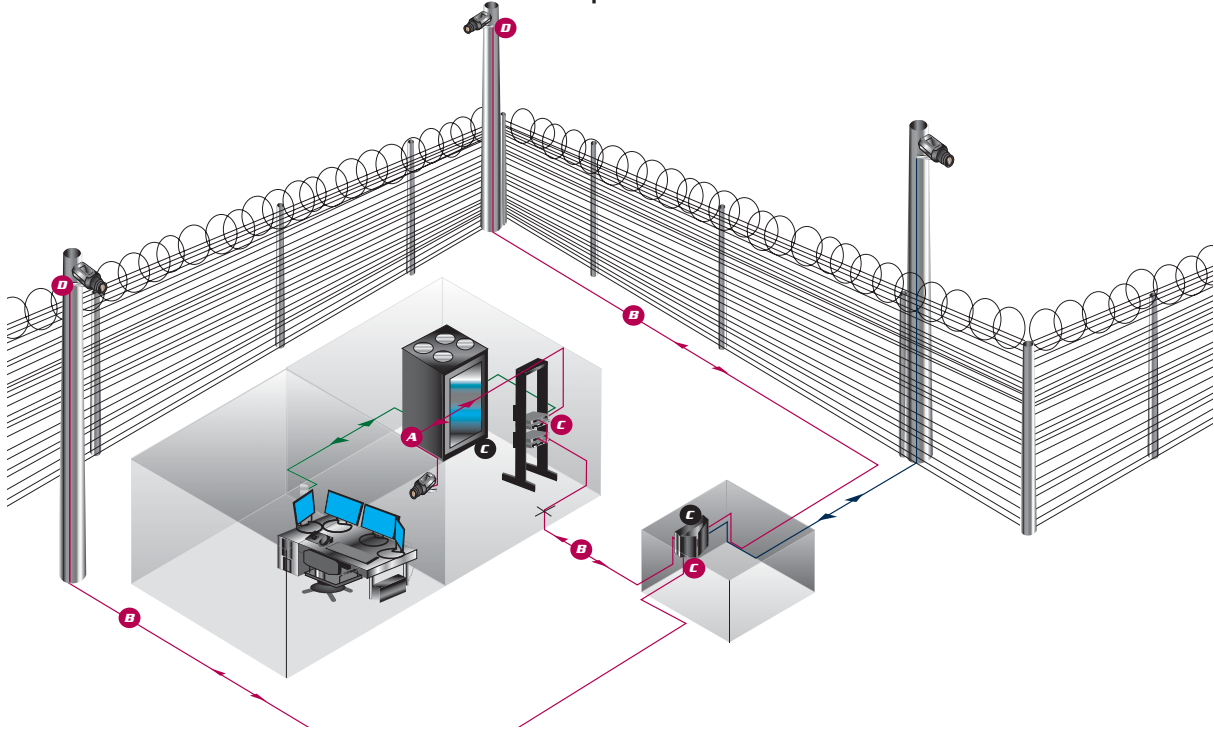


# Fiber Optic Cables Combined with Accessories

**Make it easy.** Fiber installations can be confusing. Deciding on the type of fiber, matching number of fibers and calculating lengths all to meet system demand can get overwhelming. Add in correct termination, and you have your hands full. West Penn Wire has taken out the confusion by standardizing on cables that can cover multiple requirements. Work directly with our dedicated engineering team and learn about the ins and outs of fiber optic installations.



## FEATURES

- Indoor/Outdoor Plenum rated fiber cables
- Fiber Optic system solutions
- Available in Single-Mode and Multimode Designs.
- Multiple Kit Solutions.
- Testing Equipment
- Multiple Designed Racks.

**New:** FiberExpress Connector Kit

## MINI INDEX

### Fiber Optic Cables

#### Indoor Distribution Fiber

<b>A</b>	OFNR - Riser Rated .....	164
	OFNP - Plenum Rated .....	164

<b>B</b>	Indoor Outdoor - OFNP .....	165
----------	-----------------------------	-----

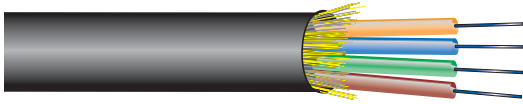
	Central Tube - Outdoor .....	166
--	------------------------------	-----

	Central Tube - Outdoor Direct Burial .....	167
--	--	-----

### Fiber Optic Cables Components

<b>C</b>	Fiber Cable Assemblies .....	168
	Fiber Kits .....	168-169
	Fiber Installation Tools.....	169-170
	Testing Equipment.....	171
	Wall Mount Enclosures.....	171
	Distribution Racks.....	172

# Fiber Optic Cable



## Fiber Optic Cable Distribution Cable/ Riser and Plenum Individual Fibers with Overall Jacket

### Description:

- 900µm tight buffered fibers • Color Coded for easy termination • Flame Retardant • UL listed for code compliance

### Rating:

- NEC Type **OFNR**
- Flame Rating: UL1666

### Applications:

- Riser Wiring
- Office Wiring
- Computer Room Wiring

Catalog No.	No. of Fibers	Nom. O.D.	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
		Inches			
M9X039 †	6	.220	3.3 inch 8.4 cm	2.2 inch 5.6 cm	270 lbs. 1201 Newtons
M9X042 †	12	.255	3.8 inch 9.6 cm	2.6 inch 6.6 cm	300 lbs. 1334 Newtons

### Rating:

- NEC Type **OFNP**
- Flame Rating: NFPA 262

Catalog No.	No. of Fibers	Nom. O.D.	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
		Inches			
M9X043 †	2	.184	2.8 inch 7.0 cm	1.8 inch 4.7 cm	180 lbs. 801 Newtons
M9X045 †	6	.200	3.0 inch 7.6 cm	2.0 inch 5.1 cm	270 lbs. 1201 Newtons
M9X048 †	12	.225	3.4 inch 8.6 cm	2.3 inch 5.8 cm	300 lbs. 1334 Newtons

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

### Optical Characteristics

Glass Type	Code (X)	Operating Wave-length (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)
50/125µm MultiMode	A	850nm/1300nm	500/500	3.50/1.25
62.5/125µm MultiMode	B	850nm/1300nm	200/500	3.50/1.25
8/125µm SingleMode	W	1300nm/1550nm	--	.80/.50

### Notes:

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

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

Example: WP9X038 WP9A038 = 4 Fiber 50/125 fiber Cables

# Fiber Optic Cable

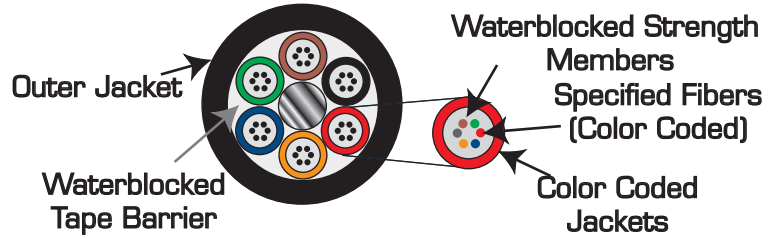
## Fiber Optic Cables Indoor/Outdoor Tight Buffer Distribution Cable

### Applications:

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

### Rating:

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



### Description:

- 900µm tight buffered fibers
- Color Coded for easy termination
- Flame Retardant
- UL listed for code compliance
- Individual Sub-unit Jackets

Catalog No.	No. of Fibers	Nom. O.D. Inches	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
M9X043T <sup>†</sup>	2	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons
M9X045T <sup>†</sup>	6	.190	3.0 inch 7.6 cm	2.0 inch 5.1 cm	300 lbs. 1335 Newtons
M9X048T <sup>†</sup>	12	.225	3.4 inch 8.6 cm	2.3 inch 5.8 cm	300 lbs. 1335 Newtons
M9X611T <sup>†</sup>	24	.330	4.9 inch 12.4 cm	3.3 inch 8.4 cm	600 lbs. 2700 Newtons

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

Optical Characteristics				
Glass Type	Code (X)	Operating Wave-length (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)
50/125µm MultiMode	A	850nm/1300nm	500/500	3.50/1.25
62.5/125µm MultiMode	B	850nm/1300nm	200/500	3.50/1.25
8/125µm SingleMode	W	1300nm/1550nm	--	.80/.50

### Notes:

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

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



## Fiber Optic Cable Central Tube & Loose-Tube Cable Outdoor

### 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

### Applications:

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

Catalog No.	No. of Fibers	Nom. O.D. Inches	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
M9X150 <sup>†</sup>	2	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons
	Central Tube Design				
M9X152 <sup>†</sup>	6	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons
	Central Tube Design				
M9X155 <sup>†</sup>	12	.325	6.5 inch 16.5 cm	4.9 inch 12.45 cm	600 lbs. 2700 Newtons
	Central Tube Design				

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

### Optical Characteristics

Glass Type	Code (X)	Operating Wave-length (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)
50/125µm MultiMode	A	850nm/1300nm	500/500	3.00/1.00
62.5/125µm MultiMode	B	850nm/1300nm	200/500	3.50/1.25
8/125µm SingleMode	W	1300nm/1550nm	--	.80/.50

### Notes:

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

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

Example: WP9X150 WP9B150 = 2 Fiber 62.5/125 fiber Cables



# Fiber Optic Cable

## Fiber Optic Cables

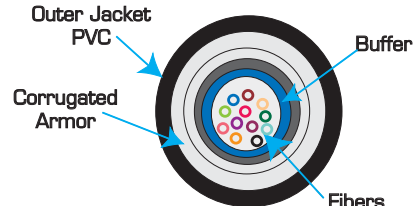
### Armored Central Tube: Loose-Tube Cable Outdoor - Direct Burial

#### Applications:

- Building interconnection
- Telecommunication and Data
- Long haul networking

#### Rating:

Outdoor - Direct Burial



#### 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

Catalog No.	No. of Fibers	Nom. O.D.	Min Bend radius Short Term	Min Bend radius Long Term	Max. Load Installation
		Inches			
M9X172	6	.410	8.2 inch	4.7 inch	600 lbs.
	Central Tube Design		20.8 cm	11.9 cm	2700 Newtons
M9X175	12	.410	8.2 inch	4.7 inch	600 lbs.
	Central Tube Design		20.8cm	11.9 cm	2700 Newtons

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

Optical Characteristics				
Glass Type	Code (X)	Operating Wave-length (nm)	Min. Bandwidth (MHz-km)	Max. Attn. (dB-km)
50/125µm MultiMode	A	850nm/1300nm	500/500	3.50/1.25
62.5/125µm MultiMode	B	850nm/1300nm	200/500	3.50/1.25
8/125µm SingleMode	W	1300nm/1550nm	--	.80/.50



# Fiber Optic Accessories

## Fiber Optic Cable Assemblies



ST Fiber Optic Assemblies	
Catalog No.	Description
FI-2001-xx	Simplex ST to ST Replace xx with:3,6,10,15,30
FI-2002-xx	Duplex ST to ST Replace xx with:3,6,10,15,30

SC Fiber Optic Assemblies	
Catalog No.	Description
FI-2001-xxSC	Simplex SC to SC Replace xx with:3,6,10,15,30
FI-2002-xxSC	Duplex SC to SC Replace xx with:3,6,10,15,30

ST to SC Fiber Optic Assemblies	
Catalog No.	Description
FI-2001-xxST/SC	Simplex ST to SC Replace xx with:3,6,10,15,30
FI-2002-xxST/SC	Duplex ST to SC Replace xx with:3,6,10,15,30

LC Fiber Optic Assemblies	
Catalog No.	Description
FI-2001-xxLC	Simplex LC to LC Replace xx with:3,6,10,15,30
FI-2002-xxLC	Duplex LC to LC Replace xx with:3,6,10,15,30

SC to LC Fiber Optic Assemblies	
Catalog No.	Description
FI-2001-xxLC/SC	Simplex SC to LC Replace xx with:3,6,10,15,30
FI-2002-xxLC/SC	Duplex SC to LC Replace xx with:3,6,10,15,30

Single-mode fiber Cable Assemblies- Available upon request:  
Example: FI-3001-xx

## Fiber Optic Kits

### Kits and Connectors- FiberExpress - Optimax

Optimax Tools and Accessories	
Catalog No.	Description
FI-3635	OPTIMAX Complete Kit
FI-3634	Installation Tool- ST
FI-3641	ST Compatible Crimp Tool
FI-8829	Fiber Cleaver
FI-8832	Microscope
FI-8835	ST 900um Connector - 62.5/125um
FI-8837	ST Universal connector- 62.5/125um
FI-1075	ST 900um Connector - 50/125um
FI-1074	ST Universal connector- 50/125um
FI-0028	SC Universal connector- 62.5/125um
FI-0029	SC 900um connector- 62.5/125um
FI-1077	SC 900um connector- 50/125um
FI-1076	SC Universal connector- 50/125um
FI-1791	ST Single-Mode 900um connector
FI-1792	SC Single-Mode 900um connector
FI-1793	ST- Accessory Kit For Jacketed Single-Mode
FI-1794	SC- Accessory Kit For Jacketed Single-Mode
FI-1981	LC 900um connector- 62.5/125um
FI-1982	LC 900um connector- 50/125um
FI-1983	LC 900um connector- Single-Mode
FI-1984	LC- Accessory Kit For Jacketed Single-Mode Fiber



800-245-4964 • www.westpenn-wpw.com

# Fiber Optic Accessories

## Fiber Optic Kits Epoxy Style Kits



FI-0053ST



FI-0061



FI-4270



Basic Epoxy Kit	
FI-0053ST	Basic Epoxy Style Kit -

3M Hotmelt Kit	
FI-0053HM	Hotmelt Kit

Epoxy Style Connectors and Accessories	
Catalog No.	Description
FI-0061	ST- Stainless MultiMode Epoxy Connector
FI-0066	ST Ceramic MultiMode- Epoxy Connector
FI-3069	ST Ceramic Single-Mode- Epoxy Connector
FI-3066	SC Epoxy MultiMode- Epoxy Connector
3M-6100	Hotmelt ST Connector MultiMode
3M-6300	Hotmelt SC Connector MultiMode
FI-7070	Epoxy Tube
FI-7070P	Epoxy Mini Packets- Fast Cure
FI-BAF253	Epoxy Packets

FiberExpress Tools and Accessories	
Catalog No.	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
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

Terminating Tools- Optical Fiber	
Catalog No.	Description
FI-NN203	No-Nik 203u Red
FI-86-1/2S	Serrated Scissors
FI-05-60-C	60 Degree Wedge Scribe- Pen
FI-FO103-S	Miller Strippers
FI-1302	Crimp Tool Epoxy
FI-NN175	No-Nik 175u



FI-1302



FI-FO103-S



FI-6925ST

Epoxy Polishing Paper	
Catalog No.	Description
FI-0109-03	.03um
FI-0109-1	1 um
FI-0109-3	3 um
FI-0109-5	5 um
FI-0109-15	15um
FI-0109-5-1-03	5um, 1um, 03um

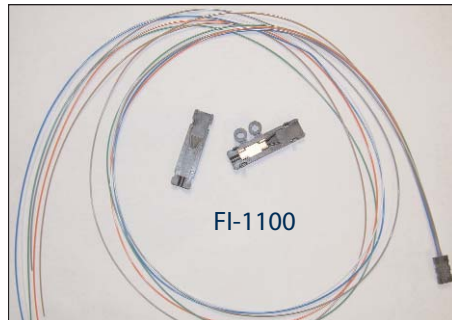
Epoxy Polishing Discs	
Catalog No.	Description
FI-6925ST	ST Polishing Disc
FI-6925UN	Universal Polishing Disc

800-245-4964 • www.westpenn-wpw.com

# Fiber Optic Accessories

## Fiber Optic Cable Splice and Adaptors

Splice/ Adapter Tools and Accessories	
Catalog No.	Description
3M-2501	3M Mechanical Splice Tool
3M-2529	3M Splice
FI-8400	Universal 3M Splice Tray Enclosure
FI-0053-FI	ST Compatible Crimp Tool
FI-8102	Adapter- ST to ST MultiMode or Single-Mode
FI-8200	Adapter- ST to ST Single-Mode
FI-8300	Adapter- SC to SC MultiMode or Single-Mode
FI-8400APC	SC Adapter- APC Polished - Green
FI-8521	FC/APC Adapter
FI-19202	SC to ST Adapter MultiMode
FI-SCLFF	LC to SC Adapter
FI-SPTRME	West Penn Wire Splice Tray for Wall Mount Enclosures



## 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.



800-245-4964 • www.westpenn-wpw.com

# Fiber Optic Accessories



## Fiber Optic Cable Accessories Testing Equipment

Test Equipment	
Catalog No.	Description
FI-5000	Continuity Tester- Flashlight
FI08513	850/1300/1550 Power Meter
FI-0850	850nm Light Source
FI-1300	1300nm Light Source
FI-8513	850/1300nm Light Source
FI-1550	1550 Laser Source
FI-9699	Mini OTDR

## Fiber Optic Cable Accessories Wall Mount Enclosures

Wall Mount Enclosures	
FI-WME06STL	6 Port Economy, Dedicated PP Loaded
FI-WME12STL	12 Port Economy, Dedicated PP Loaded
FI-WM12	6/12 Port Double Door, Six Pack Empty - 2 Plates
FI-WM24	24 Port Double Door, Six Pack Empty - 4 Plates
FI-WM48	48 Port Double Door, Six Pack Empty - 8 Plates
FI-WM100	100/120Port Wall Mount Patch Panel

• Loaded with ST Adaptors



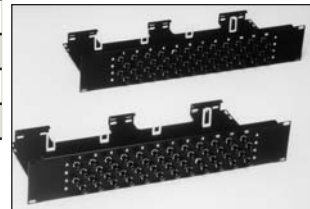
## Fiber Optic Cable Accessories Adapter Plates for Enclosures 5.0625" X 1.125"



Fiber Optic Adapter Plates	
FI-ADP6STE	6 ST Empty
FI-ADP6STL	6 ST Loaded
FI-ADP6SCE	6 SC Empty
FI-ADP6SCL	6 SC Loaded
FI-ADP6SMSTL	6 ST Loaded Single-Mode
FI-ADP6S/MSTL	6 ST Loaded MultiMode/Single-Mode
FI-ADP6BNK	Blank Plate

## Fiber Optic Cable Accessories Rack Mounted Patch Panels

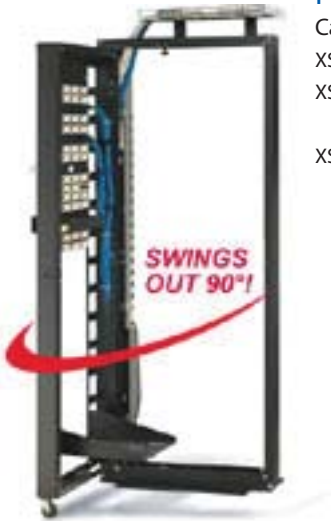
Rack Mount Patch Panels	
FI-RM24	Empty Rack - Load with 4 Adapter Plates (19" - 3.35"H X 11.970D)
FI-RM48	Empty Rack - Load with 8 Adapter Plates (19" - 5.1"H X 11.970D)
FI-RM72	Empty Rack - Load with 12 Adapter Plates (19" - 6.85"H X 11.970D)
FI-RME24STL	24 Port ST Loaded (19" - 3.470"H X 8.00D)
FI-RME48STL	48 Port ST Loaded (19" - 3.470"H X 8.00D)



800-245-4964 • www.westpenn-wpw.com

## Distribution Racks

### Free Standing Swing Rack



Catalog#	DESCRIPTION	Height	Weight
XSW-8419	84" Swing Rack 19"	84"	179#
XSW-0100	Power Strip Mounting Kit (mounting kit only) Pwr. Strip ordered separately.		
XSW-0200	Wire Basket (Top Mount) mounting brackets and wire basket 2" H x 8" W x 24" L		



800-245-4964 • www.westpenn-wpw.com

### Distribution Rack- Steel Knockdown 2 Post

Catalog#	DESCRIPTION	Height	Weight	Mounting
XDR-4819	48" Distribution Rack- Tapped front Rails	48"	34lbs.	19"
XDR-7219	72" Distribution Rack - Tapped front Rails	72"	43lbs.	19"
XDR-8419	84" Distribution Rack - Tapped front Rails	84"	50lbs.	19"
XDR-8419-310	84" Distribution Rack -#10-32 tapped- 3 Channel w/angle base	84"	63lbs.	19"
XDR-8423-310	84" Distribution Rack- #10-32 tapped - 3 Channel w/angle base	84"	70lbs.	23"
XDR-8419-312	84" Distribution Rack- #12-24 tapped- 3 Channel w/angle base	84"	63lbs.	19"
XDR-8423-312	84" Distribution Rack- #12-24 tapped - 3 Channel w/angle base	84"	70lbs.	23"

### Distribution Rack- Steel Welded 2 Post

Catalog#	DESCRIPTION	Height	Weight	Mounting
XDR-8419-310W	84" Distribution Rack -#10-32 tapped- 3 Channel w/angle base	84"	66lbs.	19"
XDR-8423-310W	84" Distribution Rack- #10-32 tapped - 3 Channel w/angle base	84"	73lbs.	23"
XDR-8419-312W	84" Distribution Rack- #12-24 tapped- 3 Channel w/angle base	84"	66lbs.	19"
XDR-8423-312W	84" Distribution Rack- #12-24 tapped - 3 Channel w/angle base	84"	73lbs.	23"

### Distribution Rack- Steel Seismic 2 Post

Catalog#	DESCRIPTION	Height	Weight	Mounting
XDR-8419-610	84" Distribution Rack -#10-32 tapped- 6 Channel w/angle base	84"	105lbs.	19"
XDR-8423-610	84" Distribution Rack- #10-32 tapped - 6 Channel w/angle base	84"	115lbs.	23"

### Distribution Rack- Aluminum 2 Post

Catalog#	DESCRIPTION	Height	Weight	Mounting
BHRR194	84" Distribution Rack -#12-24 Tapped Black, Knockdown 3" channel	84"	30lbs.	19"
BHR6194	84" Distribution Rack -#12-24 Tapped Black, Knockdown 6" channel	84"	41lbs.	19"
BHRR234	84" Distribution Rack -#12-24 Tapped Black, Knockdown 3" channel	84"	32lbs.	23"

### Vertical Cable Manager

Catalog#	DESCRIPTION
XDR-7201	72" Vertical Cable Manager - Compatible with XDR-7219
XDR-8401	84" Vertical Cable Manager
XDR-8403	84" Vertical Cable Manager double sided w/ Removable Cover

**For Data Racks/Cabinets**  
**See pages 159-162**