

3M™ Fiber Optic Splice Closure 2178 Family



Flexible Fiber Management Solutions

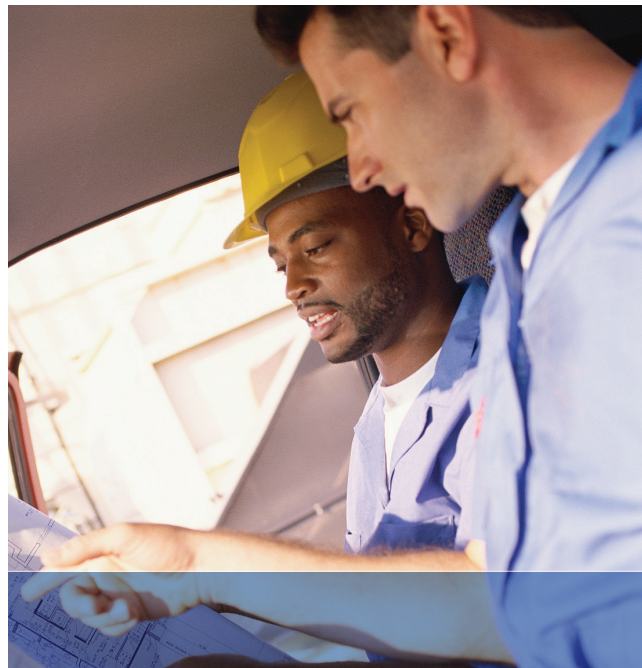


More flexibility for your complex fiber optic network

A full line of closures and accessories designed to protect fiber optic facilities. The 3M™ Fiber Optic Splice Closure 2178 family has earned its reputation for reliable protection of fiber optic facilities. Now, the 2178 family includes many models and configurations for more flexibility to help meet the complex needs of today's fiber optic networks.

Growing technologies require growing solutions.

You want to build reliable FTTP networks faster and cheaper. The expanded 3M™ Fiber Optic Splice Closure 2178 family can help you meet these needs for most applications (including aerial, buried, underground, vault and building entrance) and cables (including loose buffer tube, tight buffer tube, central tube, discrete fiber, ribbon fiber, armored or dielectric).



3M™ Fiber Optic Splice Closure 2178 Family

MULTIPLE SOLUTIONS FOR EVOLVING NETWORKS.

The 3M Fiber Optic Splice Closure 2178 family provides multiple real-world solutions with five key aspects:

1 A Complete Product Family

The 3M Fiber Optic Splice Closure 2178 family includes seven distinct models (XSB, XLB, S, SL, LS, LL and XL) in both flame-retardant and non-flame-retardant versions, each with flexibility built-in for growing networks.

2 Future-Proof Solutions

The 2178 family has scalability and flexibility, allowing you to expand the system based on splicing capacity and the number of cable entry ports. It also allows you to defer your investment until it is required.

3 Easily Re-Enterable Designs

A reusable gasket makes re-entry easy, while bolted halves provide greater security than that of dome closures. With the 2178 family, you can re-enter, re-configure and add or remove cables in most outside plant and inside plant environments.

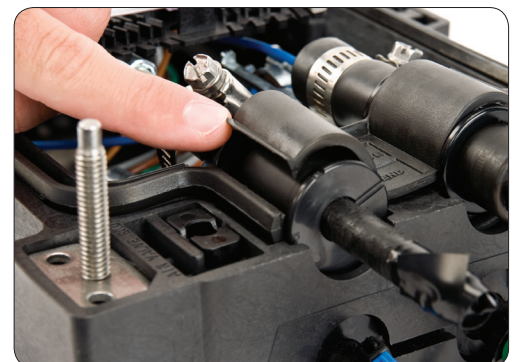
(continued)



Fully assembled 3M™ Fiber Optic Splice Closure 2178-S with two LBT cables



Installation of 4-port grommet into the 3M™ Fiber Optic Splice Closure 2178-S. Expanding the 3M™ Fiber Optic Splice Closure 2178-S with the 3M™ Expansion Kit 2181-LS



Close-up of reusable gasket

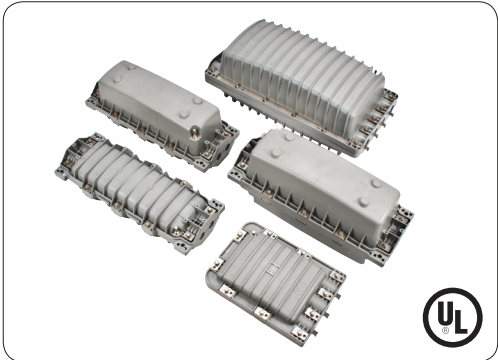
MULTIPLE SOLUTIONS (CONTINUED)

4 Flexible Environmental Applications

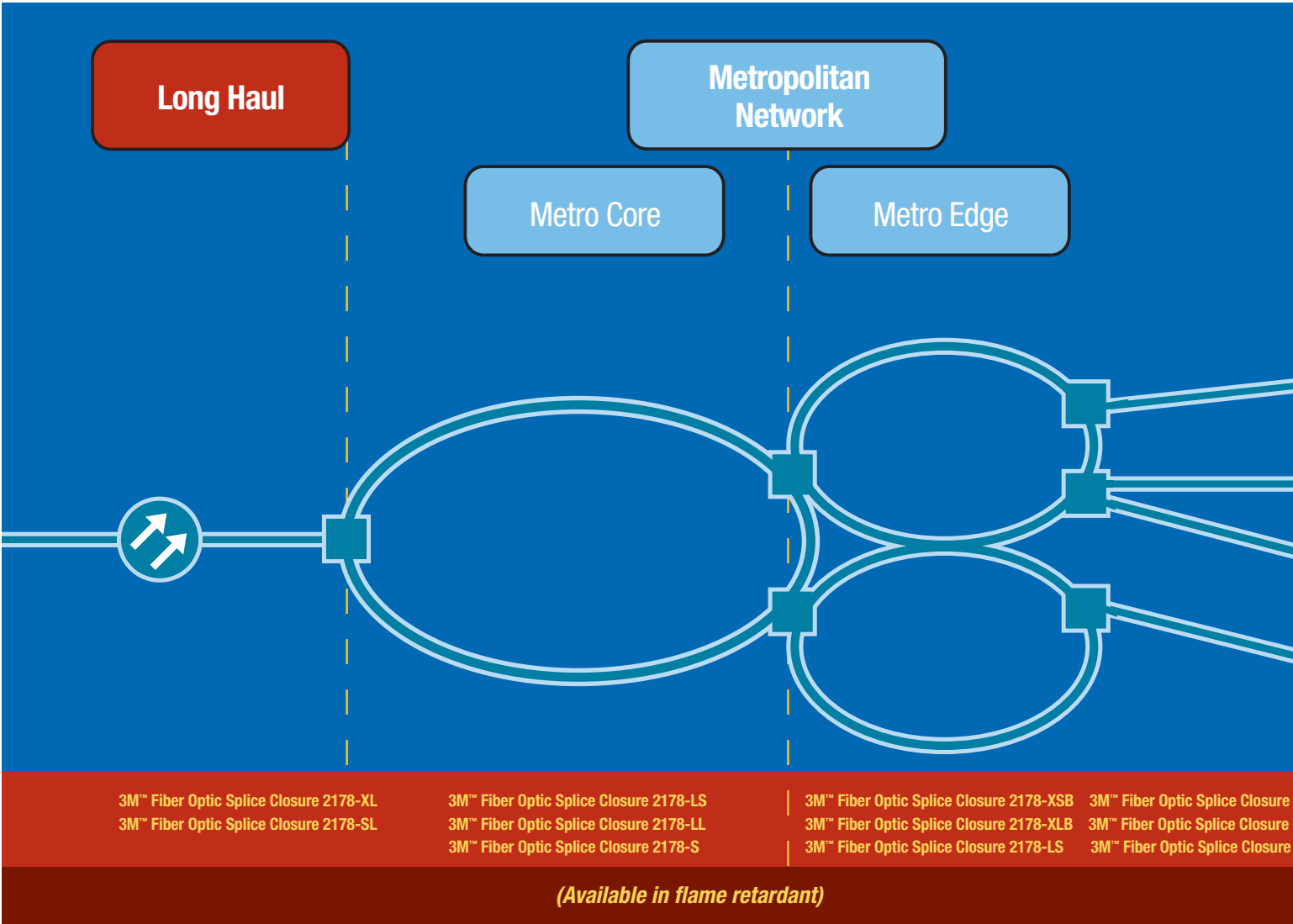
The 3M™ Fiber Optic Splice Closure 2178 family can be effectively used in nearly any application including aerial (pole and strand) mount, central office vault, manhole, pedestal and handhole. It can also accommodate most splicing methods (mechanical and fusion) as well as inline and butt splicing configurations.

5 Network Flexibility

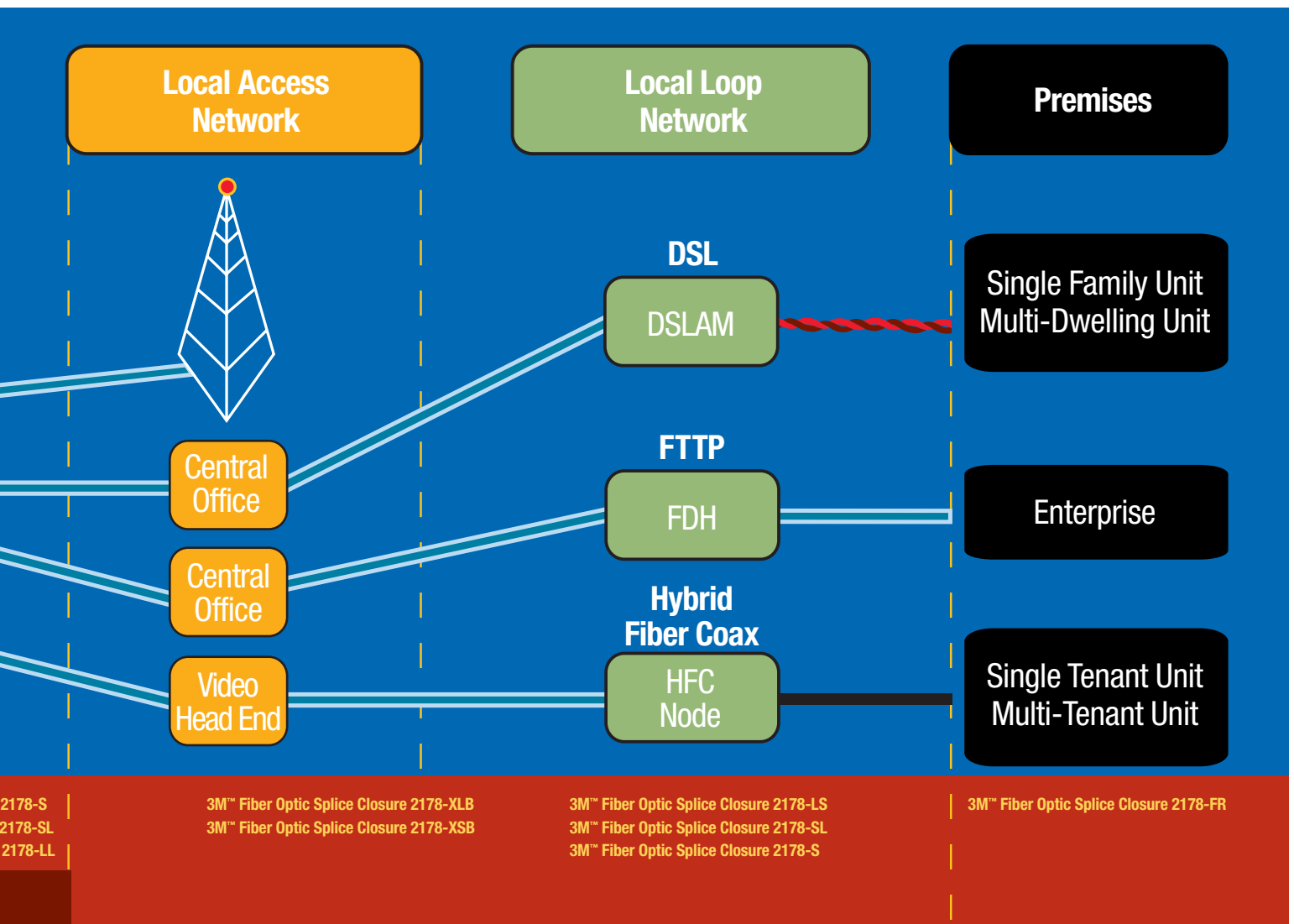
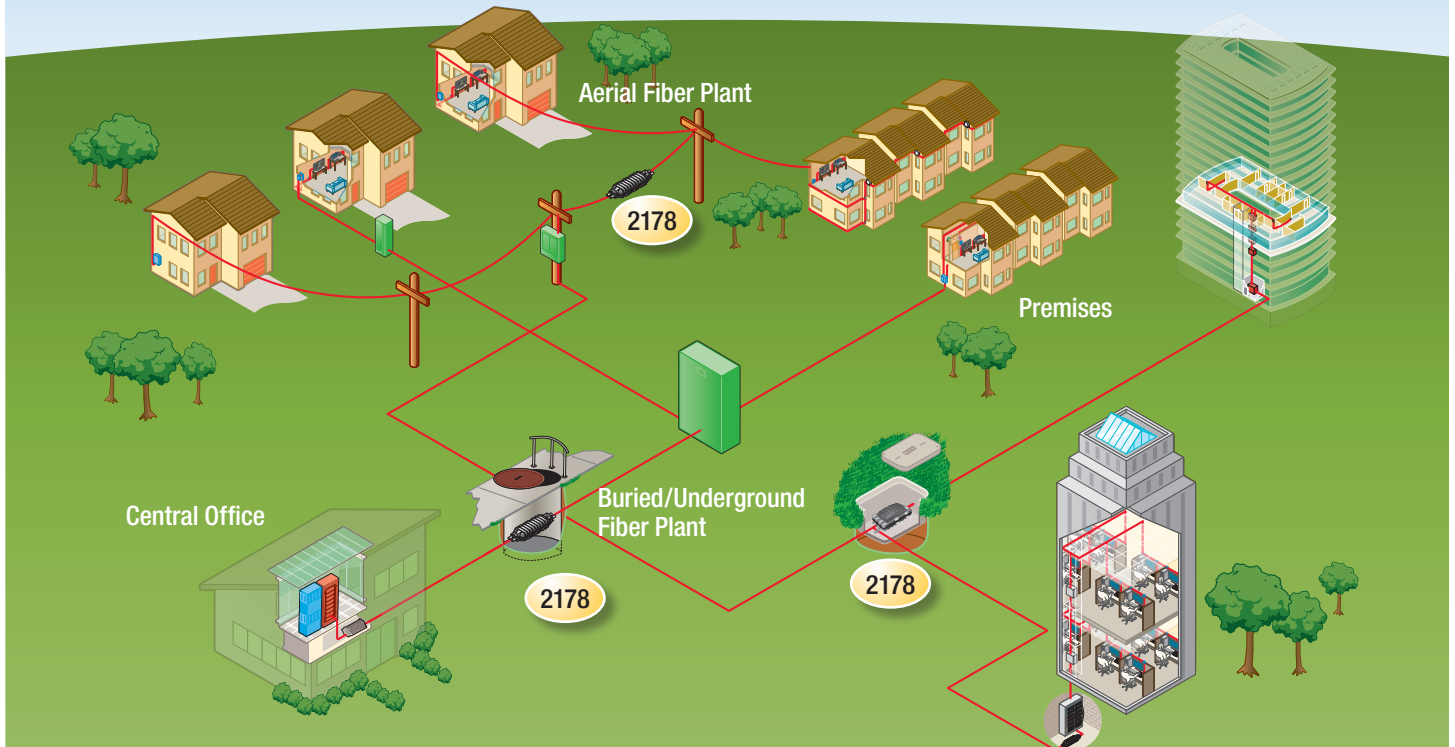
3M designs a variety of sizes, materials (flame retardant vs. non flame retardant) and configuration options so that our fiber optic splice closures can be used in almost every segment of the network. A single product family meets a range of needs.



3M™ Fiber Optic Splice Closure 2178/FR Flame Retardant Series



Flexible Environmental Applications within the Physical-Media Layer



More Advantages with a Complete Solution

FLEXIBILITY THAT CAN SAVE YOU TIME AND MONEY.

The 3M™ Fiber Optic Splice Closure 2178 family provides excellent system flexibility for both existing and new fiber deployments. Products in the 2178 family are industry-proven. The flexible design and common accessories allow you to maintain a reduced inventory, which can save time and money.

SMART DESIGN MAKES YOUR JOB EASIER.

All 2178 closures are designed to be easy to install, easy to use and easy to re-enter. The reusable gasket helps make re-entry as easy as any other system with almost no training necessary.

The 2178 family accommodates most splicing configurations (inline or butt).

NEW FEATURES TO MEET NEW DEMANDS.

The closures accommodate cables of varying sizes and provide flexibility to add ports with the cable addition kit. Two additions to the system (the 3M™ Cable Addition Kits 2181-XL, 2181-XB and 3M™ 4- and 6-Port Grommets) make system expansion even easier than before. A flexible tray system allows positionable or fixed splice inserts. Technicians can re-enter and swap out splice holders, and mix and match splice types (fusion and mechanical). The same tray can be used for discrete or mass splicing.

All of these features combine to give you an enhanced ability to offer optimum bandwidth for triple play services of voice, data and video.



3M™ 4- and 6-Port Grommets for
3M™ Fiber Optic Splice Closure 2178 Series

3M™ Fiber Optic Splice Closure 2178 Family

FEATURES AND BENEFITS

Full range of sizes	Fits your specific application
No special tools required (standard torque wrench)	Easy installation and re-entry
Constructed of a highly chemical-resistant material	Can be deployed in most applications: buried, underground and aerial
Gasket seals	Reusable for easy re-entry
Unique strength member clamp assembly	Prevents cable sheath movement with temperature changes
Spacious fiber management areas	All closures provide separate areas for routing, protecting, and expressing buffer tubes and ribbon fibers
Flexible drop or cable addition	Multiport grommets provide entry for drops or cables
Flame-retardant materials	All 2178 closures are available in a flame-retardant model, giving you even more application choices Flame Retardant Material: UL-94V-0



Reliable Protection for Your Application

The 3M™ Fiber Optic Splice Closure 2178 family provides secure protection for a broad range of fiber cables. The 2178 family is engineered to meet common needs and field conditions, with different sizes to accommodate varying splice counts.

All 2178 closures are made of a tough chemical-resistant material and have a gasket seal making them ideal for a wide variety of applications.



3M™ Fiber Optic Splice Closure 2178-XSB
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-XLB
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-S
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-SL
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-LS
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-LL
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178-XL
Available in flame retardant



3M™ Fiber Optic Splice Closure 2178

Product Number	Size in. (mm) (L x W x H)	Splice Configuration	Cable Entry Ports	Maximum Splice Capacity
2178-XSB	14.6 x 10.1 x 4.6 (369.8 x 256.5 x 117.3)	Butt	3 Butt	48 Single Fusion 288 Mass Fusion
2178-XLB	14.6 x 10.1 x 5.8 (369.8 x 256.5 x 147)	Butt	3 Butt	96 Single Fusion 432 Mass Fusion
2178-S	21.9 x 8.5 x 4.7 (556.3 x 215.9 x 119.4)	Inline Butt	4 Inline 2 Butt	96 Single Fusion 288 Mass Fusion
2178-SL	21.9 x 8.5 x 8.0 (556.3 x 215.9 x 203.2)	Inline Butt	4 Inline 2 Butt	96 Single Fusion 288 Mass Fusion
2178-LS	21.9 x 8.5 x 8.0 (556.3 x 215.9 x 203.2)	Inline Butt	4 Inline 2 Butt	288 Single Fusion 864 Mass Fusion
2178-LL	21.9 x 8.5 x 11.3 (556.3 x 215.9 x 287.0)	Inline Butt	4 Inline 2 Butt	288 Single Fusion 864 Mass Fusion
2178-XL	27.0 x 13.3 x 11.0 (660.4 x 337.8 x 279.4)	Inline Butt	8 Inline 4 Butt	576 Single Fusion 1728 Mass Fusion

Grow as You Go with Multiple Entry Port Configurations

3M™ FIBER OPTIC SPLICE CLOSURE 2178



2178-XSB

(14.6" x 10.1" x 4.6")

Splice
Application

Butt

Max Cable Entry Ports
Main Branch

2 Butt

1 Butt



2178-XSB WITH ONE 2181-XB

(14.6" x 10.1" x 6.73")

Butt

2 Butt

4 Butt



2178-XLB

(14.6" x 10.1" x 5.8")

Butt

2 Butt

1 Butt



2178-XLB WITH ONE 2181-XB

(14.6" x 10.1" x 7.93")

Butt

2 Butt

4 Butt



2178-S

(21.9" x 8.5" x 4.7")

Butt or Inline

2 Butt, 2 Inline

0 Butt, 2 Inline



2178-S WITH ONE 2181-LS

(21.9" x 8.5" x 6.2")

Butt or Inline

2 Butt, 2 Inline

2 Butt, 6 Inline



2178-S WITH TWO 2181-LS

(21.9" x 8.5" x 7.7")

Butt or Inline

2 Butt, 2 Inline

4 Butt, 10 Inline



2178-S WITH THREE 2181-LS

(21.9" x 8.5" x 9.2")

Butt or Inline

2 Butt, 2 Inline

6 Butt, 14 Inline



2178-SL

(21.9" x 8.5" x 8.0")

Butt or Inline

2 Butt, 2 Inline

0 Butt, 2 Inline



2178-SL WITH ONE 2181-LS

(21.9" x 8.5" x 9.5")

Butt or Inline

2 Butt, 2 Inline

2 Butt, 6 Inline



2178-SL WITH TWO 2181-LS

(21.9" x 8.5" x 11.0")

Butt or Inline

2 Butt, 2 Inline

4 Butt, 10 Inline

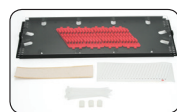
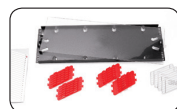
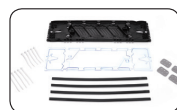
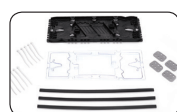
3M™ FIBER OPTIC SPLICE CLOSURE 2178

Size (L x W x H)	Splice Application	Max Cable Entry Ports	
		Main	Branch
2178-SL WITH THREE 2181-LS			
(21.9" x 8.5" x 12.5")	Butt or Inline	2 Butt, 2 Inline	6 Butt, 14 Inline
2178-LS			
(21.9" x 8.5" x 8.0")	Butt or Inline	2 Butt, 2 Inline	0 Butt, 2 Inline
2178-LS WITH ONE 2181-LS			
(21.9" x 8.5" x 9.5")	Butt or Inline	2 Butt, 2 Inline	2 Butt, 6 Inline
2178-LS WITH TWO 2181-LS			
(21.9" x 8.5" x 11.0")	Butt or Inline	2 Butt, 2 Inline	4 Butt, 10 Inline
2178-LS WITH THREE 2181-LS			
(21.9" x 8.5" x 12.5")	Butt or Inline	2 Butt, 4 Inline	6 Butt, 14 Inline
2178-LL			
(21.9" x 8.5" x 11.3")	Butt or Inline	2 Butt, 2 Inline	0 Butt, 2 Inline
2178-LL WITH ONE 2181-LS			
(21.9" x 8.5" x 12.8")	Butt or Inline	2 Butt, 2 Inline	2 Butt, 6 Inline
2178-LL WITH TWO 2181-LS			
(21.9" x 8.5" x 14.3")	Butt or Inline	2 Butt, 2 Inline	4 Butt, 10 Inline
2178-LL WITH THREE 2181-LS			
(21.9" x 8.5" x 15.8")	Butt or Inline	2 Butt, 4 Inline	6 Butt, 14 Inline
2178-XL			
(27.0" x 13.3" x 11.0")	Butt or Inline	2 Butt, 2 Inline	2 Butt, 6 Inline
2178-XL WITH ONE 2181-XL			
(27.0" x 13.3" x 14.25")	Butt or Inline	2 Butt, 2 Inline	6 Butt, 14 Inline



Flexible Fiber Management

One of the greatest advantages of the 3M™ Fiber Optic Splice Closure 2178 family is flexibility. With seven different closures and several tray choices and expansion kits, there are more configuration choices than ever.



3M™ Fiber Optic Splice Trays

PRODUCT NUMBER	DESCRIPTION	SPLICES ACCOMMODATED	SPLICE CAPACITY PER TRAY	2178 CLOSURE
2522*	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	24 12 120	S, LS, LL, SL
2522-24-SF	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 mm x 60 mm)	24	S, LS, LL, SL
2523*	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	48 24 144	S, LS, LL, SL, XL
2523-48-SF	Stackable hinged tray, fiber entry/exit at any corner of the tray, fixed splice holders	Single Fusion (3.0 mm x 60 mm)	48	S, LS, LL, SL, XL
2524*	Stackable, hinged tray lid, side entry, fixed splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™)	24 24	S, LS, LL, SL, XL
2524-FT	Stackable, hinged tray lid, side entry, fixed splice holders	Single Fusion (3.0 mm x 60 mm)	24	S, LS, LL, SL, XL
2527	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	24 12 144	S, LS, LL, SL, XL
2527-48-SF	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 mm x 60 mm)	48	S, LS, LL, SL, XL
2532	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	24 12 144	XLB XSB
2539-12-SF	Hinged, fixed spliced holders	Single Fusion (2.4 mm x 60 mm)	12	XLB XSB
2540-12-SF/36-MF	Hinged, fixed spliced holders	Single Fusion (2.4 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	12 12 36	XLB XSB
2543	Stackable, fiber entry/exit both ends of tray, positionable splice holders	Single Fusion (3.0 mm x 60 mm) Single Mechanical (Fibrolok™) Mass Fusion	24 12 144	S, LS, LL, SL, XL

* Requires additional kit

3M™ Fiber Optic Splice Closures 2178 Product Family Configuration Guide

PRODUCT NUMBER 2178 XXX/XX - X - XX - XXX - XXX- XX

SIZE: L X W X H (MM)		GROMMETS	
XSB OR XSB/FR	2178 XSB, 14.6"x10.1x4.6" (369.8 x 256.5 x 117.3); 2 - 1.0" (25 mm) ports & 1 - 1.4" (35 mm) port	0-4	Number of grommets
XLB OR XLB/FR	2178 XSB, 14.6"x10.1x5.8" (369.8 x 256.5 x 147.3); 2 - 1.0" (25 mm) ports & 1 - 1.4" (35 mm) port	TYPE OF GROMMETS	
S OR S/FR	2178 S, 21.9" x 8.5"x 4.7" (556.3 x 215.9 x 119.4); 2 - 1.0" (25 mm) ports per end	N	None
S4 OR S4/FR	2178 S4, 21.9" x 8.5"x 6.2" (556.3 x 215.9 x); 4 - 1.0" (25 mm) ports per end	A	1.0" flat drop cable grommet
S6 OR S6/FR	2178 S6, 21.9" x 8.5"x 7.7" (556.3 x 215.9 x); 6 - 1.0" (25 mm) ports per end	B	1.4" flat drop cable grommet
SL OR SL/FR	2178 SL, 21.9" x 8.5" x 8.0" (556.3 x 215.9 x 203.2); 2 - 1.0" (25 mm) ports per end	GROUND LUGS	
LS OR LS/FR	2178 LS, 21.9" x 8.5" x 8.0" (556.3 x 215.9 x 203.2); 2 - 1.0" (25 mm) ports per end	0	None
LS4 OR LS4/FR	2178 LS4, 21.9" x 8.5" x 9.5" (556.3 x 215.9 x); 4 - 1.0" (25 mm) ports per end	2	2 lugs (not available with XL)
LS6 OR LS6/FR	2178 LS6, 21.9" x 8.5" x 11.0" (556.3 x 215.9 x); 6 - 1.0" (25 mm) ports per end	3	3 lugs (XSB & XLB only)
LL OR LL/FR	2178 LL, 21.9" x 8.5" x 11.3" (556.3 x 215.9 x 287.0); 2 - 1.0" (25 mm) ports per end	4	4 lugs (S, LS, LL, SL & XL only)
LL4 OR LL4/FR	2178 LL, 21.9" x 8.5" x 12.8" (556.3 x 215.9 x); 4 - 1.0" (25 mm) ports per end	8	8 ground lugs (LL & XL only)
XL OR XL/FR	2178 XL, 27.0" x 13.3" x 11.0" (660.4 x 337.8 x 279.4); 2 - 1.0" (25 mm) & 2 - 1.4" (35 mm) ports per end	GROUNDING KITS	
SPLICING CONFIGURATION		0-8	Number of ground kits
A	Inline or Butt	TYPE OF GROUND KIT	
B	Butt only	N	None
CABLE ENTRY KITS		A	4460-D/FO
02 - 12	Number of cable entry kits shipped with the closure. 2178-XSB and 2178-XLB is only available with 2 or 3. 2178-XL is only available with 4 or 8. 2178-S, LS, LL & SL is available with up to 6 kits per end.	B	4460-D
SPLICE TRAYS		C	4460-D with #6 ground wire
00-14	Number of splice trays	D	4460-D/FO with #6 ground wire
TYPE OF SPLICE TRAY		E	2178-EGI Kit
N	None		
A	2522-24-SF (accommodates 24 3.0 x 60 mm single fusion splices; S, SL, LS, LL & XL only)		
C	2523-48-SF (accommodates 48 3.0 x 60 mm single fusion splices; S, SL, LS, LL & XL only)		
D	2524-FT (accommodates 24 3.0 x 60 mm single fusion splices; S, SL, LS, LL & XL only)		
E	2527 (accommodates 24 3.0 x 60 mm single fusion, 144 mass fusion, or 12 Fibrlok™ Splices; S, SL, LS, LL & XL only)		
F	2527-48-SF (accommodates 48 3.0 x 60 mm single fusion splices; S, SL, LS, LL & XL only)		
G	2532 (accommodates 24 3.0 x 60 mm single fusion, 72 mass fusion or 6 Fibrlok splices; XSB/XLB only)		
K	2539 (accommodates 12 2.4 x 60 mm single fusion splices; XSB/XLB only)		
L	2540 (accommodates 12 2.4 x 60 mm single fusion or 36 mass fusion splices; XSB/XLB only)		
M	2543-U-24-SF-3.0MM/144-MF (accommodates 24 3.0 mm x 60 mm single fusion, 144 mass fusion; S, SL, LS, LL & XL only)		
N	2543-S-24-SF-2.4MM (accommodates 24 2.4 mm x 60 mm single fusion; S, SL, LS, LL & XL only)		
P	2543-S-24-SF-3.0MM (accommodates 24 3.0 mm x 60 mm single fusion; S, SL, LS, LL & XL only)		
Q	2543-T-144-MF (accommodates 144 mass fusion splices; S, SL, LS, LL & XL only)		

Select the Right Combination for Your Specific Application

As the chart below demonstrates, 3M provides several options for configuring the products you need today, with room to grow tomorrow. Follow the example to the right to find the components for your particular application.

Specifications

3M™ FIBER OPTIC SPLICE CLOSURE 2178

PRODUCT CONFIGURATION	CABLE ENTRY PORTS PER SPLICING CONFIGURATION					
	1 BUTT		INLINE			
	MAIN	BRANCH	MAIN	BRANCH	SIZE	
2178-S or SL	2	0	2	2	1.0"	
2178-S or SL w/one 2181-LS	2	0	2	2	1.0"	
2178-S or SL w/one 2181-LS	2	2	2	6	1.0"	
2178-S or SL w/two 2181-LS	2	0	2	2	1.0"	
2178-S or SL w/two 2181-LS	2	2	2	6	1.0"	
2178-S or SL w/two 2181-LS	2	4	2	10	1.0"	
2178-S or SL w/three 2181-LS	2	2	2	6	1.0"	
2178-S or SL w/three 2181-LS	2	4	2	10	1.0"	
2178-S or SL w/three 2181-LS	2	6	2	14	1.0"	
2178-LS	2	0	2	2	1.0"	
2178-LS w/one 2181-LS	2	2	2	6	1.0"	
2178-LS w/two 2181-LS	2	4	2	10	1.0"	
2178-LS w/two 2181-LS	2	2	2	6	1.0"	
2178-LS w/three 2181-LS	2	4	2	10	1.0"	
2178-LS w/three 2181-LS	2	6	2	14	1.0"	
2178-LL	2	0	2	2	1.0"	
2178-LL w/one 2181-LS	2	2	2	6	1.0"	
2178-LL w/two 2181-LS	2	4	2	10	1.0"	
2178-LL w/two 2181-LS	2	2	2	6	1.0"	
2178-LL w/three 2181-LS	2	4	2	10	1.0"	
2178-LL w/three 2181-LS	2	6	2	14	1.0"	
2178-XSB	2	1	-	-	1 - 1.4" 2 - 1.0"	
2178 XSB w/ one 2181 XB	4	2	-	-	2 - 1.4" 4 - 1.0"	
2178 XLB	2	1	-	-	1 - 1.4" 2 - 1.0"	
2178 XLB w/one 2181	4	2	-	-	2 - 1.4" 4 - 1.0"	
2178-XL	2	2	2	6	4 - 1.4" 4 - 1.0"	
2178-XL w/one 2181-XL	2	6	2	14	8 - 1.4" 8 - 1.0"	

How to use chart:

- 1 Select your splice configuration
- 2 Determine # of branch ports

- 3 Choose type of tray (p. 14)
- 4 Select appropriate splice capacity

Configuration Example—If your application requires:

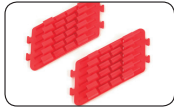
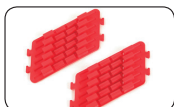
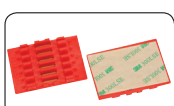
- 1 Butt splice configuration
- 2 2 branch ports
- 3 Fixed-position splice holder
- 4 96 single fusion splices

Then you would need the 3M™ Fiber Optic Splice Closure 2178-S with one 3M™ Cable Addition Kit 2181 and 3M™ Splice Tray 2523.

SPLICE CAPACITY PER SPLICE TRAY																							
2527				2522			3	2523			2524		2532			2539-12-SF		2540-12-SF/36-MF			2543		
TRAYS	SF 24	SF 48	MF 144	TRAYS	SF 24	MF 144		TRAYS	SF 48	MF 144	TRAYS	SF 24	TRAYS	SF 24	MF 144	TRAYS	SF 12	TRAYS	SF 12	MF 36	TRAYS	SF 24	MF 144
2	48	96	288	2	48	288		2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288
5	120	240	720	5	120	720		4	192	576	4	96	-	-	-	-	-	-	-	-	5	120	720
2	48	96	288	2	48	288		2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288
8	192	384	864	8	192	864		6	288	864	6	144	-	-	-	-	-	-	-	-	8	192	864
5	120	240	720	5	120	720		4	192	576	4	96	-	-	-	-	-	-	-	-	5	120	720
2	48	96	288	2	48	288		2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288
8	120	384	864	8	192	864		6	288	864	6	144	-	-	-	-	-	-	-	-	8	192	864
5	120	240	720	5	120	720		5	240	720	5	120	-	-	-	-	-	-	-	-	5	120	720
2	48	96	288	2	48	288		2	96	288	2	48	-	-	-	-	-	-	-	-	2	48	288
7	168	336	864	6	144	864		6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864
7	168	336	864	6	144	864		6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864
7	168	336	864	6	144	864		6	288	864	6	144	-	-	-	-	-	-	-	-	7	168	864
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12	288	576	1728	12	288	1728		12	576	1728	12	288	-	-	-	-	-	-	-	-	12	288	1728

3M™ Fiber Optic Splice Closure 2178 Accessories

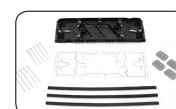
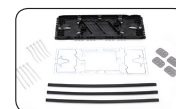
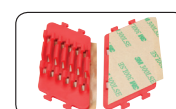
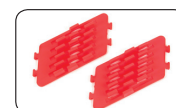
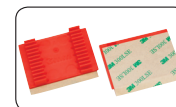
SPLICE TRAYS

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
 2170 PKG: 50 EACH MIN. ORDER: 50 EACH UPC: 054007-17676	Fiber Optic Splice Sleeve, 3.0 mm x 60 mm Transparent plastic tube and stainless steel rod designed to prevent stress and protect fusion fiber optic splices in field and factory operations.
 2171 PKG: 50 EACH MIN. ORDER: 50 EACH UPC: 051115-14547	Fiber Optic Splice Sleeve, 2.4 mm x 60 mm Transparent plastic tube and stainless steel rod designed to prevent stress and protect fusion fiber optic splices in field and factory operations.
 2519 PKG: 10 KITS MIN. ORDER: 10 KITS UPC: 051138-57722	Cable Fanout Kit Transitions cable buffer tubes or single tube to fiber tube.
 2519-X PKG: 10 KITS MIN. ORDER: 10 KITS UPC: 051138-57723	Cable Fanout Expander Kit Transitions one fiber tube to two fiber tubes.
 2520 PKG: 50 EACH MIN. ORDER: 50 EACH UPC: 051138-36414	Fiber Transition Tubing, 1 ft. Protects 12 single or four 12-fiber ribbon between trays; cut in one-foot lengths.
 2520-3FT PKG: 24 EACH MIN. ORDER: 24 EACH UPC: 051138-36647	Fiber Transition Tubing, 3 ft. Protects 12 single or four 12-fiber ribbon between trays; cut in three-foot lengths.
 2520-100FT PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-26078	Fiber Transition Tubing, 100 ft. Protects 12 single or four 12-fiber ribbon between trays; cut in 100-foot lengths.
 2520-6RF-1FT PKG: 50 EACH MIN. ORDER: 50 EACH UPC: 051115-06172	Fiber Transition Tubing 6-12 Fibrib 1 ft. Protects 12 single or six 12-fiber ribbon between trays; cut in one-foot lengths.
 2520-6RF-100FT PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-06173	Fiber Transition Tubing 6-12 Fibrib 100 ft. Roll Protects 12 single or six 12-fiber ribbon between trays; cut in 100-foot lengths.
 2518 PKG: 6 EACH MIN. ORDER: 6 EACH UPC: 051115-26076	Fiber Transition Tubing Kit for Loose Buffer Tube The 2518 Kit is a 2 MM fiber transition tube kit for loose buffer tube cables. It is used to transition the fibers from the splice closure slack storage area to the splice tray.
 2521-F PKG: 12 PKGS. MIN. ORDER: 12 PKGS. UPC: 051138-36412	Fusion Splice Insert, 2 Pack Holds 12 single fusion splices in each insert, used in 3M™ Fiber Splice Organizer Trays 2538/2522/2523 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
 2521-FL PKG: 12 PKGS. MIN. ORDER: 12 PKGS. UPC: 051138-36413	3M™ Fiblok™ Splice Insert, 2 Pack Holds six Fiblok or mass fusion splices in each insert, used in 2538/2522/2523 trays. Accommodates single ceramic rod 12 fiber mass fusion sleeves or double ceramic rod 4 to 6 fiber mass fusion sleeves.
 2521-R-12RF-MF-A PKG: 24 EACH MIN. ORDER: 24 EACH UPC: 051115-06176	12RF Mass Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds six 3M™ Fiblok™ Splices or Mass Fusion Splices, used in 2532 and 2543 trays. Accommodates single ceramic rod 12 fiber mass sleeves or double ceramic rod 4 to 6 fiber mass fusion sleeves.

3M™ Fiber Optic Splice Closure 2178 Accessories

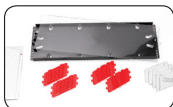
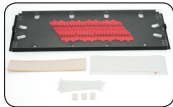
SPLICE TRAYS (CONTINUED)

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
2521-R-2.4MM-SF-A PKG: 24 EACH MIN. ORDER: 24 EACH UPC: 051115-06174	2.4MM Single Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds twelve single fusion splices in each insert, used in 2532 and 2543 trays. 2.4 mm X 60 mm single fusion heat shrink sleeve required (2171 or equivalent).
2521-R-3.0MM-SF-A PKG: 24 EACH MIN. ORDER: 24 EACH UPC: 051115-06175	3.0MM Single Fusion Splice Insert, Adhesive Back Adhesive backed splice insert that holds twelve single fusion splices in each insert, used in 2532 and 2543 trays. 3.0 mm X 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
2521-MF PKG: 12 PKGS. MIN. ORDER: 12 PKGS. UPC: 051138-36411	3M™ Fibrlok™ Multi-Fiber Splice Insert, 2 Pack Holds four multi-fiber splices in each insert, used in 2522/2523 trays.
2521-RF PKG: 12 PKGS. MIN. ORDER: 12 PKGS. UPC: 051138-36415	Ribbon Fusion Splice Insert, 2 Pack Holds five ribbon fusion splices in each insert, used in 2522/2523 trays. Accommodates double ceramic rod 8 to 12 fiber mass fusion sleeves.
2521-F-A PKG: 24 PKGS. MIN. ORDER: 24 PKGS. UPC: 051115-26074	Single Fusion Splice Insert with Adhesive, 2 Pack Holds 12 single fusion splices in each insert, used in 3M™ Fiber Splice Organizer Trays 2527/2532. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
2521-FL-A PKG: 24 PKGS. MIN. ORDER: 24 PKGS. UPC: 051115-26046	Ribbon Fusion Splice Insert with Adhesive, 2 Pack Holds six Fibrlok or mass fusion splices in each insert, used in 2527/2522 trays. Accommodates single ceramic rod 12 fiber mass fusion sleeves or double ceramic rod 4 to 6 fiber mass fusion sleeves.
2522 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-36522	Small Fiber Splice Organizer Tray Holds two 3M™ Splice Inserts 2521 family.* The 2522 tray stores and protects single and mass, mechanical and fusion splices. The 2521 family splice inserts are easily added to secure splices into the trays. Fibers are routed into the trays using 3M™ Transition Tubing 2520 that zips over the fibers. *Splice inserts must be ordered separately.
2522-24-SF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-19149	Small Fiber Splice Organizer Tray, 24SF Holds 24 single fusion splices. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
2523 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-36523	Large Fiber Splice Organizer Tray Holds four 2521 family splice inserts.* The 2523 tray stores and protects discrete and mass, mechanical and fusion splices. The 2521 inserts are easily added to secure splices into the trays. Fibers are routed into the trays using 2520 tubing that zips over the fibers. *Splice inserts must be ordered separately.
2523-48-SF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-19145	Large Fiber Splice Organizer Tray, 48SF Holds 48 single fusion splices. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).



3M™ Fiber Optic Splice Closure 2178 Accessories

SPLICE TRAYS (CONTINUED)

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
	2524 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-11514 3M™ Fibriok™ Splice Organizer Tray Holds 24 3M™ Fibriok™ Splices and eight buffer tubes. The 3M™ Fibriok™ Splice Organizer Tray 2524 holds 24 Fibriok splices. The 2524 tray can be adapted for fusion splice storage using the 2524F tray insert. Buffer tubes are secured with channel snaps so that cable ties are not required. The fibers all enter the tray in one corner eliminating the need for figure 8's in the fiber. An important design feature of these stackable trays is the snap-on hinge cover on each tray. Individual trays may be accessed without disassembly of the trays above or below—and without kinking buffer tubes.
	2524-F PKG: 24 EACH MIN. ORDER: 24 EACH UPC: 054007-57150 Fusion Splice Insert Adapts the 2524 tray for fusion splices. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
	2524-FT PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-11513 Fusion Splice Organizer Tray Holds 24 single fusion splices. Holds up to 24 fusion splices. Buffer tubes are secured with channel snaps so that cable ties are not required. The fibers all enter the tray in one corner eliminating the need for figure 8's in the fiber. An important design feature of these stackable trays is the snap-on hinge cover on each tray. Individual trays may be accessed without disassembly of the trays above or below—and without kinking buffer tubes. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
	2524-MF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-34352 Multi-Fiber Splice Organizer Tray Holds three 3M™ Fibriok™ Multi-Fiber and four single Fibriok splices.
	2526 PKG: 24 KITS MIN. ORDER: 24 KITS UPC: 051138-36648 Strap Kit for Organizer Trays Holds splice trays in place in closure.
	2527 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051138-89008 Fiber Splice Organizer Tray The 2527 tray accommodates up to 24 single fusion or 144 mass splices and has entry from all corners. It maintains the minimum bend radius of fiber. The tray has a clear cover and splice holders included. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
	2527-48-SF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-29953 Fiber Splice Organizer Tray The 2527 tray accommodates up to 48 single fusion splices and has entry from all corners. It maintains the minimum bend radius of fiber. The tray has a clear cover and splice holders included. 3.0 mm x 60 mm single fusion heat shrink sleeve required.
	2532 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-16220 Fiber Splice Organizer Tray Tray is stackable and accommodates 24 single and 72 mass fusion splices. 3.0 mm x 60 mm single fusion heat shrink sleeve required (2170 or equivalent).
	2539-12-SF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-19209 Fiber Optic Splice Tray with 12 Single Fusion Splices Hinged tray that accommodates 12 single fusion splices. Only for 2178-XSB closures. 2.4 mm x 60 mm single fusion heat shrink sleeves required (2171 or equivalent).
	2540-12-SF/36-MF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-19210 Fiber Optic Splice Tray with 12 Single/36 Mass Fusion Hinged tray that accommodates up to 12 single fusion and 36 mass fusion splices. Only for 2178-XSB closures. 2.4 mm x 60 mm single fusion heat shrink sleeves required (2171 or equivalent).
	2543-S-144-MF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06171 Fiber Optic Splice Tray Tube Entry, 144 Mass Fusion Accommodates up to 144 mass fusion splices and has entry from all corners for standard transition or LBT tubes.

3M™ Fiber Optic Splice Closure 2178 Accessories

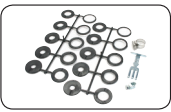
SPLICE TRAYS (CONTINUED)

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
2543-S-24-SF-2.4MM PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06167	Fiber Optic Splice Tray Tube Entry, 24SF 2.4MM Accommodates up to 24 single fusion splices and has entry from all corners. The single fusion splice inserts accommodate the 3M™ Fiber Optic Splice Sleeve 2171 or equivalent 2.4 mm x 60 mm heat shrink sleeve.
2543-S-24-SF-3.0MM PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06168	Fiber Optic Splice Tray Tube Entry, 24SF 3.0MM Accommodates up to 24 single fusion splices and has entry from all corners. The single fusion splice inserts accommodate the 3M™ Fiber Optic Splice Sleeve 2170 or equivalent 3.0 mm x 60 mm heat shrink sleeve.
2543-T-144-MF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06170	Fiber Optic Splice Tray 2520 Tube Entry, 144MF Accommodates 144 mass fusion splices. Fibers are routed into the trays using 2520-6RF tubing that zips over the fibers. The tray has entry from all corners.
2543-U-24SF-3MM/144MF PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06169	Fiber Optic Splice Tray 2520 Tube Entry 24SF 3MM/144MF Accommodates 24 single fusion (3.0 mm x 60 mm) or 144 mass fusion splices. Fibers are routed into the trays using 2520-6RF tubing that zips over the fibers on one end of the tray. Standard transition tube or LBT securing is available on the other end of the tray.
2527-1X32PLC-01-SF2-AA PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-06060	1X32 PLC 2527 Splitter Tray Input Splicing 2527 tray with one 1x32 PLC Splitter, SM discrete 250 µm input/output fibers, with 12-splice holder.



3M™ Fiber Optic Splice Closure 2178 Accessories

EXPANSION

	PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
	2172 PKG: 100 EACH MIN. ORDER: 100 EACH UPC: 051138-36612	Strength Member Clamp for Fiber Cable Clamps strength member to cable sheath for 2178-L/S closures.
	2178-LS/GSKT PKG: 10 KITS MIN. ORDER: 10 KITS UPC: 051138-57929	Gasket Kit for 2178-L/S Family Replaceable gasket kit.
	2178-XLB-TOP PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-26208	Fiber Closure 2178 XLB Top XLB Closure Top
	2178-XSB-1.4B PKG: 5 EACH MIN. ORDER: 5 EACH UPC: 051115-19058	Cable Branch Port Kit for 2178-XSB and XLB Single cable entry for 1.4" cable entry port.
	2178-4PGA PKG: 5 EACH MIN. ORDER: 5 EACH UPC: 051115-19057	4-Port Grommet Compatible with most flat drop cable available. For use with all 2178 models. For use with 1.0" ports.
	2178-6PGA PKG: 5 EACH MIN. ORDER: 5 EACH UPC: 051115-19056	6-Port Grommet Compatible with most flat drop cable available. For use only with the 2178-XSB, 2178-XLB, and 2178-XL closures. For use with 1.4" ports.
	2181-B PKG: 1 KIT MIN. ORDER: 1 KIT UPC: 054007-17678	Double Adapter Bolt Kit Contains bolts for installation of two 3M™ Cable Addition Kits 2181-LS or 2181-LS/FR.
	2181-C PKG: 1 KIT MIN. ORDER: 1 KIT UPC: 054007-92597	Triple Adapter Bolt Kit Contains bolts for installation of three 2181-LS or 2181-LS/FR cable addition kits.
	2181-LS PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051138-57927	Cable Addition Kit Contains gasket and materials for installing additional cables. For use with 2178-L/S family closures.
	2181-LS/FR PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051138-75414	Cable Addition Kit, Flame Retardant Contains gasket and materials for installing additional cables and is flame retardant. For use with 2178-L/S fire retardant closures.
	2181-XL/CAK PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051138-88928	Cable Addition Kit for 2178-XL Contains gasket and materials for installing additional cables. For use with 2178-XL closure.
	2181-XL/FR-CAK PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-26124	Cable Addition Kit for 2178-XL Contains gasket and materials for installing additional cables. For use with 2178-XL/FR flame retardant closure.
	2181-XB PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-262104	Cable Addition Kit for 2178-XB Contains gasket and materials for installing additional cables. For use with 2178-XSB and -XLB closures.
	2181-XB/FR PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 051115-53466	Cable Addition Kit for 2178-XSB/FR & 2178-XLB/FR Cable addition kit for the 2178-XLB/FR and 2178-XSB/FR Closures. Allows for the addition of 3 cable ports. Contains three cable entry hardware kits.

3M™ Fiber Optic Splice Closure 2178 Accessories

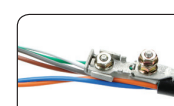
EXPANSION (CONTINUED)

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
2178-LS-CSB-SMC-BRKT PKG: 10 EACH MIN. ORDER: 10 EACH UPC: 051115-26203	Cable Strain Relief Bracket Contains materials for installing additional cables. For use with 2178-L/S family of closures.
2178-1.0-PORT-CRPX PKG: 5 EACH MIN. ORDER: 5 EACH UPC: 051115-26153	Cable Grommet for Corning RPX Cable To be used in the 2178 1.0" cable entry port.
2178-XL/XSB-FR-3PG-0.52 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-26248	Flame Retardant 3-Port 0.52" Grommet This grommet can only be used with the 2178-XSB/FR, 2178-XLB/FR and 2178-XL/FR closures. For use with 1.4" port only.
2178-XL/XSB-FR-2PG-0.60 PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-22807	Flame Retardant 2-Port 0.60" Grommet This grommet can only be used with the 2178-XSB/FR, 2178-XLB/FR and 2178-XL/FR closures. For use with 1.4" port only.



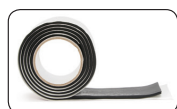
GROUNDING

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
2178-EGI PKG: 5 EACH MIN. ORDER: 5 EACH UPC: 051138-57930	External Ground Isolation Kit Provides a means to ground each cable shield with waterproof isolation. The 2178-EGI housing can be used with any 2178 closure utilizing the 1.0" port. Contents: two 2178-EGI housing assemblies and caps, two ground wire assemblies, two O-rings, two bolts and two 4460-D/FO shield bond connectors.
25T-BBE6 PKG: 1 EACH MIN. ORDER: 1 EACH UPC: 054007-32671	Bond Braid With 6" eyelets.
4460-D/FO PKG: 100 EACH MIN. ORDER: 100 EACH UPC: 054007-92757	3M™ Scotchlok™ Shield Bond Connector Assembly Provides grounding and strength member clamp for armored fiber cables.



3M™ Fiber Optic Splice Closure 2178 Accessories

2178 CLASSIC



2178-125

PKG: 8 EACH
MIN. ORDER: 8 EACH
UPC: 054007-91019

Mastic Sealing Tape, Re-enterable

For use only with 2178 classic closures.



2178-281

PKG: 14 EACH
MIN. ORDER: 14 EACH
UPC: 051138-58633

CORD Re-enterable Mastic

For use only with 2178 classic closures.



2180

PKG: 1 EACH
MIN. ORDER: 1 EACH
UPC: 054007-17533

Cable Kit

All materials required for re-entry into 2178 splice closure. Includes plugs, washers and sealing materials (mastic tape and cord). Contents: two plugs, two hose clamps, four green cable ties, four blue cable ties, one hex key, 48 sealing washers, one box sealing cord and one box sealing tape. For use only with 2178 classic closures.



2181

PKG: 1 EACH
MIN. ORDER: 1 EACH
UPC: 051138-89321

Cable Addition Kit

Contains mastic, cable adapter and materials for installing additional cables in 2178 and 2178-G splice closures. This kit permits butt splicing after initial plant construction. Contents: cover, cable adapter, three plugs, four hose clamps, four green cable ties, four blue cable ties, one spacer clamp assembly, one box sealing cord, one box sealing tape, ten bolts and eight sealing washer trees. For use only with 2178 classic closures.

MOUNTING HARDWARE

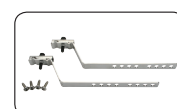


2183-UHB

PKG: 1 KIT
MIN. ORDER: 1 KIT
UPC: 051138-34602

Universal Aerial Hanger Bracket Kit

Hardware for aerial installation of the 2178-LS family splice closures (S, SL, LS, LL). The kit also accommodates the 2178 splice closure with one or two 3M™ Cable Addition Kits 2181. Contents: four nylon stop nuts, two corner inserts with studs, two universal hanger bracket assemblies.

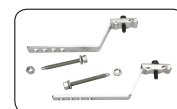


2184

PKG: 10 KITS
MIN. ORDER: 10 KITS
UPC: 051115-19470

Adjustable Aerial Hanger Bracket Kit

Adjustable aerial hanger bracket kit for the 2178-XSB, 2178-XLB, 2178-S, 2178-LS, and 2178-SL closures.



2184-LL

PKG: 10 KITS
MIN. ORDER: 10 KITS
UPC: 051115-25984

Aerial Offset Hanger Bracket Kit Lightlinker

3M™ Aerial Offset Hanger Bracket 2184-LL is designed to work with the 3M™ Fiber Splice Closure System LL Series and the 3M™ Fiber Optic Splice Closure 2178-XL.



2197

PKG: 1 KIT
MIN. ORDER: 1 KIT
UPC: 054007-92222

Aerial Hanger Bracket Kit

Contains hardware for aerial installation with hinged cover.

For 2178-L/S family splice closures (S, SL, LS, LL). The kit also accommodates the 2178 splice closure with one or two 2181 cable addition kits. It provides additional hardware to attach the splice closure cover to its base. Contents: six corner inserts, 12 nuts, two flexible hinges, two "L" brackets, two bonding/hanger brackets and two bolts with washers.



2198

PKG: 1 KIT
MIN. ORDER: 1 KIT
UPC: 051138-36613

Wall Mount Bracket

For use with 2178-XSB, 2178-XLB, 2178-S, 2178-SL, 2178-LS and XL fiber closures.



2199

PKG: 1 KIT
MIN. ORDER: 1 KIT
UPC: 051138-57928

Wall Mount Bracket

For use with 2178-S, LS and LL fiber closures.

3M™ Fiber Optic Splice Closure 2178 Accessories

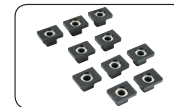
MOUNTING HARDWARE (CONTINUED)

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
AC-HB4 PKG: (LBS.): 10 SETS (4.00) MIN. ORDER: 10 SETS UPC: 051115-19068	Aerial Offset Hanger Bracket, 4.0" For overlashing application.
2178-S/LS-OPGW PKG: 2 EACH MIN. ORDER: 2 EACH UPC: 051115-06019	OPGW Cable Bracket For use with 2178-S and 2178-LS fiber closures.



GENERAL

PRODUCT NUMBER/ PACKAGING INFO	DESCRIPTION
2178-XB/XL-T-INSERT-G PKG: 10 EACH MIN. ORDER: 1 PACK UPC: 051115-06082	Plastic Threaded Inserts Threaded inserts for the 2178-XSB, XLB, XL splice closures.
2178-L/S-T-INSERT PKG: 10 EACH MIN. ORDER: 1 PACK UPC: 051115-22714	Stainless Steel Threaded Inserts Threaded inserts for the 2178-S, SL, LS and LL splice closures.
2178-L/S-T-INSERT-G PKG: 10 EACH MIN. ORDER: 1 PACK UPC: 051115-06083	Plastic Threaded Inserts Inserts for 2178-S, SL, LS, LL splice closures.
2178-L/S-375-BOLTS PKG: 10 EACH MIN. ORDER: 1 PACK UPC: 051115-22715	Cable Addition Replacement Bolts Bolts used with a single 2181-LS cable addition kit.
2178-L/S-248-BOLTS PKG: 10 EACH MIN. ORDER: 1 PACK UPC: 051115-22716	Standard Closure Bolts Bolts for the 2178-S, LS, LL, XSB, XLB and XL splice closures.
4415 PKG: 10 KITS MIN. ORDER: 10 KITS UPC: 054007-57219	Cable Cleaning Kit Provides all the necessary materials for cleaning the filling compound from filled copper and fiber optic cables in an easy-to-transport kit.
5005-KIT PKG: 1 KIT MIN. ORDER: 1 KIT UPC: 0-00-54007-56488-1	Reflective Lettering System Kit Each kit contains 25 each A-Z, 0-9, blank and dash characters packaged in a clear, 36-compartment box, including an application tool.
2178-2T-LL-CLTK PKG: 1 EACH MIN. ORDER: 1 KIT UPC: 051115-22808	Tool Kit with Torque Wrench Kit includes sockets, extension and torque wrench.



3M™ Fiber Optic Splice Closure 2178 Configurations

FEATURES	2178-XSB	2178-XLB	2178-S	2178-S4	2178-S6	
CABLE ENTRY PORTS & SIZE						
INLINE	0	0	4	8	12	
BUTT	3	3	2	4	6	
SIZE - INCHES (MM)	2 - 1.0" (25 mm) 1 - 1.4" (35 mm)	2 - 1.0" (25 mm) 1 - 1.4" (35 mm)	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	
SPLICE CAPACITY (MAXIMUM) AND TRAY INFORMATION						
SINGLE FUSION	72	96	96	96	96	
MASS FUSION	288	432	288	288	288	
TRAYS *Most Popular	2532* 2539 2540	2532* 2539 2540	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	
BONDING & GROUNDING						
# OF GROUND LUGS	0, 2, 3 or 6	0, 2, 3 or 6	0, 2, or 4			
DIMENSIONS (INCHES)						
LENGTH	14.6" (370 mm)	14.6" (370 mm)	21.9" (556 mm)	21.9" (556 mm)	21.9" (556 mm)	
WIDTH	10.1" (257 mm)	10.1" (257 mm)	8.5" (216 mm)	8.5" (216 mm)	8.5" (216 mm)	
HEIGHT	4.6" (117 mm)	5.8" (147 mm)	4.7" (119 mm)	6.2" (158 mm)	7.7" (196 mm)	
KEY ACCESSORIES						
CABLE PORT OR SPLICE CAPACITY EXPANSION	2181-XB	2181-XB	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-C	
GROMMETS	2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	
MOUNTING HARDWARE						
AERIAL STRAND MOUNT	2184	2184	2183, 2184, or 2197			
MANHOLE	2198	2198	2198			
HANDHOLE	2198	2198	2198			
AERIAL POLE MOUNT	2198	2198	2198			
WALL MOUNT	2198	2198	2198 or 2199			
FLAME/FIRE RETARDANT SOLUTION (UL LISTED*)						
PRODUCT	2178-XSB/FR* 2181-XB/FR*	2178-XLB/FR* 2181-XB/FR*	2178-S/FR* 2181-LS/FR*	2178-S4/FR 2181-LS/FR*	2178-S6/FR 2181-LS/FR*	

Note: The deeper base of the 2178-SL and 2178-LL closures provides for additional slack storage for buffer tubes and ribbons.
The 2181 Cable Addition Kits can be used to increase splice capacity or port capacity.
Maximum splice capacity varies per the splice tray selected for each closure.

	2178-SL	2178-LS	2178-LS4	2178-LS6	2178-LL	2178-LL4	2178-XL
	4	4	8	12	4	8	8
	2	2	4	6	2	4	4
	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	1.0" (25 mm)	4 - 1.0" (25 mm) 4 - 1.4" (35 mm)
	96	288	288	288	288	288	576
	288	864	864	864	864	864	1728
	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2524 2527 2543	2522* 2523 2527 2543
	0, 2, or 4	0, 2, or 4			0, 2, or 4, 8		0, 4, or 8
	21.9" (556 mm)	21.9" (556 mm)	21.9" (556 mm)	21.9" (556 mm)	21.9" (556 mm)	1.9" (556 mm)	27.0" (660 mm)
	8.5" (216 mm)	8.5" (216 mm)	8.5" (216 mm)	8.5" (216 mm)	8.5" (216 mm)	8.5" (216 mm)	13.3" (337 mm)
	8.0" (203 mm)	8.0" (203 mm)	9.5" (241 mm)	11.0" (279 mm)	11.3" (287 mm)	12.8" (325 mm)	11.0" (279 mm)
	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-C	2181-LS 2181-B 2181-C	2181-LS 2181-B 2181-C	2181-XL/CAK
	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-1.0-PORT-CRPX	2178-4PGA 2178-6PGA 2178-1.0-PORT-CRPX
	2183, 2184, or 2197	2183, 2184, or 2197			2183 or 2197		2184-LL
	2198	2198			2198		2198
	2198	2198			2198		2198
	2198	2198			2198		2198
	2198 or 2199	2199			2199		2198
	na	2178-LS/FR* 2181-LS/FR*	2178-LS4/FR 2181-LS/FR*	2178-LS6/FR 2181-LS/FR*	2178-LL/FR* 2181-LS/FR*	2178-LL4/FR 2181-LS/FR*	2178-XL/FR* 2178-XL/CAK-FR



*RoHS 2011/65/EU" means that the product or part does not contain any of the substances in excess of the maximum concentration values ("MCVs") in EU RoHS Directive 2011/65/EU. The MCVs are by weight in homogeneous materials. This information represents 3M's knowledge and belief, which may be based in whole or in part on information provided by third party suppliers to 3M.

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