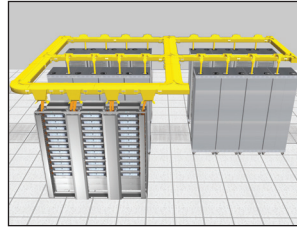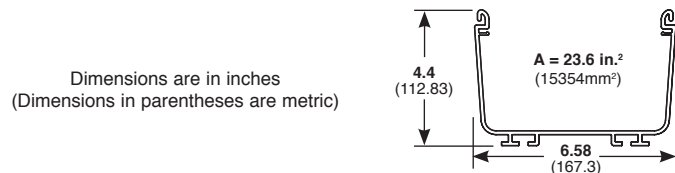# FiberRunner™ LSZH 6x4 Routing System

## specifications

The 6x4 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 colours 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 and raised floor pedestals.

## technical information

Dimensions are in inches
(Dimensions in parentheses are metric)

4.4
(112.83)

A = 23.6 in.$^2$
(15354mm$^2$)

6.58
(167.3)

| Open channel 50% fill capacity: (4" pile up) | Cable | No. of Cables |
|---|---|---|
| | 1.6mm | 3,819 |
| | 2.0mm | 2,444 |
| | 3.0mm | 1,086 |
| Fiber Optic Ribbon Interconnect | 5.20mm | 361 |
| Category 6 | 6.35mm | 242 |
| Category 6A | 7.57mm | 171 |

| | |
|---|---|
| **Material:** | LSZH PC(Channel), LSZH PC/ABS (Fittings) |
| **Flammability:** | 94V-0 |
| **Approvals:** | UL Listed to 2024 Optical Fiber Cable Routing Assemblies |
| **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 installs easily and fully encloses the channel for cable protection; split hinged channel cover creates radiused 3/4" (19mm) opening for easy access to add or remove cables; the 6x4 hinged and split hinged channel covers will stay open between 30° and 90° to allow cable access even in height restricted areas |
| | Split fitting covers allow cable to be laid in without removing the fitting cover; the covers are also designed to prevent cables from coming out of the channel as cable is pulled through |
| **System strength** | Hinged channel covers and split fitting covers protect cabling and provide fast and easy access for future cabling moves, adds, and changes |
| | 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 spill-over fittings and the vertical tee which accepts a 3-sided trumpet, transition to corrugated tubing and Panduit™ FiberRunner™ System |
| **Cable protection** | A minimum 2" bend radius maintained throughout all fittings prevents excessive bends in fiber optic cabling |

## applications

The FiberRunner™ 6x4 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. 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 colours 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™ 6x4 Routing System is part of the Panduit™ complete fiber distribution system, which includes the FiberRunner™ 24x4, 12x4, 4x4, and 2x2 Routing Systems, Wyr-Grid™ Overhead Cable Tray System, cable management, and racks.

## www.panduit.com

### Channel and Cover

| | |
|---|---|
| **6x4 channel (2 Meter):** | FR6X4L**2 |
| **6x4 hinged cover (2 Meter):** | FRHC6L**2 |
| **6x4 split hinged cover (2 Meter):** | FRSHC6L**2 |
| **Cable retainer:** | FRCR6LBL-X |

### Fittings, Split Covers, and Spillouts

| | |
|---|---|
| **QuikLock™ Coupler:** | FRBC6X4L** |
| **Horizontal right angle:** | FRRA6X4L** |
| **Horizontal right angle cover:** | FRRASC6L** |
| **Horizontal 45°:** | FRH456X4L** |
| **Horizontal 45° cover:** | FRH45SC6L** |
| **Horizontal tee:** | FRT6X4L** |
| **Horizontal tee cover:** | FRTSC6L** |
| **4-way cross:** | FRFWC6X4L** |
| **4-way cross cover:** | FRFWCSC6L** |
| **End cap:** | FREC6X4L** |
| **Inside vertical 90°** | FRIVRA6X4L** |
| **Inside vertical 45°:** | FRIV456X4L** |
| **Outside vertical 45°:** | FROV456X4L** |
| **Outside vertical 45° cover:** | FROV45SC6** |
| **Outside vertical 90°:** | FROVRA6X4L** |
| **Outside vertical 90° cover:** | FROVRASC6L** |
| **6x4 to 4x4 FiberRunner™ Reducer Fitting:** | FRRF6FR4L** |
| **6x4 to 4x4 FiberRunner™ Reducer Fitting Cover:** | FRRF6FR4SCL** |
| **6x4 FiberRunner™ System to 4x4 Fiber-Duct™ Reducer Fitting:** | FRRF64L** |
| **Adapter to CommScope 6x4 FiberGuide[1]:** | FRADC6X4L** |
| **Adapter to Tyton 8x4 Lightguide[2]:** | FRTYT68 |
| **Adapter to Warren & Brown 8x4 Lightpaths[3]:** | FRWBS68 |
| **QuikLock™ Vertical Tee:** | FRVT6X4L** |
| **3-sided vertical tee trumpet spillout:** | FTR4X4L** |
| **2-port spillout to 1.5" I.D. corrugated tubing:** | FIDT4X4LBL |
| **4x4 hinged duct vertical cable manager kit:** | FRHD4KT** |
| **Low profile reducer 4x4 to 2x2 for vertical tee:** | FRLPR42LBL |
| **Spill-over with 2x2 exit:** | FRSPJ2X2L** |
| **Spill-over cover with 2x2 exit for 6x4 system:** | FRSPJC26L** |
| **2x2 3-sided trumpet:** | FTR2X2L** |
| **Dual downspout:** | FRDDS6X4L** |
| **Dual downspout cover:** | FRDDSHC6L** |
| **4x4 3-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** |
| **3-sided BRC trumpet spillout for 6x4 exit:** | FRTR6X4L** |
| **6x4 up spout:** | FRUPS6X4L** |
| **Innerduct transition fitting:** | FITF6X4 |
| **Corrugated tubing spillout:** | FRIDT6X4L** |

### QuikLock™ Mounting Brackets:

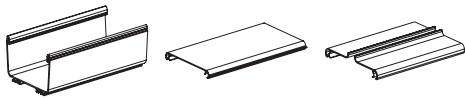| | |
|---|---|
| **QL existing 1/2" thr rod bracket:** | FR6TRBE12 |
| **QL existing 5/8" thr rod bracket:** | FR6TRBE58 |
| **QL new 1/2" thr rod bracket:** | FR6TRBN12 |
| **QL new 5/8" thr rod bracket:** | FR6TRBN58 |
| **QL underfloor bracket:** | FR6USB |
| **QL adjust ladder rack bracket:** | FR6ALB |
| **QL center support bracket 1/2":** | FR6CS12 |
| **QL center support bracket 5/8":** | FR6CS58 |
| **QL adjust C-bracket 1/2":** | FR6ACB12 |
| **QL adjust C-bracket 5/8":** | FR6ACB58 |
| **QL trapeze 3/8" bracket:** | FR6TB38 |
| **QL trapeze 1/2" bracket:** | FR6TB12 |
| **Two-piece ladder rack bracket 1/2" thr rod:** | F2PCLB12 |
| **Two-piece ladder rack bracket 5/8" thr rod:** | F2PCLB58 |
| **QL ladder rack bracket:** | FR6LRB |
| **QL "L" wall mount bracket:** | FR6LB |
| **QL NetFrame™ Rack Mount Bracket:** | FRRMBNF58 |
| **QL adjust cabinet mount bracket:** | FR6ACAB |
| **Two-piece framing clip 5/8" thr rod to 9/16" C-channel aux. framing bars:** | FRAFC58 |
| **4 post rack bracket:** | FR4PRB58 |

[1] FiberGuide is a registered trademark of CommScope .

[2] Lightguide Fiber Optic Protection System is a product of the Hellerman Tyton Corporation.

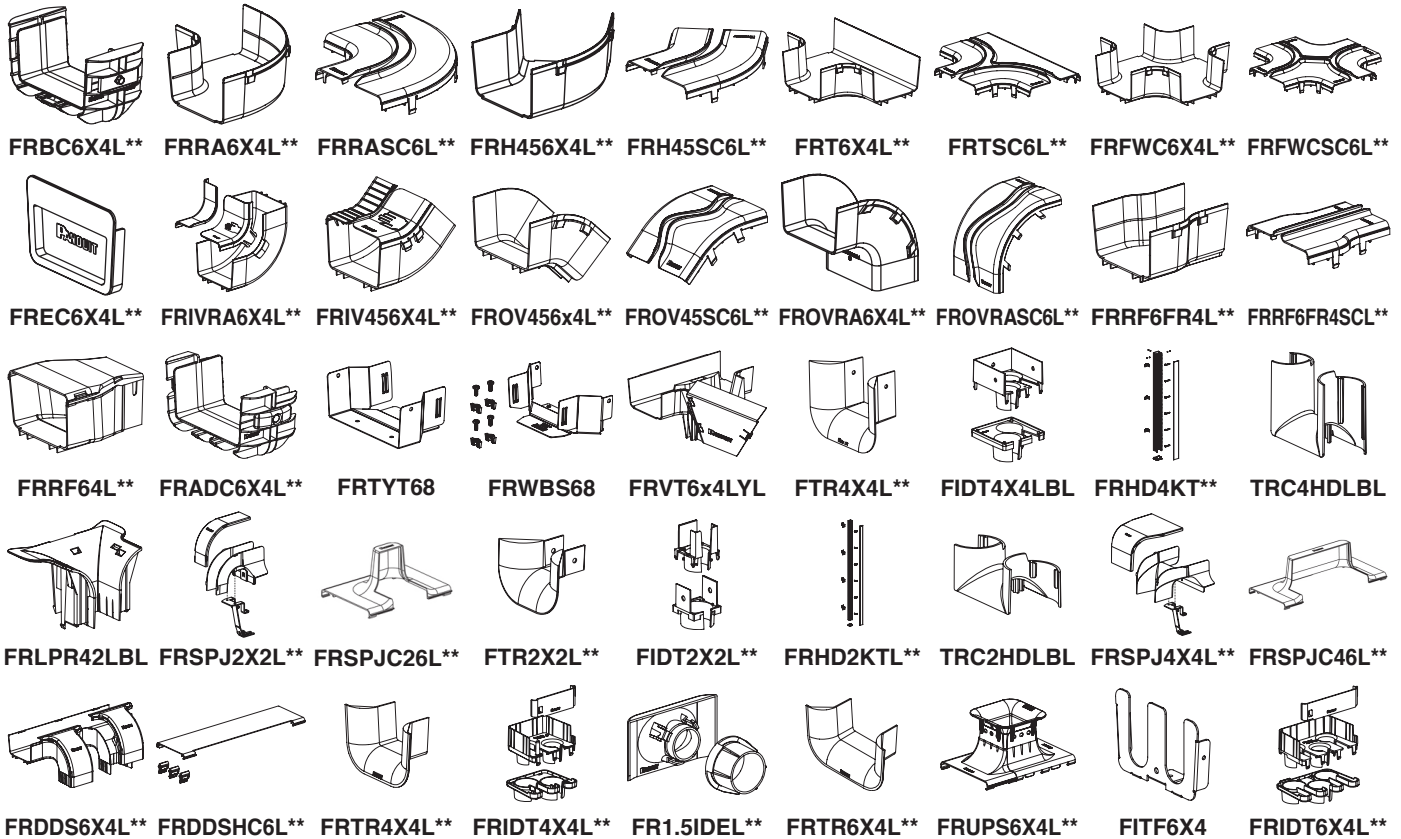[3] Lightpaths is a trademark of Warren & Brown Technologies Pty Ltd.

**Substitute: YL= Yellow, BL= Black

# FiberRunner™ 6x4 Routing System  EMEA
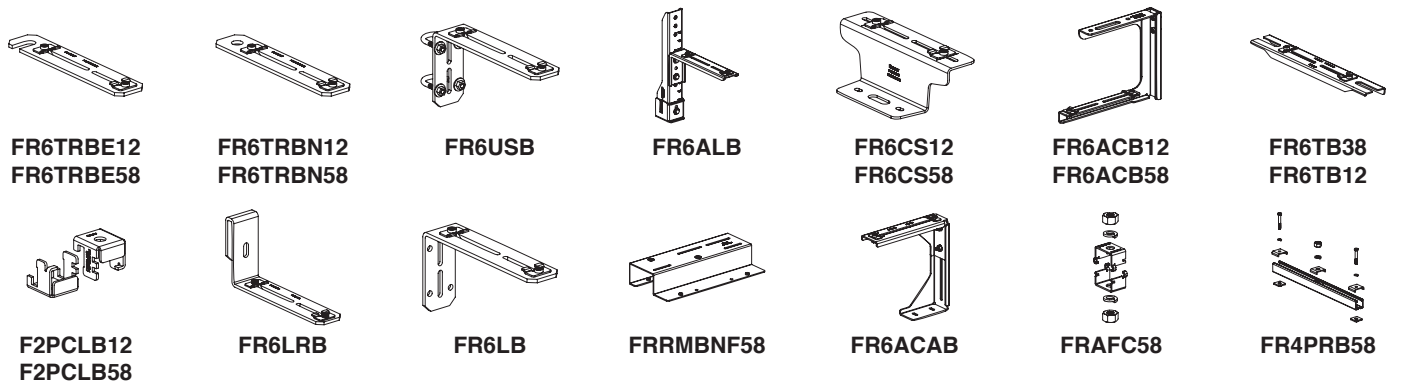
## channel and cover

FR6X4L**2    FRHC6L**2    FRSHC6L**2

## fittings, split covers, and spillouts

| FRBC6X4L** | FRRA6X4L** | FRRASC6L** | FRH456X4L** | FRH45SC6L** | FRT6X4L** | FRTSC6L** | FRFWC6X4L** | FRFWCSC6L** |

| FREC6X4L** | FRIVRA6X4L** | FRIV456X4L** | FROV456x4L** | FROV45SC6L** | FROVRA6X4L** | FROVRASC6L** | FRRF6FR4L** | FRRF6FR4SCL** |

| FRRF64L** | FRADC6X4L** | FRTYT68 | FRWBS68 | FRVT6x4LYL | FTR4X4L** | FIDT4X4LBL | FRHD4KT** | TRC4HDLBL |

| FRLPR42LBL | FRSPJ2X2L** | FRSPJC26L** | FTR2X2L** | FIDT2X2L** | FRHD2KTL** | TRC2HDLBL | FRSPJ4X4L** | FRSPJC46L** |

| FRDDS6X4L** | FRDDSHC6L** | FRTR4X4L** | FRIDT4X4L** | FR1.5IDEL** | FRTR6X4L** | FRUPS6X4L** | FITF6X4 | FRIDT6X4L** |

## QuikLock™ Mounting Brackets

| FR6TRBE12 FR6TRBE58 | FR6TRBN12 FR6TRBN58 | FR6USB | FR6ALB | FR6CS12 FR6CS58 | FR6ACB12 FR6ACB58 | FR6TB38 FR6TB12 |

| F2PCLB12 F2PCLB58 | FR6LRB | FR6LB | FRRMBNF58 | FR6ACAB | FRAFC58 | FR4PRB58 |

**Substitute: YL= Yellow, BL= Black

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