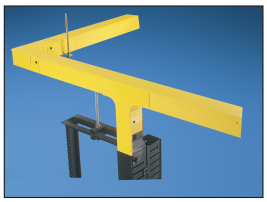
# 2x2 and 4x4 Fiber-Duct™ Routing System

PANDUIT®

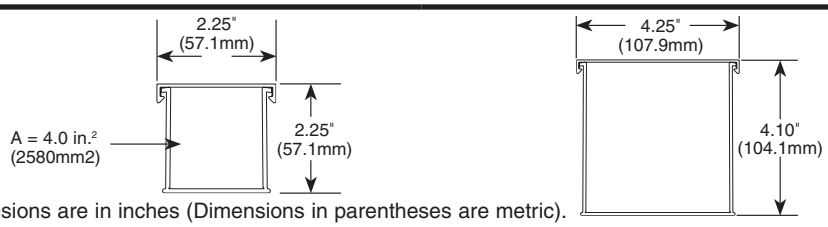
SPECIFICATION SHEET

## specifications

The 2x2 and 4x4 routing systems shall be used to route, segregate, and protect fiber optic and communication cabling. The solid wall routing systems should be UL Listed as an optical fiber channel for general purpose use. They shall be compliant with UL 2024A and NEC articles 770 and 800 when installed per instructions. The slotted wall channel and cover shall be UL Recognized. A full complement of fittings with a 2" minimum bend radius, snap-on covers, and mounting brackets shall be available. Channel and fittings shall be manufactured from impact-resistant and flame retardant (V-0) materials. Channel shall have non-slip snap-on covers that can be easily removed to allow access for moves, adds, and changes. Channel and fittings finish shall be pure color, resist scratches, dents, and not peel or corrode. Available system colors shall be yellow, orange, black, and light gray. A full complement of brackets shall be available for attaching system components to ladder rack, threaded rod, auxiliary framing, equipment racks, and raise floor pedestals.



## technical information




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

| | | |
|---|---|---|
| ***Open channel 50% fill capacity (2" pile up):*** | ***Cable*** | ***No. of Cables*** |
| 2x2 Fiber-Duct™ System | 1.6mm | 562 |
| | 2.0mm | 359 |
| | 3.0mm | 160 |
| Fiber Optic Ribbon Interconnect | 5.20mm | 53 |
| | Category 6, 6.1mm | 39 |
| Augmented | Category 6, 7.6mm | 25 |
| ***Open channel 50% fill capacity (4" pile up):*** | | |
| 4x4 Fiber-Duct™ System | 1.6mm | 2343 |
| | 2.0mm | 1499 |
| | 3.0mm | 666 |
| Fiber Optic Ribbon Interconnect | 5.20mm | 221 |
| | Category 6, 6.1mm | 161 |
| Augmented | Category 6, 7.6mm | 103 |

| | |
|---|---|
| ***Material:*** | Rigid PVC (channel), ABS (fittings) |
| ***Flammability:*** | 94V-0 |
| ***Approvals:*** | UL Listed to 2024A Optical Fiber Cable Routing Assemblies UL Recognized (File No. E147128) slotted wall CSA Certified (File No. 016446 0 000) slotted wall |
| ***CSI spec form:*** | LP-CSISPEC-FD-1 |

## key features and benefits

| | |
|---|---|
| ***Large capacity 2"x 2" and 4" x 4" sizes*** | Ideal for routing, segregating, and protecting large amounts of fiber cabling; provides a more secure installation for fiber or high performance copper cabling |
| ***Minimum 2" bend radius control fittings*** | Bend radius control in fittings helps prevent excessive bends in fiber optic and high performance copper cabling |
| ***Snap-on covers*** | Covers snap on or off channel and fittings to enclose or gain access to system; fully encloses the channel to provide protection per UL 2024A; provides quick and easy access for moves, adds, and changes |
| ***Mates to Panduit cable management rack panels*** | Provides methods to mate system to equipment mounted on standard EIA 19" or 23" equipment racks and vertical cable managers |

## applications

The Fiber-Duct™ 2x2 and 4x4 Routing Systems are comprised of channel, fittings, and brackets designed to segregate, route, and protect fiber optic cable and 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. Fittings maintain a minimum 2" bend radius to protect against signal loss due to excessive cable bends. Available system colors are yellow, orange, black, and light gray to differentiate various types of cabling. A full complement of brackets is available to attach system components to support structures found in all applications. The Fiber-Duct™ 2x2 and 4x4 Routing Systems are part of the Panduit complete fiber distribution system, which includes the FiberRunner® 24x4, 12x4, 6x4, 4x4, and 2x2 Routing Systems, cable management, and racks.

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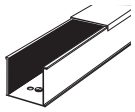
| ***Channel and Cover*** | |
|---|---|
| ***2x2 solid wall channel (6'):*** | S2X2**6NM |
| ***4x4 solid wall channel (6'):*** | S4X4**6NM |
| ***2x2 slotted wall channel (6'):*** | E2X2**6 |
| ***4x4 slotted wall channel (6'):*** | E4X4**6 |
| ***2x2 cover (6'):*** | C2**6 |
| ***4x4 cover (6'):*** | C4**6 |
| ***Fittings and Spillouts*** | |
| ***2x2 coupler:*** | FCF2X2** |
| ***4x4 coupler:*** | FCF4X4** |
| ***2x2 horizontal right angle:*** | FRA2X2** |
| ***4x4 horizontal right angle:*** | FRA4X4** |
| ***2x2 horizontal tee:*** | FT2X2** |
| ***4x4 horizontal tee:*** | FT4X4** |
| ***2x2 4-way cross:*** | FFWC2X2** |
| ***4x4 4-way cross:*** | FFWC4X4** |
| ***2x2 end cap:*** | FEC2X2** |
| ***4x4 end cap:*** | FEC4X4** |
| ***2x2 inside vertical 45°:*** | FIV452X2** |
| ***4x4 inside vertical 45°:*** | FIV454X4** |
| ***2x2 outside vertical 45°:*** | FOV452X2** |
| ***4x4 outside vertical 45°:*** | FOV454X4** |
| ***2x2 inside vertical right angle:*** | FIVRA2X2** |
| ***4x4 inside vertical right angle:*** | FIVRA4X4** |
| ***2x2 outside vertical right angle:*** | FOVRA2X2** |
| ***4x4 outside vertical right angle:*** | FOVRA4X4** |
| ***4x4 to 2x2 Fiber-Duct™ Reducer:*** | FRF42** |
| ***2x2 bend radius control trumpet:*** | TRC2BL |
| ***4x4 bend radius control trumpet:*** | TRC4BL |
| ***4x4 innerduct transition:*** | FITF4X4B |
| ***4x4 adapter to TE 4x4 FiberGuide*:*** | FADC4X4 |
| ***4x4 adapter to various 4x4 systems:*** | FTDNS4X4** |
| ***2x2 plastic snap rivet:*** | NR2WH |
| ***4x4 plastic snap rivet:*** | NR4BL |
| ***Plastic bolts and wing nuts:*** | F14PWN |
| ***Plastic bolts and hex nuts:*** | F14PN |
| ***2x2 vertical tee:*** | FVTHD2X2** |
| ***4x4 vertical tee:*** | FVT4X4** |
| ***1-port spillout to 1.5" I.D. corrugated tubing:*** | FIDT2X2** |
| ***2-port spillout to 1.5" I.D. corrugated tubing:*** | FIDT4X4BL |
| ***3-sided vertical tee trumpet spillout:*** | FTR4X4** |
| ***3-sided BRC trumpet spillout for 2x2 exit:*** | FTR2X2** |
| ***Mounting Brackets*** | |
| ***Existing 1/2" thr rod brkt:*** | FTRBE12 |
| ***Existing 5/8" thr rod brkt:*** | FTRBE58 |
| ***New 1/2" thr rod brkt:*** | FTRBN12 |
| ***New 5/8" thr rod brkt:*** | FTRBN58 |
| ***Under-floor brkt:*** | FUSB |
| ***Ladder rack brkt:*** | FLRB |
| ***"L" wall mount brkt:*** | FLB |
| ***Adjustable "Z" bracket:*** | FZBA1.5X4 |
| ***Low profile "Z" bracket:*** | FZBLP |
| ***EIA/TIA threaded rod mounting bracket:*** | FEIAB58 |
| ***Two-piece ladder rack 1/2" thr rod:*** | F2PCLB12 |
| ***Two-piece ladder rack 5/8" thr rod:*** | F2PCLB58 |
| ***Two-piece framing clip 5/8" hr rod to 9/16" C-channel aux. framing bars:*** | FRAFC58 |

*TE 4x4 FiberGuide Management Systems is a registered trademark of TE Connectivity.
**Substitute:YL = Yellow, OR = Orange, BL = Black, and LG = Light Gray.

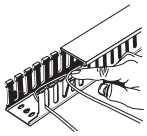
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# 2x2 and 4x4 Fiber-Duct™ Routing System

## Channel and Cover



S2X2**6NM
S4X4**6NM

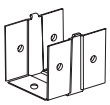


E2X2**6
E4X4**6

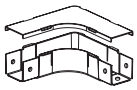


C2**6
C4**6

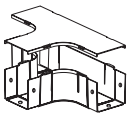
## Fittings and Spillouts



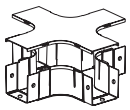
FCF2X2**
FCF4X4**



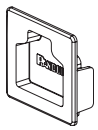
FRA2X2**
FRA4X4**



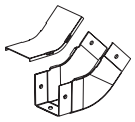
FT2X2**
FT4X4**



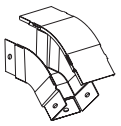
FFWC2X2**
FFWC4X4**



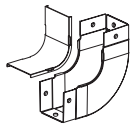
FEC2X2**
FEC4X4**



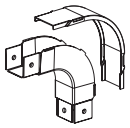
FIV452X2**
FIV454X4**



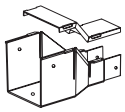
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FOV454X4**



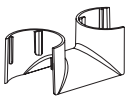
FIVRA2X2**
FIVRA4X4**



FOVRA2X2**
FOVRA4X4**



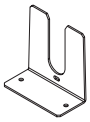
FRF42**



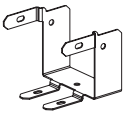
TRC2BL



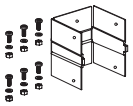
TRC4BL



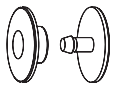
FITF4X4B



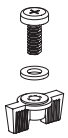
FADC4X4



FTDNS4X4**



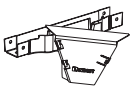
NR2WH
NR4BL



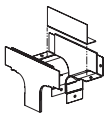
F14PWN



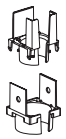
F14PN



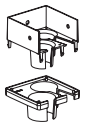
FVTHD2X2**



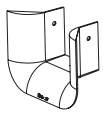
FVT4X4*



FIDT2X2**



FIDT4X4BL

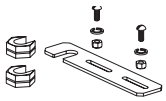


FTR4X4**

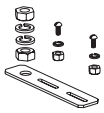


FTR2X2**

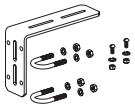
## Mounting Brackets



FTRBE12
FTRBE58



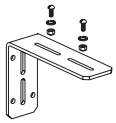
FTRBN12
FTRBN58



FUSB



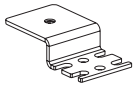
FLRB



FLB



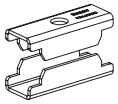
FZBA1.5X4



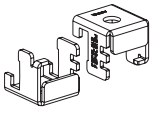
FZBLP



FRAFC58



FEIAB58



F2PCLB12
F2PCLB58

**Substitute: YL = Yellow, OR = Orange, BL = Black, and LG = Light Gray.


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