

FiberRunner® 12x4 Routing System

PANDUIT™ SPECIFICATION SHEET

SPECIFICATIONS

The 12x4 routing system shall be a system of channel, fittings, and brackets designed to segregate, route, and protect fiber optic and high performance copper cabling. Channel and fittings shall be assembled using pre-assembled couplers. A selection of spillout options shall be available that easily attach using the vertical tee. Fittings maintain a minimum 2" bend radius to protect against signal loss due to excessive cable bends. Available system colors shall be yellow and black. A full complement of brackets shall be available for attaching system components to ladder rack, threaded rod, auxiliary framing, strut, equipment racks, cabinets, and raised floor pedestals.



TECHNICAL INFORMATION

Attributes:	Cable In. (mm)	No. of Cables
Open channel 50% fill capacity: (4" pile up)	0.06 (1.6)	8,183
	0.07 (2.0)	5,237
	0.11 (3.0)	2,327
Fiber optic ribbon interconnect:	0.20 (5.2)	773
Category 6:	0.25 (6.4)	519
Category 6A:	0.29 (7.6)	336
Material:	Rigid PVC (Channel) PC/ABS (Fittings)	
Flammability:	94V-0	
Approvals:	UL Listed to 2024 Optical Fiber Cable Routing Assemblies	

KEY FEATURES AND BENEFITS

Speed of deployment:	Innovative QuikLock Couplers & Brackets make mechanically secure connections within (5) seconds. Featuring no loose hardware, QuikLock clips significantly reduce the amount of time needed to secure pathways together or against brackets, lowering installation costs
Reduced Cost of Ownership:	Reducing installation time, minimizing the risk of cable damage and easy maintenance lowers the lifecycle costs of the system. Scalable and tool-less assembly design means less downtime and fewer labor hours
Smooth Cable Carrying Surfaces:	Smooth transitions throughout every channel, fitting, and coupler connection guarantees best in class protection for fiber cabling infrastructure. Protects fiber investments with snag-free routing system
Multiple Spillout Options:	Spill-over junctions can be installed anywhere along the channel without cutting. Vertical tees don't require additional head height above the channel when installed. 3-sided trumpets provide proper bend radius for fiber cabling at cable exits
Proper Bend Radius:	Integrated 2" bend radius in all fittings provides the require protection for small diameter interconnect fiber and jumper cabling ensuring network performance

Channel and Cover	
12x4 channel (10'):	FR12X4**10
12x4 hinged cover (10'):	FRHC12**10
Cable retainer:	FRCR12LBL-X
Fittings, Split Covers, and Spillouts	
QuikLock™ Coupler:	FRBC12X4L**
In-line cable organizer:	FRCP12BL
Horizontal right angle:	FRRA12X4L**
Right angle cover:	FRASC12L**
Horizontal tee:	FRT12X4L**
Horizontal tee cover:	FRTSC12L**
Horizontal tee with 6" exits:	FRT12X4W6L**
Tee with 6" exits cover:	FRTSC12W6L**
Horizontal 45°:	FRH4512X4L**
Horizontal 45° cover:	FRH45SC12L**
Outside vertical 90°:	FROVRA12X4L**
Outside vertical 90° cover:	FROVRASC12L**
Inside vertical 45°:	FRIV4512X4L**
Outside vertical 45°:	FROV4512X4L**
Outside vertical 45° cover:	FROV45SC12L**
4-way cross:	FRFWC12X4L**
4-way cross cover:	FRFWCSC12L**
4-way cross with 6" exits:	FRFWC12X4W6L**
4-way cross with 6" exits cover:	FRFWCSC12W6L**
End cap:	FREC12X4L**
12" to 6" reducer:	FRRF126LS**
12" to 6" reducer cover:	FRRF126SCL**
Y-reducer from 12" to two 6":	FRY126L**
Y-reducer from 12" to two 6" cover:	FRY126SCL**
12" to 6" reducer right fitting:	FRRF126RL**
12" to 6" reducer right fitting cover:	FRRF126RSC12L**
12" to 6" reducer left fitting:	FRRF126LL**
12" to 6" reducer left fitting cover:	FRRF126LSC12L**
Adapter to CommScope 12x4 FiberGuide*:	FRADC12X4BL
Adapter to amphenol 12x4 lightrax channel:	FRNWT12
QuikLock™ vertical tee:	FRVT12X4L**
Three-sided BRC trumpet spillout for 6x4 exit:	FRTR6X4L**
3-port corrugated tubing spillout:	FRIDT6X4L**
4x4 hinged duct vertical cable manager kit:	FRHD4KT**
Low profile reducer 6x4 to 4x4 for vertical tee:	FRLP64BL
Spill-over with 2x2 exit:	FRSPJ2X2L**
Spill-over cover with 2x2 exit for 12x4 system:	FRSPJC212L**
2x2 three-sided trumpet:	FTR2X2L**
2" x 2" 1-port spillout for vertical tee:	FIDT2X2L**
2x2 hinged duct vertical cable manager kit:	FRHD2KT**
2x2 FiberRunner® bend radius control trumpet:	TRC2HDLBL
Spill-over with 4x4 exit:	FRSPJ4X4L**
Spill-over cover with 4x4 exit for 12x4 system:	FRSPJC412L**
Spill-over with 12x4 exit:	FRSPJ12X4L**
4x4 three-sided trumpet:	FRTR4X4L**
2-Port spillout to 1.5" I.D. corrugated tubing:	FRIDT4X4L**
1-Port spillout to 1.5" I.D. corrugated tubing:	FR1.5IDEL**
Three-sided BRC trumpet for 12x4 exit:	FRTR12X4L**
QuikLock™ Mounting Brackets	
QL existing 5/8" thr rod bracket:	FR12TRBE58
QL new 5/8" thr rod bracket:	FR12TRBN58
QL underfloor bracket:	FR12USB
QL adjust ladder rack bracket:	FR12ALB
QL center support bracket 1/2":	FR12CS12
QL center support bracket 5/8":	FR12CS58
QL adjust C-bracket 1/2":	FR12ACB12
QL adjust C-bracket 5/8":	FR12ACB58
QL trapeze 1/2" bracket:	FR12TB12
QL trapeze 5/8" bracket:	FR12TB58
Two-piece ladder rack bracket 1/2" thr rod:	F2PCLB12
Two-piece ladder rack bracket 5/8" thr rod:	F2PCLB58
QL adjustable cabinet bracket:	FR12ACAB
Two-piece framing clip 5/8" thr rod to 9/16" C-channel aux. framing bars:	FRAFCS8
4 Post rack bracket:	FR4PRB58

*12x4 FiberGuide Management System is a product of CommScope

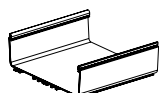
**Substitute: YL= Yellow, BL= Black

FiberRunner® 12x4 Routing System

APPLICATIONS

The FiberRunner® 12x4 Routing System is a system of channel, fittings, and brackets designed to segregate, route, and protect fiber optic and high performance copper cabling. It is suited for data center applications where cable is routed from distribution areas to equipment cabinets or racks. It is used in Telco Central Offices to route fiber optic jumper cables between fiber distribution frames and equipment bays. It can be deployed over the racks or in approved underfloor applications. Because of its larger capacity, the 12x4 system is used to route higher cable counts. Channel and fittings are assembled using timesaving Panduit® QuikLock™ Couplers. A selection of spillout options is available that easily attach using the vertical tee. Fittings maintain a 2" bend radius to protect against signal loss due to excessive cable bends. Available system colors are yellow and black to differentiate various types of cabling. A full complement of QuikLock™ Brackets is available to attach system components to support structures found in all applications. The FiberRunner® 12x4 Routing System is part of the Panduit® complete fiber distribution system, which includes the FiberRunner® 24x4, 6x4, 4x4, and 2x2 Routing Systems, Wire Basket Overhead Cable Tray Routing System, and racks.

CHANNEL AND COVER



FR12X4**10

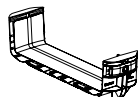


FRHC12**10

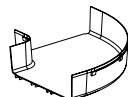


FRCR12LBL-X

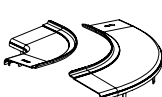
FITTINGS, SPLIT COVERS, AND SPILLOUTS



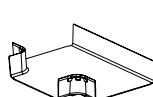
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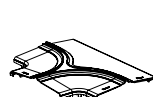
FRR12X4L**



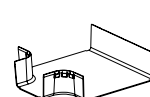
FRRASC12L**



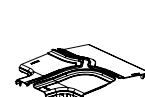
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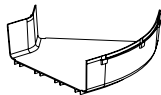
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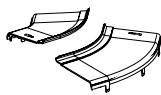
FRT12X4W6L**



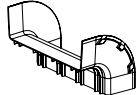
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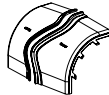
FRH4512X4L**



FRH45SC12L**



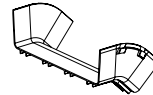
FROVRA12X4L**



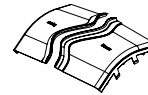
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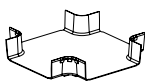
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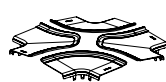
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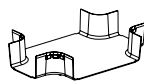
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FRFWC12X4L**



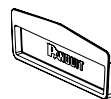
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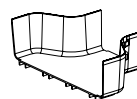
FRFWC12X4W6L**



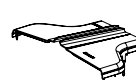
FRFWCSC12W6L**



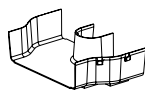
FREC12X4L**



FRRF126LS**



FRRF126SCL**



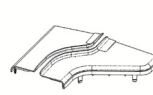
FRY126L**



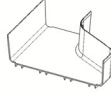
FRY126SCL**



FRRF126RL**



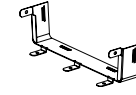
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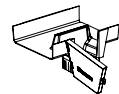
FRRF126LL**



FRRF126LSCL**



FRADC12X4BL



FRVT12X4L**



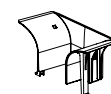
FRTR6X4L**



FRIDT6X4L**



FRHD4KT**



FRLPR64BL



FRSPJ2X2L**



FRSPJC212L**



FTR2X2L**



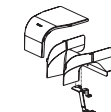
FIDT2X2L**



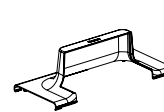
FRHD2KT**



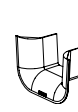
TRCHDLBL



FRSPJ4X4L**



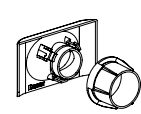
FRSPJC412L**



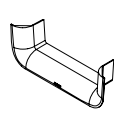
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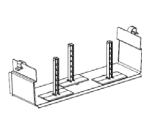
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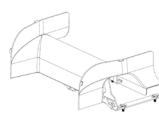
FR1.5IDEL**



FRTR12X4L**



FRCOP12BL

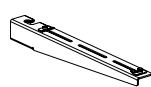


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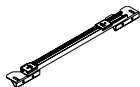
**Substitute: YL= Yellow, BL= Black

FiberRunner® 12x4 Routing System

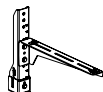
QUIKLOCK™ MOUNTING BRACKETS



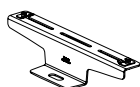
FR12TRBE58
FR12TRBN58



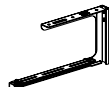
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FR12ALB



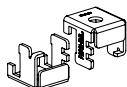
FR12CS12
FR12CS58



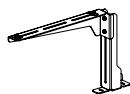
FR12ACB12
FR12ACB58



FR12TB12
FR12TB58



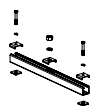
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FR12ACAB

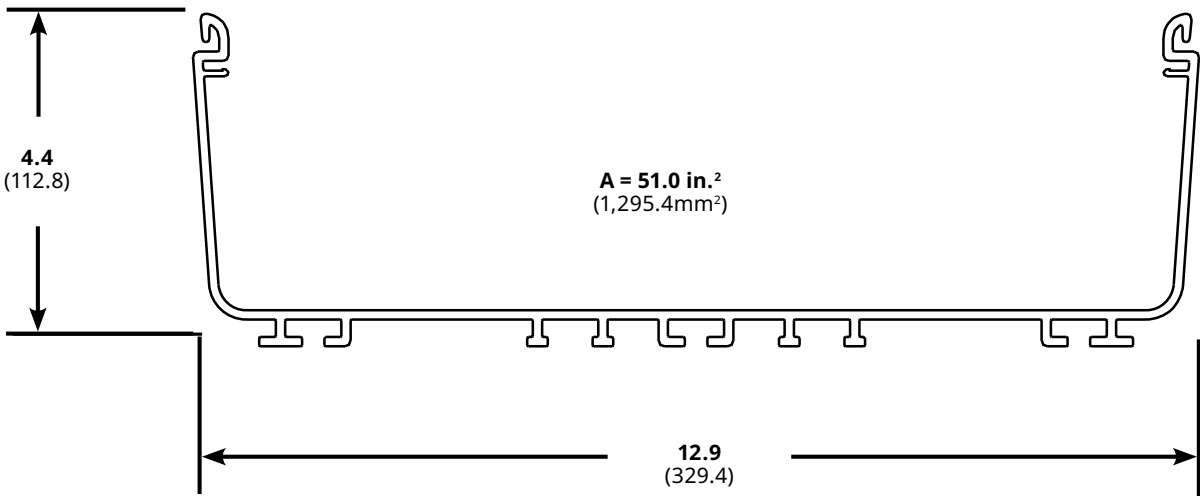


FRAFC58



FR4PRB58

ENGINEERING DRAWINGS



Dimensions are in inches. [Dimensions in brackets are metric].