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, orange, 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.
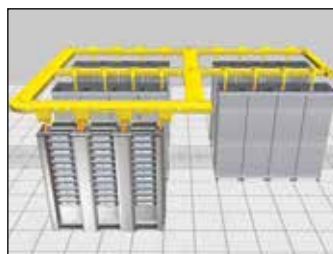
technical information

Dimensions are in inches (Dimensions in parentheses are metric).

12.97 (329.4)

4.44 (112.8)

$A = 51.0$ in.^{2}
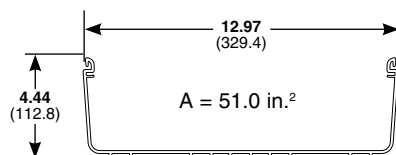
Open channel 50% fill capacity: (4" pile up)	Cable	No. of Cables
	1.6mm	8183
	2.0mm	5237
	3.0mm	2327
Fiber Optic		
Ribbon Interconnect	5.20mm	773
Category 6	6.35mm	519
Category 6A	7.57mm	366

Material:	Rigid PVC (Channel), ABS (Fittings)
Flammability:	94V-0
Approvals:	UL Listed to 2024A Optical Fiber Cable Routing Assemblies Compliant with the applicable tests in Telcordia GR-63-CORE Network Equipment Building Systems Level 3
CSI spec form:	LP-CSISPEC-FR

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 3-sided trumpet, transition to corrugated tubing and Panduit® FiberRunner® and Fiber-Duct™ 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 under floor 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, orange, 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, the Fiber-Duct™ 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:	FRCR12BL-X

Fittings, Split Covers, and Spillouts

|	
QuikLock™ Coupler:	FRBC12X4**
Horizontal right angle:	FRRA12X4**
Right angle cover:	FRRASC12**
Horizontal tee:	FRT12X4**
Horizontal tee cover:	FRTSC12**
Horizontal tee with 6"exits:	FRT12X4W6**
Tee with 6" exits cover:	FRTSC12W6**
Horizontal 45°:	FRH4512X4**
Horizontal 45° cover:	FRH45SC12**
Outside vertical 90°:	FROVRA12X4**
Outside vertical 90° cover:	FROVRASC12**
Inside vertical 45°:	FRIV4512X4**
Outside vertical 45°:	FROV4512X4**
Outside vertical 45° cover:	FROV45SC12**
4-way cross:	FRFWC12X4**
4-way cross cover:	FRFWCSC12**
4-way cross with 6" exits:	FRFWC12X4W6**
4-way cross with 6" exits cover:	FRFWCSC12W6**
End cap:	FREC12X4**
12 to 6 reducer:	FRRF126**
12 to 6 reducer cover:	FRRF126SC**
Y-reducer from 12" to two 6":	FRY126**
Y-reducer from 12" to two 6" cover:	FRY126SC**
12" to 6" reducer right fitting:	FRRF126R**
12" to 6" reducer right fitting cover:	FRRF126RSC**
12" to 6" reducer left fitting:	FRRF126L**
12" 6" reducer left fitting cover:	FRRF126LSC**
Adapter to ADC 12x4 FiberGuide*:	FRADC12X4BL
QuikLock™ Vertical Tee:	FRVT12X4**
3-sided BRC trumpet spillout for 6x4 exit:	FRTR6X4**
Corrugated tubing spillout:	FRIDT6X4**
4x4 hinged duct vertical cable manager kit:	FRHD4KT**
4x4 hinged duct bend radius control trumpet:	TRC4HDBL
Low profile reducer 6x4 to 4x4 for vertical tee:	FRLPR64BL
Spill-over with 2x2 exit:	FRSPJ2X2**
Spill-over cover with 2x2 exit for 12x4 system:	FRSPJC212**
2x2 3-sided trumpet:	FTR2X2**
1-port spillout to 1.5" I.D. corrugated tubing:	FIDT2X2**
2x2 hinged duct vertical cable manager kit:	FRHD2KT**
2x2 FiberRunner® Bend Radius Control Trumpet:	TRC2HDBL
Spill-over with 4x4 exit:	FRSPJ4X4**
Spill-over cover with 4x4 exit for 12x4 system:	FRSPJC412**
4x4 3-sided trumpet:	FRTR4X4**
2-port spillout to 1.5" I.D. corrugated tubing:	FRIDT4X4**
1-port spillout to 1.5" I.D. corrugated tubing:	FR1.5IDE**
3-sided BRC trumpet for 12x4 exit:	FRTR12X4**

QuikLock™ Mounting Brackets

QL existing 5/8" thr rod brkt:	FR12TRBE58
QL new 5/8" thr rod brkt:	FR12TRBN58
QL under floor brkt:	FR12USB
QL adjust ladder rack brkt:	FR12ALB
QL center support brkt 1/2":	FR12CS12
QL center support brkt 5/8":	FR12CS58
QL adjust C-brkt 1/2":	FR12ACB12
QL adjust C-brkt 5/8":	FR12ACB58
QL trapeze 1/2" brkt:	FR12TB12
QL trapeze 5/8" brkt:	FR12TB58
Two-piece ladder rack brkt 1/2" thr rod:	F2PCLB12
Two-piece ladder rack brkt 5/8" thr rod:	F2PCLB58
QL adjustable cabinet brkt:	FR12ACAB
Two-piece framing clip 5/8" thr rod to 9/16" C-channel aux. framing bars:	FRAFC58
4 post rack brkt:	FR4PRB58

*ADC's 12x4 FiberGuide Management System is a product of ADC Telecommunications, Inc.
**Substitute: YL = Yellow, OR = Orange, BL = Black
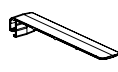
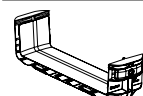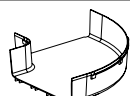# FiberRunner® 12x4 Routing System

channel and cover
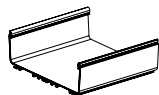
FR12X4**6	FRHC12**6	FRCR12BL-X

fittings, split covers, and spillouts
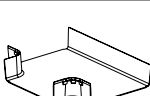
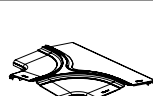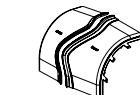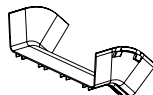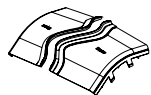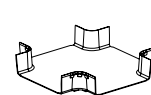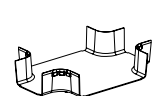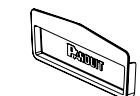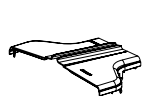|							
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FRH45SC12**	FROVRA12X4**	FROVRASC12**	FRIV4512X4**	FROV4512X4**	FROV45SC12**	FRFWC12X4**	FRFWCSC12**
FRFWC12X4W6**	FRFWCSC12W6**	FREC12X4**	FRRF126**	FRRF126SC**	FRY126**	FRY126SC**	FRRF126R**
FRRF126RSC**	FRRF126L**	FRRF126LSC**	FRADC12X4BL	FRVT12X4**	FRTR6X4**	FRIDT6X4**	FRHD4KT**
TRC4HDBL	FRLPR64BL	FRSPJ2X2**	FRSPJC212**	FTR2X2**	FIDT2X2**	FRHD2KT**	TRC2HDBL
FRSPJ4X4**	FRSPJC412**	FRTR4X4**	FRIDT4X4**	FR1.5IDE**	FRTR12X4**		
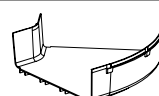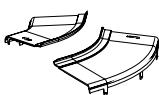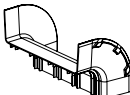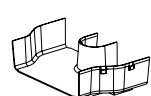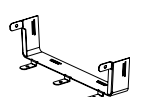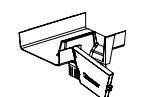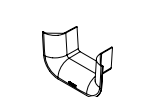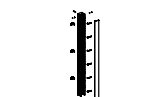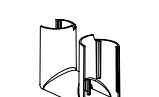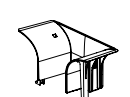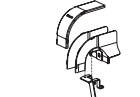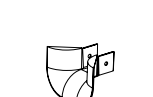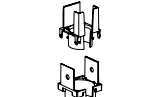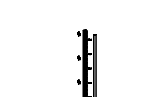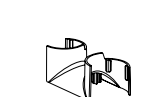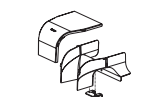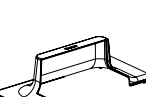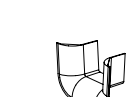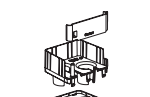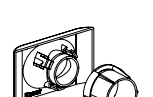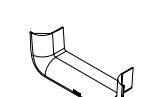
QuikLock™ Mounting Brackets
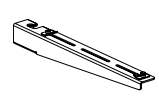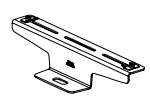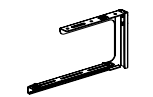
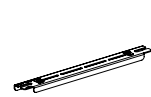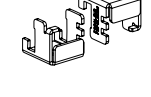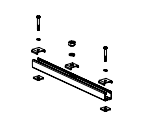|							
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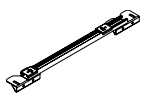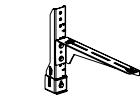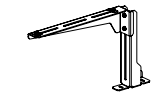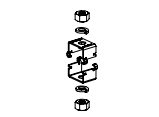
**Substitute: YL = Yellow, OR = Orange, BL = Black

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