unshielded



Applications:

- Indoor for:
- REX Cables
- Lock Power Cables
- Door Contact Cables
- Division 28 05 13.16

Description:

- ASTM Bare Copper • PVC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
221	2	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.120	CMR	20pf/ft	● Gray
224	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.156	CMR	20pf/ft	● GY, BK, WH
240	4	22 AWG Solid 17.5 Ω/Mft	PP* .008	None	PVC .017	.134	CMR	--	● Gray
241	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.138	CMR	--	● Gray, White
244	4	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.183	CMR	--	● Gray



Communication & Control Cable
Unshielded/ Plenum Rated

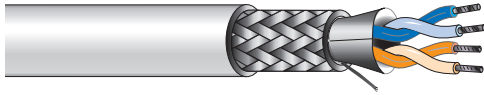
Rating:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25221B	2	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.116	CMP	--	● Gray
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.154	CMP	--	● GY, BK, WH, YE
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.180	CMP	--	● Gray
25241B	4	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.136	CMP	--	● Gray

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



Data Grade Cable
Multiple Pair Series / Overall Shielded
RS-485 Data Cables

Rating:

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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
D4851	1	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.275	CM	12.8 pf/ft* 23 pf/ft**	● Gray
D4852	2	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.305	CM	12.8 pf/ft* 23 pf/ft**	● Gray

Belden	WPW
9841	D4851
9842	D4852

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 Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
D254851	1	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.202	CMP	12 pf/ft* 22 pf/ft**	● Gray
D254852	2	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.305	CMP	12 pf/ft* 22 pf/ft**	● Gray

Color Code	
Pair No.	Colors
1	Blue- White
2	Orange- White
JACKET: Gray	

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

**Aquaseal® Water Blocking Cable
Multiple Conductor / Shielded**



Applications:

- Indoor/Outdoor Use:
- Card Reader - Access Control



Underground- In-Conduit

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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQC3270	6 Cond.	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.220	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC3274	15 Cond.	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.361	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC3186	6 Cond.	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.323	CM CL3	68 pf/ft* 122 pf/ft**	Gray
AQC3283	12 Cond.	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.410	CM CL3	68 pf/ft* 122 pf/ft**	Gray

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
AQC3274	GY	1000	AQC3274GY1000

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

Color Code	
Catalog No.	AQC3186, AQC3274, AQC3283
Primary Color Code	1. Black, 2. Red, 3. White, 4. Green, 5. Brown, 6. Blue, 7. Orange, 8. Yellow, 9. Purple, 10. Gray, 11. Pink, 12. Tan, 13. White/Black, 14. White/Red, 15. White/Green
	JACKET: Gray Conductors 13 and above have PERFECT STRIPE®



**Aquaseal® Water Blocking Cable
Multiple Conductor / Unshielded**

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



Underground- In-Conduit

Applications:

- Indoor/Outdoor Use:
- Intercom Systems
 - Security Systems
 - Sound and Audio
 - Background Music
 - Power-limited Control Circuits
 - Speaker Level

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	PVC .010	None	PVC .025	.218	CM CL3/FPL	30pf/ft	Gray
AQC188	8	18 AWG (7x26) 6.2Ω/Mft	PVC .008	None	PVC .025	.340	CM CL3	NA	Gray
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010	None	PVC .025	.242	CM CL3/FPL	35pf/ft	Gray

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
AQC188	GY	1000	AQC188GY1000

Color Code	
All Cables	1. Black, 2. Red, 3. White, 4. Green, 5. Brown, 6. Blue, 7. Orange, 8. Yellow
	JACKET: Gray

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

NETWORKING

Networking LAN

Serial Data Grade

Fiber Optics

NETWORKING

As demand for higher networking speeds and fiber optics increases, West Penn Wire provides these types of solutions and components that deliver audio and video signals with maximum clarity:

- > LAN
- > Serial Data
- > Fiber Optics

Networking Products

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Media Converters.....	151
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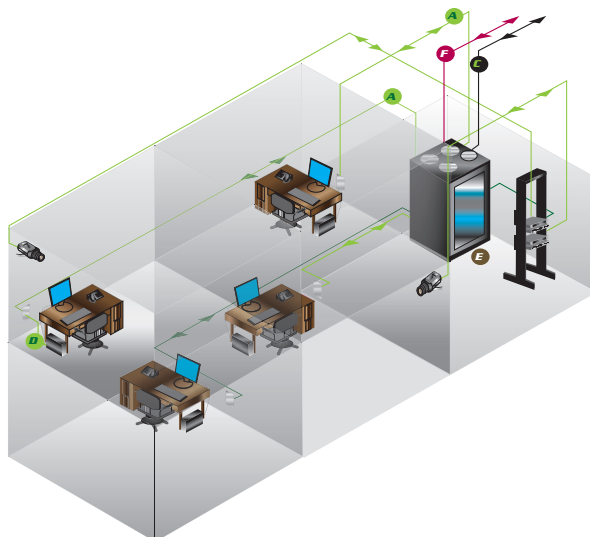
Serial Data Products

Low Capacitance Data Cables	154-157
Serial Data Cable Accessories	158

Fiber Optic Products

Fiber Optic Bulk Cables	160-164
Fiber Optic Cable Accessories	165-168

Networking with confidence. With the demand of higher networking speeds and quality deliverability, networking systems are putting a high stake in the components that delivery the signals. West Penn Wire brings an end to end solution to the networking market with its partnership with SignaMax. The products will provide confidence to your networks performance.



This diagram is not limited to the cable solutions listed, please consult with West Penn Wire Engineering for additional cable solutions.

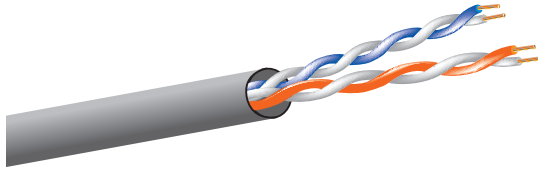
Features:

- Category 5E UTP & F/UTP Cables
- Category 5E Accessories
 - Connectors
 - Patchpanels
 - Assemblies
- Category 6/6E UTP and F/UTP Cables
- Category 6/6E Accessories
 - Connectors
 - Patchpanels
 - Assemblies
- Category 6A F/UTP Cables & Accessories
- Wall Plates:
 - Keystone Style
 - Decora® Style
 - Modular
- Active Equipment
 - Media Converters
 - Ethernet Switches
- 25 YEAR SYSTEM WARRANTY
 - SIGNAMAX

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Description:

- ASTM Solid Bare Copper • Plenum and Non-Plenum Versions • Multiple Pair Unshielded Twisted pair construction • Overall Jacket

Applications:

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




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

LAN Cables

2 and 3 Pair Category 3 Cables


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	Jacket Color
 WP54982 Non-Plenum	2 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic .008	None UTP	PVC	.118	CM	Nom. Cap. 18 pf/ft* Nom. Imp 100Ω	Lt. Gray
 WP54983 Non-Plenum	3 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic .008	None UTP	PVC	.155	CM	Nom. Cap. 18 pf/ft* Nom. Imp 100Ω	Lt. Gray
 WP54980 Plenum	3 Pair	24 AWG Solid 26 Ω/Mft	Plenum Thermo-Plastic .008	None UTP	Plenum Thermo-plastic	.141	CMP	Nom. Cap. 18 pf/ft* Nom. Imp 100Ω	Lt. Gray

LAN Cables

2 and 3 Pair Category 5E - Non-Plenum & Plenum

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	Jacket Color
 WP55253 Non-Plenum	2 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic .008	None UTP	PVC	.161	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	Lt. Gray
WP55826 Plenum	2 Pair	24 AWG Solid 26 Ω/Mft	FEP .008	None UTP	Plenum PVC	.148	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	Lt. Gray



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Cables

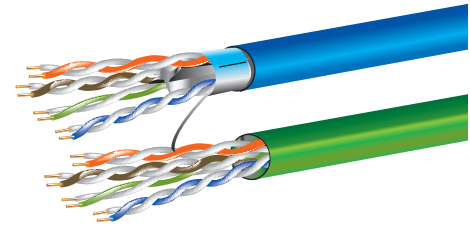
Category 5E

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 -



Applications:

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

Category 5E UTP and F/UTP Cables

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4245	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.191	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
254245	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	
M57562	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.267	Armored Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
4245-OSP	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant PE	.255	Outdoor	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
4245-IO	4 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP Water Blocked	UV Resistant Polyolefin	.251	Indoor/Outdoor CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	
4245F-GY	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	
4245F-BL									
254245F-GY	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	
254245F-BL									

Electrical Specifications: Page 229

Modular Plugs

Category 5E

CATEGORY 5E MODULAR PLUGS	
Catalog No.	Description
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
32-5998UL	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



- Meet or exceed TIA-568-C.2
- Supports Cat 5E 100 meter channel performance
- Overall solid shielding design
- Solid or Stranded wires
- EZ Termination
- Termination Tool: TL-EZRJ45

RJ45 Jacks
Category 5E



CATEGORY 5E JACKS	
Catalog No.	Description
KJ458MT-C5E-xx	SignaMax RJ45 Cat5E Jack- xx: WH, BK, BL, GY, GN, OR, RD, YE
KJS458TL-C5E	SignaMax 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

KJS458MT-C5E-WH

Patch Cables
Category 5E

CATEGORY 5E UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C5EC-114CC-3	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C5EC-114CC-6	6 Foot	
C5EC-114CC-10	10 Foot	
C5EC-114CC-15	15 Foot	
C5EC-114CC-20	20 Foot	
C5EC-114CC-25	25 Foot	



REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED -RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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CATEGORY 5E F/UTP ASSEMBLIES		
Catalog No.	Length	Jacket Colors
C5ECS-314GY-3	3 Foot	SIGNAMAX Gray
C5ECS-314GY-6	6 Foot	
C5ECS-314GY-10	10 Foot	
C5ECS-314GY15	15 Foot	
C5ECS-314GY-20	20 Foot	
C5ECS-314GY-25	25 Foot	

Patch Panels
Category 5E

CATEGORY 5E PATCH PANELS	
Catalog No.	Description
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
24458S-C5E	24 PORT CAT 5E Shielded F/UTP PATCH PANEL 1.75 - 1RU
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



24458MD-C5E



NETWORK CONNECTIVITY TOOLS	
Catalog No.	Description
TL-110/66	110 PUNCHDOWN TOOL
TL-3650	110 ADJUSTABLE PUNCHDOWN TOOL
TRJ45P	RATCHET TYPE RJ45 CRIMP TOOL
TL-EZRJ45PROCT	EZ RATCH MODULAR PLUG CRIMP TOOL
KJMT-8600	SIGNAMAX- MULTIPAIR PUNCHDOWN TOOL

Cables

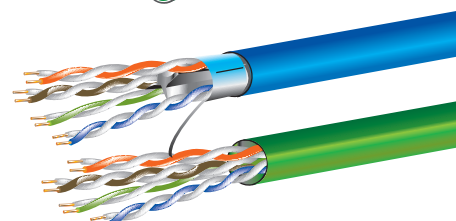
Category 6 & 6E UTP

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



Applications:

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

Category 6 UTP Test to 550Mhz

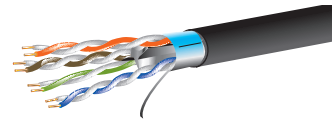
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4246	4 Pair	23 AWG Solid 24 Ω/Mft	Polyolefin	None UTP	PVC	.220	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	GY, BL, WH, BK, GN, OR, YE, PK, RD, VT
254246	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	GY, BL, WH, BK, GN, OR, YE, PK, RD, VT
4246-OSP Outdoor	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Water-Blocked	UV Resistant PE	.266	-	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	UV Black
4246-IO Indoor/Outdoor	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic Polyolefin	None UTP Water-Blocked	UV Resistant Polyolefin .040"	.271	CM	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	UV Black

Category 6E UTP Test to 750Mhz

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches		Inches				
4246E	4 Pair	23 AWG Solid 24 Ω/Mft	Thermo-Plastic	None UTP	PVC	.255	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	BL, WH
254246E	4 Pair	23 AWG Solid 24 Ω/Mft	FEP	None UTP	Plenum Thermo-Plastic	.255	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	BL, WH



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Cables

Cat6A & Cat6 Shielded

Description:

- ASTM Solid Bare Copper • Plenum and Non-Plenum Versions • 100% Aluminum Foil Shield • 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

Applications:

- Indoor for:
- HDBaseT AV Networks
 - Analog and Digital Voice
 - 1G BaseT Networks
 - Voice Backbone Cabling
 - Digital Integration

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



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

Category 6 F/UTP- Test to 550Mhz



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

**Modular Plugs
Category 6A and Category 6**



CN-B0051



32-6EZP



TL-EZRJ45PROCT



900020



12515C



TL-CATWIREST



KJS458TL-C6A

KJ458MT-C6C-xx



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	
32-6EZP	Cat6 UTP EZ Plug Modular Plug
32-6198UL	Cat6 UTP Modular Plug
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

**Plug Installation Tools
Category 6A and Category 6**

INSTALLATION TOOLS	
Catalog No.	Description
TL-EZRJ45PROCT	Modular Crimp Tool- Pro Series
900020	Modular Crimp Tool With External Ground Crimping Mechanism 1 Step for CN-111S90H34 Cat6 F/UTP Plugs
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

**RJ45 Jacks
Category 6A and Category 6**

CATEGORY 6A F/UTP Jacks	
Catalog No.	Description
KJS458TL-C6A	SignaMax RJ45 Cat6A F/UTP- 10G - Metal - Tool less
KJS458MT-C6A	SignaMax RJ45 Cat6A F/UTP- 10G - Metal MT Style Puchdown
CATEGORY 6 F/UTP Jacks	
KJS458TL-C6C	SignaMax RJ45 Cat6 F/UTP- Metal - Tool less
CATEGORY 6 UTP Jacks	
KJ458MT-C6C	SignaMax Cat6 Jack- xx: 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

Patch Cables

Category 6A and Category 6

Category 6A - Only offered in F/UTP Version

CAT6A F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6AS-314GY-3FB	3 Foot	SIGNAMAX Color: Gray
C6AS-314GY-7FB	7 Foot	
C6AS-314GY-10FB	10 Foot	
C6AS-314GY-15FB	15 Foot	
C6AS-314GY-20FB	20 Foot	
C6AS-314GY-25FB	25 Foot	



CAT6 F/UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6CS-314GY-3FB	3 Foot	SIGNAMAX Color: Gray
C6CS-314GY-7FB	7 Foot	
C6CS-314GY-10FB	10 Foot	
C6CS-314GY-15FB	15 Foot	
C6CS-314GY-20FB	20 Foot	
C6CS-314GY-25FB	25 Foot	



Category 6

CAT6 UTP ASSEMBLIES - SNAG-PROOF		
Catalog No.	Length	Jacket Colors
C6C-114CC-3FB	3 Foot	BK,BU,GY,RD,GN, WH,YE,OR
C6C-114CC-7FB	7 Foot	
C6C-114CC-10FB	10 Foot	
C6C-114CC-15FB	15 Foot	
C6C-114CC-20FB	20 Foot	
C6C-114CC-25FB	25 Foot	



REPLACE: CC WITH COLOR

BLACK-BK	BLUE - BU	GRAY - GY	RED - RD	GREEN-GN	WHITE-WH	YELLOW-YE	ORANGE - OR
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Category 6 Locking Assemblies

CAT6E F/UTP ASSEMBLIES - Locking RJ45		
Catalog No.	Length	Jacket Colors
38-S6K-003-BK	3 Foot	Archtech Color: Black
38-S6K-007-BK	7 Foot	
38-S6K-010-BK	10 Foot	
38-S6K-015-BK	15 Foot	



CAT6E UTP ASSEMBLIES - Locking RJ45		
Catalog No.	Length	Jacket Colors
38-U6K-003-BK	3 Foot	Archtech BK,BU,RD,GN, OR
38-U6K-007-BK	7 Foot	
38-U6K-010-BK	10 Foot	
38-U6K-015-BK	15 Foot	



LOCKING KEY INSERTS	
Catalog No.	Description
311K-UK-OR-25	25PC. Orange butterfly - hand release
311K-UK-OR-100	100PC. Orange butterfly - hand release

Patch Panels
Category 6A



CATEGORY 6A UTP PATCH PANELS	
Catalog No.	Description
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	
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	
24458S-C6A	24 PORT CAT6A F/UTP 10G - 1.75" - 1RU
48458S-C6A	48 PORT CAT6A F/UTP 10G - 3.50" - 2RU



Patch Panels
Category 6

CATEGORY 6 UTP PATCH PANELS	
Catalog No.	Description
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 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	
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



Cable Management

HINGED WALL MOUNT BRACKETS	
Catalog No.	Description
HWB-175	1 RMS 1.75"H x 6" D
HWB-350	2 RMS 3.50"H x 6" D
HWB-525	3 RMS 5.25"H x 6" D

DISTRIBUTION RINGS	
Catalog No.	Description
CMP-175-A	PANEL W 5 1.75"X3" RINGS 1 RMS
CMP-350-A	PANEL W 5 3"X3" RINGS 2 RMS
CMP-175-AD	PANEL W 5 1.75"X3" RINGS 1 RMS - 1.5"Wx4"H WIRING DUCT
CMP-350-AD	PANEL W 5 3"X3" RINGS 2 RMS - 3"Wx4"H WIRING DUCT



LAN Cables

High Pair Count Cat3 And Cat5E Cables



Applications:

Indoor for: - OSP Version for Outdoor Only

- 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 3

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	Jacket Color
 WP55700 Non-Plenum	25 Pair	24 AWG Solid 26 Ω/Mft	Thermo-Plastic	None UTP	PVC Gray	.364	CMR	Nom. Cap. 20 pf/ft* Nom. Imp 100Ω	● Lt. Gray
 WP56801 Plenum	25 Pair	24 AWG Solid 26 Ω/Mft	Plenum Thermo-Plastic	None UTP	Plenum Thermo-plastic Gray	.389	CMP	Nom. Cap. 20 pf/ft* Nom. Imp 100Ω	● Lt. Gray

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	Jacket Color
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	● Lt. Gray
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	● Lt. Gray



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Color Code

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

Nurse Call Communications Cable

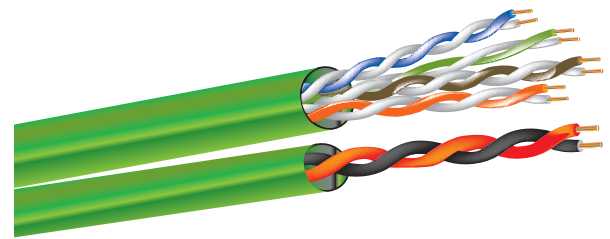
4 Pair 24 AWG UTP + 16/2 Power Cable UTP

Description:

- ASTM Solid Bare Copper • Plenum and Non-Plenum Versions • 4 Pair Unshielded Twisted Pair Construction + 2 Conductor Power Cable • Siamese 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



Applications:

- Indoor for: Non-Plenum and Plenum Spaces
- Hospital LAN
 - HealthCare Facilities Peripheral Devices
 - Corridor Lighting

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance & Impedance	Jacket Color
			Inches						
4245162	4 Pair	24 AWG Solid 26 Ω/Mft	Polyolefin	None UTP	PVC	.260x.462	CMR	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● Security Green
	2 Cond.	16 AWG (19x29) 6.2 Ω/Mft	PVC	None UTP					
254245162	4 Pair	24 AWG Solid 26 Ω/Mft	PVC	None UTP	Plenum PVC	.260x.462	CMP	Nom. Cap. 14 pf/ft* Nom. Imp 100Ω	● Security Green
	2 Cond.	16 AWG (19x29) 6.2 Ω/Mft	Polymer Alloy	None UTP					

Color Code

Pair No.	Pair Color Code	
Network Cable		
1	White/Blue	Blue-White
2	White/Orange	Orange-White
3	White/Green	Green-White
4	White/Brown	Brown-White
Power Cable		
1	Black	Red
Overall Jacket Color		
SG - Security Green		



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Work Area Outlet System

Single Gang Faceplates

SINGLE GANG KEYSTONE PLATES W/O LABEL	
Catalog No.	Description
SKF-1	1 PORT PLATE - LT.IVORY
SKF-2	2 PORT PLATE - LT.IVORY
SKF-3	3 PORT PLATE - LT.IVORY
SKF-4	4 PORT PLATE - LT.IVORY
SKF-6	6 PORT PLATE - LT.IVORY

Other Colors: add -BK, -GY, -WH - EXAMPLE SKF-2-BK

SINGLE GANG KEYSTONE PLATES WITH LABEL	
Catalog No.	Description
SKFL-1	1 PORT PLATE - ADD IV, BK, GY, WH
SKFL-2	2 PORT PLATE - ADD IV, BK, GY, WH
SKFL-3	3 PORT PLATE - ADD IV, BK, GY, WH
SKFL-4	4 PORT PLATE - ADD IV, BK, GY, WH
SKFL-6	6 PORT PLATE - ADD IV, BK, GY, WH

Other Colors: add -BK, -GY, -WH - EXAMPLE SKFL-2-WH

STAINLESS SINGLE GANG KEYSTONE PLATES W/O LABEL	
Catalog No.	Description
SSKF-1	1 PORT PLATE - STAINLESS STEEL
SSKF-2	2 PORT PLATE - STAINLESS STEEL
SSKF-3	3 PORT PLATE - STAINLESS STEEL
SSKF-4	4 PORT PLATE - STAINLESS STEEL
SSKF-6	6 PORT PLATE - STAINLESS STEEL

STAINLESS SINGLE GANG KEYSTONE PLATES WITH LABEL	
Catalog No.	Description
SSKFL-1	1 PORT PLATE - STAINLESS STEEL
SSKFL-2	2 PORT PLATE - STAINLESS STEEL
SSKFL-3	3 PORT PLATE - STAINLESS STEEL
SSKFL-4	4 PORT PLATE - STAINLESS STEEL
SSKFL-6	6 PORT PLATE - STAINLESS STEEL

SOLD IN 10 PACKS



SKF-6

SOLD IN 10 PACKS



SKFL-4

SOLD IN 10 PACKS



SSKF-3

SOLD IN 10 PACKS

Work Area Outlet System

Dual Gang Faceplates

DUAL GANG KEYSTONE PLATES W/O LABEL	
Catalog No.	Description
DKF-6	6 PORT DUAL GANG W/O LABEL - LT. IVORY
DKF-8	8 PORT DUAL GANG W/O LABEL - LT. IVORY
DKF-12	12 PORT DUAL GANG W/O LABEL - LT. IVORY

DUAL GANG KEYSTONE PLATES WITH LABEL	
Catalog No.	Description
DKFL-6	6 PORT DUAL GANG WITH LABEL - LT. IVORY
DKFL-12	12 PORT DUAL GANG WITH LABEL - LT. IVORY

STAINLESS DUAL GANG KEYSTONE PLATES W/O LABEL	
Catalog No.	Description
DSKF-6	6 PORT DUAL GANG W/O LABEL - STAINLESS STEEL
DSKF-12	12 PORT DUAL GANG W/O LABEL - STAINLESS STEEL

Other Colors: add -BK, -GY, -WH



DKF-6

SOLD IN 10 PACKS



DSKL-8

Work Area Outlet System
Decora Style Plates

SOLD IN
10 PACKS



DKFD-1



DA-4

DECORA STYLE PLATES	
Catalog No.	Description
SKFD-1	SINGLE GANG - DECORA LT.IVORY
DKFD-1	DUAL GANG - DECORA LT.IVORY

DECORA ADAPTER INSERTS	
Catalog No.	Description
DA-BL	BLANK INSERT LT.IVORY
DA-1	1 PORT INSERT- LT.IVORY
DA-2	2 PORT INSERT - LT.IVORY
DA-3	3 PORT INSERT - LT.IVORY
DA-4	4 PORT INSERT - LT.IVORY

Other Colors: add -BK, -WH

Work Area Outlet System
Keystone Adapters

SOLD IN
10 PACKS



CMK-BL



CMK-F3



CMK-BNC75



CMK-110RCAY



CMK-RCAG



CMK-RCAW



CMK-110SVHS



CMK-RA



CMK-BA



CMK-ST



CMK-LC



CMK-071D3.5-XX



CMK-071DSPK-XX

KEYSTONE INSERT ADAPTERS	
Catalog No.	Description
CMK-BL	BLANK INSERT LT.IVORY
CMK-F3	"F" INSERT 3GHZ - LT.IVORY
CMK-BNC75	BNC 75OHM - LT.IVORY
CMK-110RCAW	RCA 110 STYLE WHITE - LT.IVORY
CMK-110RCAR	RCA 110 STYLE RED - LT.IVORY
CMK-110RCAY	RCA 110 STYLE YELLOW - LT.IVORY
CMK-110RCAB	RCA 110 STYLE BLUE - LT.IVORY
CMK-110RCAG	RCA 110 STYLE GREEN - LT.IVORY
CMK-RCAW	RCA FEED THRU WHITE - LT.IVORY
CMK-RCAR	RCA FEED THRU RED - LT.IVORY
CMK-RCAY	RCA FEED THRU YELLOW - LT.IVORY
CMK-RCAB	RCA FEED THRU BLUE - LT.IVORY
CMK-RCAG	RCA FEED THRU GREEN - LT.IVORY
CMK-110SVHS	SVHS 110 STYLE - LT.IVORY
CMK-RA	3 WAY BINDING POST RED - LT.IVORY
CMK-BA	3 WAY BINDING POST WHITE - LT.IVORY
CMK-ST	ST MULTI-MODE INSERT - LT.IVORY
CMK-SC	SC MULTI-MODE INSERT - LT.IVORY
CMK-LC	LC MULTI-MODE INSERT - LT.IVORY
CMK-SCS	SC SINGLE-MODE INSERT - LT.IVORY
CMK-LCS	LC SINGLE-MODE INSERT - LT.IVORY
CMK-HDMI	HDMI INSERT - LT.IVORY
CMK-USB	USB - LT.IVORY
CN-071D3.5-XX	3.5mm - INSERT - XX: WH,IV,GY,BK
CN-071DSPK-XX	SPEAKER TERMINAL - INSERT - XX: WH,IV,GY,BK

Other Colors: add -BK, -WH



SOLD IN
10 PACKS

STAINLESS DUAL GANG MOUNTING BRACKET	
Catalog No.	Description
DGF-MB	DUAL GANG DRYWALL MOUNTING BRACKET

SURFACE MOUNT FACEPLATE BOX	
Catalog No.	Description
SMB1-SG	SINGLE GANG - LT. IVORY
SMB1-DG	DUAL GANG - LT. IVORY

Other Colors: add -BK, -WH

Modular Outlet System

Single and Dual Gang Modular Faceplates

MODULAR WALL-PLATES	
Catalog No.	Description
SGF-06	1 Gang - 1 Slot - LT.IVORY
DGF-12	2 Gang - 1 Slot - LT.IVORY

Other Colors: add -WH

Modular Outlet System

Modular Adapters

"F" TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-1F	1 PORT "F" 180° EXIT - LT.IVORY
SCM-1F-A	1 PORT "F" 45° EXIT - LT.IVORY
SCM-2F	2 PORT "F" 180° EXIT - LT.IVORY
SCM-2F-A	2 PORT "F" 45° EXIT - LT.IVORY

BNC TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-1BNC	1 PORT BNC 180° EXIT - LT.IVORY
SCM-1BNC-A	1 PORT BNC 45° EXIT - LT.IVORY
SCM-2BNC	2 PORT BNC 180° EXIT - LT.IVORY
SCM-2BNC-A	2 PORT BNC 45° EXIT - LT.IVORY

RCA TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-1R-W	1 PORT RCA WH. 180° EXIT - LT.IVORY
SCM-2R-WR	2 PORT RCA WH/RD 180° EXIT - LT.IVORY
SCM-3R-RWY	3 PORT RCA WH/RD/YE 180° EXIT - LT.IVORY
SCM-1R-W-A	1 PORT RCA WH. 45° EXIT - LT.IVORY
SCM-2R-WR-A	2 PORT RCA WH/RD 45° EXIT - LT.IVORY
SCM-3R-RWYA	3 PORT RCA WH/RD/YE 45° EXIT - LT.IVORY

AUDIO TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-2RBA	2 PORT 3-WAY BINDING POST 180° EXIT LT.IVORY
SCM-2RBA-A	2 PORT 3-WAY BINDING POST 45° EXIT LT.IVORY

SVGA VIDEO TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-1VGA	1 PORT VGA HD15 FEED THRU - LT. IVORY
SCM-1VGATB	1 PORT VGA HD15 TERMINAL BLOCK - LT. IVORY

DATA/NETWORK TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM145-C6C	1 PORT CAT 6 ADAPTER - LT.IVORY
SCM245-C6C	2 PORT CAT 6 ADAPTER - LT.IVORY
SCM145-C5E	1 PORT CAT 5E ADAPTER - LT.IVORY
SCM245-C5E	2 PORT CAT 5E ADAPTER - LT.IVORY

HDMI & USB INSERT ADAPTERS	
Catalog No.	Description
SCM-1HDMI	1 HDMI MODULE - LT. IVORY
SCM-2HDMI	2 HDMI MODULE - LT.IVORY
SCM-1USB	1 USB MODULE - LT.IVORY
SCM-2USB	2 USB MODULE - LT.IVORY

OTHER MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-BL	BLANK ADAPTER - LT. IVORY
SCM-1-KU	1 PORT KEYSTONE MODULE - LT.IVORY
SCM-2-KU	2 PORT KEYSTONE MODULE - LT.IVORY



SGF-06

STANDARD COLOR IS
LT. IVORY
WHITE IS AVAILABLE
-WH

SOLD IN
10 PACKS



SCM-1F



SCM-2BNC



SCM-3R-RWY



SCM-2RBA



SCM-1VGATB



SCM-245-C5E

FIBER OPTIC TYPE MODULAR INSERT ADAPTERS	
Catalog No.	Description
SCM-2ST	2 FIBER ST SIMPLEX MM-LT.IVORY
SCM-2ST-C	2 FIBER ST SIMPLEX SM-LT.IVORY
SCM-2SC	2 FIBER SC SIMPLEX MM -LT.IVORY
SCM-2SC-C	2 FIBER SC SIMPLEX SM -LT.IVORY
SCM-1LC	2 FIBER LC SIMPLEX MM -LT.IVORY
SCM-1LC-C	2 FIBER LC SIMPLEX SM -LT.IVORY
SCM-2LC	4 FIBER LC SIMPLEX MM -LT.IVORY
SCM-2LC-C	4 FIBER LC SIMPLEX SM -LT.IVORY



SCM-2SC

West Penn Wire (SignaMax) provides media conversion solutions that support data, voice, video and image transport over a wide variety of transmission media. These products convert a wide variety of data - from serial RS-232 through Standard, Fast, Gigabit Ethernet and SONET/SDH protocols. Conversions from twisted-pair copper cable, coaxial cable, multimode fiber and singlemode fiber, to other types of cable are all possible with the wide array of solutions from Signamax Connectivity Systems.

Media Converters

Unmanaged Media Converters - Standalone and/or Chassis Mount

100 BaseFX Solutions	
065-1100	10/100BaseT TX to 100BaseFX MM ST 2KM
065-1110	10/100BaseT TX to 100BaseFX MM SC 2KM
065-1174	10/100BaseT TX to 100BaseFX MM LC 2KM
065-1120	10/100BaseT TX to 100BaseFX SM SC 15km
065-1100LFS	10/100BaseT TX to 100BaseFX MM ST USB power option
065-1110LFS	10/100BaseT TX to 100BaseFX MM SC USB power option
065-1174LFS	10/100BaseT TX to 100BaseFX MM LC USB power option
065-1120LFS	10/100BaseT TX to 100BaseFX SM SC 15km USB power option
DIN Rail Mount Bracket	
065-11DINNMT	16 Bay DIN Rail Mount Brackets for 065-11xx converters



Gigabit Ethernet Solutions	
065-1196FPDR	10/100/1000BaseT TX to Dual rate 100B or 1000B SFP
065-1196A	10/100/1000BaseT TX to 1000B SX SC 550m OM3
065-1196AED	10/100/1000BaseT TX to 1000B SX SC 2KM OM1,OM2, or OM3
065-1196ALX	10/100/1000BaseT TX to 1000B SX SC 10KM - Single Mode
065-1185	16 Bay Rack Mount Media Converter Chassis, AC



Unmanaged Standalone Media Converters

10/100BaseT TX to 100BaseFX Mini Converters	
065-1000	10/100BaseT TX to 100BaseFX MM ST Mini Converter 2KM
065-1010	10/100BaseT TX to 100BaseFX MM SC Mini Converter 2KM

10/100BaseT TX to 100BaseFX PoE Converters	
	PSE Power Source Equipment
065-1050ST	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter ST MM
065-1050SC	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC MM
065-1050SM	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC SM
	PD Powered Devices
065-1052SC	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter SC MM



Media Converters

Industrial Ethernet

100 BaseFX Solutions Din Rail	
065-1810TB	10/100BaseT/TX to 100BaseFX Industrial Hardened Media Converter, SC Multimode, 2 km Span
065-1820TB	10/100BaseT/TX to 100BaseFX Industrial Hardened Media Converter, SC Singlemode, 15 km Span
065-1820EDTB	10/100BaseT/TX to 100BaseFX Industrial Hardened Media Converter, SC Singlemode, 40 km Span,
100 BaseFX Solutions- PoE + PSE Din Rail	
065-1810Z	10/100BaseT/TX to 100BaseFX Industrial Media Converter, SC Multimode, 2 km Span,
065-1820Z	10/100BaseT/TX to 100BaseFX Industrial Media Converter, SC Singlemode, 15 km Span
GigaBit Ethernet Industrial Din Rail	
065-1895TB	1000BaseT to 1000BaseSX Industrial Hardened Media Converter, SC Multimode, 220 m (62.5 μ fiber)/550 m (50 μ fiber)
065-1897TB	1000BaseT to 1000BaseLX Industrial Hardened Media Converter, SC Singlemode, 10 km Span
065-1897EDTB	1000BaseT to 1000BaseLX Industrial Hardened Media Converter, SC Singlemode, 15 km Span



SignaMax Products
www.signamax.com

Our complete line of Ethernet Switches supporting installations from Enterprise businesses to small offices. Gigabit Ethernet, Fast Ethernet and Standard Ethernet requirements can be met by the wide array of solutions offered. Support of new Quality of Service and Tagged Virtual LAN protocol capabilities permit the construction of convergent networks supporting voice, data, video and still image transport simultaneously over a single structured cabling plan.

Managed Ethernet Switches

Managed Gigabit Ethernet Switches	
	4 SFP Dual Media Ports
065-7861	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports
065-7861POE	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports 185w
065-7861POE-FP	26 Port Stackable Gigabit Managed Switch 4 SFP Dual Media Ports 370w
Managed Fast Ethernet Switches	
	4 Gigabit Ports Managed Switch w/ Redundant Power Supply
065-7734R	24 Port 10/100 Managed Switch - Redundant PS
065-777344TR	24 Port 10/100 Managed Switch +4 1000BaseT Port - Redundant PS
065-77344DMR	24 Port 10/100B SFP Slots + 4 10/100/1GT/TX Dual Media Ports w/1000Base SFP Slots and Redundant PS- Managed Switch
065-7734FSFPR	24 Port 100B SFP Slots + 4 10/100/1GT/TX Dual Media Ports w/10/100/1000Base SFP Slots and Redundant PS- 2 SFP/RJ45 - Managed PoE Switch
065-7726SPOE	24 Port 10/100 Managed Switch PoE - 2 SFP/RJ45 Dual Media Ports
065-7726SPOE-FP	24 Port 10/100 Managed Switch Full Powered PoE 2 SFP/RJ45 Web-Smart Switch - 4 SFP Ports
065-7904C-WS	24 Port 10/100/1000 WebSmart Switch - 4 SFP Dual Ports



Unmanaged Gigabit Ethernet Switches

Unmanaged Ethernet Switches	
	8 PoE Ports
065-7308POE-FP	8 Port 10/100 Full Power PoE Switch w/ 8 PoE Port
065-7308POEFPRM	Rack Mount Kit for 065-7308POE-FP
065-7012G	8 Port 10/100/1000Base Compact Gigabit Switch
	8 Port 10/100/1000Base Compact Gigabit Switch
	24 Port 10/100
065-7341A	24 Port 10/100T/TX Unmanaged Switch



Two Strand SFP Gigabit Ethernet Modules

2 Strand Gigabit SFP - Modules	
	SFP Modules - 2 Strand Fiber
065-79SXMGM	1000BaseSX SFP Module 850nm - MM/LC - 220m
065-79SXEDMG	1000BaseLX SFP Module 1310nm MM/LC - 2km
065-79LXMG	1000BaseLX SFP Module 1310nm SM/LC - 10km
065-79LXEDMG	1000BaseLX SFP Module 1310nm SM/LC - 40km
065-79ZXMG	1000BaseLX SFP Module 1550nm SM/LC - 80km



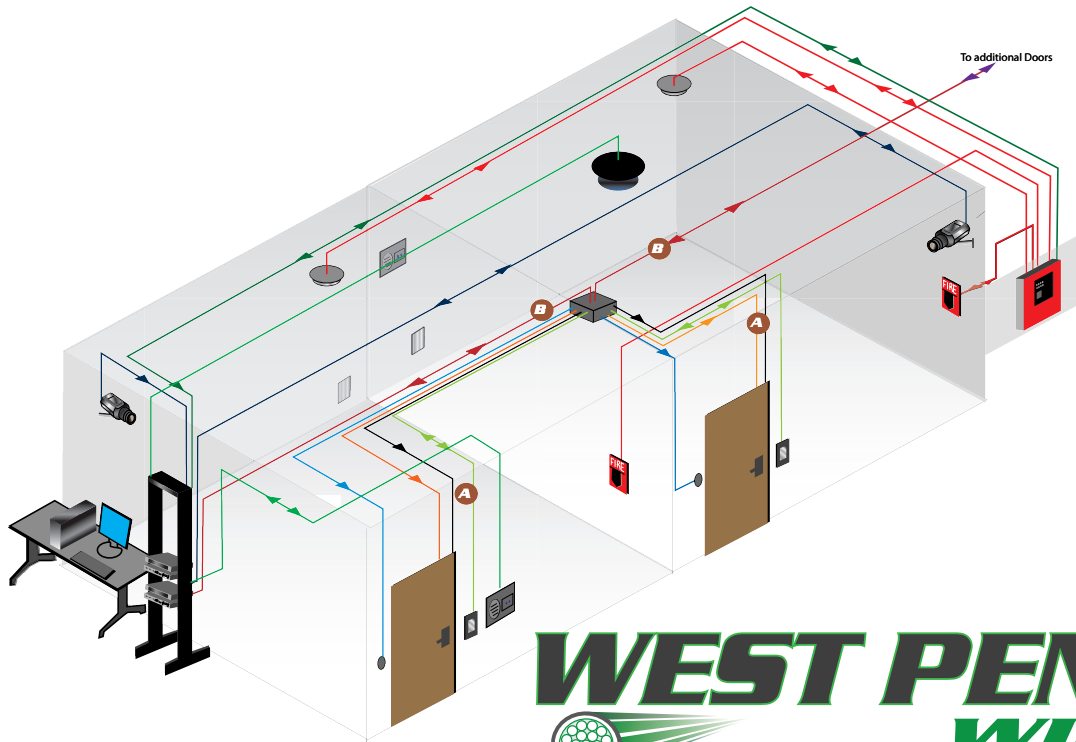
Add a - H to the end of the P.N for Harden Temperature Ranges - -40C to 85C - 065-79SXMGM-H

Fast Ethernet and Gigabit Ethernet Copper SFP Modules

Copper SFP - Modules	
	SFP Modules - 2 Strand Fiber
065-73TXMG	10/100BaseT/TX SFP - RJ45 100m
065-791000TMGM	1000BaseT SFP - RJ45 - Cat5E or Better 100m

SERIAL DATA GRADE PRODUCTS

Data... Delivered. Serial digital systems such as RS-232, RS-422, and RS-485 require digital signals to be delivered from component to component with minimal distortion. West Penn Wire serial data grade cables are manufactured with low loss insulation providing superior electrical characteristics with either single or dual shields. When the application calls for digital 1s and 0s, graduate to the level of serial data grade.



- Superior electrical characteristics
- Low Loss Insulations
- Superior Shielding
- RS-232 Applications
- RS-422 Applications
- RS-485 Applications
- 1-1000ft Incremental Footage Markers
- Advantage Box Packaging

PRODUCT INDEX:

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Plenum Low Capacitance Cables

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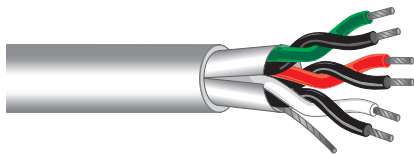


RS-485 Cables

Non-Plenum RS-485	157
Plenum RS-485	157



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Data Grade Cable
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. TC 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 Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
D2401	1 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.160	CM	14.5pf/ft* 26pf/ft **	Gray
D2402	2 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.228	CM	14.5pf/ft* 26pf/ft **	Gray
D2404	4 Pair	24 AWG (7x32) 26 Ω/Mft	Polyolefin .013	Al. Foil 100%	PVC .030	.268	CM	14.5pf/ft* 26pf/ft **	Gray

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
D3651	2 Pair	22 AWG (7x30) 17 Ω/Mft	Polyolefin .010	Al. Foil 100%	PVC .030	.235	CM	26pf/ft* 47pf/ft **	Gray
D3653	4 Pair	22 AWG (7x30) 17 Ω/Mft	Polyolefin .010	Al. Foil 100%	PVC .030	.268	CM	26pf/ft* 47pf/ft **	Gray

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

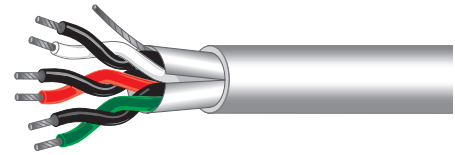
Color Code	
Pair No.	Colors
1	Black/Red
2	Black/White
3	Black/Green
4	Black/Blue
JACKET: Gray	

<p>Electrical Characteristics Nom. Vel of Propagation - 66% Nom. Impedance Ω 24 Awg.- 100Ω Nom. Impedance Ω 22 Awg.- 55Ω</p>

Special Notes:

- Cables are packaged in the Advantage Box.
- Orange ripcord included on cables containing 3 or more pairs.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Data Grade Plenum Cable
Multiple Pair / Overall Shielded**



Applications:

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


Description:

- ASTM 24Awg. 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 Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 D252401	1	24 AWG (7x32) 26 Ω/Mft	Teflon .013	Al. Foil 100%	Flexible Plenum .015	.115	CMP	14.5 pf/ft* 26 pf/ft**	Gray
D252402	2	24 AWG (7x32) 26 Ω/Mft	Teflon .013	Al. Foil 100%	Flexible Plenum .015	.188	CMP	14.5 pf/ft* 26 pf/ft**	Gray

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

Description:

- ASTM 22Awg. 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 Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 D253651	2	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100%	Flexible Plenum .015	.191	CMP	25 pf/ft* 45 pf/ft**	Gray
D253652	3	22 AWG (7x30) 17 Ω/Mft	Teflon .010	Al. Foil 100%	Flexible Plenum .015	.204	CMP	25 pf/ft* 45 pf/ft**	Gray


Electrical Characteristics
Nom. Vel of Propagation - 69%
Nom. Impedance Ω 22 Awg.- 55Ω

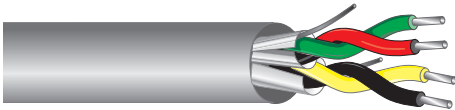
Color Code	
Pair No.	Colors
1	Black/Red
2	Black/White
3	Black/Green
JACKET: Gray	

Special Notes:

- Cables are packaged in the Advantage Box.
- Teflon®- Dupont Tradename for FEP-Fluorinated Ethylene Propylene
- Plenum Installation Precautions see Technical Reference Section Page

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

-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Data Grade Cable
Multiple Pair / Individually Shielded

Description:

- ASTM Tinned Copper • Polyolefin insulation • Each pair shielded 100% coverage of aluminum foil with 24 AWG Strd. TC 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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 D420 †	2	22 AWG Solid 17.5 Ω/Mft	Polyolefin .015	Individual Al. Foil 100%	PVC .030	.261	CM	15.5 pf/ft* 28 pf/ft**	Gray

Color Code	
Pair No.	Colors
1	Black/Yellow
2	Red/Green
JACKET: Gray	

* 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
- 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 Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 D25420†	2	22 AWG Solid 17.5 Ω/Mft	Teflon .012	Individual Al. Foil 100%	PVDF .015	.185	CMP	15.5 pf/ft* 28 pf/ft**	Gray

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

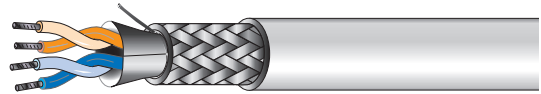
Special Notes:

- † Drain wire 22 AWG Solid Tinned copper
- Cables are packaged in the Advantage Box.

 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Data Grade Cables -Non-Plenum & Plenum

Multiple Pair / Overall Shielded RS-485 Data Cables



Applications:

Indoor for:

- Computer Application
- Low Capacitance Data
- RS-485 Data Applications
- DMX



Standard spool size 1000ft.

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

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
D4851	1	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.275	CM	12.8 pf/ft* 23 pf/ft**	Gray
D4852	2	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.305	CM	12.8 pf/ft* 23 pf/ft**	Gray
 D4853	3	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.320	CM	12.8 pf/ft* 23 pf/ft**	Gray
 D4854	4	24 AWG (7x32) 26 Ω/Mft	Polyolefin .020	Al. Foil-100% with drain wire TC Braid 90%	PVC .032	.345	CM	12.8 pf/ft* 23 pf/ft**	Gray

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
D254851	1	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.202	CMP	12 pf/ft* 22 pf/ft**	Gray
D254852	2	24 AWG (7x32) 26 Ω/Mft	Foam Teflon®	Al. Foil-100% with drain wire TC Braid 90%	Flex. Plenum .017	.305	CMP	12 pf/ft* 22 pf/ft**	Gray

Color Code	
Pair No.	Colors
1	Blue- White
2	Orange- White
3	Green- White
4	Brown- White
JACKET: Gray	

* 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



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**SERIAL DATA CONNECTORS
DB9**

DB9 Terminal Block Connectors	
Catalog No.	Description
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-MX9M
With Hood
CN-MX915H

**SERIAL DATA CONNECTORS
DB9 Assemblies**

DB9 Assemblies - Non-Plenum	
Catalog No.	Description
CND2404DB9-xx	DB9 M to DB9 M -xx: 6,10,15,25 ft
CND2404FF9-xx	DB9 F to DB9 F -xx: 6,10,15,25 ft
CND2404MF9-xx	DB9 M to DB9 F -xx: 6,10,15,25 ft

Other lengths are available upon Request



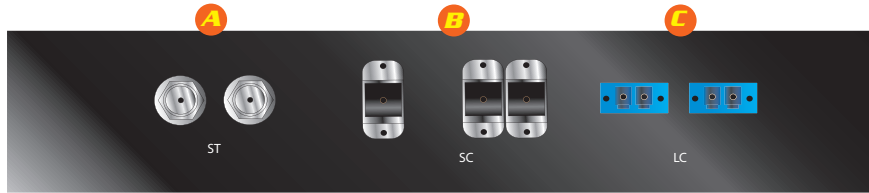
**DMX LIGHTING CONNECTORS
XLR**

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

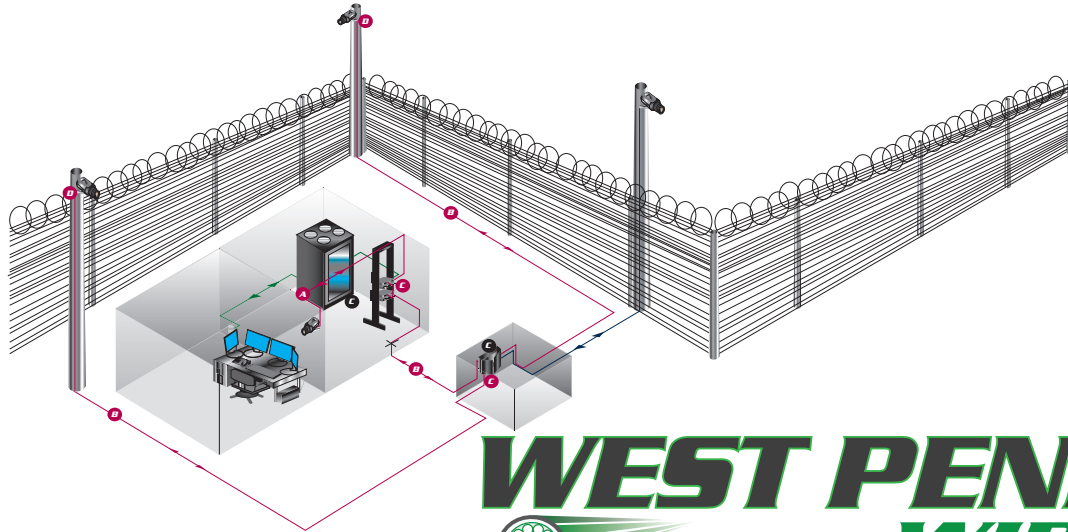


5 PIN XLR Style Connectors- Cable Mount	
Catalog No.	Description
CN-NC5MXB	5 Position XLR Male Black-Gold Contact
CN-NC5MXBAG	5 Position XLR Male Black-Nickel Contact
CN-NC5MX	5 Position XLR Male Nickel-Nickel Contact
CN-NC5FXB	5 Position XLR Female Black-Gold Contact
CN-NC5FXBAG	5 Position XLR Female Black-Nickel Contact
CN-NC5FX	5 Position XLR Female Nickel-Nickel Contact

FIBER OPTIC PRODUCTS



- A** ST - Straight Tip - Bayonet Style Connection
- B** SC - Subscriber Connector- Push/Pull with strain relief
- C** LC- Little (Lucent) Connector- Push/Pull Design- Small Formed Factor



Features:

- Indoor/Outdoor Plenum Rated
 - Reduces inventory
 - Cuts Installation costs
- Digital Video Media Fiber Optics
- OM1: 62.5/125
- OM3: 50/125 Laser Optimized
- Single Mode
- Brilliance Field Kit:
 - 30 Second Termination
 - Reliable Connection
 - Quickest in the Industry
- Fiber Optic Assemblies
 - ST, SC, LC and Combination
 - HDMI Fiber Assemblies
- Splicing Kit and Adapters
- Installation Hardware
 - Wall Mount Enclosures
 - Rack Mount Panels
 - Adapter Plates
- Active Equipment
 - Media Converters

PRODUCT INDEX:

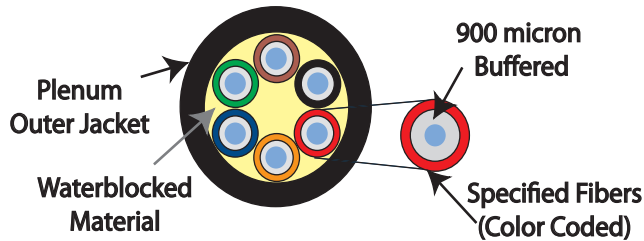
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**Fiber Optic Cables
Indoor/Outdoor Tight Buffer
Distribution Cable**



Applications:

- Building interconnection
- Telecommunication and Data
- Long haul networking
- Ducts between buildings

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

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)

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				
M9X043T [†]	2	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X045T [†]	6	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X048T [†]	12	.225	3.4 inch 8.6 cm	2.3 inch 5.8 cm	300 lbs. 1335 Newtons	OM1 OM3 SM2
M9X611T [†]	24	.330	4.9 inch 12.4 cm	3.3 inch 8.4 cm	600 lbs. 2700 Newtons	OM1 OM3 SM2

**Other constructions available
(Minimum order quantities may apply).
Custom Cuts are Available upon request.**

Notes:

† - See Optical Characteristics Chart for selecting proper Part No. for your application

Optical Characteristics						
Glass Type	Code (X)	OM Size	Operating Wavelength (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)	Jacket Color
50/125µm MultiMode	A	OM2	850nm/1300nm	500/500	3.50/1.25	Black
62.5/125µm MultiMode	B	OM1	850nm/1300nm	200/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Black
8/125µm SingleMode	W	OS2	1300nm/1550nm	--	.80/.50	Black

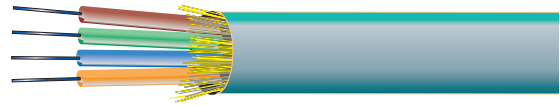


**Other Fiber Types such as OM2 (50/125µm) and OM4 (50/125µm) are available upon request.
OM2: Use A
OM4: Use E**

When ordering: In ordering to specify the correct optical fiber, replace "X" in catalog number with the proper code number.

Example: WP9X611T WP9W611T = 24 Fiber 8/125 Fiber Cables

Fiber Optic Cable
Laser Optimized Fiber Optic Cable
50/125um - Digital Media Fiber Optic Type



Applications:

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

Description:

- 900µm tight buffered fibers • Individually Jacketed FibersColor
- Coded for easy termination • Flame Retardant • UL listed for code compliance

Rating:

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

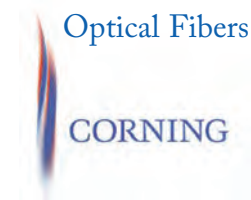
Catalog No.	No. of Fibers	Nom. O.D.	Min Bend radius Short Term	Min Bend radius Long Term	UL Rating	Transmission Rating
		Inches				
M9C006	4	.300	4.5 Inch	3.0 Inch	OFNR	OM3 50/125um LOF
M9C014	4	.300	4.5 Inch	3.0 Inch	OFNP	OM3 50/125um LOF

NOTES:
 OM3 - 50/125µm Laser Optimized Fiber Cables
 TIA 568-C.3 - 300meters - @ 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

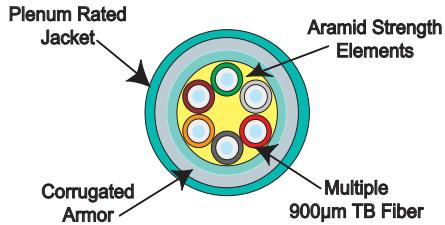


Color Code: Individual Fibers

- 1. Blue
- 2. Orange
- 3. Green
- 4. Brown

Understanding ISO 11801 Standards:

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



Fiber Optic Cables
Indoor Interlocking Armored
Indoor/Outdoor Plenum

Applications:

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

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

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)

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				
M9X240T	6	.570	11 inch	8.5 inch	360 lbs. 1335 Newtons	OM1 OM3 SM2
M9X241T	12	.620	12.5 inch	9.3 inch	400 lbs. 1335 Newtons	OM1 OM3 SM2
M9X242T	24	.670	13 inch	10 inch	400 lbs. 1335 Newtons	OM1 OM3 SM2

Other constructions available (Minimum order quantities may apply). Custom Cuts are Available upon request.

Notes:

† - See Optical Characteristics Chart for selecting proper Part No. for your application

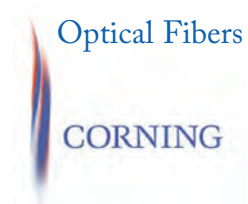
Optical Characteristics

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	200/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Black
8/125µm SingleMode	W	OS2	1300nm/1550nm	--	.80/.50	Black

Other Fiber Types such as OM2 (50/125µm) and OM4 (50/125µm) are available upon request.

OM2: Use A

OM4: Use E

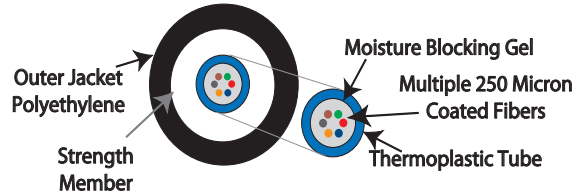


Fiber Optic Cable

**Central Tube & Loose-Tube Cable
Outdoor**

Applications:

- Building interconnection
- Telecommunication and Data
- Long haul networking
- Ducts between buildings



Description:

- Available in several fiber counts • All dielectric central strength member
- Excellent attenuation performance • Water-blocking gel for moisture protection • Water-blocking overall tape • Polyethylene jacket for weather and UV protection

Rating

- Outdoor

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				
M9X150 [†]	2	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons	OM1 OM3 SM2
	Central Tube Design					
M9X152 [†]	6	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons	OM1 OM3 SM2
	Central Tube Design					
M9X155 [†]	12	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons	OM1 OM3 SM2
	Central Tube Design					

Other constructions available (Minimum order quantities may apply). Custom Cuts are Available upon request.

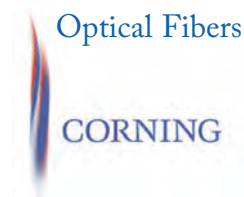
Notes:
† - See Optical Characteristics Chart for selecting proper Part No. for your application

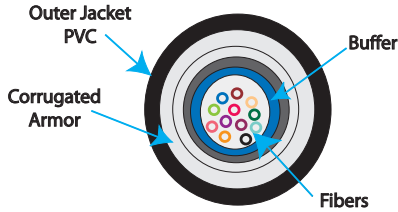
ACCESSORIES FOR OUTDOOR CABLES:

- FAN-OUT KIT: FI-1100 - 6 FIBER KIT
FI-1101 - 12 FIBER KIT
- SPLICE: 3M-2501 - SPLICE TOOL
3M-2529 - SPLICE
- WALL MOUNT ENCLOSURE: PP-WM2S - 2 ADAPTER PLATE ENCLOSURE
PP-WM4S - 4 ADAPTER PLATE ENCLOSURE
- SPLICE TRAY FOR ENCLOSURE: SPL-MSPL12

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	200/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Black
8/125µm SingleMode	W	OS2	1300nm/1550nm	--	.80/.50	Black

Other Fiber Types such as OM2 (50/125µm) and OM4 (50/125µm) are available upon request.
OM2: Use A
OM4: Use E





Fiber Optic Cables
Armored Central Tube: Loose-Tube Cable
Outdoor - Direct Burial

Applications:

- Building interconnection
- Telecommunication and Data
- Long haul networking

Description:

- Central Tube Design • Excellent attenuation performance
- Water-blocking gel for moisture protection
- Fully water blocked • Armored barrier
- Polyethylene jacket for weather and UV protection

Rating:

Outdoor - Direct Burial

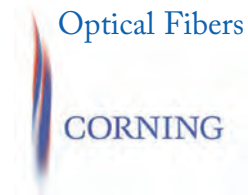
Catalog No.	No. of Fibers	Nom. O.D. Inches	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
M9X172	6	.410	8.2 inch 20.8 cm	4.7 inch 11.9 cm	600 lbs. 2700 Newtons
	Central Tube Design				
M9X175	12	.410	8.2 inch 20.8cm	4.7 inch 11.9 cm	600 lbs. 2700 Newtons
	Central Tube Design				

Other constructions available
(Minimum order quantities may apply).
Custom Cuts are Available upon request.

ACCESSORIES FOR OUTDOOR CABLES:

- FAN-OUT KIT: FI-1100 - 6 FIBER KIT
 FI-1101 - 12 FIBER KIT
- SPLICE: 3M-2501 - SPLICE TOOL
 3M-2529 - SPLICE
- WALL MOUNT ENCLOSURE: PP-WM2S - 2 ADAPTER PLATE ENCLOSURE
 PP-WM4S - 4 ADAPTER PLATE ENCLOSURE
- SPLICE TRAY FOR ENCLOSURE: SPL-MSPL12

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	200/500	3.50/1.25	Black
50/125µm MultiMode	C	OM3	850nm/1300nm	1500/500	3.50/1.25	Black
8/125µm SingleMode	W	OS2	1300nm/1550nm	--	.80/.50	Black



Other Fiber Types such as OM2 (50/125µm) and OM4 (50/125µm) are available upon request.
OM2: Use A
OM4: Use E

Fiber Optic Cable Assemblies

Assemblies - 62.5/125um, 50/125um, 50/125um 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	62.5um	Standard 62.5micron fiber optic glass type Multi-Mode
3	8um	8micron Single Mode fiber optic glass type SingleMode
4	50um LOF	OM3 Laser Optimized 50micronMulti-Mode

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

OM3 15ft. LC to LC Assembly

FI-4002-15LC

Locking Fiber Optic Assemblies

Fiber Optic Locking LC-LC Duplex Assemblies		
Catalog No.	Description	
550K-LCLC-XXMD	LC Duplex OM1 Locking	xx: 1,2,3 meter
550K-LCLC-XXLO	LC Duplex OM3 Locking	xx: 1,2,3 meter
550K-LCLC-XXSD	LC Duplex Single Mode Locking	xx: 1,2,3 meter



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



Fiber Optic Kits

Kits and Connectors- FiberExpress - Brilliance

Description:

Indoor termination of fiber cables: Patch panels, Communication outlets, Fiber-to-the-desk, Distribution frames, Direct termination to equipment, Fiber cable repair, Campus, Customer premise / Access network.



FiberExpress Kit and Connectors 900µm	
P.N	Description
FI-4270	FiberExpress Field Installable Complete Kit
LC Connectors	
FI-4240	LC - 900µm, Multimode Beige Connector, 62.5um
FI-4241	LC - 900µm, Multimode Black Connector, 50um
FI-4242	LC - 900µm, Multimode Aqua Connector, 50um OM3
FI-4243	LC - 900µm, Single-mode Blue Connector, 8um
SC Connectors	
FI-4244	SC - 900µm, Multimode Beige Connector, 62.5um
FI-4245	SC - 900µm, Multimode Black Connector, 50um
FI-4246	SC - 900µm, Multimode Aqua Connector, 50um OM3
FI-4247	SC - 900µm, Single-mode 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, Single-mode 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: M9C006 M9C014

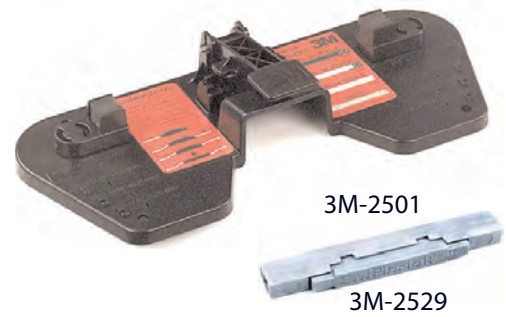
FiberExpress Accessories	
P.N	Description
FI-4276	Support Handle with Adapters LC,SC & ST
FI-4283	Visual Fault Finder -VFL -250 with Adapter Cords
FI-3151	Fiber/Cable Stripper
FI-4285	Field Cleaving Tool



FI-4270

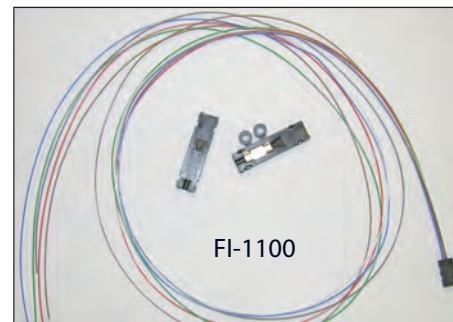
**Fiber Optic Cable
Splice and Adaptors**

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 Adapters	
FI-8102	Adapter- ST to ST MultiMode or Single-Mode
FI-8200	Adapter- ST to ST Single-Mode
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



**Fiber Optic Cable
Breakout- Fanout Kits**

Fanout Kits	
Catalog No.	Description
FI-1100	6 Fiber- color coded
FI-1101	12 Fiber- color coded
FI-FT900	900um Tubing- Clear



**Fiber Optic Cable
Innerduct**

Innerduct	
Catalog No.	Description
FI-6211	1" Poly -250' with pull tape
FI-6311	1" Plenum -250' with pull tape
FI-6212	1" Riser -250' with pull tape

Notes:

Additional sizes and lengths are available upon request.



**Fiber Optic Cable Accessories
Rack Mount Enclosures**

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



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



Wall Mount Enclosures & Adapter Plates

WallMount Patch Panels	
PP-WM1S	1 Adapter Plate - Wall Mount 7"x6"x1.5"
PP-WM2S	2 Adapter Plate - Wallmount 15.625"x13"x2.125"
PP-WM4S	4 Adapter Plate - Wallmount 15.625"x15"x3.5"
FI-WM12	2 Adapter Plate- Wallmount WPW
FI-WM24	4 Adapter Plate - Wallmount WPW
FI-WM48	8 Adapter Plate - Wallmount WPW
FI-WM100	20 Adapter Plate - Wallmount WPW

Fiber Optic Adapter Plates	
AS-WC06M	SC Simplex Multimode - 6 Fiber
AS-WC06G	SC Simplex 10G Multimode - 6 Fiber
AS-WC06S	SC Simplex SingleMode - 6 Fiber
AS-WC12M	SC Duplex Multimode - 12 Fiber
AS-WC12G	SC Duplex 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 10G Multimode - 12 Fiber
AS-WL12S	LC Duplex SingleMode - 12 Fiber
AS-WL24M	LC Quad Multimode - 24 Fiber
AS-WL24G	LC Quad 10G Multimode - 24 Fiber
AS-WL24S	LC Quad SingleMode - 24 Fiber

Media Converters

Unmanaged Media Converters - Standalone and/or Chassis Mount

10/100BaseT TX to 100BaseFX Converters	
065-1100	10/100BaseT TX to 100BaseFX MM ST
065-1110	10/100BaseT TX to 100BaseFX MM SC
065-1174	10/100BaseT TX to 100BaseFX MM LC
065-1120	10/100BaseT TX to 100BaseFX SM SC 15km
065-1100FS	10/100BaseT TX to 100BaseFX MM ST USB power option
065-1110FS	10/100BaseT TX to 100BaseFX MM SC USB power option
065-1174FS	10/100BaseT TX to 100BaseFX MM LC USB power option
065-1120FS	10/100BaseT TX to 100BaseFX SM SC 15km USB power option
DIN Rail Mount Bracket	
065-11DINMT	16 Bay DIN Rail Mount Brackets for 065-11xx converters



Unmanaged Standalone Media Converters

10/100BaseT TX to 100BaseFX Mini Converters	
065-1000	10/100BaseT TX to 100BaseFX MM ST Mini Converter
065-1010	10/100BaseT TX to 100BaseFX MM SC Mini Converter

10/100BaseT TX to 100BaseFX PoE Converters	
PSE Power Source Equipment	
065-1050ST	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter ST MM
065-1050SC	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC MM
065-1050SM	10/100BaseT/TX to 100BaseFX PoE (PSE) Media Converter SC SM
PD Powered Devices	
065-1052ST	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter ST MM
065-1052SC	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter SC MM
065-1052SM	10/100BaseT/TX to 100BaseFX PoE (PD) Media Converter SC MM



SignalMax Products
www.signalmax.com

COMMUNICATION & CONTROL

Non-Plenum

Plenum

Communication & Control

Low voltage cables are the backbone of our company. Our line of low voltage control cables is ideal for many applications, including:

- > Access Control
- > Low Voltage Power
- > Audio Circuitry
- > Communications

Non-Plenum

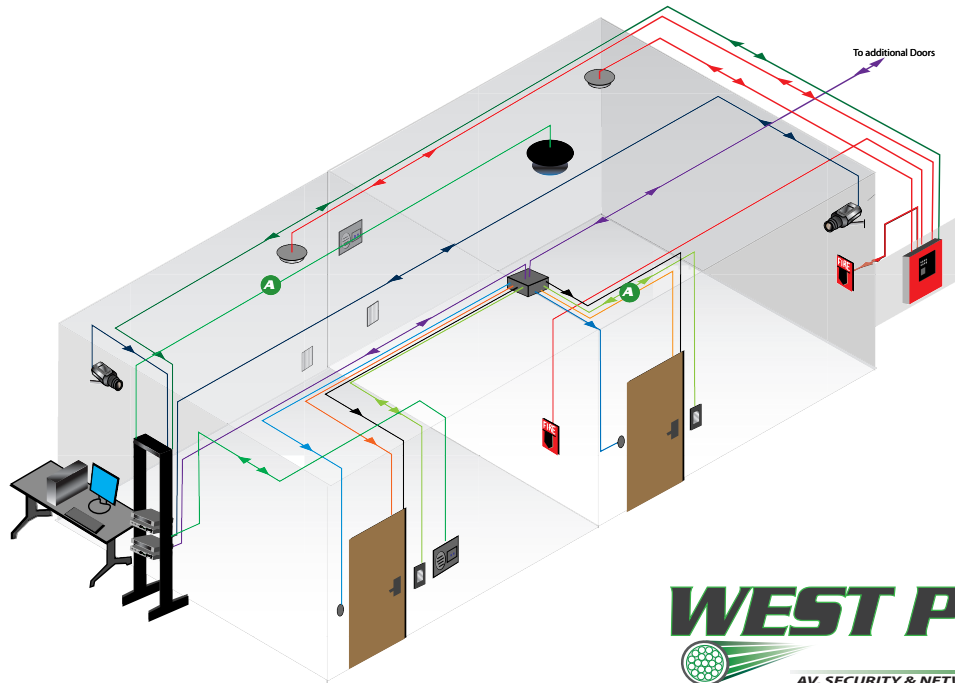
Unshielded Cables.....	170-175
Shielded Cables.....	176-189
Special Purpse Cables.....	181-190

Plenum

Unshielded Cables.....	192-195
Shielded Cables.....	196-200

LOW VOLTAGE CONTROL

It starts here. Most low voltage system installations start with communication and control cables which are able to perform in multiple applications. In this section of the catalog, you'll find everything from audio cables to low voltage power cable to access control cables. West Penn Wire is highly specified with the products within this section. Have confidence when installing West Penn Wire.



PRODUCT INDEX:

Features:

- Commercial Speaker Level
- Intercom Communication
- System Control
- Audio Distribution
- Access Control Reader
- Access Control Accessory Cables
- Background Music
- Security Control
- Shielded and Unshielded
- 1-1000ft Incremental Footage Markers
- Imprinted Cable Labeling
- Advantage Box Packaging
- High Industry Spec Position



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• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
Two Conductor / Unshielded**

Description:

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

Rating:

- NEC Type CMR or CL2R
- (UL)-C(UL) Listed SEE PG 252
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL1666

Applications:

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

Standard spool size 1000ft.



Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
220	2	22 AWG Solid 17.5 Ω/Mft	PP* .008	None	PVC .017	.118	CMR	20pf/ft	Gray
221	2	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.120	CMR	20pf/ft	Gray
222	2	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	None	PVC .017	.138	CMR	20pf/ft	Gray
224	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.156	CMR	20pf/ft	GY, BK, WH
225	2	16 AWG (19x29) 4.2 Ω/Mft	PP* .008	None	PVC .017	.182	CMR	22pf/ft	GY, BK, WH
226	2	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	None	PVC .017	.230	CL2R*	22pf/ft	GY, BK, WH
227	2	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	None	PVC .017	.260	CL2R*	22pf/ft	GY, BK

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
224	BK	1000	224BK1000

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Color Code		
Catalog Number	220, 221, 222, 224, 225	226, 227
Primary Color Code	1. Black, 2. Red	1. Black, 2. White
Select Color Code	Primary Jacket: GY-Gray Other Colors Available Upon Request. Minimum Order Quantities may apply GY-Gray, BK-Black, BN-Brown, WH-White, SGN -Security Green	

Special Notes:

- Selected Plenum Versions Plenum Section
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Catalog Section
- Cables are packaged in our Advantage Box. Larger AWG sized cables may be on a reel.
- *- CL2R Meets 150V requirements for Low Voltage Circuits
- Speaker Connectors are listed on pg. 25
- Orange Rip Cord
- PP* - Polypropylene

**Communication & Control Cable
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 • Polypropylene insulation • Cabled construction • Overall PVC jacket

Rating:

- NEC Type CMR or CL2R
- (UL)-C(UL) Listed SEE PG 252
- 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
230	3	22 AWG Solid 17.5 Ω/Mft	PP* .008	None	PVC .017	.125	CMR	--	Gray
231	3	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.130	CMR	--	Gray
 232	3	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	None	PVC .017	.146	CMR	--	Gray
234	3	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.168	CMR	--	Gray
235	3	16 AWG (19x29) 4.2 Ω/Mft	PP* .009	None	PVC .017	.198	CMR	--	Gray
236	3	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	None	PVC .017	.240	CL2R*	--	Gray
 238	3	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	None	PVC .017	.281	CL2R*	--	Gray

Color Code	
Catalog Number	230, 231, 232, 234, 235, 236, 238
Primary Color Code	1. Black, 2. Red, 3. White
	JACKET: Gray

Special Notes:

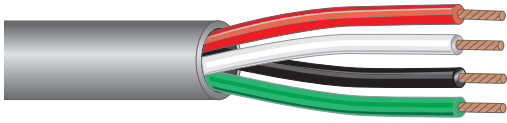
- Selected Plenum Versions -Plenum Section
- Cables are packaged in our Advantage Box. Larger AWG sized cables may be on a reel.
- *- CL2R Meets 150V requirements for Low Voltage Circuits
- Speaker Connectors are listed in Speaker Level Section
- Orange Rip Cord
- PP* - Polypropylene

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Communication & Control Cable
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 • Polypropylene insulation • Cabled construction • Overall PVC jacket

Rating:

- NEC Type CMR or CL2R
- (UL)-C(UL) Listed SEE PG 252
- 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 240	4	22 AWG Solid 17.5 Ω/Mft	PP* .008	None	PVC .017	.134	CMR	--	Gray ●
241	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.138	CMR	--	Gray ●
242	4	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	None	PVC .017	.159	CMR	--	Gray ●
244	4	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.183	CMR	--	Gray ●
245	4	16 AWG (19x29) 4.2 Ω/Mft	PP* .009	None	PVC .017	.217	CMR	--	Gray ●
246	4	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	None	PVC .017	.278	CL2R*	--	Gray ●
248	4	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	None	PVC .017	.320	CL2R*	--	Gray ●

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
245	GY	1000	225GY1000

Color Code	
All Cables	1. Black, 2. Red, 3. White, 4. Green JACKET: Gray
241	1. Black, 2. Red, 3. White, 4. Green JACKET: Gray

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Special Notes:

- Selected Plenum Versions - See Plenum Section
- Cables are packaged in our Advantage Box. Larger AWG sized cables may be on a reel.
- *- CL2R Meets 150V requirements for Low Voltage Circuits.
- Orange Rip Cord
- PP* - Polypropylene

**Communication & Control Cable
Multiple Conductor 22 AWG / Unshielded
featuring the PERFECT STRIPE®**



Applications:

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





Description:

- ASTM Bare Copper • Polypropylene 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 855	5	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.150	CMR	--	● Gray
270	6	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.163	CMR	--	● Gray
 271	8	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.176	CMR	--	● Gray
 272	10	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.218	CMR	--	● Gray
 274	15	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .017	.251	CMR	--	● Gray

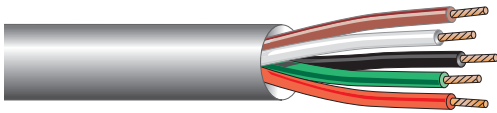
Color Code		
Colors	Colors	Colors
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black*	
7. Orange	14.. White/ Red	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange ripcord under jacket
- PP* - Polypropylene
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
16 AWG Multiple 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 • Polypropylene 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 663	7	16 AWG (19x29) 4.2 Ω/Mft	PP* .009	None	PVC .020	.278	CMR	--	 Gray

Color Code
Colors
1. Black
2. Red
3. White
4. Green
5. Brown
6. Blue
7. Orange
JACKET: Gray

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange ripcord under jacket
- PP* - Polypropylene
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.

**Communication & Control Cable
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 • Polypropylene 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 pool size 1000ft.

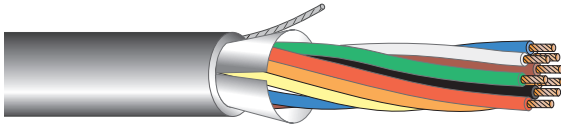
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 280	5	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.205	CMR	--	● Gray
281	7	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.225	CMR	--	● Gray
 282	9	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.263	CMR	--	● Gray
 283	12	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .017	.298	CMR	--	● Gray
284	15	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .020	.348	CMR	--	● Gray
 285	20	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	None	PP* .020	.372	CMR	--	● Gray

Color Code		
Colors	Colors	Colors
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	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange ripcord under jacket
- PP* - Polypropylene
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Communication & Control Cable
22 AWG Multiple Conductor / Overall Shielded
featuring the PERFECT STRIPE®**



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 • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 3241	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.142	CMR	34 pf/ft* 67 pf/ft**	Gray
 3855	5	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.154	CMR	34 pf/ft* 67 pf/ft**	Gray
3270	6	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.167	CMR	34 pf/ft* 67 pf/ft**	Gray
3271	8	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .017	.182	CMR	34 pf/ft* 67 pf/ft**	Gray
 3272	10	22 AWG (7x30) 17 Ω/Mft	PP* .010	Al. Foil 100%	PVC .017	.222	CMR	34 pf/ft* 67 pf/ft**	Gray
 3274	15	22 AWG (7x30) 17 Ω/Mft	PP* .010	Al. Foil 100%	PVC .020	.255	CMR	34 pf/ft* 67 pf/ft**	Gray

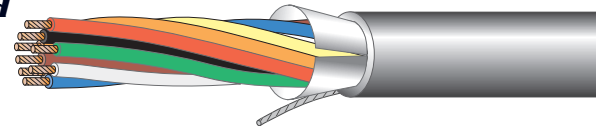
* Capacitance between conductors.
** Capacitance between one conductor and the other connected to the shield

Color Code		
Colors	Colors	Colors
1. Black	8. Yellow	15. White/Green
2. Red	9. Purple	
3. White	10. Gray	
4. Green	11. Pink	
5. Brown	12. Tan	
6. Blue	13. White/Black*	
7. Orange	14. White/ Red	
JACKET: Gray		
*Conductors 13 and above have PERFECT STRIPE®		

Special 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.
- Orange Rip Cord
- PP* - Polypropylene
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

**Communication & Control Cable
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 • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
3011	4	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.163	CMR	40 pf/ft* 79 pf/ft**	Gray
 3262	5	20AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.179	CMR	40 pf/ft* 79 pf/ft**	Gray
 3263	7	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.198	CMR	40 pf/ft* 79 pf/ft**	Gray
 3264	9	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.229	CMR	40 pf/ft* 79 pf/ft**	Gray
 3265	12	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100%	PVC .015	.259	CMR	40 pf/ft* 79 pf/ft**	Gray

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

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

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- PP* - Polypropylene



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



**Communication & Control Cable
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 • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
3244	4	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.187	CMR	27 pf/ft* 53 pf/ft**	Gray
 3280	5	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.209	CMR	27 pf/ft* 53 pf/ft**	Gray
3021	6	18 AWG (7x26) 6.6 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.225	CMR	27 pf/ft* 53 pf/ft**	Gray
 3281	7	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.230	CMR	27 pf/ft* 53 pf/ft**	Gray
 3282	9	18 AWG (7x26) 6.2 Ω/Mft	PP* .010	Al. Foil 100%	PVC .017	.267	CMR	27 pf/ft* 53 pf/ft**	Gray
 3283	12	18 AWG (7x26) 6.2 Ω/Mft	PP* .010	Al. Foil 100%	PVC .017	.302	CMR	27 pf/ft* 53 pf/ft**	Gray
3245	4	16 AWG (19x29) 4.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.225	CMR	40 pf/ft* 79 pf/ft**	Gray

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

Part Number Builder

Catalog Number	Color	Put Up Length	Order Part Number
3280	GY	1000	3280GY1000

- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

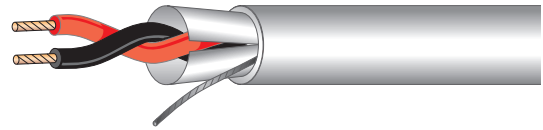
Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Section
- PP* - Polypropylene



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Communication & Control Cable
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 • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with TC 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 Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
290	2	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.120	CMR	34 pf/ft* 67pf/ft**	● Gray
291	2	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.127	CMR	34.5 pf/ft* 68 pf/ft**	●● GY, BK
292	2	20 AWG (7x28) 10.5 Ω/Mft	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.140	CMR	40 pf/ft* 79 pf/ft**	● Gray
293	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.160	CMR	53 pf/ft* 104 pf/ft**	● Gray
294	2	16 AWG (19x29) 4.1 Ω/Mft	PP* .010	Al. Foil 100% 24 Strd.	PVC .017	.186	CMR	53 pf/ft* 104 pf/ft**	● Gray
295	2	14 AWG (19x27) 2.7 Ω/Mft	PP* .010	Al. Foil 100% 24 Strd.	PVC .017	.234	CL2R*	54 pf/ft* 106 pf/ft**	● Gray
296	2	12 AWG (19x25) 1.7 Ω/Mft	PP* .010	Al. Foil 100% 24 Strd.	PVC .017	.265	CL2R*	64 pf/ft* 126 pf/ft**	● Gray

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



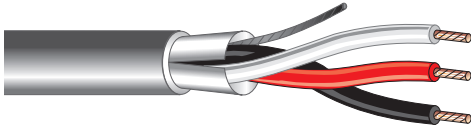
Color Code		
Catalog Number	290, 291, 292, 293, 294	295, 296
Primary Color Code	1. Black, 2. Red	1. Black, 2. White
Select Color Code	Jacket: GY-Gray Other Colors Available Upon Request. Minimum Order Quantities may apply GY-Gray, BK-Black, BN-Brown, GN-Green, RD-Red, YE- Yellow, BL-Blue, VT-Violet, OR- Orange	

• For more color choices and better construction Mic/Line Level - see page 2 through 5.

Special Notes:

- Selected Plenum Versions see - Plenum Section
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Section
- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- *- CL2R Meets 150V requirements for Low Voltage Circuits
- Orange Rip Cord
- PP* - Polypropylene
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.





**Communication & Control Cable
Three Conductor / Overall Shield**

Description:

- ASTM Bare Copper • Polypropylene insulation • Overall shield
100% coverage of aluminum polyester foil with TC 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

Applications:

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches	Inches	Inches	Inches			
 300	3	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.130	CMR	34 pf/ft* 67pf/ft**	● Gray
301	3	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.138	CMR	34.5 pf/ft* 68 pf/ft**	● Gray
302	3	20 AWG (7x28) BC 10.1 Ω/Mft	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.152	CMR	40 pf/ft* 79 pf/ft**	● Gray
303	3	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.174	CMR	53 pf/ft* 104 pf/ft**	● Gray


* Capacitance between conductors.

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

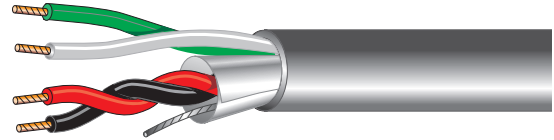
Color Code	
All Cables	1. Black, 2. Red, 3. White
	JACKET: Gray

Special Notes:

- Selected Plenum Versions see - Plenum Section
- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- PP* - Polypropylene

•  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

**Communication & Control Cable
Sound and Audio / Special Cable**



Applications:

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




Description:

- ASTM Bare Copper • Polypropylene 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 Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.157	CMR	34 pf/ft* 67pf/ft**	● Gray
 352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.162	CMR	35 pf/ft* 69 pf/ft**	● Gray
355	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .007	Al. Foil 100% 22 Solid	PVC .017	.150	CMR	34 pf/ft* 67pf/ft**	● Gray
356	4 (2 Shld) (2 Unshld)	20 (7x28) 18 (7x26)	PP* .008	Al. Foil 100% 24 Strd.	PVC .017	.196	CMR	40 pf/ft* 79 pf/ft**	● Gray
357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100% 24 Strd.	PVC .017	.162	CMR	35 pf/ft* 69 pf/ft**	● Gray
358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.182	CMR	40 pf/ft* 79 pf/ft**	● Gray
359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.186	CMR	40 pf/ft* 79 pf/ft**	● Gray
360	4 (2 Shld) (2 Unshld)	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100% 22 Strd.	PVC .017	.205	CMR	53 pf/ft* 104 pf/ft**	● Gray
 369	6 (2 Shld) (4 Unshld)	22 AWG Solid 17.5 Ω/Mft	PP* .008	Al. Foil 100% 22 Solid	PVC .017	.170	CMR	34 pf/ft* 67 pf/ft**	● Gray

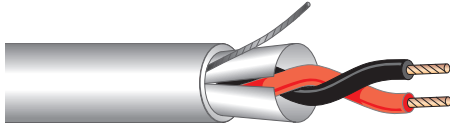
* Capacitance between conductors.
** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Selected Plenum Versions see - Plenum Section
- Selected Indoor/Outdoor Aquaseal Water Resistant® Versions see Aquaseal Section
- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- PP* - Polypropylene
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

 • Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Color Code		
Catalog Number	351, 352, 355, 356, 357, 358, 359, 360	369
Primary Color Code	Shielded: Black, Red	Shld:1. Black, 2. Red
	Unshielded: White, Green	Unshld: 3. White, 4. Green, 5. Brown, 6. Blue
JACKET: GY-Gray		



**Communication & Control Cable
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 TC 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 Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 450	2	22 AWG Solid 17.5 Ω/Mft	pp* .006	Al. Foil 100% 22 Solid	PVC .020	.118	CMR	34 pf/ft* 67 pf/ft**	● Black
451	3	22 AWG Solid 17.5 Ω/Mft	pp* .006	Al. Foil 100% 22 Solid	PVC .020	.130	CMR	34 pf/ft* 67 pf/ft**	● Black
452	2	22 AWG (7x30) 17 Ω/Mft	pp* .008	Al. Foil 100% 24 Strd.	PVC .020	.135	CMR	32 pf/ft* 58 pf/ft**	● Black


BELDEN
8451

WPW
452

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

- For more color choices and better construction Mic/Line Level - see page 2-4

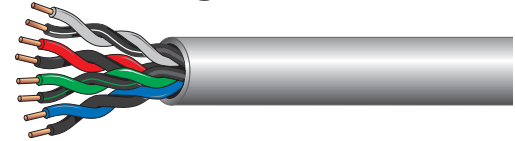
Special Notes:

- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.

Color Code	
All Cables	1. Black, 2. Red, 3. White JACKET: Black

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
452	BK	1000	452BK1000

**Communication & Control Cable
18 AWG & 22AWG Multiple Pair/ Unshielded
featuring the PERFECT PAIR®**



Applications:

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



Description:

- ASTM Bare Copper • Polypropylene insulation • 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	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 751	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.257	CMR	22 pf/ft*	● Gray
 752	3	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	None	PVC .017	.275	CMR	22 pf/ft*	● Gray

Standard spool size 1000ft.


Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 651	2	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .020	.192	CMR	20 pf/ft*	● Gray
 652	3	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .020	.205	CMR	20 pf/ft*	● Gray
 653	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	None	PVC .020	.225	CMR	20 pf/ft*	● Gray

Part Number Builder

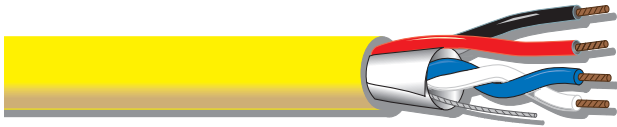
Catalog Number	Color	Put Up Length	Order Part Number
651	GY	1000	651GY1000

Color Code
Colors
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green
4. Black/Blue-Blue
JACKET:
Gray

Special Notes:

- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- Selected Plenum Versions see - Plenum Section
- PP* - Polypropylene
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.

**Media Control Cable
Specialized Control Systems**



Description:

- ASTM Bare Copper • Foam Polyolefin Insulation (Data Pair), Polypropylene (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.

Applications:

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

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
77350	4 (2 Shld)	22 AWG (7x30) 17Ω/M'	Polyolefin .025	Al. Foil-100% drain wire	PVC .030	.255	CMR	12.5 pf/ft*	Yellow
	(2 Unshld)	18 AWG (7x26) 6.2Ω/M'	PP* .018	None				22.5 pf/ft**	
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*	Black
	(2 Unshld)	18 AWG (7x26) 6.2Ω/M'	Polymer Alloy .008	None				22.5 pf/ft**	

Color Code		
Catalog No.	77350	D25350
Primary Colors	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

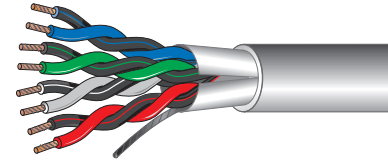
Special Notes:

- Cables are packaged in our reels
Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Cresnet Control	Liberty	Extron	WPW
CRESNET NP	LLINX-U	22-148-03	77350
Cresnet Control	Liberty	Extron	WPW
CRESNET P	LLINX-U-P	22-119-03	D25350

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
77350	YE	500	77350YE500

Communication & Control Cable
22 AWG Multiple Pair / Overall Shielded
 featuring the **PERFECT PAIR**®



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 • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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.

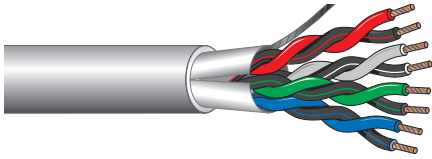
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 3651	2	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .020	.196	CMR	34 pf/ft* 67pf/ft**	● Gray
 3652	3	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .020	.209	CMR	34 pf/ft* 67pf/ft**	● Gray
 3653	4	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .020	.229	CMR	34 pf/ft* 67pf/ft**	● Gray
 3654	6	22 AWG (7x30) 17 Ω/Mft	PP* .007	Al. Foil 100%	PVC .020	.288	CMR	34 pf/ft* 67pf/ft**	● Gray

Color Code
Colors
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green
4. Black/Blue-Blue
5. Black/Yellow-Yellow
6. Black/Brown-Brown
JACKET: Gray

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

Special Notes:

- Cables are packaged in our Advantage Box. Larger AWG sized cables and Higher Paired cables may be on a reel.
- Orange Rip Cord
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
Multiple Pair 18 AWG / Overall Shielded
featuring the PERFECT PAIR®**

Description:

- ASTM Bare Copper • Polypropylene insulation • Overall shield 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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

Applications:

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


Standard spool size 1000ft.

Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
3751	2	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.261	CMR	53 pf/ft* 104 pf/ft**	Gray
3752	3	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.281	CMR	53 pf/ft* 104 pf/ft**	Gray
 3753	4	18 AWG (7x26) 6.2 Ω/Mft	PP* .008	Al. Foil 100%	PVC .017	.315	CMR	53 pf/ft* 104 pf/ft**	Gray

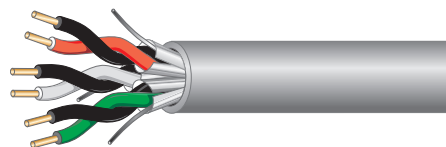
Color Code
Colors
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green
4. Black/Blue-Blue
JACKET:
Gray

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

Special Notes:

- Cables are packaged in our Advantage Box.
- Orange Rip Cord
- PP* - Polypropylene
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Communication & Control Cable
22 AWG Multiple Pair / Each Pair Shielded
featuring the PERFECT PAIR®



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 • Polypropylene insulation • Each pair shielded 100% coverage of aluminum polyester foil with 22 AWG Solid TC 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.

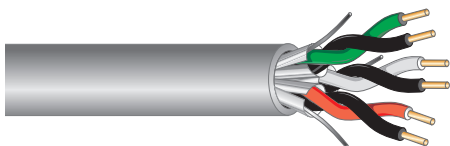
Catalog No.	No. of Pairs	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 420	2	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil 100%	PVC .017	.195	CMR	34 pf/ft* 67 pf/ft**	● Gray
 422	6	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil 100%	PVC .017	.285	CMR	34 pf/ft* 67 pf/ft**	● Gray

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

Color Code
Colors
1. Black/Red-Red
2. Black/White-White
3. Black/Green-Green
4. Black/Blue-Blue
5. Black/Yellow-Yellow
6. Black/Brown-Brown
JACKET: Gray

Special 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.
- Orange Rip Cord
- PP* - Polypropylene
- Catalog Number with this symbol  indicates special manufacturing runs. Minimum Quantities apply.



**Communication & Control Cable
Multiple Pair 22AWG / Each Pair Shielded**

Description:

- ASTM Tinned Copper • Polyolefin insulation • Each pair shielded 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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

Applications:

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

Standard spool size 1000ft.

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

Special 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.
- Orange Rip Cord



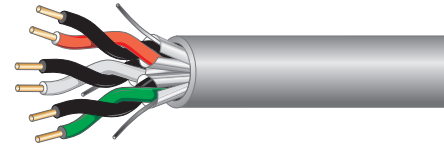
• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

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

Color Code- See pg.191

Communication & Control Cable
18 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 Tinned Copper • Polyolefin insulation • Each pair shielded
- 100% coverage of aluminum polyester foil with 24 AWG Strd. TC 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 Type & Thickness	Ind. Pair Shielding % Coverage	Jacket Type & Thickness	Nom. O.D. Inches	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
D440	2	18 AWG (7x26) 6.6 Ω/Mft	Polyolefin .006	Each Pair Al. Foil 100%	PVC .025	.268	CM	42 pf/ft* 76 pf/ft**	Gray
D441	3	18 AWG (7x26) 6.6 Ω/Mft	Polyolefin .006	Each Pair Al. Foil 100%	PVC .025	.285	CM	42 pf/ft* 76 pf/ft**	Gray
D442	4	18 AWG (7x26) 6.6 Ω/Mft	Polyolefin .006	Each Pair Al. Foil 100%	PVC .025	.312	CM	42 pf/ft* 76 pf/ft**	Gray

Electrical Characteristics Nom. Vel of Propagation - 66%

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

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

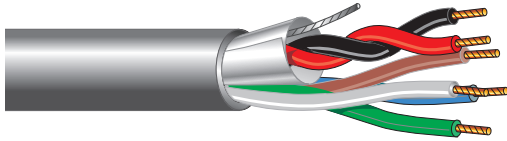
Special Notes:

- 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.
- Orange rip cord



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
D440	GY	1000	D440GY1000



**Communication & Control Cable
Special Purpose Cable / Shielded/Unshielded**

Description:

- ASTM Bare Copper • Polypropylene insulation • Unshielded / Shielded pairs 100% coverage of aluminum polyester foil with TC drain wire
- Short overall twist construction • Overall PVC jacket

Applications:

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

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 Conductors	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Ind. Pair Shielding % Coverage + Drain	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			



373	(6) 1 Shld. Pr. 2 Unshld. Pr.	22 AWG Solid 17.5 Ω/Mft	pp* .008	Al. Foil 100% 22 Solid	PVC .017	.195	CMR	--	● Gray
------------	-------------------------------------	-------------------------------	-------------	------------------------------	-------------	------	-----	----	-----------

Color Code	
Catalog No.	373
Primary Color Code	Shielded Pair: Black/Red Unshielded Conductors: Black/Green and Black/White
	JACKET: Gray

Special Notes:

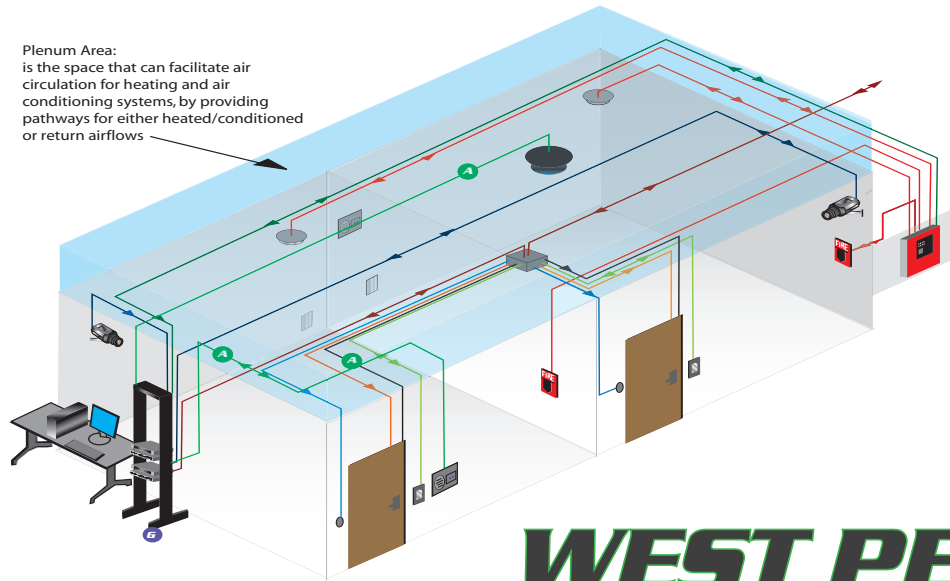
- Cables are packaged in our Advantage Box.
- PP* - Polypropylene



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

LOW VOLTAGE CONTROL PLENUM

It starts here. Most low voltage system installations start with audio, control, and speaker cables which are able to perform in multiple applications, including plenum environments. In this section of the catalog you'll find everything from line level audio for school intercom to large gauge speaker applications and multiple conductor access control reader cables. No matter the installation we have you covered. Take a look. It's all in here.



- Commercial Speaker Level
- Intercom Communication
- System Control
- Audio Distribution
- Access Control Reader
- Access Control Accessory Cables
- Background Music
- Security Control
- Shielded and Unshielded
- 1-1000ft Incremental Footage Markers
- Advantage Box Packaging
- High Industry Spec Position

PRODUCT INDEX: Plenum



Unshielded Cables - Audio and Control Cables

Two Conductor/ Unshielded.....	192
Multiple Conductor/ Unshielded	193-195
Multiple Pair/ Unshielded	195

Shielded Cables - Audio and Control Cables

Two Conductor/ Shielded	196
Multiple Conductor/ Shielded	197-198
Combination/ Shielded-Unshielded	199
Multiple Pair/ Individually Shielded	200



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Plenum Communication & Control Cable
Two Conductor / Unshielded
Plenecon II® Extra Flexible

Description:

- ASTM Bare Copper • Polymer alloy insulation • Short over-all twist lengths • Overall Flex Plenum Jacket

Rating:

- NEC Type CMP or CL2P
- (UL)-C(UL) Listed SEE PG 252
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25221B	2	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.116	CMP	--	● Gray
25222B	2	20 AWG (7x28) 10.5 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.134	CMP	--	● Gray
25224B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.154	CMP	--	● ● ● GY, BK, WH, YE
25225B	2	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.176	CMP	--	● ● ● ● GY, BK, GN, WH, SGN
25226B	2	14 AWG (19x27) 2.7 Ω/Mft	Polymer alloy .010	None	Flex Plenum .015	.218	CL2P	--	● ● GY, BK
25227B	2	12 AWG (19x25) 1.7 Ω/Mft	Polymer alloy .010	None	Flex Plenum .015	.256	CL2P	--	● ● GY, BK

Part Number Builder			
Catalog Number	Color	Put Up Length	Order Part Number
25224B	YE	1000	25224YE1000

Color Code	
All Cables	1.Black, 2. Red
	JACKET: GY - Gray
Select Cables	Other Colors Available Upon Request. Minimum Order Quantities may apply GY-Gray, BK-Black, BN-Brown, WH-White, YE-Yellow, BL-Blue, GN-Green, SGN-Security Green

Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- Speaker Connectors listed in Speaker Section
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

Plenum Communication & Control Cable
Multiple Conductor/ Unshielded
22 AWG Plenecon II® Extra Flexible



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 • 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 Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25231B	3	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.127	CMP	--	Gray
25240B	4	22 AWG Solid 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.136	CMP	--	Gray
25241B	4	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.136	CMP	--	Gray
 25855B	5	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.146	CMP	--	Gray
25270B	6	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.157	CMP	--	Gray
25271B	8	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.172	CMP	--	Gray
 25272B	10	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.213	CMP	--	Gray
 25273B	12	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.220	CMP	--	Gray
 25274B	15	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	None	Flex Plenum .015	.246	CMP	--	Gray

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

Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Plenum Communication & Control Cable
Multiple Conductor / Unshielded
16, 18, and 20 AWG Plenecon II® Extra Flexible

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

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
 25232B	3	20 AWG (7x28) 10.5 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.142	CMP	--	● Gray
25242B	4	20 AWG (7x28) 10.5 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.156	CMP	--	● Gray
25234B	3	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.162	CMP	--	● Gray
25244B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.180	CMP	--	● Gray
25186B	6	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.216	CMP	--	● Gray
 25188B	8	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.235	CMP	--	● Gray
25235B	3	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.191	CMP	--	● Gray
25245B	4	16 AWG (19x29) 4.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.208	CMP	--	● Gray

Color Code	
Colors	Colors
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	8. Yellow
JACKET: Gray	

Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Plenum Communication & Control Cable
Multiple Conductor / Unshielded
14 and 12 AWG Plenecon II® Extra Flexible



Applications:

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

Description:

- ASTM Bare Copper • Polymer alloy insulation • Cabled construction • Overall Flex Plenum Jacket

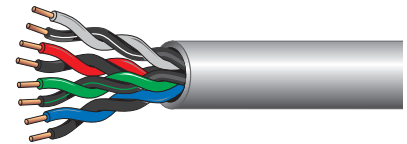
Rating:

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

Standard spool size 1000ft.

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

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



• Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Description:

- ASTM Bare Copper • Polymer alloy insulation • Twisted pair construction • Overall plenum PVC jacket

Rating:

- NEC Type CMP

Standard spool size 1000ft.

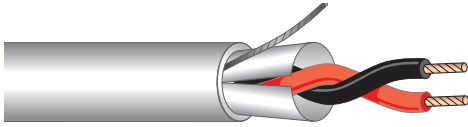
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
25751B	2	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.253	CMP	--	Gray
25752B	3	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.275	CMP	--	Gray
25753B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	None	Flex Plenum .015	.304	CMP	--	Gray

Color Code

All Cables	1. Black/Red, 2. Black/White, 3. Black/Green, 4. Black/Blue
	JACKET: Gray

Special Notes:

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



Plenum Communication & Control Cable
Two Conductor / Shielded
Plenecon II® Extra Flexible

Description:

- ASTM Bare Copper • Polymer alloy insulation • Short overall twist lengths • Overall shield coverage 100% aluminum polyester foil with TC drain wire • Overall Flex Plenum Jacket


Rating:

- NEC Type CMP and CL2P
- (UL)-C(UL) Listed SEE PG 252
- Meets 300V requirements as specified in the NEC
- Flame Rating: NFPA-262 Smoke & Flame Test

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

Standard spool size 1000ft.

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

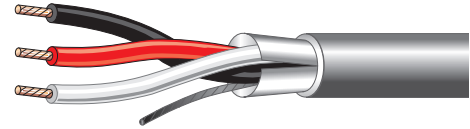
* Capacitance between conductors.
 ** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.

Color Code	
All Cables	1.Black, 2. Red
	JACKET: GY - Gray
Select Cables	<i>Other Colors Available Upon Request. Minimum Order Quantities may apply</i> GY-Gray, VT-Violet, YE-Yellow, BL-Blue, BK-Black, WH- White

Plenum Communication & Control Cable
Multiple Conductor / Shielded
22 AWG Plenecon II [®] Extra Flexible



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 TC 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.

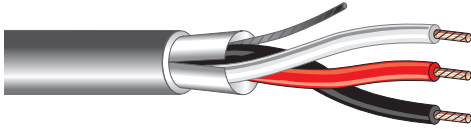
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
 25300B	3	22 AWG Solid 17.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 22 Solid	Flex Plenum .015	.122	CMP	54 pf/ft* 97 pf/ft**	● Gray
25301B	3	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.130	CMP	55 pf/ft* 99 pf/ft**	● Gray
253241B	4	22 AWG (7x30) 17Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.141	CMP	55 pf/ft* 99 pf/ft**	●○ GY, WH
 253855B	5	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.154	CMP	55 pf/ft* 99 pf/ft**	● Gray
253270B	6	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.162	CMP	55 pf/ft* 99 pf/ft**	●○ GY, WH
253271B	8	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.184	CMP	55 pf/ft* 99 pf/ft**	● Gray
 253272B	10	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.213	CMP	55 pf/ft* 99 pf/ft**	● Gray
 253274B	15	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.244	CMP	55 pf/ft* 99 pf/ft**	● Gray

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

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

Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINMUM QUANTIES APPLY.
-  Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Plenum Communication & Control Cable
Multiple Conductor / Shielded
18 and 20 AWG Plenecon II® Extra Flexible

Description:

- ASTM Bare Copper • Polymer Alloy Insulation • Cabled construction • Overall shield coverage 100% aluminum polyester foil with TC 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

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

Standard spool size 1000ft.



Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25302B	3	20 AWG (7x28) 10.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.145	CMP	60 pf/ft* 108 pf/ft**	Gray
25303B	3	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.166	CMP	68 pf/ft* 122 pf/ft**	Gray
253244B	4	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.182	CMP	68 pf/ft* 122 pf/ft**	Gray
253186B	6	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.221	CMP	68 pf/ft* 122 pf/ft**	Gray
253188B	8	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.244	CMP	68 pf/ft* 122 pf/ft**	Gray



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

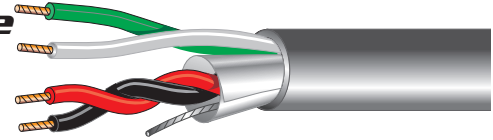
Special Notes:

- Plenum Installation Precautions see Technical Reference Section
- Cables are packaged in our Advantage Box.
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Color Code	
Colors	Colors
1. Black	5. Brown
2. Red	6. Blue
3. White	7. Orange
4. Green	8. Yellow
JACKET: Gray	

**Plenum Communication & Control Cable
Combination / Shielded and Unshielded
Plenecon II® Extra Flexible**



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 100% aluminum polyester foil with TC 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 pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25352B	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.156	CMP	55 pf/ft* 99 pf/ft**	● Gray
25355B	4 (2 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 22 Solid	Flex Plenum .015	.145	CMP	54 pf/ft* 97 pf/ft**	● Gray
25357B	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	Polymer alloy .007	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.154	CMP	55 pf/ft* 99 pf/ft**	● ● GY, BL
25358B	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	Polymer alloy .008	Al. Foil - 100% Strd. Drain	Flex Plenum .015	.176	CMP	60 pf/ft* 108 pf/ft**	● Gray
25359B	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.1 Ω/Mft	Polymer alloy .008	Al. Foil - 100% Strd. Drain	Flex Plenum .015	.180	CMP	60 pf/ft* 108 pf/ft**	● Gray
25372B	5 (3 Shld) (2 Unshld)	22 AWG Solid 17.5 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 22 Solid	Flex Plenum .015	.172	CMP	54 pf/ft* 97 pf/ft**	● Gray

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

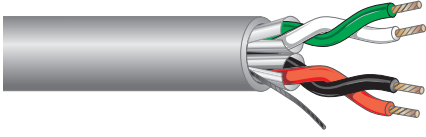
Color Code		
Catalog Number	All Cables	25372B
Primary Color Code	Shielded: Black, Red Unshielded: White, Green	Under shld: 1. Black, 2. Red, 3. White Outside shld: 1. Black, 2. Green
	JACKET: GY-Gray	

Special Notes:

- Cables are packaged in our Advantage Box.
- Plenum Installation Precautions see Technical Reference Section
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.



- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



Plenum Communication & Control Cable
Multiple Pair / Individually Shielded Pairs

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

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

Standard spool size 1000ft.

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

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

Color Code	
25510B	1. Black, 2. Red, 3. White, 4. Green
25440B	JACKET: Gray

Special Note: 25510B & 25440B

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

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R.	Insulation Type & Thickness	Shielding	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
25441B	3	18 AWG (7x26) 6.2 Ω/Mft	Polymer alloy .008	Al. Foil - 100% 24 Strd.	Flex Plenum .015	.278	CMP	68 pf/ft* 122 pf/ft**	● Gray

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

Color Code	
25441B	1. Black/Red, 2. White/Green, 3. Brown/Blue
	JACKET: Gray

Special Note: 25441B

- Employs individually shielded pairs with a strd. drain wire for each pair
- 500ft LENGTHS MAY BE AVAILABLE UPON REQUEST. MINIMUM QUANTITIES APPLY.
- CUSTOM COLORED JACKETS MAY BE AVAILABLE. MINIMUM QUANTITIES APPLY.

SPECIAL APPLICATIONS

Aquaseal™ Indoor/Outdoor

EZ RUN

Special Applications

Our **AQUASEAL®** cables are designed for applications in which resistance to water and other harsh environmental factors is critical:

- > **Audio**
- > **Video**
- > **Fire Alarm**
- > **Access Control**

AQUASEAL cables feature 2-ply water-blocking tape to ensure signal integrity in the most demanding environments.

Our line of EZ Run special application products complements AQUASEAL cables by offering quick and easy connections for AV signaling in commercial, education and residential settings.

Aquaseal

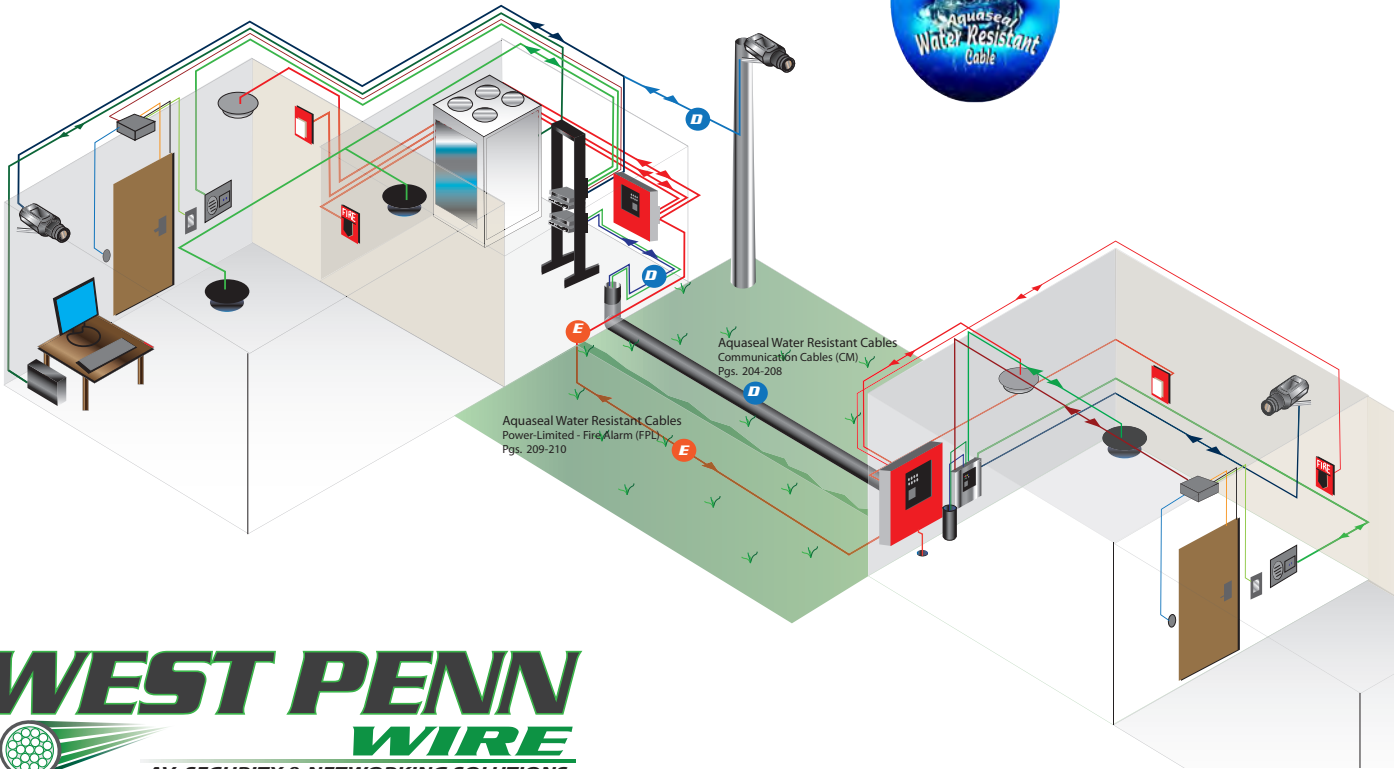
Communication Cables	202-205
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EZ Run AV System

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Aquaseal Water Resistant Cables®

No equal. If your installation calls for cables to run from one building to another, in conduit (AQC) or directly buried (AQ) in a wet location, have complete confidence in **Aquaseal Water Resistant Cables®**. With our water blocking tape, sunlight and moisture resistant jacket, you're assured signal integrity. Don't chance the install and settle for second best. When it comes to Aquaseal, **there is no equal.**



Features:

- In-Conduit or Direct Burial Versions
- AQ Versions FPL /CL3/PLTC Rated - Direct Burial
- AQC Versions Indoor/Outdoor
- Exceeds Modified TIA455-82B Water infiltration Test.
- Two Ply water-blocking tape for maximum swell height under severe conditions.
- Multiple Market constructions

PRODUCT INDEX:



Aquaseal Communication Cables - Audio and Control

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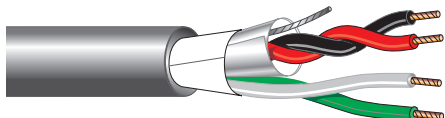


Aquaseal Power-Limited Tray Cable - Fire Alarm Cables

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600 Volt Process Control Tray Cables (Not Aquaseal)

Multiple Conductor/ Unshielded.....	210
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Aquaseal® Water Blocking Cable Combination / Shielded and Unshielded

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

Applications:

- Indoor/Outdoor Use:
- Audio Circuits
 - Low Voltage Power
 - Intercom Audio
 - Division 27 41 00
 - Division 27 51 00
 - Division 28 05 13



Underground- In-Conduit

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC351	3 (2 Shld) (1 Unshld)	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 22 Solid	PVC .025	.215	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC352	3 (2 Shld) (1 Unshld)	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil- 100% 24 Strd.	PVC .025	.230	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC355	4 (2 Shld) (2 Unshld)	22 AWG. Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 22 Solid	PVC .025	.220	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC357	4 (2 Shld) (2 Unshld)	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil- 100% 24 Strd.	PVC .025	.235	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC369	6 (2 Shld) (4 Unshld)	22 AWG. Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Solid	PVC .025	.240	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC373	6 (1 Pr. Shld) (2 Pr. Unsh)	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.260	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC359	4 (2 Shld) (2 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.266	CM CL3	60 pf/ft* 108 pf/ft**	Gray
AQC358	3 (2 Shld) (1 Unshld)	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil- 100% 24 Strd.	PVC .025	.260	CM CL3	60 pf/ft* 108 pf/ft**	Gray

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

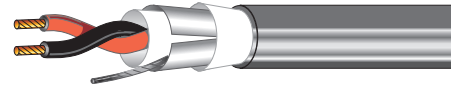
Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

Color Code			
Catalog No.	AQC351, AQC352, AQC358, AQC355, AQC357, AQC359	AQC369	AQC373
Primary Color Code	Shielded: Black, Red Unshielded: White, Green	Black, Red, White, Green, Brown, Blue	Shielded: Black, Red Unshielded: Black, Green & Black, White
JACKET: Gray			

Aquaseal® Water Blocking Cable

Two & Multiple Conductor / shielded



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



Underground- In-Conduit

Description:

- ASTM Bare Copper • PVC insulation • Short overall twist lengths
- Overall shield 100% coverage of aluminum polyester foil with drain wire • Waterblocked construction • Overall Sunlight/ Moisture Resistant PVC jacket

Rating:

- NEC Type CM or CL3
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Flame Rating: UL 1685

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC290	1 Pair	22 AWG Solid 17.5 Ω/Mft	PVC .008	Al. Foil-100% 22 Solid	PVC .025	.200	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC291	1 Pair	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.205	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC3270	6 Cond.	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.220	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC3274	15 Cond.	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.361	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC3270	6 Cond.	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.220	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC292	1 Pair	20 AWG (7x28) 10.5 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.220	CM CL3	60 pf/ft* 108 pf/ft**	Gray
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .010	Al. Foil-100% 24 Strd.	PVC .025	.257	CM/CL3 FPL	46 pf/ft* 83 pf/ft**	Gray
AQC3186	6 Cond.	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.323	CM CL3	68 pf/ft* 122 pf/ft**	Gray
AQC3283	12 Cond.	18 AWG (7x26) 6.2 Ω/Mft	PVC .008	Al. Foil-100% 24 Strd.	PVC .025	.410	CM CL3	68 pf/ft* 122 pf/ft**	Gray

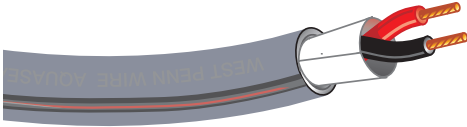
* Capacitance between conductors.

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

Color Code		
Catalog No.	AQC291, AQC292, AQC293, AQC290	AQC3186, AQC3274, AQC3283
Primary Color Code	1. Black, 2. Red	1. Black, 2. Red, 3. White, 4. Green, 5. Brown, 6. Blue, 7. Orange, 8. Yellow, 9. Purple, 10. Gray, 11. Pink, 12. Tan, 13. White/Black, 14. White/Red, 15. White/Green
JACKET: Gray Conductors 13 and above have PERFECT STRIPE®		



**Aquaseal® Water Blocking Cable
Multiple Conductor / Unshielded**

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



Underground- In-Conduit

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.

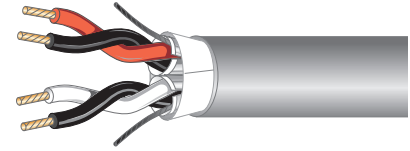
Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC224	1 Pair	18 AWG (7x26) 6.2Ω/Mft	PVC .010	None	PVC .025	.218	CM/CL3 FPL	NA	Gray
AQC188	8	18 AWG (7x26) 6.2Ω/Mft	PVC .008	None	PVC .025	.340	CM CL3	NA	Gray
AQC225	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010	None	PVC .025	.242	CM/CL3 FPL	NA	Gray
AQC240	4	22 AWG Solid 17.5Ω/Mft	PVC .008	None	PVC .025	.194	CM CL3	NA	Gray

Color Code	
All Cables	1. Black, 2. Red, 3. White, 4. Green, 5. Brown, 6. Blue, 7. Orange, 8. Yellow
	JACKET: Gray

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Select Items are Packaged in our Advantage Box
- Orange ripcord under jacket

Aquaseal® Water Blocking Cable
Multiple Pair / Each Pair Individually Shielded



Applications:

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



Underground- In-Conduit

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 pool size 1000ft.

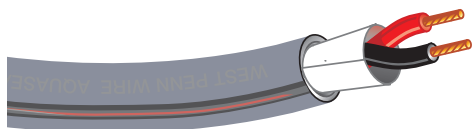
Catalog No.	No. of Cond.	Conductor Type & Norm. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches	Inches			
AQC430	2	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.380	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC439	4	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.427	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC432	6	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.520	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC434	12	22 AWG (7x30) 17 Ω/Mft	PVC .007	Al. Foil-100% 24 Strd.	PVC .025	.698	CM CL3	55 pf/ft* 99 pf/ft**	Gray
AQC422	6	22 AWG (Solid) 17.5 Ω/Mft	PVC .008	Al. Foil-100% 22 Solid	PVC .025	.510	CM CL3	54 pf/ft* 97 pf/ft**	Gray
AQC424	12	22 AWG (Solid) 17.5 Ω/Mft	PVC .008	Al. Foil-100% 22 Solid	PVC .025	.588	CM CL3	54 pf/ft* 97 pf/ft**	Gray

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange ripcord under jacket

Color Code	
Colors	Colors
1. Black/Red-Red	8. Red/White-White
2. Black/White-White	9. Red/Green-Green
3. Black/Green-Green	10. Red/Blue-Blue
4. Black/Blue-Blue	11. Red/Yellow-Yellow
5. Black/Yellow-Yellow	12. Red/Brown-Brown
6. Black/Brown-Brown	
7. Black/Orange-Orange	
JACKET: Gray	



**Aquaseal® Water Blocking Cable
1 Pair / Unshielded**

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

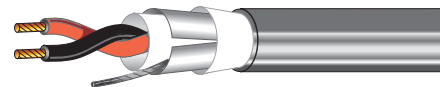
Standard pool size 1000ft.



Underground- In-Conduit

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

**Aquaseal® Water Blocking Cable
1 Pair / Shielded**



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



Underground- In-Conduit

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 pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQC293	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .010	Al. Foil- 100% 24 Strd.	PVC .025	.257	CM/CL3 FPL	39 pf/ft* 70 pf/ft**	Gray
AQC294	1 Pair	16 AWG (19x29) 4.2Ω/Mft	PVC .010	Al. Foil- 100% 24 Strd.	PVC .025	.281	CM/CL3 FPL	46 pf/ft* 83 pf/ft**	Gray
AQC295	1 Pair	14 AWG (19x27) 2.7Ω/Mft	PVC .015	Al. Foil- 100% 24 Strd.	PVC .025	.333	CL3 FPL	48 pf/ft* 86 pf/ft**	Gray

**Aquaseal® Water Blocking Cable
Multi-Conductor / 300 Volts Power-Limited**



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



Underground - Direct Burial

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 pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
AQ224	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	None	.035	.270	CL3/FPL PLTC	25 pf/ft*	Black
AQ244	4	18 AWG (7x26) 6.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.327	CL3/FPL PLTC	25 pf/ft*	Black
AQ225	1 Pair	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.295	CL3/FPL PLTC	28 pf/ft*	Black
AQ245	4	16 AWG (7x24) 4.2 Ω/Mft	PVC .015 Nylon .005	None	.040	.355	CL3/FPL PLTC	28 pf/ft*	Black
AQ226	1 Pair	14 AWG (19x27) 2.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.310	CL3/FPL PLTC	32 pf/ft*	Black
AQ246	4	14 AWG (19x27) 2.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.395	CL3/FPL PLTC	32 pf/ft*	Black
AQ227	1 Pair	12 AWG (19x25) 1.7 Ω/Mft	PVC .015 Nylon .005	None	.040	.340	CL3/FPL PLTC	36 pf/ft*	Black

* Capacitance between conductors.

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange ripcord under jacket

Color Code	
All Cables	1. Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Black



Aquaseal® Water Blocking Cable
Multi-Conductor / 300 Volts Power-Limited
Shielded

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



Underground - Direct Burial

Rating:

- NEC Type FPL or PLTC or CL3
- (UL) Listed
- Meets 300V requirements as specified in the NEC
- Direct Burial
- Flame Rating: UL1685

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

Standard pool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
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**	Black
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**	Black
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**	Black
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**	Black
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**	Black
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**	Black

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

Special Notes:

- Aquaseal Water Resistant Cables is a Registered Trademark of West Penn Wire
- Orange ripcord under jacket

Color Code	
All Cables	1. Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Black

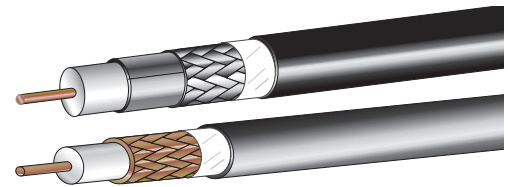
**Aquaseal® Water Blocking Cable
Coaxial Cables / Pro-Video- CATV - CCTV**

Applications:

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



Underground- In-Conduit



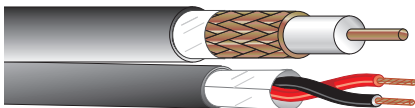
Features:

- NEC Type CM
- Waterblocking Tape

Mechanical Specifications

Standard pool size 1000ft.

Catalog No.	Conductor Type & Nom. D.C.R	Nominal O.D	Insulation Type, O.D.	Shielding % Coverage	Jacket Type	Jacket Colors	NEC Type	Jacket Color
		Inches	Inches					
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
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
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
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
AQC2806	18 AWG Solid BC 6.5 Ω/M'	.280 x .580	Gas Injected PE .180 + Tape Barrier	Waterblocking tape Bare Copper Braid 95%	Sunlight Resistant PVC Black- Lickity Split	Black	CM	Black



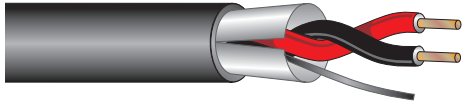
Cable Construction:
1 Coax unit plus 1 pair 16 AWG Unshld.

AQC2806- Lickity Split Design



Electrical Specifications:

See Coaxial Cable Section for Electrical Specifications



Tray Cable / Class 1 600V
Multiple Conductor Overall Shield - Not Aquaseal Design

Description:

- ASTM bare copper • PVC insulation with Nylon • PVC fillers and polyester binders as required • Twisted construction • Overall shield 100% coverage aluminum foil with tinned drain wire
- Overall Sunlight Resistant PVC jacket.

Rating:

- NEC Type TC
- (UL) Listed
- Class 1 600 Volt
- Direct Burial

Applications:

- Industrial Signaling and Process Control Circuits
- Class 1 Circuits as defined in Article 725
- Optional Use: Non-Power limited Fire Alarm as defined in Article 760

Standard spool size 1000ft.

Catalog No.	No. of Cond.	Conductor Type & Nom. D.C.R	Insulation Type & Thickness	Shielding & % Coverage + Drain Wire	Jacket Type & Thickness	Nom. O.D.	NEC Type	Nom. Capacitance	Jacket Color
			Inches		Inches				
TC2975	1 Pair	18 AWG (7x26) 6.2 Ω/Mft	PVC .016 Nylon .005	Al. Foil 100%	Sun. Resistant PVC .047	.288	TC	52pf/ft * 94pf/ft **	Black
TC2991	1 Pair	16 AWG (7x24) 4.2 Ω/Mft	PVC .016 Nylon .005	Al. Foil 100%	Sun. Resistant PVC .047	.299	TC	52pf/ft * 94pf/ft **	Black

Color Code	
All Cables	1. Black, 2. Red, 3. Brown, 4. Blue
	JACKET: Black

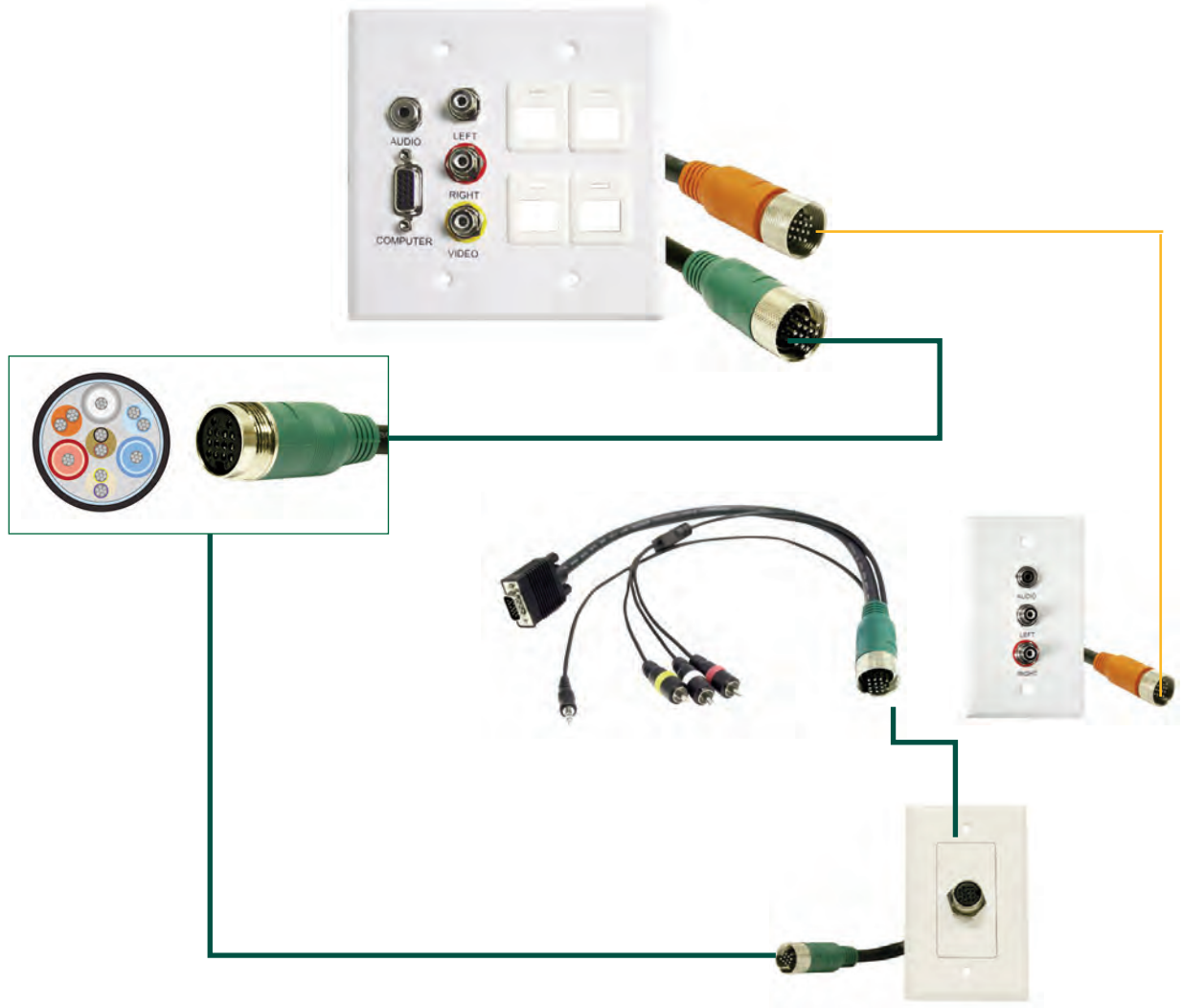
* Capacitance between conductors.
 ** Capacitance between one conductor and the other connected to the shield

Special Notes:

- Orange rip cord under jacket
- Catalog Number with this symbol indicates special manufacturing runs. Minimum Quantities apply.



EZ RUN INTEGRATED PRODUCTS



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EZ Run VGA/PC Products	212
EZ Run VGA/PC Runner Cables	
EZ Run VGA/PC Wall Plates	
EZ Run VGA/PC Adapter Cables	
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EZ Run HDMI/DVI Runner Cables	
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Classroom EZ Run Plates/Adapters	214-215
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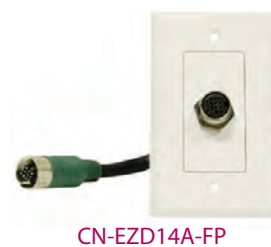
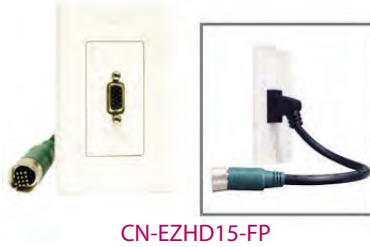


UXGA Supports PC Resolutions up to 1600x1200 pixels

Includes Protective Pulling Caps, Max. Pull Tension 30lbs.

Audio/Video Accessories
Advantage EZ Run Installation

EZ Run Cables- UXGA / PC	
CN-EZ01A-xx	Non-Plenum UXGA /PC Replace xx with 15,25,35,50,75,100,125,150
CN-EZ02A-xx	Plenum UXGA/PC Replace xx with 15,25,35,50,75,100,125,150



EZ Wall Plates- Single Gang	
Catalog No.	Description
CN-EZD14A-FP	DIN Wall Plate UXGA/ PC USE EZ RUN ADAPTER CABLES
CN-EZHD1535-FP	Wall Plate HD15 (Female) + 3.5mm Audio
CN-EZHD15-FP	Wall Plate HD15 (Female)



EZ Run Adapter Cables USE WITH CN-EZD14A PLATE		
Dwg.No	Catalog No.	Description
1	CN-EZHD15-xx	HD15(RGBHV) to D14- Gn
2	CN-EZHD1535M-xx	HD15 + 3.5mm Audio to D14- Gn

Replace xx with:
1, 3, 6, 10 (ft)

VGA Assemblies

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



**Audio/Video Accessories
Advantage EZ Run Installation**

EZ Run Cables-HDMI & DVI

CN-EZ01C-xx	Non-Plenum HDMI Replace xx with 15,25,35,50,75,100,125,150
CN-EZ02C-xx	Plenum HDMI Replace xx with 15,25,35,50,75,100,125,150

Note: HDMI CABLE LENGTHS GREATER THAN 25 FT. WILL REQUIRE HDMI BOOSTER FOR 1080p RESOLUTION.



Optimized design for TMDS uncompressed video- HDMI

Includes Protective Pulling Caps, Max. Pull Tension 30lbs.



Single Gang EZ Run Wall Plates

EZ Wall Plates- Single Gang

Catalog No.	Description
CN-EZD19-FP	DIN Wall Plate HDMI Video USE EZ RUN ADAPTER CABLES
CN-EZHDMI-FP	Wall Plate- HDMI
CN-EZDVID-FP	Wall Plate- DVI-D
CN-EZDVID35-FP	Wall Plate- DVI-D+3.5mm Audio
CN-R013EQL-FF-B	HDMI Extender - 1080p 12bit - 125ft



CN-R013EQL-FF-B

EZ Run Adapter Cables USE WITH CN-EZD19 PLATE

Dwg.No	Catalog No.	Description
1	CN-EZHDMI-xx	HDMI to D19- Ye
	CN-EZDVID-xx	DVI-D to D19- Ye
	CN-R013EQLMF-01	HDMI Extender Cable 1ft.Cable

Replace xx with:
1, 3, 6, 10 (ft)



1

HDMI Assemblies

CN-HD700-xx HDMI - 25lbs. Locking Assembly

Replace xx with: 2,4,8,16,25,35,50 feet (ft)

CN-40HDMI-xx - HDMI Assembly - Economy

Replace xx with: 3,6,10,15,25,50 feet (ft)



**Audio/Video Accessories
Advantage EZ Run Diagrams- Classroom Design**



CN-VR-1-SFP



CN-A2R-1-SFP



CN-VACP-2-SFP



CN-VACPK-2-DFP

EZ Run NEW Classroom Plates	
CN-VACP-2-SFP	Single Gang- HD15 + 3.5mm Audio + 3 RCA (RWY) - 2 Flying Leads
CN-VACPK-2-DFP	Dual Gang- HD15 + 3.5mm Audio + 3 RCA (RWY)- 2 Flying Leads
CN-A2R-1-SFP	2 RCA- (L/R Audio) + 3.5mm Audio
CN-VR-1-SFP	Single Gang- HD15 + RCA- Yellow (Video)
CN-VACP-1-SFP	Single Gang- HD15 + 3.5mm Audio + 3 RCA (RWY) - 1 Flying Leads
CN-VACPK-1-DFP	Dual Gang- HD15 + 3.5mm Audio + 3 RCA (RWY)- 1 Flying Leads
CN-VACP-1-xx	Adaptor Cable: Din14 (TypeA) Male to HD15, Composite Video/Audio Male



CN-VACP-1-SFP



CN-VACPK-1-DFP



CN-VACP-1-xx

**SVGA - HD15 + 3.5mm + COMPOSITE VIDEO + L/R AUDIO
Cable Assemblies**

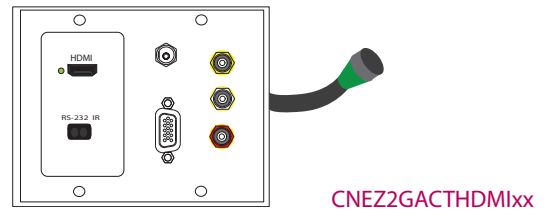
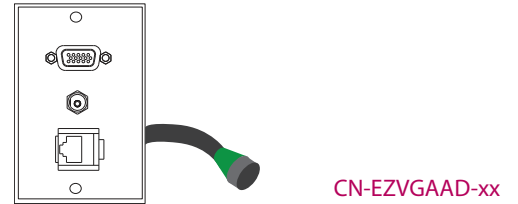
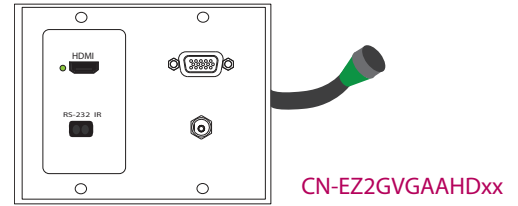
VGA with Audio		
Catalog No.	Description	Length (FT)
CN-VGAAVA-xx	VGA+AUDIO+VIDEO + L/R AUDIO	Replace xx with: 6,10,25,35,50
CN-25VGAAVA-xx	VGA+AUDIO+VIDEO + L/R AUDIO PLENUM	Replace xx with: 6,10,25,35,50



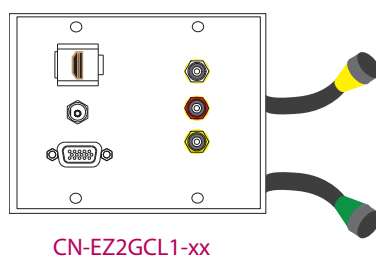
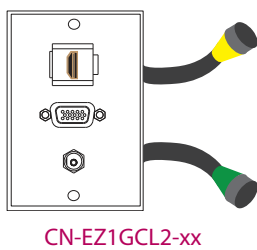
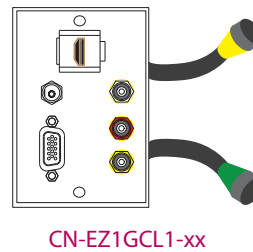
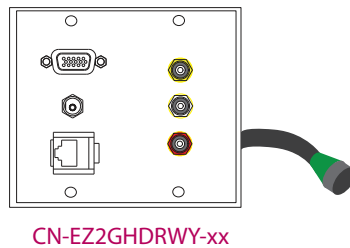
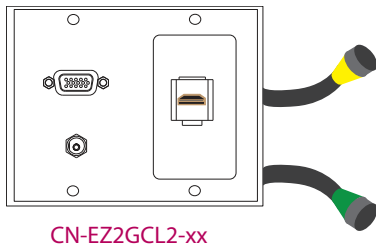
CN-VGAAVA-xx

Audio/Video Accessories
Advantage EZ Run Installation

EZ Run Advanced Wall Plates	
CN-EZ2GVGAHDxx	2G Active HDBaseT Lite + VGA/Audio EZ Run
CN-EZVGAAD-xx	1G EZRun VGA/Audio EZRun + RJ45 Cat6 Shielded Jack
CNEZ2GACTHDMIxx	2G Active HDBaseT Lite +VGA/Audio + RWY EZ Run
CN-EZ2GHDRWY-xx	2G VGA/Audio+RWY EZRun + RJ45 Cat6Shielded Jack
CN-EZ1GCL2-xx	1G HDMI EZRun + VGA/Audio EZRun
CN-EZ2GCL2-xx	2G HDMI EZRun + VGA/Audio EZRun
CN-EZ1GCL1-xx	1G HDMI EZRun + VGA/Audio +RWY EZRun
CN-EZ2GCL1-xx	2G HDMI EZRun + VGA/Audio +RWY EZRun
CN-EZ2GCL3-xx	2G HDMI EZRun + VGA/Audio +RWY EZRun + RJ45 Cat6 Shielded Jack

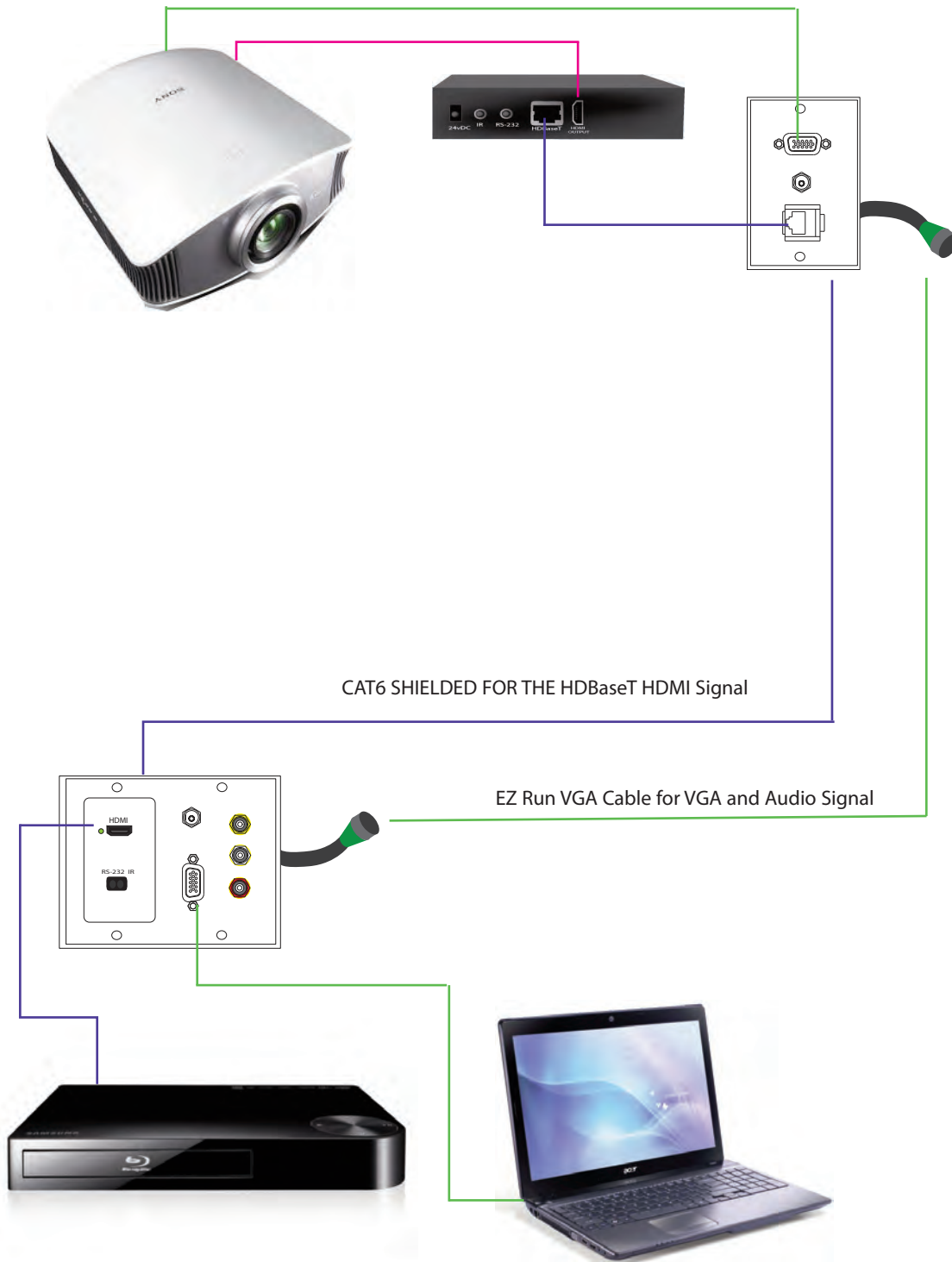


Replace xx:
AC - Anodized AL. Clear
AB - Anodized AL Black
AW- AL. Powder Coat White



HDBaseT Receiver Unit	
Catalog No.	Description
DXE-CAT-RX1	HDBaseT RX Unit Used with CN-EZ2GVGAHDxx and CNEZ2GACTHDMIxx





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 web-sites. www.westpenn-wpw.com



TECHNICAL REFERENCE

Technical Reference Section

Understanding National Electrical Code (NEC).....	218-219
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Understanding the National Electrical Code

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.

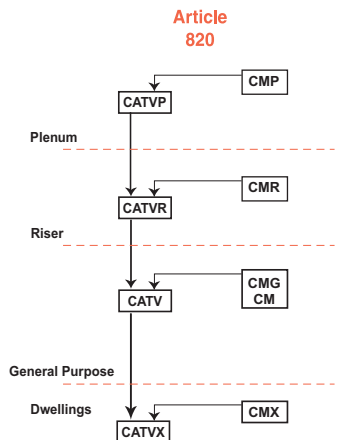
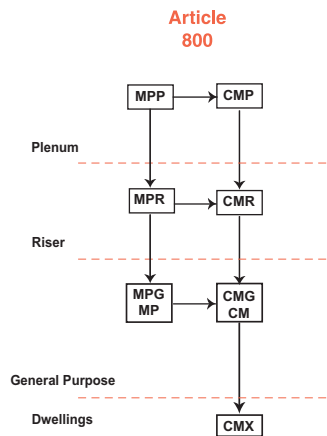
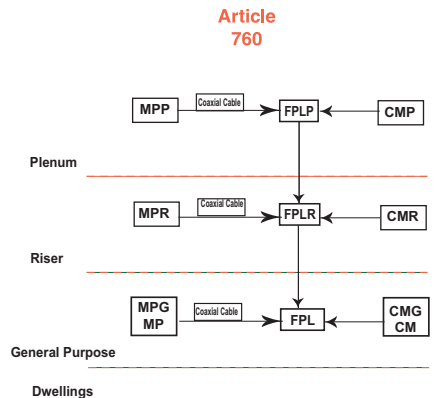
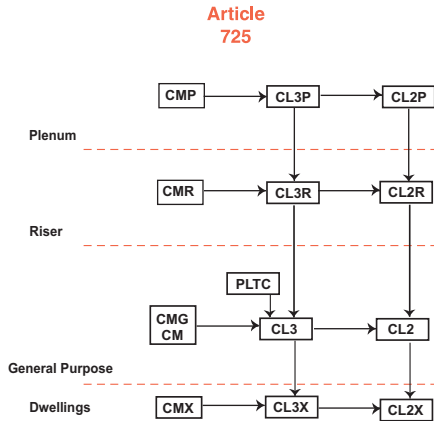
SPECIAL NOTES FOR COMMUNICATION CABLES:

- * MULTI-CONDUCTOR CABLES WITH 24-16AWG CONDUCTORS CAN BE RATED UL AND C(UL).
- * MULTI-CONDUCTOR CABLES WITH 14-8AWG CONDUCTORS ARE UL LISTED ONLY
- * 10-8AWG SPEAKER CABLES ARE CL2 ONLY AND MUST INDICATE AUDIO USE ONLY

Understanding the National Electrical Code

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	EXAMPLES:
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											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.
.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	

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:

$$\begin{array}{r}
 227 - .260" \text{ sqd.} = .0676 \\
 D434 - .411" \text{ sqd.} = .1689 \\
 6350 - .275" \text{ sqd.} = .0756 \\
 \hline
 + \\
 .3169 \\
 \times .7854 \\
 \hline
 .2489
 \end{array}$$

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.

ST Connectors - Straight Tip

These connectors are normally used in the Security Industry. They would be used for connecting Fire Alarm Control Panels - RS-485, Access Control Panels, CCTV Distribution.

ST connectors are similarly designed to match a BNC Connector.

Kits Offered: Optimax - FI-4270



LC Connectors - Lucent Connector

This connector type is normally found in the broadcast environment, and data networking.

They are SFF - Small Form Factor Connectors. SFF connectors are smaller in size for environments where space is a premium.

Kits Offered: Brilliance FI-4270

SC Connectors - Square Connector

This connector type is normally found in the data networking environment.

SC connectors are similarly designed to match a RJ45 modular plug.

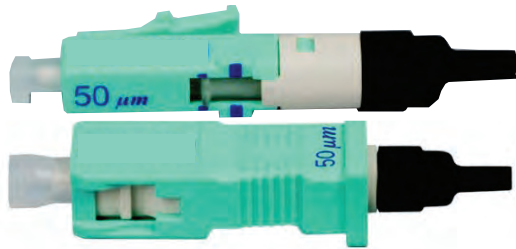
Kits Offered: Brilliance FI-4270



FI-4270

Brilliance Connectors

OM1, OM2, OM3 OS2
LC, SC, and ST Versions



Brilliance Kit Components

1. Support Handle, 2. Protective Adapters, 3. LC, SC, ST Adapters, 4 Patch Cords,
5. Field Cleaver, 6. Waste Bottle, 7. Alcohol Wipes, 8. Strippers, 9. Scissors, 10. Tweezers
11. Safety Glasses, 12. Installation Guides,

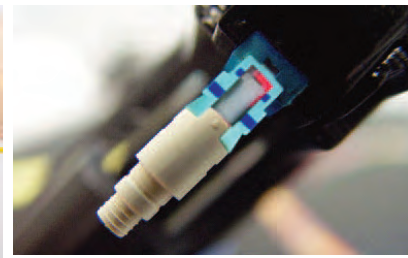


Termination: Getting to the internal glass.

1. Cut away approx- 10-25 inches of the jacket.
2. Separate the fibers from the kevlar.
3. Cut away the Kevlar.
4. Take the Fiber Optic strip tool and start removing the buffer and coating from the fiber. Best Practice is to take .250" of buffer/coating at one time, until approx 1 to 1.25" of bare glass is exposed.
5. Slide boot onto the individual fiber.
6. Cleave the bare fiber using either the Field cleaver or precision cleaver. Fiber should be cleaved at 8mm.
7. Mark the fiber at 13mm on the buffer



8. Place the VFL into the bottom of the Hand Tool.
 9. Place the appropriate Adapter (SC, ST, LC) into the Hand Tool.
 10. Connect the VFL to the adapter via appropriate Patch cable.
 11. Place the connector into the adapter - Window facing up.
 12. Push the activation tab on the connector forward to open the internal cylinder.
- RED LIGHT SHOULD BE ILLUMINATING THROUGH THE WINDOW



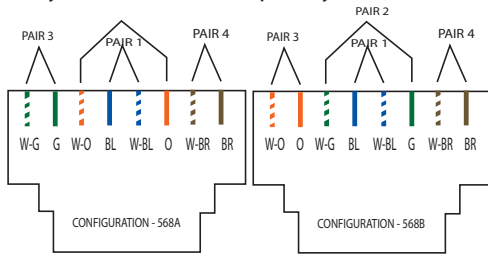
13. Feed Fiber into the connector gently until you fill the fiber stop and it reaches the 13mm mark.
14. Put a slight bow in the fiber to keep pressure.
15. Pull back on the activation tab to close the internal crimp, be sure no LIGHT is illuminated through the window.
16. Slide Boot up and connect to the connector.



Category Cable Termination

Plug Termination:

1. Strip off 2.00" of jacket
2. Straighten and align wires to T568B or T568A - Trim Pairs
3. Insert wires into connector body
4. Pull tight to ensure jacket is .250" inside connector body
5. Verify wire location and orientation
6. Insert 32-EZP connector into crimp tool- TL-EZRJ45
7. Verify connector is completely seated and cable is fully inserted

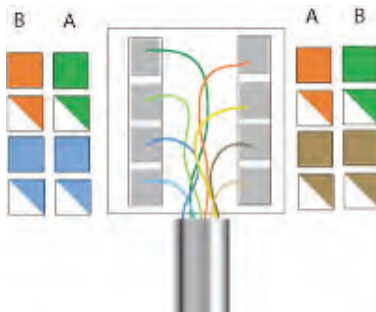


8. Squeeze handle of TL-EZRJ45PROCT
9. Remove excess wires
10. Check jacket strain relief
11. Check that contacts are all engaged
12. Check that contact dividers are not damaged
13. Check to see if both ends of the cable have been terminated



IDC

All Jacks have IDC- Insulation Displacement Connections. These connections are made with a punch down tool. The Punch down tool displaces the insulation while the individual cable is being pressed between two metal clips. The metal clips make contact with the conductor.



Terminating RJ45 Jacks

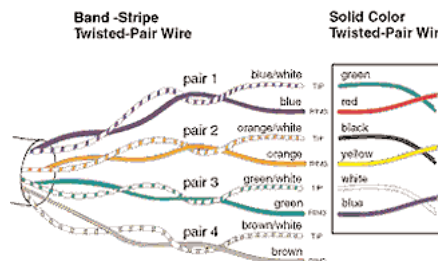
1. Strip cable .750" - 1.00" - Do not damage conductors
2. Fan out the individual Pairs. Do not untwist the individual pairs more than .500"
3. Place each wire into appropriate IDC slot color code
 - Choose between T568A or T568B
4. Punch down the individual wire - Do not punch down more than twice.
5. Place Protector Hood over the punched down wires

Color alignment may change depending on the connector type and manufacturer

Cross-Compatibility:



TL-110/66

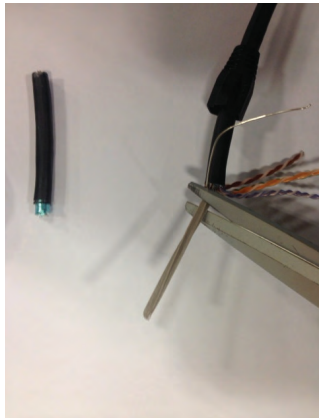


Category Cable Termination

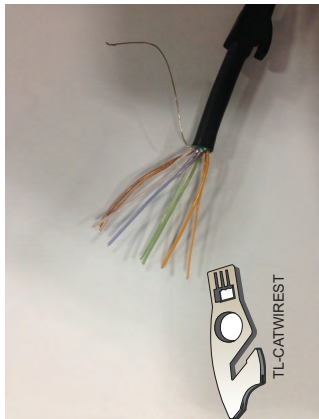
Category 6 and 6A Shielded Modular Plugs



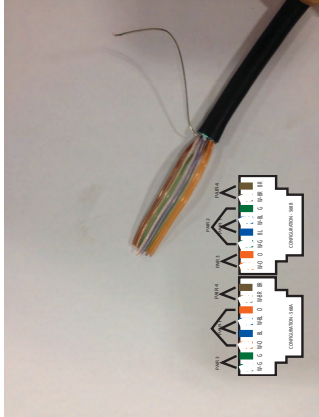
1. Slide Boot (CN-B0051) onto cable
 2. Strip the jacket 1.25" to 1.5"
 3. Be sure to strip jacket and foil away from the cable.



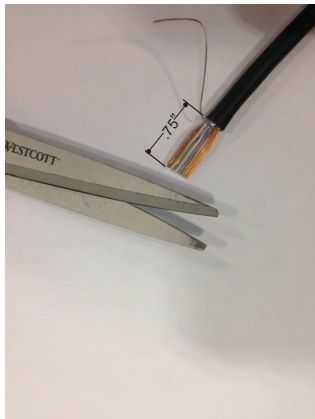
4. Bend pair away from the center member
 5. Cut center member away from the cable



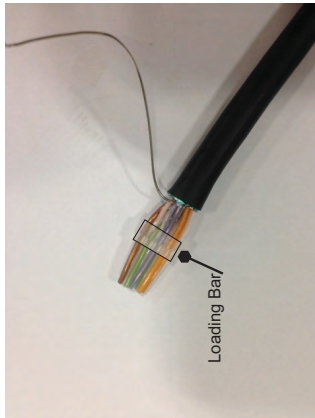
6. Separate the pairs using TL-CATWIRESST Tool.



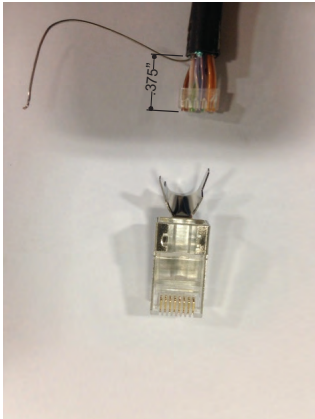
7. Flatten the conductors to appropriate wiring configuration. T568A or T568B



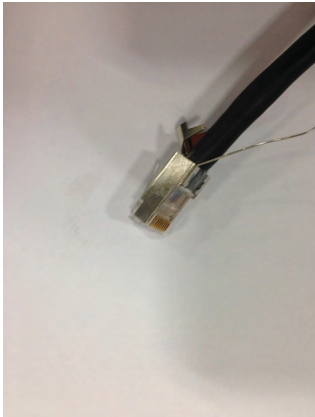
8. Cut the conductors straight .5-.75" from the jacket.



9. Slide the Loading Bar onto conductors -Larger opening towards the conductors.



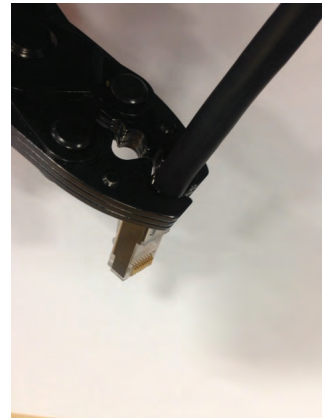
10. Cut the conductors flush with the loading bar.
 11. Be Sure the conductors are not bent inside the loading bar.
 12. Push the conductors so they are flush with the edge of the load bar. .250 - .375" From Jacket.



13. Slide the cable with loading bar into the connector.
 14. Be sure that the conductors are seated properly.
 15. Be sure the jacket is fed inside the connector body.



16. Push the external tab inward to the cable.
 17. Wrap the drain wire multiple times around the external ground ear tabs.



18. Using the External ground crimp tool (12360C) Crimp the external ground tabs around the cable jacket.



19. Using crimp tool 12515C crimp the IDC connections



20. Slide the boot over the connector body.

Category 6 & Cat6A F/UTP Connectors

Cable Part No.	RJ45 Jack	Punchdown Tool	Modular Plug Kit	Crimp Tool
4246F	KJS458TL-C6C - Tool less		90170-BI	
254246F	KJS458TL-C6C - Tool less		90170-BI	
4246AF	KJS458MT-C6A - Tool less	KJMT-8600	90170-BI	
254246AF	KJS458MT-C6A - Tool less	KJMT-8600	90170-BI	



Category 6 Connectors

Cable Part No.	RJ45 Jack	Punchdown Tool	Modular Plug	Crimp Tool
4246	KJ458MT-C6C-XX	KJMT-8600	32-6EZP 32-1900-xx Boots	TL-EZRJ45PRO
254246	KJ458MT-C6C-XX	KJMT-8600	32-6EZP 32-1900-xx Boots	TL-EZRJ45PRO
4246-10	KJ458MT-C6C-XX	KJMT-8600	32-6EZP 32-1900-xx Boots	TL-EZRJ45PRO
4246-OSP	KJ458MT-C6C-XX	KJMT-8600	32-6EZP 32-1900-xx	TL-EZRJ45PRO



Category 5E Connectors

Cable Part No.	RJ45 Jack	Punchdown Tool	Modular Plug	Crimp Tool
4245	KJS458MT-C5E-xx xx- Colors WH,BK,BL,GY,GN,OR,RD,YE	TL-3650 or TRJ45P	32-EZP 32-1900-xx Boots	TL-EZRJ45PRO
254245	KJS458MT-C5E-xx xx- Colors WH,BK,BL,GY,GN,OR,RD,YE	TL-3650 or TRJ45P	32-EZP 32-1900-xx Boots	TL-EZRJ45PRO
M58762	KJS458MT-C5E-xx xx- Colors WH,BK,BL,GY,GN,OR,RD,YE	TL-3650 or TRJ45P	32-EZP 32-1900-xx Boots	TL-EZRJ45PRO
4245-10 4245-OSP	KJS458MT-C5E-xx xx- Colors WH,BK,BL,GY,GN,OR,RD,YE	TL-3650 or TRJ45P	32-EZP 32-1900-xx Boots	TL-EZRJ45PRO
4245F	KJS458-C5E-xx xx- Colors WH,BK,BL,GY,GN,OR,RD,YE	TL-3650 or TRJ45P	CN-EZSTP-EG 32-1900-xx Boots	TL-EZRJ45PRO



UTP and F/UTP Selection

Recommended

Exceeds Recommended

	UTP and F/UTP		Category 5E		Category 6		Category 6A	
	Test Freq. MHz	100	200	100	250	100	500	
10 Base T 100 Base T 155 Mbps ATM	Insertion Loss max.	22.0	--	19.8	32.8	19.0	45.3	
	NEXT min.	35.3	--	44.3	38.3	44.3	33.8	
	PS-NEXT min.	32.3	--	42.3	36.3	42.3	31.8	
	PS-ACR min.	10.3	--	22.5	3.5	24.8	10.8	
	PS-ELFEXT min.	20.8	--	24.8	16.8	62.5	52.0	
	Return Loss min.	20.1	--	20.1	17.3	20.0	15.2	
	TIA/EIA 568 c.2 Full Duplex Ethernet Specs. 1G Base T 500MHz Broadband Video	Insertion Loss max.	22.0	--	19.8	32.8	19.0	45.3
NEXT min.		35.3	--	44.3	38.3	44.3	33.8	
PS-NEXT min.		32.3	--	42.3	36.3	42.3	31.8	
PS-ACR min.		10.3	--	22.5	3.5	24.8	10.8	
PS-ELFEXT min.		20.8	--	24.8	16.8	62.5	52.0	
Return Loss min.		20.1	--	20.1	17.3	20.0	15.2	
10G Base T		Insertion Loss max.			19.8	32.8	19.0	45.3
	NEXT min.			44.3	38.3	44.3	33.8	
	PS-NEXT min.			42.3	36.3	42.3	31.8	
	PS-ACR min.			22.5	3.5	24.8	10.8	
	PS-ELFEXT min.			24.8	16.8	62.5	52.0	
	Return Loss min.			20.1	17.3	20.0	15.2	
	TIA 568-C.2 CATEGORY 6A FULL 100 meters	Insertion Loss max.					19.0	45.3
NEXT min.						44.3	33.8	
PS-NEXT min.						42.3	31.8	
PS-ACR min.						24.8	10.8	
PS-ELFEXT min.						62.5	52.0	
Return Loss min.						20.0	15.2	

MAX TEST FREQUENCY:

200 MHZ

550 MHZ

750 MHZ

Line Level Audio Connectors



Cable Part No.	3 Pin XLR Plug	3 Pin XLR Jack	3.5mm Plug	1/4" Plug TRS
77291	44-A3M CN-NC3MX	44-A3F CN-NC3FX	CN-NYS231	CN-NP3C
D25291	44-A3M CN-NC3MX	44-A3M CN-NC3MX	CN-NYS231	CN-NP3C
(x)454	44-A3M CN-NC3MX	44-A3M CN-NC3MX	CN-NYS231	CN-NP3C
D25454	44-A3M CN-NC3MX	44-A3M CN-NC3MX	CN-NYS231	CN-NP3C
455	44-A3M CN-NC3MX	44-A3M CN-NC3MX	CN-NYS231	CN-NP3C
DA2401	44-A3M CN-NC3MX	44-A3M CN-NC3MX		
DA252401	44-A3M CN-NC3MX	44-A3M CN-NC3MX		
452	44-A3M CN-NC3MX	44-A3M CN-NC3MX	CN-NYS231	CN-NP3C

Speaker Level Audio Connectors



Cable Part No.	Speakon Cable Mount	Banana Plugs -Black	Banana Plugs -Red	
225 25225B	CN-NL4FX	19-1240	19-1239	
226 25226B	CN-NL4FX	19-1240	19-1239	
227 25227B	CN-NL4FX	19-1240	19-1239	
HA225	CN-NL4FX	19-1240	19-1239	
HA226	CN-NL4FX	19-1240	19-1239	
HA227	CN-NL4FX	19-1240	19-1239	
HA210	CN-NL4FX	19-1240	19-1239	
C208	CN-NL4FX	CN-8PX-24B		

Shipping Policy and Return Policy

Shipping Policy (Wire and Cable)- Freight Allowance: Shipments totaling \$750.00, (\$3000.00 Distributors) or more will be Freight Prepaid via negotiated overland truck only in the continental U.S. (excluding Alaska and Hawaii**). All other shipments will be freight collect with no freight allowance. NO C.O.D. shipments. Air shipments only with written authorization. Accessorial Charges (Inside delivery, Call before delivery, Lift gate, Construction site, Limited access, Residential deliveries, Reconsignment, or Re-delivery, and High cost service delivery areas) are not included in Pre-paid Shipments.

**West Penn Wire will pay for standard shipments to Hawaii or Alaska when the order size meets and/or exceeds \$5,000. This does not include partial shipments at the request of the customer.

Odd Length Spools - Random lengths other than standard packages may be available with an additional 15% discount. We reserve the right to ship up to 10% of total order on odd length spools.

Cancelled orders - Subject to a minimum \$100.00 service fee.

Standard Terms - Net 30 days, subject to additional terms as stated on reverse side of invoice.

Take advantage of our Quick Pay discount!

1.5% 15 days, net 30

Sales Return Policy

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.

Aurora Product Warranty:

From the start, Aurora Multimedia Corp. has striven to push the technology envelope. We do so by developing and manufacturing our products for markets looking for the most bang-for-the-buck. Compare our products to others and you will find that we are competitive and innovative. We take pride in our products which is why we offer a 3 year warranty. Please take a moment to look over our entire product line, get involved with our innovation and share in the excitement.

SignaMax Product Warranty: 25 years - www.signamax.com

If it's part of the link - the lifeline that keeps your networks running - then it's covered by the Signamax 25-Year Connectivity/Cabling System Limited Warranty. From our patch panels and 110 cross connect systems to our outlet products - to the cable that links it all together - our warranty program gives you the assurance that you need in the world of constant changing network technology. For system warranty, please contact SignaMax. 800-446-2377.

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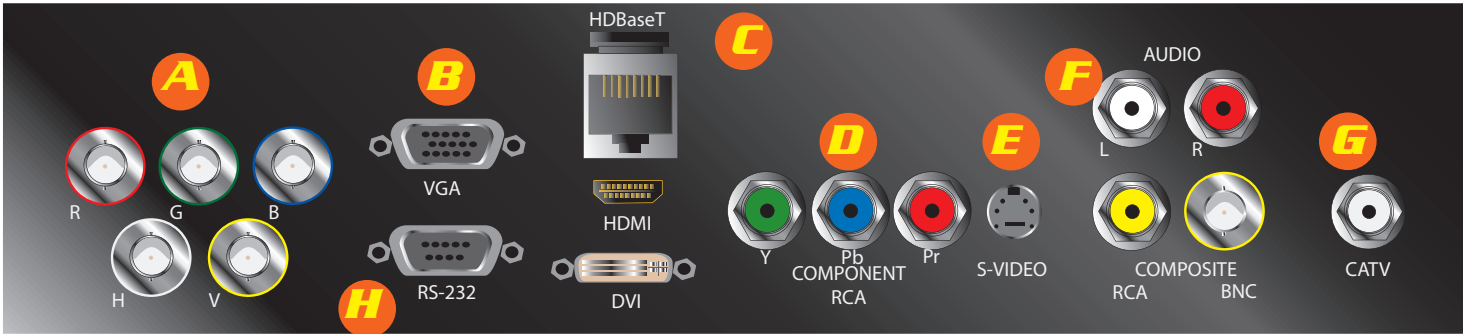
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VIDEO



A RGB/HV- Red, Green, Blue, Horizontal and Vertical Sync
Application: Connection between video scalers and PC's to plasma screens or other video output devices

- Bulk Cable pgs- 62-63 • Cable Assemblies- pgs 65
- 75Ω BNC Connectors - pg.64 • Install Kits- pg. 66
- Wall plates - pg. 76

B VGA (Video Graphics Array) - High Density 15 pin - HD15 inputs.
Application: Connection between PC's to plasma screen or projectors.

- Bulk Cable pgs- 62-63 • Cable Assemblies- pgs 65
- VGA Connectors - pg.64 • Install Kits- pgs. 66
- Wall plates - pgs. 76
- Digital Signage VGA Products over Nanoskew- pg. 68-69

C HDMI- High Definition Multimedia Interface
HDBaseT

Application: Connection for HDTV, Digital Audio, and IR communication between AV equipment.

- Digital Video Equipment pgs 43-65 • HDMI Assemblies pg. 48 • HDBaseT Extenders pgs. 43-46 • IP AV Networking pgs. 54-60 • IPBaseT Distribution pg. 47 and 58

D Component Video- RCA or BNC - Y, Pb, Pr
Application: Consumer Analog Television for resolutions up to 1080i.

- Bulk Cable pgs- 70 • Cable Assemblies- pg. 71
- RCA Connectors - pg.71

E S-Video- SVHS- Super Video

Application: Y/C - Separation of Luminance/Chrominance for better quality video signals

- Bulk Cable pgs- 73 • 4 Pin Mini Connectors - pg.73

F Composite Video - BNC or RCA

Application: Standard video signalling. All video signals travel within one coaxial cable.

- Bulk Cable pgs- 74 • Cable Assemblies- pg. 75
- RCA Connectors - pg.75 • 75Ω BNC Connectors - Pg.64
- Wall plates - pgs. 76

G CATV- Cable Antenna Television

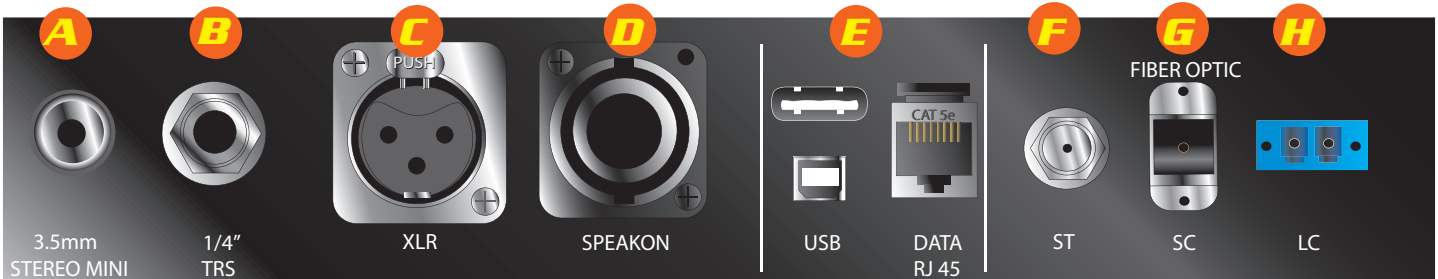
Application: CATV/MATV, Broadband signals

- Bulk Cable pgs- 78-81 • "F" Connectors - pg. 82
- Installation Tools - pg. 83-84

H RS-232 - Control/ Serial DATA:

- Bulk Cable pgs-154-156 • dB9 Connectors - pg. 158

AUDIO AND DATA



A 3.5mm- Mini Phone Jack

Application: Audio from computer to output - line level
Small sized

- Bulk Cable pgs- 2-10 • Cable Assemblies- pg. 13
- 3.5mm Connectors - pg.12-13

B 1/4"- Phone Jack

Application: Microphone inputs

- Bulk Cable pgs- 2-10 • 1/4" Connectors - pg.12-13

C XLR- 3 Pin - Cannon "X" Series- L-Latched- R- Rubber
Most common audio connector used in professional, commercial, and music applications

Application: Line level balanced audio signalling.

- Bulk Cable pgs- 2-10 • XLR Connectors - pg.12-13

D Speakon- Loadspeaker

Application: Connection between amplifier and loadspeaker
Long wearing, locking connector

- Bulk Cable pgs- 16-22 • Speakon Connectors - pg.25
- Cable Assemblies- pg.26

E RJ45- Data Connector- Registered Jack - 8 pin

Application: Data connections

- Category 5E: pg.140-141
- Category 6: pg. 142-145
- Category 6A: pg. 142-145

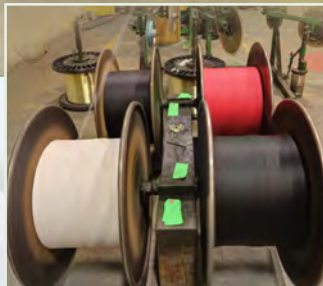
USB - A and B - Connect Computer Devices and Smartboards
• Over Cat5E Extender - pg. 46

F ST- Fiber optic connector- Bayonet Style- Straight Tip
Application: Fiber Optic Connections

G SC- Fiber optic connector- Subscriber connector- Push Pull Style
Application: Fiber Optic Connections

H LC- Fiber Optic Connector- Local connector - Small formed factor
Application: Fiber Optic Connections

- Bulk Cable pgs. 160-163 • Cable Assemblies- pg. 165
- Connectors/ Kits - pg.166
- Install Tools - pgs. 167-168



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