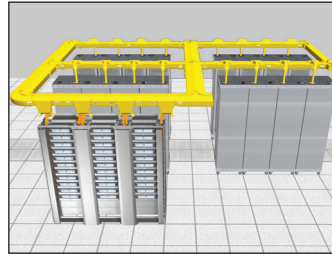


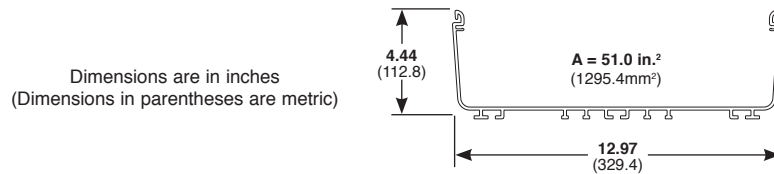
FiberRunner® 12x4 Routing System

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



Open channel 50% fill capacity: (4" pile up)	Cable	No. of Cables
	1.6mm	8,183
	2.0mm	5,237
	3.0mm	2,327
Fiber Optic Ribbon		
Interconnect	5.20mm	773
Category 6	6.35mm	519
Category 6A	7.57mm	366
Material:	Rigid PVC (Channel), PC/ABS (Fittings)	
Flammability:	94V-0	
Approvals:	UL Listed to 2024 Optical Fiber Cable Routing Assemblies	

key features and benefits

Fastest installations	No bolts need to be tightened and no tools are required when installing the QuikLock™ Coupler; QuikLock™ Couplers and Brackets take less than five seconds to make a mechanically secure connection
Easy to maintain	Hinged channel cover and split fitting covers protect cabling and provide fast and easy access for future cabling moves, adds, and changes
System strength	Robust system of channel, covers, fittings and other non-metallic system components protect cable from physical damage; system includes full range of directional and spillout fittings
Versatility	Multiple spillout options include a spill-over fitting and the vertical tee which accepts a three-sided trumpet, transition to corrugated tubing and Panduit® FiberRunner® Systems
Cable protection	A minimum 2" bend radius maintained throughout all fittings prevents excessive bends in fiber optic cabling

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, Wyr-Grid™ Overhead Cable Tray System, cable management, and racks.

Channel and Cover

12x4 channel (6'):	FR12X4**6
12x4 hinged cover (6'):	FRHC12**6
Cable retainer:	FRCR12LBL-X

Fittings, Split Covers, and Spillouts

QuikLock™ Coupler:	FRBC12X4L**
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°:	FROV4512X4**
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:	FRRF126RSL**
12" to 6" reducer left fitting:	FRRF126LL**
12" to 6" reducer left fitting cover:	FRRF126LSCL**
Adapter to CommScope 12x4 FiberGuide™:	FRADC12X4BL
QuikLock™ Vertical Tee:	FRVT12X4L**
Three-sided BRC trumpet spillout for 6x4 exit:	FRTR6X4L**
Corrugated tubing spillout:	FRIDT6X4L**
4x4 hinged duct vertical cable manager kit:	FRHD4KTL**
Low profile reducer 6x4 to 4x4 for vertical tee:	FRLPR64LBL
Spill-over with 2x2 exit:	FRSPJ2X2L**
Spill-over cover with 2x2 exit for 12x4 system:	FRSPJC212L**
2x2 three-sided trumpet:	FTR2X2L**
1-port spillout to 1.5" I.D. corrugated tubing:	FIDT2X2L**
2x2 hinged duct vertical cable manager kit:	FRHD2KTL**
2x2 FiberRunner® Bend Radius Control Trumpet:	TRC2HDLBL
Spill-over with 4x4 exit:	FRSPJ4X4L**
Spill-over cover with 4x4 exit for 12x4 system:	FRSPJC412L**
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

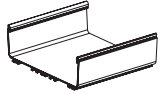
QL existing 5/8" thr rod bracket:	FR12TRBE58
QL new 5/8" thr rod bracket:	FR12TRBN58
QL underfloor bracket:	FR12USB
QL adjust ladder rack bracket:	FR12ALB
QL center support bracket 1/2":	FR12CS12
QL center support bracket 5/8":	FR12CS58
QL adjust C-bracket 1/2":	FR12ACB12
QL adjust C-bracket 5/8":	FR12ACB58
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:	FRAFCS58
4 post rack bracket:	FR4PRB58

12x4 FiberGuide Management System is a product of CommScope

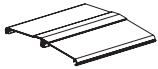
**Substitute: YL= Yellow, BL= Black

FiberRunner® 12x4 Routing System

channel and cover



FR12X4**6

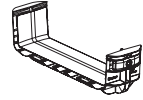


FRHC12**6

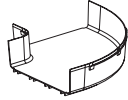


FRCR12LBL-X

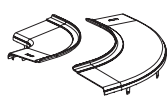
fittings, split covers, and spillouts



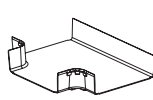
FRBC12X4L**



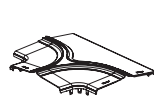
FRRA12X4L**



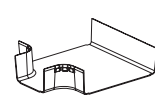
FRRASC12L**



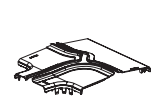
FRT12X4L**



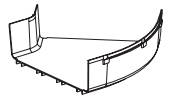
FRTSC12L**



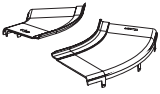
FRT12X4W6L**



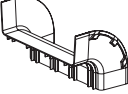
FRTSC12W6L**



FRH4512X4L**



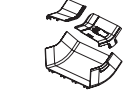
FRH45SC12L**



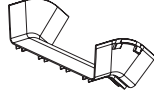
FROVRA12X4L**



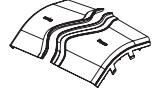
FROVRASC12L**



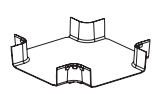
FRIV4512X4L**



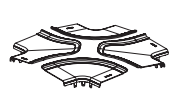
FROV4512X4L**



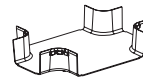
FROV45SC12L**



FRFWC12X4L**



FRFWCSC12L**



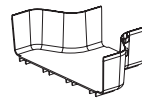
FRFWC12X4W6L**



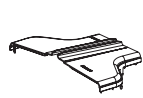
FRFWCSC12W6L**



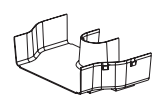
FREC12X4L**



FRRF126LS**



FRRF126SCL**



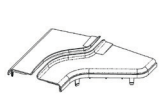
FRY126L**



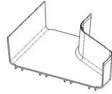
FRY126SCL**



FRRF126RL**



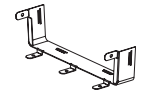
FRRF126RSCL**



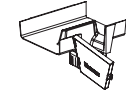
FRRF126LL**



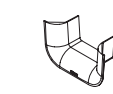
FRRF126LSCL**



FRADC12X4BL



FRVT12X4L**



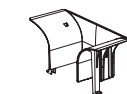
FRTR6X4L**



FRIDT6X4L**



FRHD4KTL**



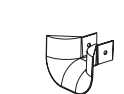
FRLPR64LBL



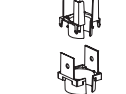
FRSPJ2X2L**



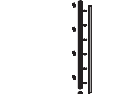
FRSPJC212L**



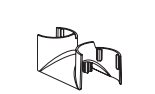
FTR2X2L**



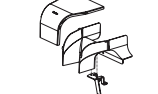
FIDT2X2L**



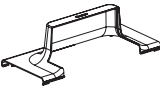
FRHD2KTL**



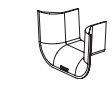
TRC2HDLBL



FRSPJ4X4L**



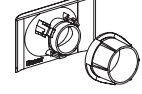
FRSPJC412L**



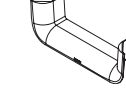
FRTR4X4L**



FRIDT4X4L**

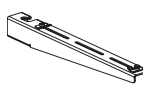


FR1.5IDEL**

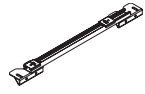


FRTR12X4L**

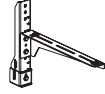
QuikLock™ Mounting Brackets



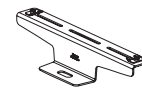
FR12TRBE58
FR12TRBN58



FR12USB



FR12ALB



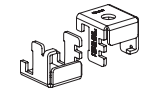
FR12CS12
FR12CS58



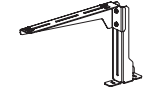
FR12ACB12
FR12ACB58



FR12TB12
FR12TB58



F2PCLB12
F2PCLB58



FR12ACAB



FRAF58



FR4PRB58

**Substitute: YL = Yellow, BL = Black

WORLDWIDE SUBSIDIARIES AND SALES OFFICES

PANDUIT US/CANADA
Phone: 800.777.3300

PANDUIT EUROPE LTD.
London, UK
Phone: 44.20.8601.7200

PANDUIT SINGAPORE PTE. LTD.
Republic of Singapore
Phone: 65.6305.7575

PANDUIT JAPAN
Tokyo, Japan
Phone: 81.3.6863.6000

PANDUIT LATIN AMERICA
Guadalajara, Mexico
Phone: 52.33.3777.6000

PANDUIT AUSTRALIA PTY. LTD.
Victoria, Australia
Phone: 61.3.9794.9020

For a copy of Panduit product warranties, log on to www.panduit.com/warranty

For more information

Visit us at www.panduit.com

Contact Customer Service by email: cs@panduit.com

or by phone: 800.777.3300

PANDUIT®

© 2020 Panduit Corp.
ALL RIGHTS RESERVED.
FRSP21--WW-ENG
10/2020