

3M

Closures

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3M™ SLiC™ Aerial Closures and Terminals

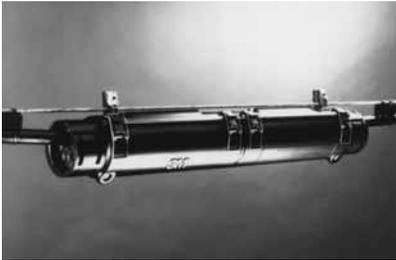
Closure Selection Guide

To order SLiC Aerial Closures and Terminals, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discretets.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

Floating Bond, Rigid Bond, Spiral End Seal



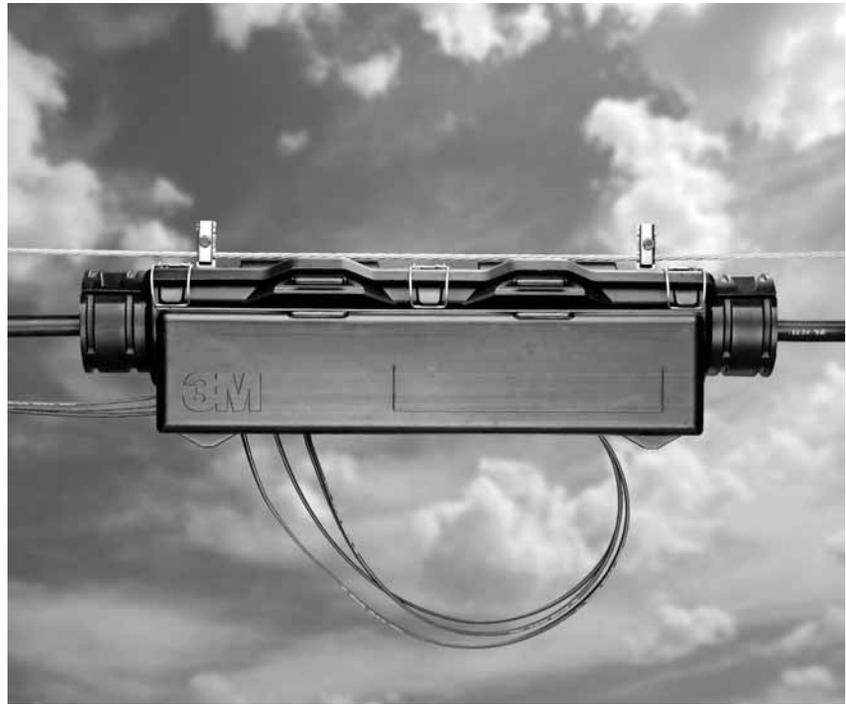
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Fewer parts and easier installation with the SLiC Aerial Closure.

- Superior seal
- Easily adaptable
- Single piece design
- Double wall molded construction
- Made from durable, rugged materials
- Easy to access and reenter

The SLiC aerial closure is a single-piece aerial closure, easily installed in construction or maintenance situations. The one-piece construction permits complete splice access after placement without removal of the closure or bonding from the cables. The closures are free breathing and suitable for straight, butt, and branch splices of non-pressurized communication cables.

Splices are protected by the closure's double-wall molded polyethylene construction. The durable SLiC closure will not crack or break in even the harshest environment.



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All components are attached to the closure; there are no parts to lose.

Because of its interlocking ends, the SLiC aerial closure can expand to meet any size sheath opening without special kits, eliminating excess inventory. The 2 x 29, 3 x 33, 5 x 33, and 7 x 33 closures can be extended while maintaining their initial strength. The SLiC aerial closure does not require taping, bricking or any special labor-intensive practices. The end seals

assure a snug fit on cables and eliminate the need for a drip collar. Sealing collars or tape are not required when using the SLiC closure.

The two-, three-, five-, seven-, and nine-inch diameter closures feature a universal end seal to handle any plant configuration. There are six sizes available, accommodating splice openings from 254 to 635 mm (10 to 25 inches).

RUS Listed



Product Referral Generator

Sheath Scuff	pg. 199
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Cable Ties	pg. 204



Features — Benefits

SLiC Aerial Closure

One piece construction	Provides easy installation; no loose parts
Double walled, molded construction	Resists breaking or cracking
Interlocking ends	Extendible for long sheath openings
Hanger/bonding system	No external or additional bonding material required
Quick release latch	Easy reentry
Attached sheath retention (SR) bracket (only for rigid bond)	Protects cable sheath pull-out or movement
Spiral end seal	One size fits multiple cable configurations

3M™ SLiC™ Aerial Closures with Floating Bond

Product Number	Contains	Packaging kg (lbs.)/cs.	Min. Order	UPC
SLiC Aerial Closure Kit with Spiral End Seal				
SLiC 2" x 19"-SES	Spiral End Seal	1/cs., 1.0 (2.3)	1 kit	054007-92600
SLiC 2" x 29"-SES	Spiral End Seal	1/cs., 1.7 (3.7)	1 kit	054007-92601
SLiC 3" x 19"-SES	Spiral End Seal	1/cs., 2.0 (4.4)	1 kit	051138-75544
SLiC 3" x 33"-SES	Spiral End Seal	1/cs., 2.4 (5.3)	1 kit	054007-92602
SLiC 5" x 33"-SES	Spiral End Seal	1/cs., 3.8 (8.3)	1 kit	054007-92603
SLiC 7" x 33"-SES	Spiral End Seal	1/cs., 5.0 (11.1)	1 kit	054007-92604
SLiC 9" x 36"-SES	Spiral End Seal	1/cs., 7.5 (16.5)	1 kit	054007-92605
SLiC Aerial Closure Kit with Rubber End Seal				
SLiC 2" x 19"	2 Double Port	1/cs., 1.1 (2.4)	1 kit	054007-71241
SLiC 2" x 29"	2 Double Port	1/cs., 1.7 (3.7)	1 kit	054007-68300
SLiC 3" x 19"	2 Triple Port	1/cs., 2.1 (4.6)	1 kit	051138-75546
SLiC 3" x 33"	2 Triple Port	1/cs., 2.4 (5.6)	1 kit	054007-68299
SLiC 5" x 33"	2 Triple Port	1/cs., 3.6 (8.0)	1 kit	054007-68298
SLiC 7" x 33"	2 Triple Port	1/cs., 4.8 (10.6)	1 kit	054007-68297
SLiC 9" x 36"	2 Triple Port	1/cs., 7.3 (16.0)	1 kit	054007-57088



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3M SLiC Aerial Closures with Rigid Bond/Sheath Retention

Product Number	Contains	Packaging kg (lbs.)/cs.	Min. Order	UPC
Aerial Closure Kit with Spiral End Seal				
SLiC 2" x 19"-SR/SES	Spiral End Seal	1/cs., 1.1 (2.5)	1 kit	054007-92612
SLiC 2" x 29"-SR/SES	Spiral End Seal	1/cs., 1.7 (3.7)	1 kit	054007-92613
SLiC 3" x 33"-SR/SES	Spiral End Seal	1/cs., 2.6 (5.8)	1 kit	054007-92614
SLiC 5" x 33"-SR/SES	Spiral End Seal	1/cs., 3.9 (8.6)	1 kit	054007-92615
SLiC 7" x 33"-SR/SES	Spiral End Seal	1/cs., 5.1 (11.2)	1 kit	054007-92616
SLiC 9" x 36"-SR/SES	Spiral End Seal	1/cs., 7.4 (16.3)	1 kit	054007-92617



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3M SLiC Aerial Closures with Bond Assembly attached (4462-SN)

Product Number	Contains	Packaging kg (lbs.)/cs.	Min. Order	UPC
Aerial Closure Kit with Spiral End Seal				
SLiC 2" x 19"-BA/SES	Spiral End Seal	1/cs., 4.3 (9.4)	4 kits	054007-92606
SLiC 2" x 29"-BA/SES	Spiral End Seal	1/cs., 6.5 (14.4)	4 kits	054007-92607
SLiC 3" x 19"-BA/SES	Spiral End Seal	1/cs., 7.2 (15.7)	4 kits	051138-75545
SLiC 3" x 33"-BA/SES	Spiral End Seal	1/cs., 9.1 (20.0)	4 kits	054007-92608
SLiC 5" x 33"-BA/SES	Spiral End Seal	1/cs., 3.9 (8.6)	1 kit	054007-92609
SLiC 7" x 33"-BA/SES	Spiral End Seal	1/cs., 5.0 (11)	1 kit	054007-92610
SLiC 9" x 36"-BA/SES	Spiral End Seal	1/cs., 7.6 (16.8)	1 kit	054007-92611
Aerial Closure Kit with Rubber End Seal				
SLiC 2" x 19" BA	2 Double Port	1/cs., 4.3 (9.5)	4 kits	054007-71483
SLiC 2" x 29" BA	2 Double Port	1/cs., 6.6 (14.5)	4 kits	054007-71484
SLiC 3" x 19" BA	2 Double Port	1/cs., 7.5 (16.3)	4 kits	051138-75577
SLiC 3" x 33" BA	2 Double Port	1/cs., 9.1 (20.0)	4 kits	054007-71485
SLiC 5" x 33" BA	2 Double Port	1/cs., 3.8 (8.3)	1 kit	054007-71348
SLiC 7" x 33" BA	2 Double Port	1/cs., 4.8 (10.5)	1 kit	054007-71349
SLiC 9" x 36" BA	2 Double Port	1/cs., 7.4 (16.4)	1 kit	054007-57089



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3M™ SLiC™ Aerial Closures with Bond Assembly included (4460-S)

Product Number	Contains	Packaging kg (lbs./cs.)	Min. Order	UPC
Aerial Closure Kit with Spiral End Seal				
SLiC 2" x 19" 4460S/SES	Spiral End Seal	1/cs., 1.1 (2.4)	1 kit	054007-92618
SLiC 2" x 29" 4460S/SES	Spiral End Seal	1/cs., 1.7 (3.8)	1 kit	054007-92619
SLiC 3" x 33" 4460S/SES	Spiral End Seal	1/cs., 2.4 (5.2)	1 kit	054007-92620
SLiC 5" x 33" 4460S/SES	Spiral End Seal	1/cs., 3.7 (8.1)	1 kit	054007-92621
SLiC 7" x 33" 4460S/SES	Spiral End Seal	1/cs., 5.0 (11.1)	1 kit	054007-92622
SLiC 9" x 36" 4460S/SES	Spiral End Seal	1/cs., 7.2 (15.9)	1 kit	054007-92623
Aerial Closure Kit with Rubber End Seal				
SLiC 2" x 19" 4460S	Double Port/Double Port	1/cs., 1.1 (2.5)	1 kit	054007-71564
SLiC 2" x 29" 4460S	Double Port/Double Port	1/cs., 1.8 (3.9)	1 kit	054007-71565
SLiC 3" x 33" 4460S	Double Port/Triple Port	1/cs., 2.4 (5.2)	1 kit	054007-71566
SLiC 5" x 33" 4460S	Double Port/Triple Port	1/cs., 3.5 (7.8)	1 kit	054007-71567
SLiC 7" x 33" 4460S	Double Port/Triple Port	1/cs., 4.8 (10.6)	1 kit	054007-71568
SLiC 9" x 36" 4460S	Double Port/Triple Port	1/cs., 7.0 (15.4)	1 kit	054007-57091



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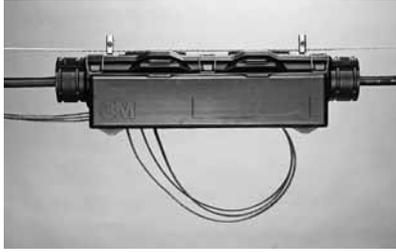
3M SLiC Aerial Closure Capabilities

	SLiC 2 x 19 mm (in.)	SLiC 2 x 29 mm (in.)	SLiC 3 x 19 mm (in.)	SLiC 3 x 33 mm (in.)	SLiC 5 x 33 mm (in.)	SLiC 7 x 33 mm (in.)	SLiC 9 x 36 mm (in.)
Max. Splice Opening	356 (14)	432 (17)	356 (14)	533 (21)	533 (21)	533 (21)	635 (25)
Max. Bundle Diameter	55.9 (2.2)	66 (2.6)	91.4 (3.6)	91.4 (3.6)	142.2 (5.6)	193.0 (7.6)	244 (9.6)
Approx. Cable Range Pair Count	100-pair (26 or 24 AWG) 0.4 or 0.5	**200-pair (26 or 24 AWG) 0.4 or 0.5	200-pair	*400-pair (26 or 24 AWG) 0.4 or 0.5	*1200-pair (26 AWG) 0.4	*2400-pair (26 AWG) 0.4	*3600-pair (26 AWG) 0.4
Spiral End Seal Port Capacity							
End Seal Dia. Port #1	20-41 (0.8-1.6)	20-41 (0.8-1.6)	20-66 (0.8-2.6)	20-66 (0.8-2.6)	30-76 (1.2-3.0)	38-97 (1.5-3.8)	38-97 (1.5-3.8)
End Seal Dia. Port #2	13-25 (0.5-1.0)	13-25 (0.5-1.0)	13-25 (0.5-1.0)	13-25 (0.5-1.0)	20-36 (0.8-1.4)	30-46 (1.2-1.8)	30-46 (1.2-1.8)
End Seal Dia. Port #3	13-25 (0.5-1.0)	13-25 (0.5-1.0)	13-25 (0.5-1.0)	13-25 (0.5-1.0)	36-51 (1.4-2.0)	13-30 (0.5-1.2)	13-30 (0.5-1.2)
End Seal Dia. Port #4	NA	NA	NA	NA	13-30 (0.5-1.2)	46-61 (1.8-2.4)	46-61 (1.8-2.4)
End Seal Dia. Port #5	NA	NA	NA	NA	NA	13-30 (0.5-1.2)	13-30 (0.5-1.2)
Rubber End Seal Port Capacity							
1 Port End Seal Dia. Port #1	5-41 (0.2-1.6)	5-41 (0.2-1.6)	5-66 (0.2-2.6)	5-66 (0.2-2.6)	NA	NA	NA
2 Port End Seal Dia. Port #1	5-25 (0.2-1.0)	5-25 (0.2-1.0)	5-51 (0.2-2.0)	5-51 (0.2-2.0)	20-56 (0.8-2.2)	41-81 (1.6-3.2)	41-81 (1.6-3.2)
2 Port End Seal Dia. Port #2	5-15 (0.2-0.6)	5-15 (0.2-0.6)	5-15 (0.2-0.6)	5-15 (0.2-0.6)	5-56 (0.2-2.2)	5-81 (0.2-3.2)	5-81 (0.2-3.2)
3 Port End Seal Dia. Port #1	NA	NA	5-41 (0.2-1.6)	5-41 (0.2-1.6)	15-56 (0.6-2.2)	36-97 (1.4-3.8)	36-97 (1.4-3.8)
3 Port End Seal Dia. Port #2	NA	NA	5-25 (0.2-1.0)	5-25 (0.2-1.0)	5-36 (0.2-1.4)	15-46 (0.6-1.8)	15-46 (0.6-1.8)
3 Port End Seal Dia. Port #3	NA	NA	5-25 (0.2-1.0)	5-25 (0.2-1.0)	5-36 (0.2-1.4)	15-46 (0.6-1.8)	15-46 (0.6-1.8)

* Based on 2-Bank Straight Splice using MS²™ 4000-DWP Module

** Based on more than one cable

3M™ SLiC™ Aerial Terminal and SLiC Aerial Terminal with Spiral End Seal



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The 3M SLiC Aerial Terminal and the SLiC Aerial Terminal with Spiral End Seal are distribution terminals and closures contained within a lightweight, double-wall molded-plastic housing designed for fixed-count termination of aerial drop wires. Special block configurations required by the individual customer are also available and may be completed either at the factory or by the customer.

End seals of the SLiC Terminal are designed to assure proper sizing and a snug fit around the cable sheath. This

eliminates the need for drip collars to prohibit water from entering the splice chamber. The SLiC Terminal with Rubber End Seal comes packaged with single-port end seals; however, customers may use double-port or triple-port end seals as their applications require. The 7.6 cm SLiC Terminal with spiral end seal comes packaged with three port end seals. And, the 12.7 cm terminal comes packaged with four port end seals.

RUS Listed

Features — Benefits

SLiC Aerial Terminals	
Two-closure-in-one housing design	Separates splice and drop chamber
One piece construction	Eases installation
Self-healing drop wire ports	Minimizes weather and insect problems
Sleeves extend in either or both directions	Eliminates need for separate rehabilitation and distribution splices; accommodates long sheath openings
Accommodates a variety of terminating blocks	Adaptable to user requirements
Multiple distribution counts	Counts range in multiples of 5, from 5 to 25
Spiral end seal	One size fits multiple cable configurations

Product Referral Generator

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Sheath Scuff	pg. 199
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3M™ MS ^{2M} Modules	pg. 6



Ordering Information for Empty SLiC Aerial Terminals

Product Number	Block Type	Initial Pair Capacity	Packaging kg (lbs.)/cs.	Minimum Order	UPC 051138-
Empty Terminals with Spiral End Seals					
328-MTPI/SES	ATS/IDC	5 - 25	11.7 (26.0)	4	58545
530-MTPI/SES	ATS/IDC	5 - 25	4.1 (9.1)	1	58776

Empty Housings Available with Rubber End Seals Upon Request
 328 & 530 MT Housing will accommodate other manufacturer's blocks
 * Blocks must be purchased from manufacturer or through your distributor.

Ordering Information for Filled SLiC Aerial Terminals

Product Number	Block Type	Initial Pair Capacity	Packaging kg (lbs.)/cs.	Minimum Order	UPC 051138-
Filled Terminals with Spiral End Seals					
328-PI-5/SES	ATS/IDC	5, 10, 15, 25	12.0 (26.4)	4	75416
328-PI-10/SES	ATS/IDC	5, 10, 15, 25	12.0 (26.4)	4	58546
328-PI-20/SES	ATS/IDC	5, 10, 15, 25	12.0 (26.4)	4	58547
328-PI-25/SES	ATS/IDC	5, 10, 15, 25	13.8 (30.6)	4	58548
530-PI-5/SES	ATS/IDC	5, 10, 15, 25	5.0 (11.0)	1	75417
530-PI-10/SES	ATS/IDC	5, 10, 15, 25	5.0 (11.0)	1	58777
530-PI-20/SES	ATS/IDC	5, 10, 15, 25	5.0 (11.0)	1	58778
530-PI-25/SES	ATS/IDC	5, 10, 15, 25	5.1 (11.22)	1	58779

NOTE: 3" SLiC terminals have an approximate splice bundle capacity of 78.7 mm (3.1"). Based on 24 AWG (.5 mm) 2 bank straight splices using MS² 4000DWP modules; splice capacity is approximately 300 pair. 5" SLiC terminals have an approximate splice bundle capacity of 129.5 mm (5.1"). Based on 26 AWG (.4 mm) 2 bank straight splices using MS² 4000DWP modules; splice capacity is approximately 900 pair.

3M™ SLiC™ Aerial Closure and Terminal Accessories

#	Product Description	Pkg. kg (lbs.)/cs.	Min. Order	UPC
1. AC-HB1 Offset Hanger Brackets				
		1/cs., 2.4 (5.3)	1 set/bag, 10 sets/case [529936]	054007-34416
2. AC-HB2 Extended Hanger Brackets				
		1/cs., 2.4 (5.3)	1 set/bag, 10 sets/case	054007-92926
3. SLiC Rubber End Seal Kits				
	2" Single Port Rubber End Seal	10/cs., 0.6 (1.4)	10 each	054007-57092
	2" Double Port Rubber End Seal	10/cs., 0.5 (1.2)	10 each	054007-71218
	3" Single Port Rubber End Seal	10/cs., 1.0 (2.2)	10 each	054007-57093
	3" Double Port Rubber End Seal	10/cs., 1.0 (2.1)	10 each	054007-57094
	3" Triple Port Rubber End Seal	10/cs., 1.0 (2.2)	10 each	054007-71221
	5" Single Port Rubber End Seal	5/cs., 2.51 (5.5)	5 each	054007-91694
	5" Double Port Rubber End Seal	5/cs., 2.46 (5.4)	5 each	054007-71458
	5" Triple Port Rubber End Seal	5/cs., 1.3 (2.8)	5 each	054007-71220
	7" Double Port Rubber End Seal*	5/cs., 2.4 (5.2)	5 each	054007-71457
	7" Triple Port Rubber End Seal*	5/cs., 2.3 (5.0)	5 each	054007-71219
4. SLiC Spiral End Seal Kits				
	2" Triple Port Spiral End Seal	10/cs., 0.5 (1.2)	10 each	054007-92648
	3" Triple Port Spiral End Seal	10/cs., 1.2 (2.7)	10 each	054007-92649
	5" Four Port Spiral End Seal	5/cs., 2.1 (4.7)	5 each	054007-92650
	7" Five Port Spiral End Seal*	5/cs., 3.5 (7.8)	5 each	054007-92651
5. Sheath Retention Kits				
	SR-3 adds sheath retention to 3" SLiC Terminals and Closures	10/cs.	10 kits per case 1 kit per bag	051138-57641
	SR-5 adds sheath retention to 5" SLiC Terminals and Closures	10/cs.	10 kits per case 1 kit per bag	051138-57642

* Also fits in a 9" closure.



1. 200



2. 201



3. 202



4. 203



5. 204

3900-A Aerial Service Wire Closure Kit



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Features

- Butt splicing 2-pair aerial drop wire
- Pole and wall mount applications
- Wire gauges ranging from 18 to 24 AWG
- Utilizes available connectors (i.e. Scotchlok™ UY2 and UR2 Connectors)
- Provides primary physical protection
- Free breathing
- Resistant to UV rays

3M™ GATM Series Closures

Closure Selection Guide

To order GATM Series Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

2000 Aerial Terminal with Contour Drop Box

A free breathing terminal closure in combination with a separate distribution chamber (with block installed) that may be used with lashed or figure-8 cable in non-pressurized aerial application to quickly and easily terminate up to 25 pairs.

The contour drop box will accommodate 10, 20 and 25 pair raised post nonprotected terminal blocks. In addition, various pair count IDC terminal blocks may be used with the contour drop box.

2000 Aerial Terminal with 10 or 25 Pair Protected Drop Box

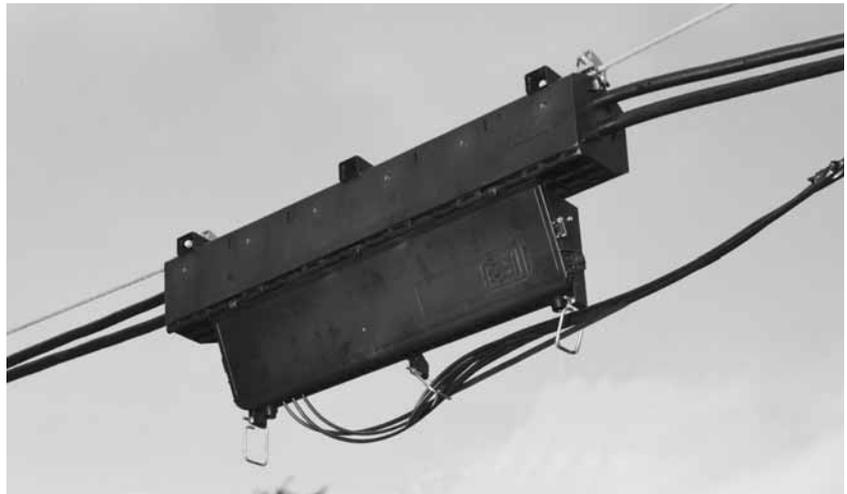
The drop box is for protected terminal blocks which are available with or without arrestors.

5000 and 7000 Aerial Terminal with Contour Drop Box

The contour drop box will accommodate 10, 20 and 25 pair raised post nonprotected terminal block. In addition, various pair count IDC terminal blocks may be used with the Contour drop box.

5000 and 7000 Aerial Terminal with 10 or 25 Pair Protected Drop Box

The drop box is for protected terminal blocks which are available with or without arrestors.



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Features — Benefits

GATM Series Closures and Terminals

All metal parts are of non-corrosive materials	Durable, long-lasting construction
No special tools, tapes glues or sealants required for assembly	Provides easy installation
Floating bond system is "built in" to closure	For flexibility in terminations
"Free-breathing" terminal closure	Vents moisture while prohibiting dirt, dust and insect entry
Re-enterable	Quick and easy terminations
Pre-cut end seals	Provides rapid sizing to fit a variety of cable sizes
Closures may be extended to protect large damaged sections of cable	Ensures product performance
Standard 10, 20, and 25 pair configurations	Easily fits a variety of applications
Protected and non-protected terminal blocks are available – raise post only	Features that fit your application



Ordering Information for 3M™ Non-protected Terminals GATM Series 2000, 5000 and 7000

Product Number	Sealing Washer Config.	Cable Sheath Diameter Range mm (in.)	Terminal Pair Count	Block Type	Protection Type	Approx. Weight kg (lbs.)	Min. Order (each)	UPC 051138-
2000 Terminals								
GATM92A251112	1 in / 1 out	7.6 - 38.1 (0.30 - 1.50)	25	Raised Post	Non-protected	3.6 (8)	1	77837
5000 Terminals								
GATM95A101112	1 in / 1 out	10.2 - 63.5 (0.40 - 2.5)	10	Raised Post	Non-protected	4.1 (9)	1	77863
GATM95A251112	1 in / 1 out	10.2 - 63.5 (0.40 - 2.5)	25	Raised Post	Non-protected	4.6 (10)	1	77865
7000 Terminals								
GATM97A101112	1 in / 1 out	15.2 - 101.6 (0.60 - 4.0)	10	Raised Post	Non-protected	7.7 (17)	1	77896
GATM97A251112	1 in / 1 out	15.2 - 101.6 (0.60 - 4.0)	25	Raised Post	Non-protected	7.7 (17)	1	77897

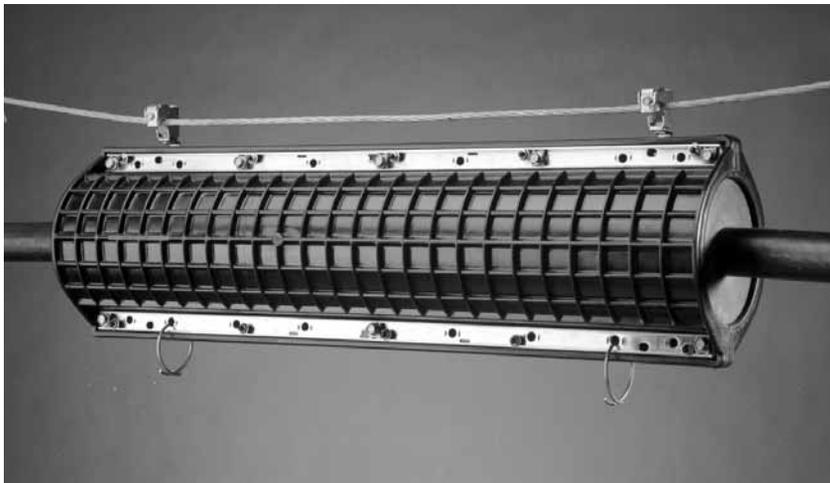
Standard Package = Kit. Minimum Order/Ordering Multiple = 1 Kit.

Ordering Information for 3M™ Protected Terminals GATM Series 2000, 5000 and 7000 with 10- or 25-Pair Protected Drop Box

Product Number	Sealing Washer Config.	Cable Sheath Diameter Range mm (in.)	Terminal Pair Count	Block Type	Protection Type	Approx. Weight kg (lbs.)	Min. Order (each)	UPC 051138-
2000 Terminals								
GATM92B101112	1 in / 1 out	7.6 - 38.1 (0.30 - 1.50)	10	Raised Post	Gas	5.9 (13)	1	77838
GATM92B251112	1 in / 1 out	7.6 - 38.1 (0.30 - 1.50)	25	Raised Post	Gas	6.4 (14)	1	78190
5000 Terminals								
GATM95B101112	1 in / 1 out	10.2 - 63.5 (0.40 - 2.5)	10	Raised Post	Gas	6.4 (14)	1	77867
GATM95C101112	1 in / 1 out	10.2 - 63.5 (0.40 - 2.5)	20	Raised Post	Carbon	6.4 (14)	1	78708
GATM95B251112	1 in / 1 out	10.2 - 63.5 (0.40 - 2.5)	25	Raised Post	Gas	6.8 (15)	1	78707
7000 Terminals								
GATM97B101112	1 in / 1 out	15.2 - 101.6 (0.60 - 4.0)	10	Raised Post	Gas	7.7 (17)	1	77898

Standard Package = Kit. Minimum Order/Ordering Multiple = 1 Kit.

3M™ Closures GATM Series



GATM "Super Stretch" Closure for aerial splice protection and sheath repairs.

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Ordering Information for 3M™ Aerial Super Stretch Closures GATM

Product Number	Inside Diameter mm (in.)	Max. Sheath Opening mm (in.)	Max. Number Cable Pairs (24 gauge)	Number of Cable Openings	Overall Length mm (in.)	Approx. Weight kg (lbs.)	Min. Order (each)	UPC 051138-
GATM9S7361111	178 (7)	635 (25)	2100	1 in / 1 out	914 (36)	10.3 (22.80)	1	78326
GATM9S7441111	178 (7)	851 (33.5)	2700	1 in / 1 out	1130 (44.5)	12.3 (27.10)	1	78329
GATM9S9362211	241 (9.5)	635 (25)	4200	2 in / 2 out	914 (36)	15.2 (33.5)	1	78332
GATM9S9442211	241 (9.5)	851 (33.5)	4800	2 in / 2 out	1130 (44.5)	17.9 (39.5)	1	78335

Standard Package = Kit. Minimum Order/Ordering Multiple = 1 Kit.

Sealing Washer Selection Chart for 3M™ Aerial Super Stretch Closure GATM

Product Number	Sealing Washer Entry Config.	Sealing Washer Dia. mm (in.)	Cable Dia. Range mm (in.)	Qty. in Standard Package	Min. Order/ Ordering Multiple	Approx. Weight kg (lbs.)	UPC 051138-
GATM9S71E	Single entry	718 (7)	1 @ 18.3 - 101.6 (0.72 - 4.0)	1	1 pkg.	0.88 (1.95)	78323
GATM9S72E	Double entry	718 (7)	2 @ 14.0 - 63.5 (0.55 - 2.5)	1	1 pkg.	0.88 (1.95)	78324
GATM9S73E	Triple entry	718 (7)	3 @ 14.0 - 63.5 (0.55 - 2.5)	1	1 pkg.	0.88 (1.95)	78327
GATM9S92E	Double entry	241 (9.5)	2 @ 14.0 - 101.6 (0.55 - 4.0)	1	1 pkg.	1.92 (4.25)	78330
GATM9S93E	Triple entry	241 (9.5)	1 @ 14.0 - 88.9 (0.55 - 3.5) 2 @ 14.0 - 63.5 (0.55 - 2.5)	1	1 pkg.	1.92 (4.25)	78333
GATM9S94E	Quadruple entry	241 (9.5)	2 @ 14.0 - 88.9 (0.55 - 3.5) 2 @ 14.0 - 53.3 (0.55 - 2.1)	1	1 pkg.	1.92 (4.25)	78336



3M™ Closure Accessories GATM Series

Ordering Information for 3M™ Closure Accessories GATM Series

Product Number	Description	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	Min. Order (each)	UPC 051138-
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Drop Chamber Housing

Replacement housings for GATM aerial terminals.

GATM90100	10 - 25 pair contour housing	1	1 pkg.	0.9 (2)	1	77812
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Closure Extender Kit

For connecting two closures together or covering sections of damaged cable.

GATM92960	For 2000 Series Closure	1	25 pkgs.	5.4 (12)	1	77831
GATM95960	For 5000 Series Closure	1	25 pkgs.	5.4 (12)	1	77860
GATM97960	For 7000 Series Closure	1	25 pkgs.	5.4 (12)	1	77894

Washer Housing Kit

Used in conjunction with splice closure extender kit to lengthen a closure.

GATM92961	For 2000 Series Closure	1	1 pkg.	0.23 (0.5)	1	77832
GATM95961	For 5000 Series Closure	1	1 pkg.	0.23 (0.5)	1	77861
GATM97961	For 7000 Series Closure	1	1 pkg.	0.23 (0.5)	1	77895



Ordering Information for 3M™ Closure Washers and End Sealing GATM Series

Product Number	Description	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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2000 Washers

GATM92911	Single Entry Washer	1	50 pkgs.	4.6 (10)	77828
GATM92922	Double Entry Washer	1	50 pkgs.	5.4 (12)	77829

5000 Washers

GATM95911	Single Entry Washer	1	25 pkgs.	5.4 (12)	77855
GATM95922	Double Entry Washer	1	25 pkgs.	5.0 (11)	77856
GATM95933	Triple Entry Washer	1	25 pkgs.	4.6 (10)	77858

7000 Washers

GATM97911	Single Entry Washer	1	10 pkgs.	0.9 (2)	77890
GATM97922	Double Entry Washer	1	10 pkgs.	0.9 (2)	77891
GATM97933	Triple Entry Washer	1	10 pkgs.	0.9 (2)	77893

For sealing the ends of splice and terminal closures.

Ordering Information for 3M™ Raised Post Terminal Blocks GATM

Product Number	Description	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
GATM96010	Non protected 10 pair block	1	1 pkg.	0.3 (0.7)	77877
Replacement for terminal blocks found in: GATM92A10-11, GATM95A10-11, GATM97A10-11.					
GATM96110	Gas protected 10 pair block	1	1 pkg.	0.9 (2)	77879
Replacement for terminal blocks found in: GATM92B10-11, GATM95B10-11, GATM97B10-11.					
GATM96025	Non protected 25 pair block	1	1 pkg.	0.9 (2)	77878
Replacement for terminal blocks found in: GATM92A25-11, GATM95A25-11, GATM97A25-11.					
GATM96125	Protected 25 pair block	1	1 pkg.	2.3 (5)	77880
Replacement for terminal blocks found in: GATM92B25-11, GATM95B25-11, GATM97B25-11.					



3M™ Dome Closures

Closure Selection Guide

To order Dome Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

Re-enterable Dome Closures with Pull 'N' Shrink Tubing (PST) offer fast, rugged splice protection with easy reentry.

An economical method of protecting butt splices for pedestal, hand hole or pole mount applications is provided by the Re-enterable PST Dome Closures. The closure provides protection from the harmful effects of moisture, insects, and ultraviolet light, while providing no cost re-entry.

The dome closure is an easily re-enterable closure that protects the splice—without requiring special tools or flame for installation.

The splice is enclosed in a split polypropylene dome which is clamped together with a steel latch and sealed with an O-ring. An expanded ethylene propylene rubber tube (PST) is slipped over the base of the enclosure and onto a gel sealing collar. Pulling a plastic rip cord on the PST allows it to shrink to the minimum outside diameter necessary to form a tight seal. The flexible tubing material conforms to the shape of the collar, sealing out both air and water.

The kit is available in four sizes, which accommodate splices from 25- to 900-pair. For encapsulated plant, three sizes are available which accommodate splices from 25- to 600-pair.

RUS Listed



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Features — Benefits

Re-enterable PST Dome Closures

Unique latching system to secure dome to the sealed base	Easily re-enterable, no reentry kit, seal undisturbed at reentry, no tools needed to reenter
Gel end seal	Air tight seal over multiple cable diameters and configurations
Retrofits existing PST	Multiple applications

Specifications for 3M™ Re-enterable PST Dome Closure Kits

	4604	4606	4608
Closure Outside Dimension	97 x 71 (3.8 x 2.8) W x D mm (in.)	142 x 99 (5.6 x 3.9)	178 x 137 (7.0 x 5.4)
Closure Height (H) mm (in.)	572 (22.5)	572 (22.5)	597 (23.5)
Approx. Bundle Diameter	64 (2.5) mm (in.)	99 (3.9)	135 (5.3)
Minimum Reliable CAD Pedestal	CAD 4	CAD 6	CAD 8
Main Cables mm (in.)	13-28 (0.5-1.1)	23-41 (0.9-1.6)	36-64 (1.4-2.5)
Terminal Cables mm (in.)	10-15 (0.4-0.6)	10-15 (0.4-0.6)	10-20 (0.4-0.8)
Branch Cables mm (in.)	–	18-25 (0.7-1.0)	23-33 (0.9-1.3)
Drop Cables mm (in.)	9 max. (0.35 max.) 2 cable max.	9 max. (0.35 max.) 2 cable max.	9 max. (0.35 max.) 2 cable max.
*Approx. Splice Range	100 pr.-MS ² 50 pr.-UR2	300 pr.-MS ² 100 pr.-UR2	600 pr.-MS ² 300 pr.-UR2

Ordering Information

Packaging kg (lbs.)	15/cs. 17.0 (37.5)	9/cs. 15.6 (34.4)	5/cs. 12.2 (26.8)
Minimum Order	15 kits	9 kits	5 kits
UPC	051138-36513	051138-36514	051138-36515

*NOTE: Based on 2 bank MS²™ 4000-DWP Modules and Scotchlok™ Connectors installed per 3M practices. Examples: 100-pair means 100-pair In and 100-pair Out or 100 pair straight splice.

Kit components included: Closure Assembly, Dome, Base, O-Ring, Latch, Gel End Seal, Ground Wires, PST Sheath Scuff, Desiccant Bag.

Companion products needed: Scotch® Vinyl Tape 88T 38 mm (1-1/2") Wide, 130C LR Rubber Tape, 3M™ Scotchlok™ Shield Bond Connectors 4460 Series, 3M™ Scotchlok™ UR2 or MS² Splice Connectors, 6228 Cable Ties, 381 mm (15").

Ordering Information for 3M™ Re-enterable Dome Closure Accessories

Product Number	Size cm (in.)	Packaging kg (lbs.)	Minimum Order	UPC
4604-PST Pull N' Shrink Tubing	11.4 x 13.3 (4.8 x 5.25)	5/cs., 2,4 (5.5)	5 each	054007-92231
4606-PST Pull N' Shrink Tubing	14.6 x 15.8 (5.75 x 6.25)	5/cs., 4,0 (8.92)	5 each	054007-92230
4608-PST Pull N' Shrink Tubing	18.4 x 18.4 (7.25 x 7.25)	5/cs., 9,4 (20.78)	5 each	054007-92229
4600-GSS Gel Sealant Strip	6.3 x 50.7 (2.5 x 20)	50/cs., 9,4 (20.78)	50 each	054007-92221
4600-NID Non-Indicating Desiccant Bags	–	100/cs., 3,6 (8.0)	100 each	051138-36517



Ordering Information for 3M™ Gel-Wrap PST Closure Accessories

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
GW-922- Gel Wrap	5.9 (13)	10 each/cs.	051138-57700

Ordering Information for 3M™ PST Pedestal Closure Accessories

Product Number	Size mm (in.)	Packaging kg (lbs.)	Minimum Order	UPC
4634-R PST Pedestal Splice Closure Re-entry Kit	76.2 (3.0)	1/box, 10/cs., 3.4 (7.6)	10 kits	054007-17480
4635-R PST Pedestal Splice Closure Re-entry Kit	114.3 (4.5)	1/box, 10/cs., 5.4 (12.1)	10 kits	054007-17481
4636-R PST Pedestal Splice Closure Re-entry Kit	152.4 (6.0)	1/bag, 5/cs., 4.5 (9.95)	5 kits	054007-17654
2900-R Sealing Collar Tape	38 x 1.5 m (1.5 x 5')	5/box 50/cs., 14.4 (31.9)	50 rolls	054007-68546
4637-R PST Pedestal Splice Closure Re-entry Kit	–	5/cs., 10.1 (22.4)	5 kits	054007-71534



3M™ Foam-Sealed Closures

Closure Selection Guide

To order Foam-Sealed Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

Foam-Sealed Closures enclose cable plant splices in direct buried, hand hole, and man hole applications. They also protect cable splices from environmental elements found in these applications and enclose a variety of cable configurations. The closures are also used to easily accommodate distribution drops from the main cable.

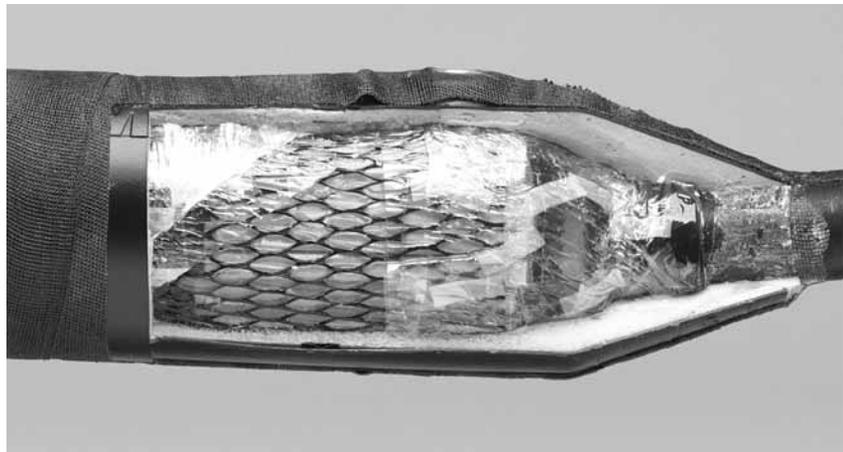
The methods used in foam-sealed closures have evolved from early gravity filled methods to compound compression methods.

Foam-Sealed Closure

Foam Sealed Closures use the Compound Compression method to apply the pressure to the encapsulant. The polyethylene closure body is over wrapped with the armorcast structural material for physical strength. 3M 4411 expandable sealant is used to fill the void between the closure body and the compound compression splice. The expandable foam adheres to the closure body, E-Z wrap and the cable sheath which in turn provides a water tight barrier around the splice and cables entering the closure.

Buried Compound Compression

The Better Buried Compound Compression Closure method forces the encapsulant up the cable core to



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stop water ingress. The product is simple to install, comes with the spacer web and plastic wrap and is used to hold and force the encapsulant. The product is offered in different sizes to cover various cable ranges and can be easily extended and bricked.

The Better Buried and 89 Series Closures use a gravity fill method of encapsulating and protecting the cable splice. Both kits are simple to install and are offered with a full product offering to cover the complete cable ranges found in the outside plant. In addition, both kits can be ordered with 4442 High Gel re-enterable encapsulant. The 89 Series can also



Better Buried Closures

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be purchased with 4407 Encapsulant for making a permanent, hard encapsulated closure with maximum water protection.



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Features — Benefits

Foam-Sealed Closures

Few loose parts	Easy assembly and improved productivity
No heat required	Eliminate safety concerns
Adjustable closure diameter	Minimizes compound usage and total cost
Tough outer shell	Can be used in harsh environments
Rigid body closure	Easy re-entry, physical strength
Rigid bonding assembly	Increased physical strength, provides more support to the cable
Solvent resistant	Gasoline won't erode expandable foam and armorcast
Can be cut with a zip cord	Easy re-entry & saves time
Can be extended easily	No need to stock different sizes
Total kit	No need to order individual parts, reduces total cost

Ordering Information for 3M™ Foam-Sealed Closure with Compound Compression

Product Number	FSC- 2x12	FSC- 3x12 S	FSC- 3x12 L	FSC- 3x19	FSC- 3x21	FSC- 4x19	FSC- 4x21	FSC- 6x19	FSC- 8x19	FSC- 8x19 L
Splice Bundle Diameter mm (in.)	31 (1.25)	50 (2)	76 (3)	76 (3)	76 (3.0)	100 (3.9)	100 (3.9)	145 (5.7)	190 (7.48)	190 (7.48)
Max. Splice Opening mm (in.)	228 (9)	255 (10)	255 (10)	430 (17)	533 (21)	430 (17)	533 (21)	480 (19)	480 (19)	480 (19)
Closure Length End-To-End mm (in.)	90 (15.25)	546 (21.5)	546 (21.5)	724 (28.5)	838.2 (33)	724 (28.5)	838.2 (33)	775 (30.5)	775 (30.5)	775 (30.5)
3M™ MS ² ™ 4000 DWP Module Splice Max.	0	100/24	200/24	400/24	400/24	600/24	600/24	1200/24	2400/26	2700/26
3M™ Scotchlok™ Connector Splice UY2	25/22	75/24	200/24	400/24	400/24	600/24	600/24	1200/24	2400/26	2700/26
Approx. Compound Required ml (g)	165 -150	385 -350	769 -700	1648 -1500	1868 -1700	2473 -2250	2857 -2600	5769 -5250	8242 -7500	9890 -9000
Ordering Information										
Packaging	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit
Minimum Order	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit	1 kit
UPC 051138-	75365	70899	70901	70900	76153	70902	76154	70903	70904	70905

Additional products needed to complete this product:

- Splicing Connectors and External Bonding Kit (if necessary)
- Encapsulant
- E-Z Wrap

3M™ Better Buried Closures

Closure Selection Guide

To order Better Buried Closures, follow these steps:

1. Determine closure size using pair capacity and maximum opening, (i.e. = BB2 x 12)
2. Using closure size from Step 1, determine splice and cable configuration code. (i.e. = SB/2SC-LHS)
(Combine steps 1 and 2 to determine product number (i.e. = BB2 x 12 SB/2SC-LHS))

Product Nomenclature:

BB = Better Buried	SC = Single Port End Cap
FC = Flat Cap	SB = Strain Relief Bond Bar
DC = Double Port End Cap	PC = Puddle Cap
SW = Spaces Web	TC = Triple Port End Cap
LHS = Locking Harness System	DS = Double Sleeve

Closure Capacity for BB2x12 through BB4x12

Step 1	Better Buried Closures				
Description	BB2x12	BB2x24	BB3x12	BB3x24	BB4x12
Splice Bundle Diameter mm (in.)	50 (2)	50 (2)	75 (3)	75 (3)	100 (4)
Max. Splice Opening mm (in.)	177 (7)	425 (17)	177 (7)	425 (17)	177 (7)
Closure Length End To End mm (in.)	400 (16)	700 (28)	400 (16)	700 (28)	400 (16)
MS2™ 4000 DWP Module Splice Maximum Pair Capacity	50-pr.	100-pr.	100-pr.	200-pr.	200-pr.
Scotchlok™ Connector UR2/UR	25-pr.	50-pr.	75-pr.	100-pr.	150-pr.
Approx. Compound Required ml (g*)	660 (600)	1,320 (1,200)	1,320 (1,200)	3,300 (3,000)	2,500 (2,250)

*Grams of 4442 High Gel Re-enterable Encapsulant based on the density of 1.1ml (0.9g). The density of other re-enterable encapsulants will vary.

Splice and Cable Configurations for BB2x12 through BB4x12

Step 2					
Description	BB2x12	BB2x24	BB3x12	BB3x24	BB4x12
In-line Splice With Single End Caps (1 in/1 out)	SB/2SC-LHS	SB/2SC-LHS	-	SB/2SC-LHS	SB/2DC-LHS
In-line Splice With 1 Single & 1 Double End Cap (1 in/2 out)	-	SB/SC, DC-LHS	-	SB/SC, DC-LHS	-
In-line Splice With 1 Single & 1 Double End Cap, (SB/SC, DC-LHS), Plus 4462 Shield Bond Connector And 4442 High Gel (1 in/2 out)	4462/High Gel SC, DC-LHS	4462/High Gel SC, DC-LHS	-	4462/High Gel SC, DC-LHS	-
In-line Splice With 2 Double End Caps (2 in/2 out)	-	-	SB/2DC-LHS	-	-
In-line Splice With 1 Double & 1 Triple End Cap (2 in/3 out)	-	-	-	-	-
Butt Splice With End Cap	2BB BUTT-LHS	-	3BB BUTT-LHS	-	4BB BUTT-LHS

End Caps and Closure Extension Sleeves for BB2x12 through BB4x12

Accessories					
Description	BB2x12	BB2x24	BB3x12	BB3x24	BB4x12
Single Entry	2" SC-LHS BB	2" SC-LHS BB	3" SC-LHS BB	3" SC-LHS BB	4" SC-LHS BB
Double Entry	2" DC-LHS BB	2" DC-LHS BB	3" DC-LHS BB	3" DC-LHS BB	4" DC-LHS BB
Triple Entry	-	-	-	-	-
1 Flat Cap, 1 Puddle Cap	-	-	-	-	4" BB FC/PC
Sleeve Name	2DS-12-BB	2DS-24-BB	3DS-24-BB	3DS-24-BB	4DS-24-BB



Ordering Example: BB2x24 SB/SC, DC-LHS

- BB = A Better Buried Closure
- 2x24 = 2 inch Diameter, 24 inch Length
- SB = Strain Relief Bond Bar
- SC = One Single Port End Cap
- DC = One Double Port End Cap
- LHS = Locking Harness System

Closure Capacity for BB4x24 through BB9x26

Step 1 Better Buried Closures					
Description	BB4x24	BB5x26	BB6x26	BB7x26	BB9x26
Splice Bundle Diameter mm (in.)	100 (4)	125 (5)	150 (6)	175(7)	225(9)
Max. Splice Opening mm (in.)	425 (17)	475 (19)	475 (19)	475 (19)	475 (19)
Closure Length End To End mm (in.)	750 (30)	750 (30)	750 (30)	750 (30)	750 (30)
MS2™ 4000 DWP Module Splice Maximum Pair Capacity	400-pr.	600-pr.	900-pr.	1,200-pr.	2,400-pr.
Scotchlok™ Connector UR2/UR	200-pr.	300-pr.	400-pr.	600-pr.	900-pr.
Approx. Compound Required ml (g)	5,000 (4,500)	8,300 (7,200)	13,750 (12,500)	16,500 (15,000)	23,100 (21,000)

Splice and Cable Configurations for BB4x24 through BB9x26

Step 2					
Description	BB4x24	BB5x26	BB6x26	BB7x26	BB9x26
In-line Splice With Single End Caps (1 in/1 out)	SB/2SC-LHS	SB/2SC-LHS	–	–	–
In-line Splice With 1 Single & 1 Double End Cap (1 in/2 out)	SB/SC, DC-LHS	SB/SC, DC-LHS	–	–	–
In-line Splice With 1 Single & 1 Double End Cap, (SB/SC, DC-LHS), Plus 4462 Shield Bond Connector And 4442 High Gel (1 in/2 out)	4462/High Gel SC, DC-LHS	4462/High Gel SC, DC-LHS	–	–	–
In-line Splice With 2 Double End Caps (2 in/2 out)	–	–	SB/2DC-LHS	SB/2DC-LHS	SB/2DC-LHS
In-line Splice With 1 Double & 1 Triple End Cap (2 in/3 out)	–	–	–	SB/DC, TC-LHS	SB/DC, TC-LHS
Butt Splice With Double End Cap	SW/FC, PC-LHS	SW/FC, PC-LHS	–	SW/FC, PC-LHS	–

End Caps and Closure Extension Sleeves for BB4x24 through BB9x26

Accessories					
Description	BB4x24	BB5x26	BB6x26	BB7x26	BB9x26
Single Entry	4" SC-LHS BB	5" SC-LHS BB	–	–	–
Double Entry	4" DC-LHS BB	5" DC-LHS BB	6" DC-LHS BB	7" DC-LHS BB	9" DC-LHS BB
Triple Entry	–	–	–	7" TC-LHS BB	9" TC-LHS BB
1 Flat Cap, 1 Puddle Cap	4" BB FC/PC	5" BB FC/PC	–	7" BB FC/PC	–
Sleeve Name	4DS-24-BB	5DS-26-BB	6DS-26-BB	7DS-26-BB	9DS-26-BB

Ordering Information for Better Buried Closure Complete Kits

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
BB2x12/4462/High Gel	1/cs., 1.4 (3.2)	1 kit	051138-36502
BB2x24/4462/High Gel	1/cs., 2.6 (5.8)	1 kit	051138-36503
BB3x24/4462/High Gel	1/cs., 5.9 (13.0)	1 kit	051138-36504
BB4x24/4462/High Gel	1/cs., 8.6 (19.0)	1 kit	051138-36505
BB5x26/4462/High Gel	1/cs., 13.1 (28.8)	1 kit	051138-36506

Note: Kits do not include Scotchlok, MS² or 710 connectors.

Ordering Information for Better Buried Closure Kits

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
BB2x12 SB/2SC-LHS	10/cs., 6.3 (13.8)	10 kits	054007-68228
BB2x24 SB/2SC-LHS	1/cs., 1.4 (3.0)	1 kit	054007-68230
BB3x24 SB/2SC-LHS	1/cs., 1.8 (3.9)	1 kit	054007-68236
BB4x24 SB/2SC-LHS	1/cs., 2.3 (5.1)	1 kit	054007-68241
BB5x26 SB/2SC-LHS	1/cs., 3.2 (7.1)	1 kit	054007-68246
BB2x12 SW/FC, DC-LHS	1/cs., 0.7 (1.5)	1 kit	054007-71342
BB3x12 SW/FC, DC-LHS	1/cs., 0.9 (2.0)	1 kit	054007-71343
BB4x12 SW/FC, DC-LHS	1/cs., 1.1 (2.5)	1 kit	054007-63209
BB4x24 SW/FC-PC	1/cs., 2.08 (4.6)	1 kit	054007-63923
BB5x26 SW/FC-PC	1/cs., 3.2 (7.0)	1 kit	054007-63836
BB7x26 SW/FC-PC	1/cs., 4.9 (9.0)	1 kit	054007-68215
BB2x24 SB/SC, DC-LHS	1/cs., 1.4 (3.0)	1 kit	054007-68229
BB3x12 SB/SC, DC-LHS	1/cs., 0.9 (2.0)	1 kit	051138-57551
BB3x24 SB/SC, DC-LHS	1/cs., 1.7 (3.7)	1 kit	054007-68235
BB4x24 SB/SC, DC-LHS	1/cs., 1.7 (3.7)	1 kit	054007-68240
BB5x26 SB/SC, DC-LHS	1/cs., 2.3 (5.0)	1 kit	051138-36506
BB3x24 SB/2SC, DC-LHS	1/cs., 1.8 (3.9)	1 kit	054007-68236
BB4x24 SB/2SC, DC-LHS	1/cs., 1.7 (3.7)	1 kit	054007-68240
BB4x12 SB/2DC-LHS	1/cs., 1.1 (2.5)	1 kit	051138-57936
BB6x26 SB/2DC-LHS	1/cs., 3.6 (8.0)	1 kit	054007-71373
BB7x26 SB/2DC-LHS	1/cs., 4.2 (9.3)	1 kit	054007-71375
BB9x26 SB/2DC-LHS	1/cs., 5.1 (11.3)	1 kit	054007-71377
BB7x26 SB/DC, TC-LHS	1/cs., 4.7 (10.4)	1 kit	054007-71374
BB9x26 SB/DC, TC-LHS	1/cs., 5.9 (13.0)	1 kit	054007-71376

Note: Kits do not include encapsulant, shield bond connectors or 2900R and 130C tapes.

Ordering Information for Better Buried Closure Accessories

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
4430 Spacer Web 3x20	2/cs., 1.04 (2.3)	2 each	054007-30362
4430 Spacer Web 6x20	1/cs., 0.90 (2.0)	1 each	054007-30361



Ordering Information for Better Buried Closure Kit Spare Parts

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
2SC-LHS BB	10/cs., 0.9 (2.0)	10 each	054007-68289
2DC-LHS BB	10/cs., 1.0 (2.3)	10 each	054007-68290
2DS-24-BB	10/cs., 7.4 (16.4)	10 each	054007-31070
3SC-LHS BB	10/cs., 1.4 (3.0)	10 each	054007-68291
3DC-LHS BB	10/cs., 1.4 (3.0)	10 each	054007-68292
3DS-24-BB	10/cs., 12 (26.5)	10 each	054007-31071
4SC-LHS BB	10/cs., 1.8 (4.0)	10 each	054007-68293
4DC-LHS BB	10/cs., 2.3 (5.0)	10 each	054007-68294
4BB FC/PC	10/cs., 2.3 (5.0)	10 kits	054007-68283
4DS-24-BB	10/cs., 16.1 (35.4)	10 each	054007-31072
5SC-LHS BB	10/cs., 2.7 (6.0)	10 each	054007-68295
5DC-LHS BB	10/cs., 3.2 (7.0)	10 each	054007-68296
5BB FC/PC	10/cs., 3.2 (7.0)	10 kits	054007-68284
5DS-26-BB	10/cs., 13.6 (30.0)	10 each	054007-31809
6DC-LHS BB	1/cs., 0.5 (1.0)	1 each	054007-71391
6DS-26-BB	1/cs., 2.9 (6.5)	1 each	054007-34039
7DC-LHS BB	1/cs., 0.5 (1.0)	1 each	054007-71394
7TC-LHS BB	1/cs., 0.5 (1.0)	1 each	054007-71393
7BB FC/PC	5/cs., 2.3 (5.0)	5 kits	054007-68285
7DS-26-BB	1/cs., 3.4 (7.5)	1 each	054007-31915
9DC-LHS BB	1/cs., 0.5 (1.0)	1 each	054007-71395
9TC-LHS BB	1/cs., 0.5 (1.0)	1 each	054007-71396
9DS-26-BB	1/cs., 4.9 (9.0)	1 each	054007-31916

Ordering Information for Compound Compression Kits

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
BB2x12CC SB/2SC-LHS	10/cs., 8.16 (18.0)	10 kits	054007-91422
BB2x24CC SB/2SC-LHS	10/cs., 1.49 (3.3)	1 kit	054007-91423
BB3x12CC SB/2SC-LHS	1/cs., 1.36 (3.0)	1 kit	054007-91572
BB3x24CC SB/2SC-LHS	1/cs., 1.81 (4.0)	1 kit	054007-92836
BB4x24CC SB/2SC-LHS	1/cs., 2.72 (6.0)	1 kit	054007-91424
BB5x26CC SB/2SC-LHS	1/cs., 3.62 (8.0)	1 kit	054007-92837
BB6x26CC SB/2DC-LHS	1/cs., 4.53 (10.0)	1 kit	054007-91425
BB7x26CC SB/2DC-LHS	1/cs., 5.21 (11.5)	1 kit	054007-92838
BB9x26CC SB/2DC-LHS	1/cs., 5.57 (12.3)	1 kit	054007-92839
BB/CC-R	1/cs., 0.90 (2.0)	1 kit	054007-92842

Note: Kits do not include encapsulant or shield bond connectors.

Maximum Splice Bundle Capacities (Straight Splice) for Better Buried Compound Compression Kits

Product Number	4000-DWP or 25-pair modular connector	UR Connectors (w/3" Pigtails)	UPC
BB2x12CC SB/2SC-LHS	50 pr., 24 AWG (0.5 mm)	25 pr., 22 AWG (0.6 mm)	054007-91422
BB3x12CC SB/2SC-LHS	100 pr., 22 AWG (0.6 mm)	75 pr., 22 AWG (0.6 mm)	054007-91572
BB2x24CC SB/2SC-LHS	100 pr., 24 AWG (0.5 mm)	50 pr., 22 AWG (0.6 mm)	054007-91423
BB3x24CC SB/2SC-LHS	200 pr., 24 AWG (0.5 mm)	100 pr., 22 AWG (0.6 mm)	054007-92836
BB4x24CC SB/2SC-LHS	400 pr., 24 AWG (0.5 mm)	200 pr., 22 AWG (0.6 mm)	054007-91424
BB5x26CC SB/2SC-LHS	600 pr., 24 AWG (0.5 mm)	300 pr., 22 AWG (0.6 mm)	054007-92837
BB6x26CC SB/2DC-LHS	900 pr., 24 AWG (0.5 mm)	400 pr., 22 AWG (0.6 mm)	054007-91425
BB7x26CC SB/2DC-LHS	1200 pr., 24 AWG (0.5 mm)	600 pr., 22 AWG (0.6 mm)	054007-92838
BB9x26CC SB/2DC-LHS	2400 pr., 24 AWG (0.5 mm)	900 pr., 22 AWG (0.6 mm)	054007-92839
BB/CC-R Reentry Kit	–	–	054007-92842



Closure Dimension Guide for Better Buried Closures

Closure End Cap Port Diameters					Max. Splice Openings			Approx. Amount of Compound Required
Closure Size	Single Entry (Maximum)	Multiple Entry (Maximum)			Single Sheath	Double Sheath		Average Splice
		1	2	3		Outer	Inner	
BB2x12 2" x 12" (50 x 305 mm)	1.2" 30 mm	1.2" 30 mm	0.7" 18 mm	–	5" 127 mm	–	–	21 oz. 600 g
BB3x12 3" x 12" (76 x 305 mm)	1.6" 41 mm	1.6" 41 mm	1.0" 25 mm	–	5" 127 mm	–	–	42 oz. 1200 g
BB2x24 2" x 24" (50 x 610 mm)	1.2" 30 mm	1.2" 30 mm	0.7" 18 mm	–	17" 432 mm	17" 432 mm	14" 356 mm	42 oz. 1200 g
BB3x24 3" x 24" (76 x 610 mm)	1.6" 41 mm	1.6" 41 mm	1.0" 25 mm	–	17" 432 mm	17" 432 mm	14" 356 mm	106 oz. 3000 g
BB4x24 4" x 24" (102 x 610 mm)	2.0" 51 mm	2.0" 51 mm	1.5" 38 mm	–	17" 432 mm	17" 432 mm	14" 356 mm	159 oz. 4500 g
BB5x26 5" x 26" (127 x 660 mm)	2.4" 61 mm	2.4" 61 mm	1.8" 46 mm	–	19" 483 mm	19" 483 mm	16" 406 mm	254 oz. 7200 g
BB6x26 6" x 26" (152 x 660 mm)	3.3" 84 mm	2.7" 68 mm	2.0" 50 mm	1.5" 38 mm	19" 483 mm	19" 483 mm	16" 406 mm	441 oz. 12500 g
BB7x26 7" x 26" (178 x 660 mm)	3.5" 89 mm	3.5" 89 mm	2.2" 56 mm	2.2" 56 mm	19" 483 mm	19" 483 mm	16" 406 mm	530 oz. 15000 g
BB9x26 9" x 26" (229 x 660 mm)	4.0" 102 mm	4.0" 102 mm	2.5" 64 mm	2.5" 64 mm	19" 483 mm	19" 483 mm	16" 406 mm	742 oz. 21000 g

3M™ Scotchcast™ Closures 89 Series

Closure Selection Guide

To order Scotchcast Closures 89 Series, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

8981/High Gel, 8982/High Gel,
8983/High Gel, 8984/High Gel,
8985/High Gel, 8986/High Gel

RUS Listed

These rigid body closures use a gravity fill method of encapsulating and protecting cables. They are packed with 4442 High Gel Re-enterable Encapsulant/8882 High Gel

Re-enterable Encapsulant for easy re-entry and include:

- 3M™ Scotchlok™ 4462-Shield Bond Connectors
- Scotch® 130C Tape
- Scotch® 88T Tape
- 3M™ Scotchcast™ 4435 Sheath Scuff

RUS Listed



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Ordering Information for 3M Scotchcast Closures 89 Series/Re-enterable Encapsulant

Product number	8981 High Gel	8982-4462 High Gel	8983-4462 High Gel	8984-4462 High Gel	8985-4462 High Gel	8986-4462 High Gel
Splice Bundle Diameter mm (in.)	13 (0.5)	23 (0.9)	32 (1.25)	57 (2.25)	88 (3.5)	119 (4.75)
Max. Splice Opening mm (in.)	38 (1.5)	132 (5.25)	244 (9.75)	225 (9.0)	425 (17)	425 (17)
Closure Length End To End mm (in.)	182 (7.2)	273 (10.75)	396 (15.6)	400 (15.75)	622 (24.5)	635 (24.5)
Scotchlok Connector UR2/UR	4-pr.	18-pr.	50-pr.	100-pr.	400-pr.	600-pr.
MS ² ™ 4000 DWP Module Splice Maximum Pair Capacity	-	-	50-pr.	100-pr.	400-pr.	600-pr.
Approx. Compound Included	90 ml (82 grams)	300ml (266 grams)	660 ml (600 grams)	1,320 ml (1,200 grams)	2,640 ml (3,000 grams)	6,600 ml (6,000 grams)
Packaging kgs (lbs.)	1/box 10/cs. 2.9 (6.4)	1/cs. 5.7 (12.5)	1/cs. 10.3 (22.6)	1/cs. 2.1 (4.6)	1/cs. 4.7 (10.3)	1/cs. 9.1 (20.0)
Minimum Order	10 kits	10 kits	10 kits	1 kit	1 kit	1 kit
UPC	051138-36496	051138-36497	051138-36498	051138-36499	051138-36500	051138-36501

Additional products needed to complete this closure: 4458 Pair Save; Scotchlok™, MS²™ or 710 Connectors.

Ordering Information for 8882 Re-enterable Closures

Product Number	UPC
8981-8882	051115-14653
8982-8882	051115-14654
8983-8882	051115-14655
8984-8882	051115-14656
8985-8882	051115-14657
8986-8882	051115-14658

3M™ Scotchcast™ PIC Encapsulating Closure Kits (Non Re-enterable)

of translucent polypropylene and are packed with 4407 Urethane Compound and rubber tape strips for sealing ends of closure.



These rigid body closures are made

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Ordering Information for 3M™ Scotchcast™ Closures 89 Series/Hard Encapsulant (non re-enterable)

Product Number	8981-07	8982-07	8983-07	8984-07	8985-07	8986-07
Splice Bundle Diameter mm (in.)	13 (0.5)	23 (0.9)	32 (1.25)	57 (2.25)	88 (3.5)	119 (4.75)
Max. Splice Opening mm (in.)	38 (1.5)	132 (5.25)	244 (9.75)	225 (9.0)	425 (17)	425 (17)
Closure Length End To End mm (in.)	182 (7.2)	273 (10.75)	396 (15.6)	400 (15.75)	622 (24.5)	635 (24.5)
Scotchlok Connector UR2/UR	4-pr.	18-pr.	50-pr.	100-pr.	400-pr.	600-pr.
MS ² 4000 DWP Module Splice Maximum Pair Capacity	–	–	–	100-pr.	400-pr.	600-pr.
Approx. Compound Included	90 ml (94 grams)	300ml (300 grams)	660 ml (675 grams)	1,320 ml (1,350 grams)	2,640 ml (3,375 grams)	6,600 ml (6,750 grams)
Packaging kgs (lbs.)	1/box 10/cs. 3.1 (6.8)	1/box 10/cs. 6.2 (13.6)	1/box 10/cs. 11.2 (24.7)	1/cs. 2.1 (4.6)	1/cs. 4.9 (10.7)	1/cs. 9.3 (20.5)
Minimum Order	10 kits	10 kits	10 kits	1 kit	1 kit	1 kit
UPC	054007-30851	054007-30852	054007-30853	054007-33376	054007-33374	054007-30854

Additional products needed to complete this closure: 4458 Pair Saver; Scotchlok, MS² or 710 Connectors; Bonding Strap; Tapes (88T tape, DR tape, B sealing tape strips); Shield Bond Connectors; Sheath-Stuff; Cable Ties.

Kit Contents

4407 Kit	8981	8982	8983	8984	8985	8986
Left and Right Closure Halves	yes	yes	yes	–	–	–
Upper and Lower Closure Halves	–	–	–	yes	yes	yes
Pour Spouts	(2)	(2)	(2)	–	–	–
#23 Tape Strips	(3)	(3)	(3)	(3)	(3)	(3)
Spacer Web	yes	yes	yes	yes	yes	yes
Cover	–	–	–	yes	yes	yes
Fiberglass Strip-Bulk Roll	–	–	–	(2)	(2)	(2)
4407 Encapsulating Compound	yes	yes	yes	yes	yes	yes
4442 Kit	8981	8982	8983	8984	8985	8986
Left and Right Closure Halves	yes	yes	yes	–	–	–
Upper and Lower Closure Halves	–	–	–	yes	yes	yes
4442 Encapsulating Compound	yes	yes	yes	yes	yes	yes
4464 Service Wire Shield Connector	yes	–	–	–	–	–
4460-D Shield Bond Connectors	(2)	yes	yes	(2)	–	–
4462-FN Shield Connectors	–	–	–	–	(4)	(4)
Strain Relief Bar	–	–	–	11.5" (292 mm)	(2) 9.5" (495 mm)	(2) 19.5" (495 mm)
Bonding Strap 6.5" (165 mm)	–	yes	yes	–	–	–
Pour Spouts	(2)	(2)	(2)	–	–	–
#23 Tape Strips	(3)	–	–	–	–	–
DR Tape	–	(1)	(1)	(1)	(1)	(1)
88T Vinyl Tape	–	(1)	(1)	(1)	(1)	(1)
B Sealant Tape Strips	–	(1)	(1)	(2)	(2)	(2)
Spacer Web	yes	yes	yes	yes	yes	yes
Spacer Tube	–	yes	yes	yes	(2)	(2)
Sheath Scuff	–	(1)	(1)	(1)	(1)	(1)
Cable Ties	(2)	(2)	(2)	(2)	(2)	(2)
Cover	–	–	–	yes	yes	yes



3M™ SLiC™ 5-Pair Buried Service Wire Kit

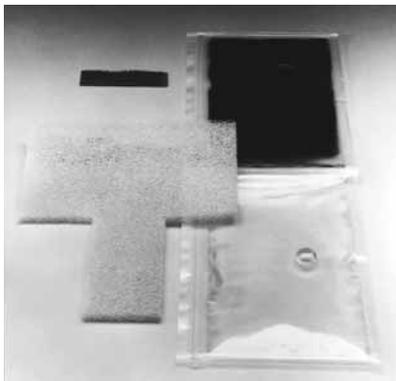


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Protecting a buried service wire splice is now easier than ever with the SLiC Buried Service Wire Kit. The BSW kit is a three-part, rigid body closure that self-encapsulates two- and five-pair buried service wire. It has a built-in bonding system that bonds the buried service wire shield as the splice is put together—and it contains a revolutionary new sealant.

The special formulated sealant is a one-part, no-mix, non-urethane product containing no grease. The sealant serves as an electrical insulator and reacts upon moisture contact to prevent water ingress. At the point of water incursion, the sealant hardens and forms a water-resistant barrier.

3M™ Scotchcast™ Buried Service Wire Splicing/Cable Capping Kit 3817



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For buried service wire splicing and end capping. Kit contains T foam spacer pad, 17 compound in “J” size bag, 75 g (2.65 oz.) Unipak container. Packaged in poly bag with instructions.

3M™ Scotchcast Cable Capping Kit 3821



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Designed specifically for cable capping, this kit includes a clear plastic cup. The 3821 kit accepts a 300-pair 0.6 mm (22 AWG) or 400-pair 0.5 mm (24 AWG).

Also included in the kit is fast curing 17 compound in the Unipak Container. Instructions are provided. 38 mm (1-1/2") O.D.

3M™ Scotchcast Buried Service Wire Splice Kit 3832



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The Scotchcast Buried Service Wire Splice Kit 3832 will accommodate inline and butt splices of up to five-pair filled or unfilled service wire. One “A” size bag of 4403 encapsulant and a split bolt are provided with the kit. Once the compound has been poured, an outer tube is rotated over the barrel opening to seal the unit, requiring no waiting for the compound to cure before the kit is buried.

3M™ PST/Gel Buried Service Wire Splice Kit 3838



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The 3838 PST/Gel Buried Service Splice Kit is a flexible and “non-compound” splicing system that provides fast, reliable and easy protection. This kit will accommodate inline, butt and extended splices of up to six pair buried service wire. The new kit utilizes non-toxic PST and Gel technology and provides an excellent waterproof environment. It meets tough qualification tests such as impact and pull-out resistance, water immersion and freeze thaw cycle test in wet sand. The shield bond connector is specially designed to provide good electrical continuity and strain relief at the same time.

The 3838 PST/Gel buried service wire kit is simple to use and requires minimal training.



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Features — Benefits

3838 PST/Gel Buried Service Wire Splice Kit

PST/Gel technology	Proven reliability; waterproof performance saves maintenance costs, keeps lines up and running
Passes freeze/thaw cycle test in wet sand	No return dig-ups; saves repair costs
Used for butt and in-line splicing	Addresses multiple splicing configurations; reduces inventory hassles and costs
No encapsulant mixing	Reduces installation time and reduces waste
Universal sizing, "push type" strain relief and shield connector	Fits all needs; inventory savings. No special tools required; no tooling costs
Fewer piece parts	Fast assembly; reduced labor
No compound	No curing time; can be buried immediately
Easy installation	Craft friendly with minimal training
Applicable in extreme temperatures	No scheduling or weather constraints

Ordering Information for Buried Service Wire and End Capping Kits



Product Number		Packaging kg (lbs.)/cs.	Min. Order	UPC
SLiC™ 5-pair	Buried Service Wire Kit	1 kit/bag, 12 kits/cs. 2.3 (5.0)	12 kits	054007-71531
3817	Buried Service Wire Splicing/Cable Capping Kit 38.100 mm (1 1/2"), O.D.	1 kit/bag, 12 cs. 1.45 (3.2)	12 kits	054007-32217
3832	Buried Service Wire Splice Kit with Split Bolt	1/bag, 12/cs. 1.9 (4.2)	12 kits	054007-32224
3821	Cable Capping Kit 22.225 mm + 38.100 mm (7/8" + 1 1/2") O.D.	1/bag, 12/cs. 1.7 (3.8)	12 kits	054007-32220
3838 includes the following:	PST/Gel Buried Service Wire Splice Kit Gel Blanket (1) 4360 Pull 'N' Shrink Tubing (1) 4463 Shield Bond Assembly (1) 23 Tape Strip (1)	1 kit/1 box (.625 lbs)	1 kit	054007-11455

3M™ 2-Type PEAK (Pressure Encapsulated Apparatus Kit)

Closure Selection Guide

To order PEAK, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.



A pressure encapsulation technique for spliced connections of filled communication cable using the 3M 2-Type Closure System. For underground or direct buried applications in straight or multiple branch configurations.

The PEAK Closure Kit provides moisture protections and prevents water migration into the splice bundle. The closure is impact-tough and provides double protection as static

air pressure surrounds the encapsulated splice. The closure is re-enterable and made for use with (PIC) filled, waterproof cable.

This encapsulated closure system will accommodate the entrance of up to four cables, 81mm (3.2") in diameter and up to 3,000 pairs of copper conductor splices. It will also allow cable sheath openings from 254 mm (10") to 914 mm (36").



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Ordering Information for 2-Type PEAK Closure Guide – Re-entry Kits, Accessories and Replacement Parts

Product Number	2-Type Cover Assembly	Max. Splice Bundle Dia. mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Encaps. Req. grams	Approx. Weight kg (lbs.)	Min. Order	UPC 051138-
PEAK Pressure Wrap Kit								
PEAK-PWK-A	2B2A	152 (6.0)	483 (19.0)	900	5400	1.4 (3)	1 kit	78027
	2C2A	178 (7.0)	483 (19.0)	1500	8450			
	2D2A	216 (8.5)	483 (19.0)	2400	10800			
PEAK-PWK-B	2B2B	152 (6.0)	699 (27.5)	1500	6650	1.8 (4)	1 kit	78029
	2C2B	178 (7.0)	699 (27.5)	2100	12000			
	2D2B	216 (8.5)	699 (27.5)	2700	15600			
PEAK-PWK-C	2B2C	152 (6.0)	914 (36.0)	1800	9000	2.3 (5)	1 kit	78030
	2C2C	178 (7.0)	914 (36.0)	2400	15600			
	2D2C	216 (8.5)	914 (36.0)	3000	21600			

Ordering Information for 3M™ PEAK System – Re-entry Kits, Accessories and Replacement Parts for the PEAK System

Product Number	Endplate Diameter	2-Type Cover Assembly Kit mm (in.)	Number of Cable Openings	Max. Diameter Ea. Cable Opening mm (in.)	Approx. Weight kg (lbs.)	Min. Order	UPC 051138-
PEAK Endplate Kits							
PEAK-A1E	134 (5.25)	2A2 Series	1	56 (2.2)	1.4 (3)	1 kit	78019
PEAK-B1E	178 (7.0)	2B2 Series	1	81 (3.2)	1.8 (4)	1 kit	78020
PEAK-B2E	178 (7.0)	2B2 Series	2	56 (2.2) 56 (2.2)	2.7 (6)	1 kit	78021
PEAK-C1E	203 (8.0)	2C2 Series	1	81 (3.2)	2.3 (5)	1 kit	78022
PEAK-D1E	241 (9.5)	2D2 Series	1	81 (3.2)	2.3 (5)	1 kit	78023
PEAK-D2E	241 (9.5)	2D2 Series	2	81 (3.2) 81 (3.2)	3.6 (8)	1 kit	78024
PEAK-D3E	241 (9.5)	2D2 Series	3	81 (3.2) 56 (2.2) 56 (2.2)	3.6 (8)	1 kit	78025

A complete PEAK pressure wrap system requires:

One (1) PEAK pressure wrap kit, one (1) 2-type cover assembly and two (2) PEAK endplate assembly kits.
Standard package = Kit. Minimum Order/Ordering Multiple = 1 Kit.

Product Number	2-Type Cover Assembly	Sheath Opening mm (in.)	Encapsulant Requirements* grams	Approx. Weight kg (lbs.)	Min. Order	UPC 051138-
PEAK Re-entry Kits						
PEAK-RK-A	2B2A	483 (19.0)	5400	1.8 (4)	1 kit	78031
	2C2A	483 (19.0)	8450			
	2D2A	483 (19.0)	10800			
PEAK-RK-B	2B2B	699 (27.5)	6650	2.3 (5)	1 kit	78033
	2C2B	699 (27.5)	12000			
	2D2B	699 (27.5)	15600			
PEAK-RK-C	2B2C	914 (36.0)	9000	2.3 (5)	1 kit	78034
	2C2C	914 (36.0)	15600			
	2D2C	914 (36.0)	21600			

One (1) each PEAK re-entry kit is required for each closure reentry. Standard package = Kit. Minimum Order/Ordering Multiple = 1 Kit.

NOTE: 1. AAAA, AAA, AA, A = 1 roll required - B, C = 2 rolls required.

2. *PEAK Pressure Wrap Kit does not include encapsulant or Pressure Wrap Tape. Encapsulant requirements will vary due to connector type and splicing method used.



Ordering Information for 3M™ PEAK System Accessories

Product Number	Descriptions/Dimensions mm (in.)	Min. Order/Quantity	Weight per Min. Order kg (lbs.)	UPC 051138-
PEAK Accessories				
PWK-BB-14	Bond Bar- 355.0 (14.0)	1	0.2 (0.43)	78751
PWK-BB-23	Bond Bar- 584.0 (23.0)	1	0.2 (0.44)	78037
PWK-BB-32	Bond Bar- 812.0 (32.0)	1	0.3 (0.61)	78038
PWK-BB-40	Bond Bar- 1,016 (40.0)	1	0.4 (0.88)	78039
PWK-PWT-100	Pressure Wrap Tape	1	0.3 (0.77)	78040
PEAK Tape				
PWK-127T-72	72-inch roll	1 pkg of 20 Rolls	7.3 (16)	78036

PWK-127T-72 – Sealing tape used to seal liner against endplate flange adapter.

NOTE:AAAA, AAA, AA, A = 1 roll required - B, C = 2 rolls required.

3M™ 2-Type Pressurized Closures

Closure Selection Guide

To order 2-Type Pressurized Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

A complete pressure tight re-enterable closure system for enclosing spliced connections of communications cables in a wide variety of applications.

The 2-type Closure is available in a wide variety of closure lengths and diameters. Lengths range from 470 mm (18-1/2") to over 2096 mm (82-1/2") and closure diameters range from 77 mm (3") to 305 mm (12"). The 2-type kit comes complete with all the components needed to install the cover and end plates. The only tool required for installation is a washer cutter tool.

Each complete 2-Type Cover Kit Selection Contains:

- Cover assembly with channel bars and bolts
- Transparent splice wrap with cable ties
- Cover sealing R-Type re-enterable sealing tape
- Endplate sealing R-Type re-enterable sealing tape
- Solvent cleaning wipe and plastic gloves
- Back cover support clips with cable ties
- Pressurization valve
- Internal shield continuity braid with insulation
- External grounding ribbon
- Vented and solid continuity and ground connectors with hex nuts
- Assembly Instructions



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Each complete 2-Type Endplate Kit Selection Contains:

- Endplate assembly with sheath grip clamps
- Cable collar build-up R-Type re-enterable sealing tape material
- Endplate mid-section sealing R-Type re-enterable sealing tape
- Solvent cleaning wipe and plastic gloves
- Cable diameter measuring tape
- Shield connector
- Cable sheath scuff
- Hose clamps for securing sheath grip clamps to cable
- Additional sheath grip clamps
- Universal slotted washers for sealing cable entrances
- Assembly Instructions

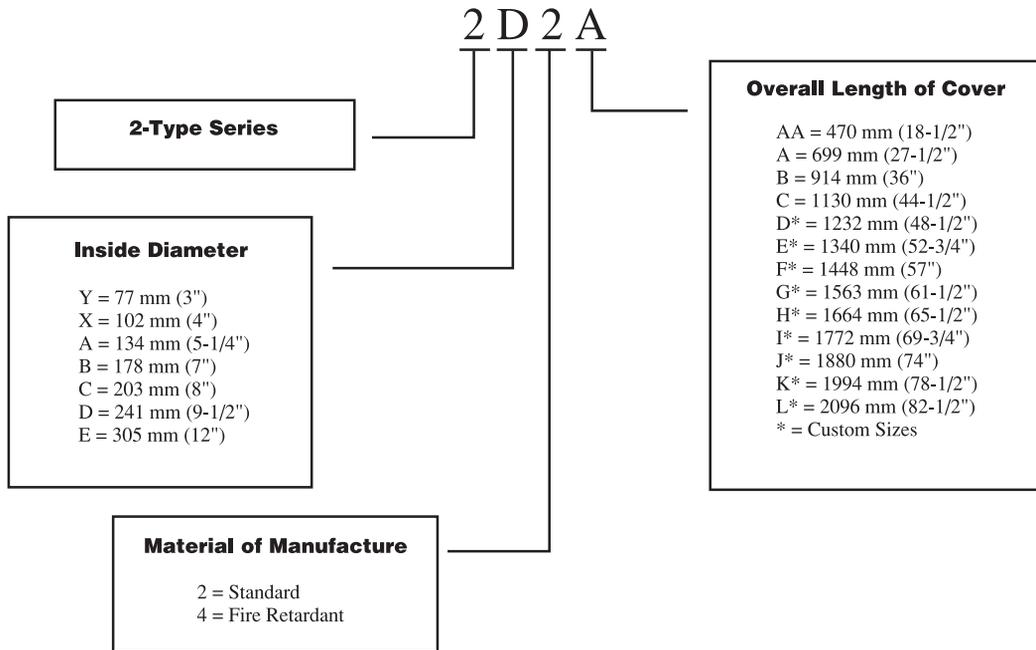


Product Referral Generator

3M™ 710 Modules	pg. 22
3M™ MS ² Modules	pg. 6
Tapes	pg. 189
Splicing Rigs & Tools	pg. 12

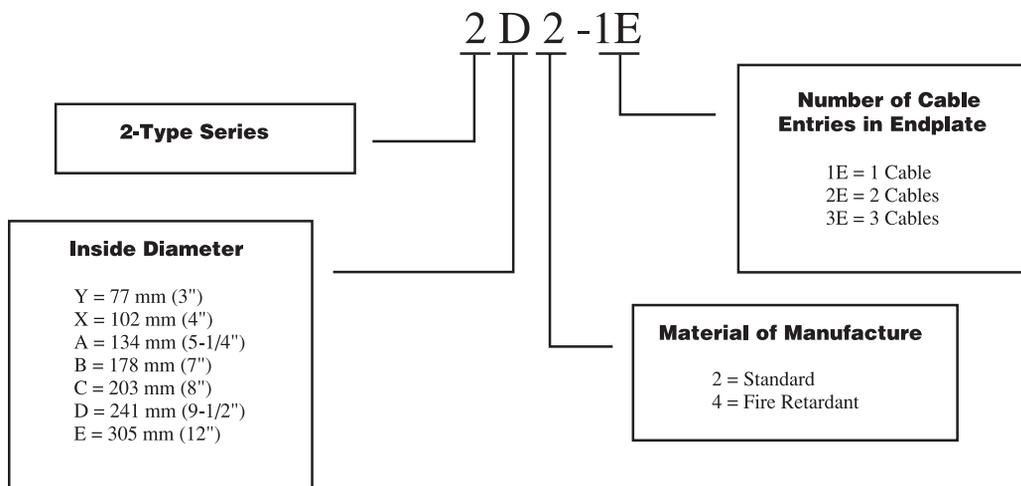
2-Type Closure System Ordering Code

Covers



2-Type Closure System Ordering Code

Endplates



Ordering Information for 3M™ 2-Type 2A2 Standard Closures (5-1/4" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2A2AA-510	134 (5.25)	470 (18.5)	254 (10.0)	400	1	5.0 (11)	1	77133
2A2A-510	134 (5.25)	699 (27.5)	483 (19.0)	600	2	6.8 (15)	1	77126
2A2B-510	134 (5.25)	914 (36.0)	699 (27.5)	Custom	3	8.6 (19)	1	77137
2A2C-510	134 (5.25)	1130 (44.5)	914 (36.0)	Custom	4	10 (22)	1	77138
2A2F-510	134 (5.25)	1448 (57.0)	1232 (48.5)	Custom	–	14 (31)	1	77139
2A2H-510	134 (5.25)	1664 (65.5)	1448 (57.0)	Custom	–	16 (35)	1	77003
2A2K-510	134 (5.25)	1994 (78.5)	1778 (70.0)	Custom	–	18 (39)	1	77004

Ordering Information for 3M™ 2-Type 2A2 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2A2-1E-510	134 (5.25)	1	56 (2.2)	1.4 (3)	1	77108
2A2-2E-510	134 (5.25)	2	41 (1.6) 33 (1.3)	1.4 (3)	1	77113
Grommet Selection						
2A4-6E-130	134 (5.25)	6	28 (1.1) up to 33 (1.3)	1.4 (3)	1	77144
2A4-6S-130	134 (5.25)	6	28 (1.1) up to 33 (1.3)	0.9 (2)	1	77145
2A4-9E	134 (5.25)	9	22 (0.88) up to 28 (1.1)	1.4 (3)	1	77146
2A4-9S	134 (5.25)	9	22 (0.88) up to 28 (1.1)	1.4 (3)	1	77147

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2A2 Standard Closure Kits (cover and endplates in kit)

Product Name	Product Description	UPC
2A2A-2-510	1 cable in, 1 cable out	051138-78787
2A2A-3-510	1 cable in, 2 cables out	051138-78788

Note: To determine maximum cable diameter, refer to the endplate selection chart on page 97. 1 cable = 1E, 2 cables = 2E, 3 cables = 3E.

Ordering Information for 3M™ 2-Type 2B2 Standard Closures (7" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2B2AA-510	178 (7.0)	470 (18.5)	254 (10.0)	600	1	6 (13)	1	77206
2B2A-510	178 (7.0)	699 (27.5)	483 (19.0)	1200	2	8 (17)	1	77197
2B2B-510	178 (7.0)	914 (36.0)	699 (27.5)	2100	3	10 (22)	1	77213
2B2C-510	178 (7.0)	1130 (44.0)	914 (36.0)	2700	4	12 (27)	1	77218
2B2D-510	178 (7.0)	1232 (48.5)	1016 (40.0)	Custom	–	14 (31)	1	77014
2B2E-510	178 (7.0)	1340 (52.8)	1124 (44.3)	Custom	–	15 (33)	1	77015
2B2F-510	178 (7.0)	1448 (57)	1232 (48.5)	Custom	–	16 (36)	1	77221
2B2I-510	178 (7.0)	1772 (69.75)	1556 (61.25)	Custom	–	20 (44)	1	77016
2B2J-510	178 (7.0)	1880 (74.0)	1664 (65.5)	Custom	–	21 (46)	1	77222
2B2K-510	178 (7.0)	1994 (78.5)	1778 (70.0)	Custom	–	22 (49)	1	77017

Ordering Information for 3M™ 2-Type 2B2 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2B2-1E-510	178 (7.0)	1	86 (3.4)	1.8 (4)	1	77158
2B2-2E-510	178 (7.0)	2	56 (2.2) 56 (2.2)	2.3 (5)	1	77168
2B2-3E-510	178 (7.0)	3	56 (2.2) 25 (1.0) 25 (1.0)	2.3 (5)	1	77180
Grommet Selection						
2B4-9E-130	178 (7.0)	9	28 (1.1) up to 33 (1.3)	2.3 (5)	1	77232
2B4-9S-130	178 (7.0)	9	28 (1.1) up to 33 (1.3)	1.8 (4)	1	77233
2B4-12E	178 (7.0)	12	22 (0.88) up to 28 (1.1)	2.3 (5)	1	77223
2B4-12S	178 (7.0)	12	22 (0.88) up to 28 (1.1)	2.3 (5)	1	77224

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2B2 Standard Closure Kits (cover and endplates in kit)

Product Name	Product Description	UPC
2B2A-2-510	1 cable in, 1 cable out	051138-78791
2B2A-3-510	1 cable in, 2 cables out	051138-77193
2B2A-4-510	1 cable in, 3 cables out	051138-78792
2B2A-5-510	2 cables in, 3 cables out	051138-78793

Note: To determine maximum cable diameter, refer to the endplate selection chart on page 97. 1 cable = 1E, 2 cables = 2E, 3 cables = 3E.



Ordering Information for 3M™ 2-Type 2C2 Standard Closures (8" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2C2A-510	203 (8.0)	699 (27.5)	483 (19.0)	1800	2	8.6 (19)	1	77276
2C2B-510	203 (8.0)	914 (36.0)	699 (27.5)	3600	3	11 (25)	1	77287
2C2C-510	203 (8.0)	1130 (44.5)	914 (36.0)	4200	4	14 (30)	1	77293
2C2D-510	203 (8.0)	1232 (48.5)	1016 (40.0)	Custom	–	17 (37)	1	77296
2C2E-510	203 (8.0)	1340 (52.75)	1124 (44.25)	Custom	–	18 (39)	1	77297
2C2F-510	203 (8.0)	1448 (57.0)	1232 (48.5)	Custom	–	19 (41)	1	77298
2C2G-510	203 (8.0)	1563 (61.5)	1346 (53.0)	Custom	–	21 (46)	1	77299
2C2H-510	203 (8.0)	1664 (65.5)	1448 (57.0)	Custom	–	21 (47)	1	77300
2C2I-510	203 (8.0)	1772 (69.75)	1556 (61.25)	Custom	–	23 (50)	1	78632
2C2J-510	203 (8.0)	1880 (74.0)	1664 (65.5)	Custom	–	24 (52)	1	77301
2C2K-510	203 (8.0)	1994 (78.5)	1778 (70.0)	Custom	–	25 (55)	1	78633
2C2L-510	203 (8.0)	2096 (82.5)	1880 (74.0)	Custom	–	26 (57)	1	77302
2C2AA-510	203 (8.0)	470 (18.5)	254 (10.0)	Custom	1	6.8 (15)	1	77532

Ordering Information for 3M™ 2-Type 2C2 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2C2-1E-510	203 (8.0)	1	86 (3.4)	1.8 (4)	1	77244
2C2-2E-510	203 (8.0)	2	71 (2.8) 71 (2.8)	2.7 (6)	1	77251
2C2-3E-510	203 (8.0)	3	71 (2.8) 41 (1.6) 41 (1.6)	2.7 (6)	1	77258
Grommet Selection						
2C4-12E-130	203 (8.0)	12	28 (1.1) up to 33 (1.3)	2.7 (6)	1	77303
2C4-12S-130	203 (8.0)	12	28 (1.1) up to 33 (1.3)	2.7 (6)	1	77304
2C4-18E	203 (8.0)	18	22 (0.88) up to 28 (1.1)	2.7 (6)	1	77305
2C4-18S	203 (8.0)	18	22 (0.88) up to 28 (1.1)	2.7 (6)	1	77306

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2C2 Standard Closure Kits (cover and endplates in kit)

Product Name	Product Description	UPC
2C2A-2-510	1 cable in, 1 cable out	051138-78628
2C2A-3-510	1 cable in, 2 cables out	051138-78629
2C2A-4-510	1 cable in, 3 cables out	051138-78630
2C2A-5-510	2 cables in, 3 cables out	051138-78798

Note: To determine maximum cable diameter, refer to the endplate selection chart on page 97. 1 cable = 1E, 2 cables = 2E, 3 cables = 3E.

Ordering Information for 3M™ 2-Type 2D2 Standard Closures and Kits (9-1/2" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Cover Halves Assembly Selection

2D2AA-510	241 (9.5)	470 (18.5)	254 (10.0)	Custom	1	8.2 (18)	1	77362
2D2A-510	241 (9.5)	699 (27.5)	483 (19.0)	3300	2	10 (22)	1	77358
2D2B-510	241 (9.5)	914 (36.0)	699 (27.5)	4200	3	13 (29)	1	77365
2D2C-510	241 (9.5)	1130 (44.5)	914 (36.0)	4800	4	16 (35)	1	77370
2D2D-510	241 (9.5)	1232 (48.5)	1016 (40.0)	Custom	–	18 (40)	1	77373
2D2E-510	241 (9.5)	1340 (52.75)	1124 (44.25)	Custom	–	20 (43)	1	77374
2D2F-510	241 (9.5)	1448 (57.0)	1232 (48.5)	Custom	–	21 (46)	1	77375
2D2G-510	241 (9.5)	1563 (61.5)	1346 (53.0)	Custom	–	23 (50)	1	77376
2D2H-510	241 (9.5)	1664 (65.5)	1448 (57.0)	Custom	–	24 (53)	1	77377
2D2I-510	241 (9.5)	1772 (69.75)	1556 (61.25)	Custom	–	25 (56)	1	77378
2D2J-510	241 (9.5)	1880 (74.0)	1664 (65.5)	Custom	–	27 (59)	1	77379
2D2K-510	241 (9.5)	1994 (78.5)	1778 (70.0)	Custom	–	28 (62)	1	77380
2D2L-510	241 (9.5)	2096 (82.5)	1880 (74.0)	Custom	–	29 (64)	1	77381

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Endplate Selection

2D2-1E-510	241 (9.5)	1	86 (3.4)	2.3 (5)	1	77323
2D2-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	3.2 (7)	1	77330
2D2-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.2 (7)	1	77339

Grommet Selection

2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2D2 Standard Closure Kits (cover and endplates in kit)

Product Name	Product Description	UPC
2D2A-2-510	1 cable in, 1 cable out	051138-78635
2D2A-3-510	1 cable in, 2 cables out	051138-78636
2D2A-4-510	1 cable in, 3 cables out	051138-78637
2D2A-5-510	2 cables in, 3 cables out	051138-78803
2D2A-6-510	3 cables in, 3 cables out	051138-78639

Note: To determine maximum cable diameter, refer to the endplate selection chart on page 97. 1 cable = 1E, 2 cables = 2E, 3 cables = 3E.



Ordering Information for 3M™ 2-Type 2E2-DD Standard Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E2A-DD-510	305 (12.0)	699 (27.5)	483 (19.0)	3300	2	12 (26)	1	77412
2E2B-DD-510	305 (12.0)	914 (36.0)	699 (27.5)	4200	3	16 (34)	1	77422
2E2C-DD-510	305 (12.0)	1130 (44.5)	914 (36.0)	Custom	4	20 (43)	1	77433
2E2D-DD-510	305 (12.0)	1232 (48.5)	1016 (40.0)	Custom	–	21 (47)	1	77436
2E2E-DD-510	305 (12.0)	1340 (52.75)	1124 (44.25)	Custom	–	23 (50)	1	77439
2E2F-DD-510	305 (12.0)	1448 (57.0)	1232 (48.5)	Custom	–	25 (54)	1	77442
2E2G-DD-510	305 (12.0)	1563 (61.5)	1346 (53.0)	Custom	–	27 (59)	1	77444
2E2H-DD-510	305 (12.0)	1664 (65.5)	1448 (57.0)	Custom	–	28 (62)	1	77446
2E2I-DD-510	305 (12.0)	1772 (69.75)	1556 (61.25)	Custom	–	30 (65)	1	78643
2E2J-DD-510	305 (12.0)	1880 (74.0)	1664 (65.5)	Custom	–	31 (69)	1	77450
2E2K-DD-510	305 (12.0)	1994 (78.5)	1778 (70.0)	Custom	–	32 (71)	1	77452
2E2L-DD-510	305 (12.0)	2096 (82.5)	1880 (74.0)	Custom	–	34 (74)	1	77454

Ordering Information for 3M™ 2-Type 2E2-DD Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2D2-1E-510	241 (9.5)	1	86 (3.4)	2.3 (5)	1	77323
2D2-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	3.2 (7)	1	77330
2D2-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.2 (7)	1	77339
Grommet Selection						
2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.
 5. Two D diameter endplate or grommet kits must be ordered with 2E2-DD cover kit.

Ordering Information for 3M™ 2-Type 2E2-EE Standard Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E2A-EE-510	305 (12.0)	699 (27.5)	483 (19.0)	3300	2	12 (26)	1	77419
2E2B-EE-510	305 (12.0)	914 (36.0)	699 (27.5)	4200	3	16 (34)	1	77431
2E2C-EE-510	305 (12.0)	1130 (44.5)	914 (36.0)	Custom	4	20 (43)	1	77435
2E2D-EE-510	305 (12.0)	1232 (48.5)	1016 (40.0)	Custom	–	21 (47)	1	77438
2E2E-EE-510	305 (12.0)	1340 (52.75)	1124 (44.25)	Custom	–	23 (50)	1	77441
2E2F-EE-510	305 (12.0)	1448 (57.0)	1232 (48.5)	Custom	–	25 (54)	1	77443
2E2G-EE-510	305 (12.0)	1563 (61.5)	1346 (53.0)	Custom	–	27 (59)	1	77445
2E2H-EE-510	305 (12.0)	1664 (65.5)	1448 (57.0)	Custom	–	28 (62)	1	77447
2E2I-EE-510	305 (12.0)	1772 (69.75)	1556 (61.25)	Custom	–	30 (65)	1	77449
2E2J-EE-510	305 (12.0)	1880 (74.0)	1664 (65.5)	Custom	–	31 (69)	1	77451
2E2K-EE-510	305 (12.0)	1994 (78.5)	1778 (70.0)	Custom	–	32 (71)	1	77453
2E2L-EE-510	305 (12.0)	2096 (82.5)	1880 (74.0)	Custom	–	34 (74)	1	77456



Ordering Information for 3M™ 2-Type 2E2-EE Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2E2-2E-510	305	3	102 (4.0) 86 (3.4) 86 (3.4)	4.1 (9)	1	77409
2D2-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.2 (7)	1	77339
Grommet Selection						
2E4-27E	305 (12.0)	27	22 (0.88) up to 28 (1.1)	5.9 (13)	1	77457
2E4-27S	305 (12.0)	27	22 (0.88) up to 28 (1.1)	5.9 (13)	1	77458
2E4-27E-130	305 (12.0)	27	28 (1.1) up to 33 (1.3)	5.5 (12)	1	78645
2E4-27S-130	305 (12.0)	27	28 (1.1) up to 33 (1.3)	5.0 (11)	1	77459
2E4-36E	305 (12.0)	36	22 (0.88) up to 28 (1.1)	5.9 (13)	1	77462
2E4-36S	305 (12.0)	36	22 (0.88) up to 28 (1.1)	5.5 (12)	1	77463
2E4-42E	305 (12.0)	42	22 (0.88) up to 28 (1.1)	5.9 (13)	1	77466

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2E2-DE Standard Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E2A-DE-510	305 (12.0)	699 (27.5)	483 (19.0)	4200	2	12 (26)	1	77416
2E2B-DE-510	305 (12.0)	914 (36.0)	699 (27.5)	4800	3	16 (34)	1	77428
2E2C-DE-510	305 (12.0)	1130 (44.5)	914 (36.0)	Custom	4	20 (43)	1	77434
2E2D-DE-510	305 (12.0)	1232 (48.5)	1016 (40.0)	Custom	–	21 (47)	1	77437
2E2E-DE-510	305 (12.0)	1340 (52.75)	1124 (44.25)	Custom	–	23 (50)	1	77440
2E2F-DE-510	305 (12.0)	1348 (57.0)	1232 (48.5)	Custom	–	25 (54)	1	77040
2E2G-DE-510	305 (12.0)	1563 (61.5)	1346 (53.0)	Custom	–	27 (59)	1	86783
2E2H-DE-510	305 (12.0)	1664 (65.5)	1448 (57.0)	Custom	–	28 (62)	1	78642
2E2I-DE-510	305 (12.0)	1772 (69.75)	1556 (61.25)	Custom	–	30 (65)	1	77448
2E2J-DE-510	305 (12.0)	1880 (74.0)	1664 (65.5)	Custom	–	31 (69)	1	78559
2E2K-DE-510	305 (12.0)	1994 (78.5)	1778 (70.0)	Custom	–	32 (71)	1	77612
2E2L-DE-510	305 (12.0)	2096 (82.5)	1880 (74.0)	Custom	–	34 (74)	1	77455

Note: One end is 229 mm (9"), one end is 305 mm (12").

Ordering Information for 3M™ 2-Type 2E2-DE Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection*						
2D2-1E-510	241 (9.5)	1	86 (3.4)	2.3 (5)	1	77323
2D2-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	3.2 (7)	1	77330
2D2-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.2 (7)	1	77339
2E2-2E-510	305 (12.0)	2	112 (4.4) 112 (4.4)	4.1 (9)	1	77405
2E2-3E-510	305 (12.0)	3	102 (4.0) 86 (3.4) 86 (3.4)	4.1 (9)	1	77409
Grommet Selection						
2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 2-Type 2X2 Standard Closures (4" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2X2AA-510	102 (4.0)	470 (18.5)	254 (10.0)	100	1	4.8 (11)	1	77476
2X2A-510	102 (4.0)	699 (27.5)	483 (19.0)	Custom	2	7.3 (16)	1	77042
2X2B-510	102 (4.0)	914 (36.0)	699 (27.5)	Custom	3	8.6 (19)	1	77043

Ordering Information for 3M™ 2-Type 2X2 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)		Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection							
2X2-2E-510	102 (4.0)	2	25 (1.0)	25 (1.0)	0.9 (2)	1	77475

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits.

- NOTE: 1. Custom cover lengths are available on a special order basis.
 2. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Ordering Information for 3M™ 2-Type 2Y2 Standard Closures (3" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2Y2AA-510	77 (3.0)	470 (18.5)	254 (10.0)	100	1	5.0 (11)	1	77484
2Y2A-510	77 (3.0)	699 (27.5)	483 (19.0)	Custom	2	7.3 (16)	1	77482

Ordering Information for 3M™ 2-Type 2Y2 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings	Max. Diameter Each Cable Opening mm (in.)		Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection							
2Y2-2E-510	77 (3.0)	2	25 (1.0)	25 (1.0)	0.9 (2)	1	77481

A complete 2-Type Closure System requires:

1 cover assembly kit and 2 endplate kits.

- NOTE: 1. Custom cover lengths are available on a special order basis.
 2. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

3M™ 4-Type Fire Retardant Closures

Closure Selection Guide

To order 4-Type Fire Retardant Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

4-Type Closures that can really take the heat.

The 2-Type Fire Retardant Closure is completely self-contained and capable of withstanding a 15 minute horizontal or vertical burn test. In addition, the Fire Retardant Vault/Building Closure System meets all the performance criteria of the standard 2-Type Closure series so you can use the same tools and installation procedures.

The system has an Oxygen Index of 28% minimum and a UL 94 rating exceeding V.O. The closure self extinguishes when the fuel source is removed.

The Fire Retardant Closure can be used for new construction or for retrofitting: cable for entrance facilities, vault or central office, building riser cables or building distribution cables.



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Ordering Information for 3M™ 4-Type 2A4 Fire Retardant Closures (5-1/4" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Cover Halves Assembly Selection

2A4AA-510	134 (5.25)	470 (18.5)	254 (10.0)	400	1	5.5 (12)	1	77151
2A4A-510	134 (5.25)	699 (27.5)	483 (19.0)	600	2	7.7 (17)	1	77149

Ordering Information for 3M™ 4-Type 2A4 Standard Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Endplate Selection

2A4-1E-510	134 (5.25)	1	56 (2.2)	1.4 (3)	1	77141
2A4-2E-510	134 (5.25)	2	41 (1.6) 33 (1.3)	1.4 (3)	1	77143

Grommet Selection

2A4-6E-130	134 (5.25)	6	28 (1.1) up to 33 (1.3)	1.4 (3)	1	77144
2A4-6S-130	134 (5.25)	6	28 (1.1) up to 33 (1.3)	1.4 (3)	1	77145
2A4-9E	134 (5.25)	9	22 (0.88) up to 28 (1.1)	1.4 (3)	1	77146
2A4-9S	134 (5.25)	9	22 (0.88) up to 28 (1.1)	1.4 (3)	1	77147

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 2. Bonding hardware included with solid grommets only.
 3. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 4-Type 2B4 Fire Retardant Closures (7" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2B4AA-510	178 (7.0)	470 (18.5)	254 (10.0)	600	1	7.3 (16)	1	77235
2B4A-510	178 (7.0)	699 (27.5)	483 (19.0)	1200	2	9.6 (21)	1	77234
2B4B-510	178 (7.0)	914 (36.0)	699 (27.5)	2100	3	13 (29)	1	77236
2B4C-510	178 (7.0)	1130 (44.5)	914 (36.0)	2700	4	16 (35)	1	77237

Ordering Information for 3M™ 4-Type 2B4 Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2B4-1E-510	178 (7.0)	1	86 (3.4)	2.3 (5)	1	77227
2B4-2E-510	178 (7.0)	2	56 (2.2) 56 (2.2)	2.7 (6)	1	77229
2B4-3E-510	178 (7.0)	3	56 (2.2) 25 (1.0) 25 (1.0)	2.3 (5)	1	77231
Grommet Selection						
2B4-9E-130	178 (7.0)	9	28 (1.1) up to 33 (1.3)	2.3 (5)	1	77232
2B4-9S-130	178 (7.0)	9	28 (1.1) up to 33 (1.3)	2.3 (5)	1	77233
2B4-12E	178 (7.0)	12	22 (0.88) up to 28 (1.1)	2.3 (5)	1	77223
2B4-12S	178 (7.0)	12	22 (0.88) up to 28 (1.1)	2.3 (5)	1	77224

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 2. Bonding hardware included with solid grommets only.
 3. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Ordering Information for 3M™ 4-Type 2C4 Fire Retardant Closures (8" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Cover Halves Assembly Selection

2C4A-510	203 (8.0)	699 (27.5)	483 (19.0)	1800	2	12 (26)	1	77314
2C4B-510	203 (8.0)	914 (36.0)	699 (27.5)	3600	3	16 (34)	1	77315
2C4C-510	203 (8.0)	1130 (44.5)	914 (36.0)	4200	4	19 (41)	1	77316

Ordering Information for 3M™ 4-Type 2C4 Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
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Endplate Selection

2C4-1E-510	203 (8.0)	1	86 (3.4)	2.3 (5)	1	77309
2C4-2E-510	203 (8.0)	2	71 (2.8) 71 (2.8)	3.2 (7)	1	77311
2C4-3E-510	203 (8.0)	3	71 (2.8) 41 (1.6) 41 (1.6)	3.2 (7)	1	77313

Grommet Selection

2C4-12E-130	203 (8.0)	12	28 (1.1) up to 33 (1.3)	2.7 (6)	1	77303
2C4-12S-130	203 (8.0)	12	28 (1.1) up to 33 (1.3)	2.7 (6)	1	77304
2C4-12S	203 (8.0)	12	22 (0.88) up to 28 (1.1)	2.7 (6)	1	
2C4-18E	203 (8.0)	18	22 (0.88) up to 28 (1.1)	2.7 (6)	1	77305
2C4-18S	203 (8.0)	18	22 (0.88) up to 28 (1.1)	2.7 (6)	1	77306

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 2. Bonding hardware included with solid grommets only.
 3. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 4-Type 2D4 Fire Retardant Closures (9-1/2" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2D4A-510	241 (9.5)	699 (27.5)	483 (19.0)	3300	2	14 (30)	1	77400
2D4B-510	241 (9.5)	914 (36.0)	699 (27.5)	4200	3	17 (38)	1	77401
2D4C-510	241 (9.5)	1130 (44.5)	914 (36.0)	4800	4	22 (47)	1	77402

Ordering Information for 3M™ 4-Type 2D4 Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2D4-1E-510	241 (9.5)	1	86 (3.4)	2.7 (6)	1	77388
2D4-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	3.6 (8)	1	77393
2D4-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.6 (8)	1	77397
Grommet Selection						
2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 2. Bonding hardware included with solid grommets only.
 3. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Ordering Information for 3M™ 4-Type 2E4-DD Fire Retardant Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E4A-DD-510	305 (12.0)	699 (27.5)	483 (19.0)	3300	2	16 (34)	1	77468
2E4B-DD-510	305 (12.0)	914 (36.0)	699 (27.5)	4200	3	21 (45)	1	77471

Ordering Information for 3M™ 4-Type 2E4-DD Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2D4-1E-510	241 (9.5)	1	86 (3.4)	2.7 (6)	1	77388
2D4-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	3.6 (8)	1	77393
2D4-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	3.6 (8)	1	77397
Grommet Selection						
2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 4-Type 2D4-EE Fire Retardant Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E4A-EE-510	305 (12.0)	699 (27.5)	483 (19.0)	4200	2	16 (34)	1	77470
2E4B-EE-510	305 (12.0)	914 (36.0)	699 (27.5)	4800	3	20 (44)	1	77473

Ordering Information for 3M™ 4-Type 2D4-EE Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)		Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection							
2E4-2E-510	305 (12)	2	112 (4.4)	112 (4.4)	4.5 (10)	1	77461
2E4-3E-510	305 (12)	3	102 (4.0)	86 (3.4) 86 (3.4)	4.5 (10)	1	77465
Grommet Selection							
2E4-27E	305 (12)	27	22 (0.88) up to 28 (1.1)		5.9 (13)	1	77457
2E4-27S	305 (12)	27	22 (0.88) up to 28 (1.1)		5.9 (13)	1	77458
2E4-27E-130	305 (12)	27	28 (1.1) up to 33 (1.3)		5.5 (12)	1	78645
2E4-27S-130	305 (12)	27	28 (1.1) up to 33 (1.3)		5.0 (11)	1	77459
2E4-36E	305 (12)	36	22 (0.88) up to 28 (1.1)		5.9 (13)	1	77462
2E4-36S	305 (12)	36	22 (0.88) up to 28 (1.1)		5.5 (12)	1	77463
2E4-42E	305 (12)	42	22 (0.88) up to 28 (1.1)		5.9 (13)	1	77466

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Ordering Information for 3M™ 4-Type 2E4-DE Fire Retardant Closures (12" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2E4A-DE-510	305 (12.0)	699 (27.5)	483 (19.0)	4200	2	16 (35)	1	77469
2E4B-DE-510	305 (12.0)	914 (36.0)	699 (27.5)	4800	3	21 (45)	1	77472

Ordering Information for 3M™ 4-Type 2E4-DE Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2D4-1E-510	241 (9.5)	1	86 (3.4)	14 (30)	1	77388
2D4-2E-510	241 (9.5)	2	86 (3.4) 86 (3.4)	17 (38)	1	77393
2D4-3E-510	241 (9.5)	3	86 (3.4) 56 (2.2) 56 (2.2)	22 (47)	1	77397
Grommet Selection						
2D4-18E	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77383
2D4-18S	241 (9.5)	18	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77385
2D4-18E-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.6 (8)	1	77384
2D4-18S-130	241 (9.5)	18	28 (1.1) up to 33 (1.3)	3.2 (7)	1	77386
2D4-27E	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77389
2D4-27S	241 (9.5)	27	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77390
2D4-36E	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77394
2D4-36S	241 (9.5)	36	22 (0.88) up to 28 (1.1)	3.2 (7)	1	77395
2D4-42E	241 (9.5)	42	22 (0.88) up to 28 (1.1)	3.6 (8)	1	77398

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits or 1 cover assembly kit, 1 endplate kit and 1 grommet kit.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Custom grommet hole configurations are available on a special order basis. "E" designates solid endplate for new construction and "S" designates split endplate for existing or retrofit applications.
 3. Bonding hardware included with solid grommets only.
 4. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.

Ordering Information for 3M™ 4-Type 2X4 Fire Retardant Closures (4" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2X4AA-510	102 (4.0)	470 (18.5)	254 (10.0)	100	1	5.9 (13)	1	77479

Ordering Information for 3M™ 4-Type 2X4 Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)		Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection							
2X4-2E-510	102 (4.0)	2	25 (1.0)	25 (1.0)	1.4 (3)	1	77478

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Ordering Information for 3M™ 4-Type 2Y4 Fire Retardant Closures (3" Diameter)

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Number Cable Pairs	Splice Banks	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Cover Halves Assembly Selection								
2Y4AA-510	77 (3.0)	470 (18.5)	254 (10.0)	100	1	5.9 (13)	1	77487

Ordering Information for 3M™ 4-Type 2Y4 Fire Retardant Closure Kits

Product Number	Endplate Diameter mm (in.)	Cable Openings mm (in.)	Max. Diameter Each Cable Opening mm (in.)	Pkg. kg (lbs.)	Min. Order (each)	UPC 051138-
Endplate Selection						
2Y4-2E-510	77 (3.0)	2	25 (1.0)	1.4 (3)	1	77486

A complete 4-Type Closure System requires:

1 cover assembly kit and 2 endplate kits.

- NOTE:
1. Custom cover lengths are available on a special order basis.
 2. Maximum number of cable pairs based on 0.51/0.40 mm (24/26") gauge cable using 25 pair modular connectors for straight, in-line splice.



Accessories and Replacement Parts for 3M™ 2-Type Closures and 3M™ 4-Type Fire Retardant Closures

Ordering Information for 2-Type Closure and 4-Type Fire Retardant Vault Closure Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
Aerial Hanger Kit					
For supporting closure assembly to strand wire in aerial applications.					
AH20K	Aerial Hanger Kit	2	20 kits	3.2 (7)	78418
Back Cover Clip Kit					
For supporting backing cover to endplates during splicing. Also keeps endplates parallel and properly spaced.					
BCC10K	A, B, C, X, Y and Z Covers	2 Clips w/Cable Ties	20 kits	0.9 (2)	77704
BCC10-M100	Kit in bulk (Cable Ties not Included)	100	1 pkg.	1.4 (3)	77707
Bolts					
For replacing lost or damaged bolts in endplates and covers.					
SB1875K	7.9 x 47.6 (5/16 x 1-7/8) - Short	25	4 pkgs.	2.7 (6)	78094
SB2375K	7.9 x 60.3 (5/16 x 2-3/8) - Long	25	4 pkgs.	3.2 (7)	78095
Bond Connector Kit					
For replacing lost or damaged bond connectors.					
BCHN10K	Solid, Vented Bond Conn. Kit with hex nuts	1 Solid & 1 Vented	20 kits	0.9 (2)	77708
BBC20K	Solid Bond Connector	25	4 pkgs.	1.4 (3)	77702
Bonding Harness					
For establishing shield continuity on tip cables inside vault closures. Standard packaging - 9 Wire Harnesses.					
BH18K	Bonding Harness Kit (18-wire)	2	1 kit	0.3 (0.7)	77714
BH27K	Bonding Harness Kit (27-wire)	3	1 kit	0.4 (1)	77715
BH36K	Bonding Harness Kit (36-wire)	4	1 kit	0.9 (2)	77716
BH42K	Bonding Harness Kit (42-wire)	5	1 kit	0.9 (2)	77717



Ordering Information for 3M™ 2-Type Closure and 3M™ 4-Type Fire Retardant Vault Closure Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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Channel Bars

For replacing lost or damaged channel bars in 2-Type and 4-Type cover halves. T = Threaded, U = Unthreaded.

CTB10K	2-Type Cover - T 699 (27.5)	6	1 kit	2.3 (5)	77753
CTB11K	2-Type Cover - T 914 (36.0)	6	1 kit	3.2 (7)	77756
CTB12K	2-Type Cover - T 1130 (44.5)	6	1 kit	4.1 (9)	77759
CUB11K	2-Type Cover - U 914 (36.0)	6	1 kit	3.2 (7)	77765

Channel Bar Inserts for 2-Type Closure

For replacing lost or damaged channel bar inserts.

CBN10K	Channel Bar Threaded Inserts	25	4 pkgs.	1.4 (3)	77728
CBW10K	Channel Bar Unthreaded Inserts	25	4 pkgs.	1.4 (3)	77735

Cleaning Wipes

For preparing plastic closure halves, endplates and cables before applying sealing tapes.

CSSC20-M100	Closure Sealing Surface Cleaner	100	1 pkg.	2.3 (5)	77749
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Continuity/Grounding Pressurization Kit

For restoring continuity and external grounding of closure. Also used for flash testing and pressurization.

BG9K	470 (18.5) Length Cover (AA)	1	10 kits	2.7 (6)	77713
BG10K	699 (27.5) Length Cover (A)	1	10 kits	4.1 (9)	77711
BG12K	914 & 1130 (36 & 44.5) Length Cover (B & C)	1	10 kits	5.0 (11)	77712

Endplate Inserts

For replacing lost or damaged endplate inserts.

SNI300K	Threaded Endplate Inserts	25	4 pkgs.	1.8 (4)	78112
SWI300K	Unthreaded Endplate Inserts	25	4 pkgs.	1.8 (4)	78120

Grommet Sealant and Tip Cable Insertion Shoe

Insertion shoe for easy insertion of tip cables into grommets and grommet sealant for sealing tip cables into grommet.

GSC10	3 oz. Tube of Sealant	1	10 each	1.8 (4)	77912
GCIS20	Tip Cable Insertion Shoe	1	1 each	0.23 (0.5)	77903

Ordering Information for 3M™ 2-Type Closure and 3M™ 4-Type Fire Retardant Vault Closure Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
Jacking Plates					
For replacing lost or damaged jacking plates.					
CIT68K	Threaded Jacking Plate	25	4 pkgs.	1.4 (3)	77738
CIU68K	Unthreaded Jacking Plates	25	4 pkgs.	1.4 (3)	77739
Pressure Valve Assembly					
For replacing lost or damaged pressure valves.					
FVA11K	Pressure Valve Assembly	10	10 pkgs.	2.3 (5)	77801
RC Re-enterable Sealing Cord					
For sealing the groove along the length of cover halves. AA Length Cover = 1 roll RC45; A Length Cover = 1 roll RC62; B and C Length Covers = 1 roll RC96, Z-Closure - 1 roll RC36					
RC45-8	–	1	96 rolls	10 (21)	78044
RC62-8	–	1	96 rolls	13 (29)	78045
RC96-8	–	1	96 rolls	21 (46)	78050
RTE Re-enterable Sealing Tape					
For sealing between cover halves and endplates. 2Y2, 2X2 & 2A2 series = 1 roll RTE36 required for 2 each endplates; 2B2 series = 1 roll RTE46 required for 2 each endplates. 2C2 & 2D2 series = 1 roll RTE62 required for 2 each endplates; 2E2 series = 2 rolls RTE46 required for 2 each endplates.					
RTE36-8	–	1	108 rolls	20 (43)	78071
RTE46-8	–	1	108 rolls	26 (58)	78073
RTE62-8	–	1	54 rolls	17 (38)	78075
RTW Re-enterable Sealing Tape					
For sealing collar build-up around cable. Note: Usage will vary with cable diameter.					
RTW36-8	–	1	60 rolls	12 (26)	78082
RTW72-8	–	1	60 rolls	21 (47)	78083
Shield Connector					
For replacing lost or damaged shield connectors.					
SC10K	BCP1-1, Size #1, up to 20 (0.8) Cable Dia.	25	4 pkgs.	1.8 (4)	78100
SC20K	BCP2-1, Size #2, 20 (0.8) to 41 (1.6) Cable Dia.	25	4 pkgs.	2.3 (5)	78101
SC30K	BCP3-1, Size #3, over 41 (1.6) Cable Dia.	25	4 pkgs.	2.3 (5)	78102



Ordering Information for 3M™ 2-Type Closure and 3M™ 4-Type Fire Retardant Vault Closure Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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Splice Wrap Kit

For wrapping and protecting splice bundle and to keep wire out of the cover half sealing groove during assembly.

ASW9K	2Y2AA, 2X2AA & 2A2AA Closures	1	32 kits	3.6 (8)	78424
BSW10K	2A2A & 2B2A Closures	1	16 kits	5.0 (11)	77721
BSW11K	2B2B Closure	1	16 kits	7.3 (16)	77722
BSW12K	2B2C Closure	1	16 kits	10.4 (23)	77723
DSW10K	2C2A & 2D2A Closures	1	16 kits	6.8 (15)	77778
DSW11K	2C2B & 2D2B Closures	1	16 kits	9.1 (20)	77779
DSW12K	2C2C & 2D2C Closures	1	16 kits	11.3 (25)	77780
ESW10K	2E2A Closure	1	16 kits	8.2 (18)	77782
ESW11K	2E2B Closure	1	16 kits	11.3 (25)	77783

Stepwasher

MK-K	Step Washer	2	50 pkgs.	5.0 (11)	77997
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Product Number	Descriptions/ Dimensions mm (in.)	Pin Size	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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Tip Cable Opening Plugs

For plugging unused tip cable openings for endplate grommets.

GP88100	22 - 28 (0.88 - 1.1)	E	1	50 plugs	1.4 (3)	78248
GP110130	28 - 33 (1.1 - 1.3)	F	1	50 plugs	1.8 (4)	78247

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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Underground Closure Support Kit

For supporting closure assembly to racks in vault or manhole applications

UCS10K	Underground Support Kit	2	10 kits	4.1 (9)	78494
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Universal Plugging Spools

For plugging unused cable openings in endplate openings. Black in color.

FX-K	For 25 (1.0) Cable Openings	25	1 pkg.	0.02 (0.04)	77804
GX-K	For 41 (1.6) Cable Openings	25	1 pkg.	0.04 (0.08)	77913
HX-K	For 51 (2.2) Cable Openings	25	1 pkg.	0.05 (0.10)	77925
JX-K	For 71 (2.8) Cable Openings	25	1 pkg.	0.06 (0.14)	77977
KX-K	For 86 (3.4) Cable Openings	25	1 pkg.	0.08 (0.17)	77990
LX-K	For 102 (4.0) Cable Openings	1	1 pkg.	0.10 (0.22)	77996
MX-K	For 112 (4.4) Cable Openings	10	1 pkg.	0.12 (0.27)	78004

Ordering Information for 3M™ 2-Type Closure and 3M™ 4-Type Fire Retardant Vault Closure Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
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Universal Plugging Spools (Fire Retardant)

For plugging unused cable openings in endplate openings. Gray in color.

FX-4-K	For 25 (1.0) Cable Openings	25	1 pkg.	0.02 (0.04)	77802
GX-4-K	For 41 (1.6) Cable Openings	1	1 pkg.	0.04 (0.08)	–
HX-4-K	For 51 (2.2) Cable Openings	1	1 pkg.	0.05 (0.10)	77924
JX-4-K	For 71 (2.8) Cable Openings	1	1 pkg.	0.06 (0.14)	77976
KX-4-K	For 86 (3.4) Cable Openings	1	1 pkg.	0.08 (0.17)	77989
LX-4-K	For 102 (4.0) Cable Openings	1	1 pkg.	0.10 (0.22)	77995
MX-4-K	For 112 (4.4) Cable Openings	1	1 pkg.	0.12 (0.27)	78002

Universal Slotted Sealing Washers (Bulk Packaging)

For sealing cable entrances in endplate openings. Black in color.

FS-B-M200	Cable Range – 10 - 25 (0.4 - 1.0)	200	1 pkg.	0.9 (2)	77796
GS-B-M200	Cable Range – 10- 41 (0.4 - 1.6)	200	1 pkg.	2.3 (5)	77908
HS-B-M200	Cable Range – 10 - 51 (0.4 - 2.2)	200	1 pkg.	3.2 (7)	78400
JS-B-M200	Cable Range – 10 - 71 (0.4 - 2.8)	200	1 pkg.	4.6 (10)	77969
KS-B-M200	Cable Range – 10 - 86 (0.4 - 3.4)	200	1 pkg.	6.4 (14)	77983
LS-B-M100	Cable Range – 41 - 102 (1.6 - 4.0)	100	1 pkg.	4.1 (9)	77993
MS-B-M100	Cable Range – 41 - 112 (1.6 - 4.4)	100	1 pkg.	6.4 (14)	78000

Universal Slotted Sealing Washers (Fire Retardant - Bulk Packaging)

For sealing cable entrances in endplate openings. Gray in color.

FS-4-B-M200	Cable Range – 10 - 25 (0.4 - 1.0)	200	1 pkg.	0.9 (2)	77794
GS-4-B-M200	Cable Range – 10 - 41 (0.4 - 1.6)	200	1 pkg.	2.3 (5)	77906
HS-4-B-M200	Cable Range – 10 - 51 (0.4 - 2.2)	200	1 pkg.	3.2 (7)	77919
JS-4-B-M200	Cable Range – 10 - 71 (0.4 - 2.8)	200	1 pkg.	4.6 (10)	77967
KS-4-B-M200	Cable Range – 10 - 86 (0.4 - 3.4)	200	1 pkg.	6.4 (10)	77981
LS-4-B-M100	Cable Range – 41 - 102 (1.6 - 4.0)	100	1 pkg.	4.1 (9)	77991
MS-4-B-M100	Cable Range – 41 - 112 (1.6 - 4.4)	100	1 pkg.	6.4 (14)	77998



3M™ Tools

Ordering Information for Tools

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
Tools for Closure Assembly					
Tools required for closure assembly but not included with cover or endplate kits.					
2-TYPE/TK	Complete Tool Kit	1	1 kit	4.5 (10)	89781
Universal Alignment Tool Kit					
For maintaining endplate spacing and alignment.					
UAT20K	Alignment Kit	1	1 kit	5.9 (13)	78492
Washer Cutter Tool Kit					
For cutting universal sealing washers.					
WCT11K	Washer Cutter Tool Kit	1	10 kits	5.9 (13)	78152
WCB11K	Replacement Blade Kit	2	10 pkgs.	2.3 (5)	78149

*SPW10K does not include sockets.

**TWS10K includes 12.7 and 11.1 mm (1/2 and 7/16") sockets and 3 socket extender.

***TK-3M includes Carrying Case and WCT11K Washer Cutter Tool.



3M™ Z Watertight Closure System

Closure Selection Guide

To order Z Watertight Closure System, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

For Protection of Nonpressurized Copper Conductors

The Z Watertight Closure is made of an impact-resistant plastic and is corrosion resistant. The closure can be used for straight or multiple branch splices and there is a fire retardant version available for building applications. It is lightweight, watertight and re-enterable. Z Watertight Closures may be mounted on strands or walls and accommodate up to 300-pair copper conductor splices. The system will also accommodate the entrance of up to four cables, 41 mm (1.6") in diameter. All components come in one kit and special tools are not required.



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Product Referral Generator

3M™ 710 Modules	pg. 22
3M™ MS ² ™ Modules	pg. 6
Shield Bonding	pg. 200
3M™ Scotchlok™ Connectors	pg. 2

Ordering Information for 3M™ Z Watertight Closure System

Product Number	Description	Max. Number Cable Pairs	Length mm (in.)	Width mm (in.)	Max. No. Height mm (in.)	Approx. Weight kg (lbs.)	Min. Order (each)	UPC 051138-
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Closure Selection

2Z2AAA-510	Standard	300	419 (16.5)	114 (4.5)	165 (6.5)	2.3 (5)	1	77489
2Z4AAA-510	Fire Retardant*	300	419 (16.5)	114 (4.5)	165 (6.5)	2.7 (6)	1	77494

Standard Package = Kit, Minimum Order/Ordering Multiple = 1 Kit.

*Gray in color.

Ordering Information for Accessories and Replacement Parts for 3M™ Z Watertight Series Closures

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	Min. Order (each)	UPC 051138-
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Two Cable Branch Kit

Provides branching adapter spool and internal bonding for two additional cables. Up to 19 mm (0.75") each cable opening.

BKZ10-2	Standard	1	1 kit	0.2 (.4)	1	77719
BKZ10-2-4	Fire retardant*	1	1 kit	0.2 (.4)	1	78652

Plugging Spool Kit

Provides two plugging spools for plugging unused cable openings.

GZX-K	Standard plugging spools	2	1 kit	0.1 (.2)	1	77916
GZX-4-K	Fire retardant plugging spools*	2	1 kit	0.1 (.2)	1	77915

Back Cover Clip Kit

For supporting back cover to cables during splicing. Also keeps endplates parallel and properly spaced.

BCC10K	Back cover clip kit kor Z-type covers	2 clips w/cable ties	20 kits	2 (0.9)	40	77704
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*Gray in color.



3M™ Pressurized Closures 50/51P Series

Closure Selection Guide

To order 50/51P Series Pressurized, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

A complete pressure tight closure system for protecting spliced communication cables in a wide range of applications.

The 50/51P Series Pressurized Closure can be used for aerial and underground applications. Seven sizes will accommodate cable diameters from 10 mm (0.4") to 71mm (2.8") and splices up to 1500 pairs. This closure may be used for sheath openings of 330 mm (13") or less to a maximum of 483 mm (19"). It is available in straight or branch splice configurations.



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Ordering Information for 50/51P-Type Pressurized Closure System

Product Number	Inside Diameter mm (in.)	Overall Length mm (in.)	Sheath Opening mm (in.)	Max. Sheath Diameter mm (in.)	Max. Cable Pairs 24 Ga. 26 Ga.	Approx. Weight kg (lbs.)	Min. Order (each)	UPC 051138-
Straight Splice Configurations								
50AA3P-510	51 (2.0)	546 (21.5)	330 (13.0)	25 (2 - 1.0)	100 100	2.7 (6)	1	77497
50B3P-510	83 (3.25)	724 (28.5)	483 (19.0)	41 (2 - 1.6)	300 400	4.1 (9)	1	77500
50C3P-510	114 (4.5)	724 (28.5)	483 (19.0)	56 (2 - 2.2)	600 900	6.4 (14)	1	77633
50D3P-510	159 (6.25)	724 (28.5)	483 (19.0)	76 (2 - 3.0)	1200 1500	6.8 (15)	1	77636
Branch Splice Configurations								
51AA3P-510	76 (3.0)	546 (21.5)	330 (13.0)	25 (4 - 1.0)	100 200	3.2 (7)	1	77641
51B3P-510	127 (5.0)	724 (28.5)	483 (19.0)	41 (4 - 1.6)	400 600	6.4 (14)	1	77646
51D3P-510	184 (7.25)	724 (28.5)	483 (19.0)	76 (4 - 3.0)	1500 1800	8.6 (19)	1	77650
50AA3P-110	—	—	—	—	—	—	—	77496
50B3P-110	—	—	—	—	—	—	—	77499
50C3P-110	—	—	—	—	—	—	—	77632
50D3P-110	—	—	—	—	—	—	—	77635
51AA3P-110	—	—	—	—	—	—	—	77640
51B3P-110	—	—	—	—	—	—	—	77645
51D3P-110	—	—	—	—	—	—	—	77649

NOTE: Maximum number of cable pairs based on using 25 modular connectors for in-line splice.
24 gauge = 0.51 mm, 26 gauge = 0.4 mm.

3M™ Tools, Accessories and Replacement Parts

for 3M™ Series Aerial Closures 50/51P&N

Ordering Information for 3M™ Aerial Closures 50/51 Series—Pressurized and Non-Pressurized—
Tools, Accessories and Replacement Parts

Product Number	Descriptions/ Dimensions mm (in.)	Quantity in Standard Package	Min. Order/ Ordering Multiple	Weight per Min. Order kg (lbs.)	UPC 051138-
Aerial Hanger Kit					
Used for supporting closure assembly to strand wire in aerial applications.					
AHK5-M20	Hanger Kit	2	20 kits	3.2 (7)	78780
Ant Repellant Kit					
Used to prevent the entry of ants into the splice case.					
ARKO-26	Ant Kit	1	100 kits	2.7 (6)	78422
Bolts for 50/51 Type Closures					
For replacing lost or damaged bolts in endplates and covers. S = Short, L = Long.					
SB4LK	6.4 (1/4) - 508 x 44.5 (20 x 1.75) - L	25	4 pkgs.	2.7 (6)	78096
Jacking Plates for 50/51 Type Closures					
For replacing lost or damaged jacking plates.					
CIT68-4K	Threaded Jacking Plate, Bolt Size = 6.4 (1/4)	25	4 pkgs.	1.4 (3)	77737
CIT68K	Threaded Jacking Plate, Bolt Size = 7.9 (5/16)	25	4 pkgs.	1.4 (3)	77738
CIU68K	Unthreaded Jacking Plate, All Bolt Sizes	25	4 pkgs.	1.4 (3)	77739
Thru the Seal Ground Strap for 50/51 Type Closures					
L50SBK	Ground Strap	10	1 kit	0.6 (1.4)	78747
Insert Kit for 50/51 Type Closures					
For replacing lost or damaged inserts.					
SNI300-5K	7.9 (5/16) Threaded Insert	25	4 pkgs.	0.5 (1)	78111
SWI300-5K	7.9 (5/16) Unthreaded Insert	25	4 pkgs.	0.5 (1)	78119



3M™ K&B Vault and Riser Closures

Closure Selection Guide

To order K&B Vault and Riser Closures, follow these steps:

1. What is your pair count?
2. What is your cable size?
3. What is your sheath opening?
4. What type of connector are you using? Module (MS² or 710) or Discrete (Scotchlok)?
Note: Bundles built with modular connectors are half the size of discrettes.
5. What is your splice bundle diameter?

These questions should guide you in choosing the correct closure.

K&B Vault Closures

K&B Closures are strong, lightweight, and protect a wide variety of vault splice configurations with an air and water tight seal. K&B closures offer a full product line that is simple to install and reenter. This full product offering provides closures in standard kits to protect the majority of cable configurations and customized and special closures to meet your vault requirements.

All K&B closures are flame retardant.

RUS Listed

Ordering K&B Vault Closures

The key to ordering the correct K&B Vault Closures Kit is knowing what components suit the splice configuration. The kit can be a solid or split sleeve and have a collared end cap, multiple end cap, stainless steel hose clamps and cable lubricant.

Because the K&B vault closure is air and water tight, the closures collared and multiple end caps have to be sized precisely to the cables entering them. When ordering K&B closures, three pertinent facts are needed:

- The diameter of all the cables, field and tip, to be spliced. This is needed for hole sizing of the end caps.
- The maximum number of cable pairs to be spliced and the type of connector to be used for splicing, an example is a 2700-pair field cable, spliced to 27-100 pair tip cable is a “2700-pair splice.” This determines the size/diameter of the closure.
- The number of tip cables to be enclosed.

NOTE: If the application determines that the closure does not need to be air



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and water tight, then the use of a K&B riser closure should be considered.

The standard K&B Vault Closure Kit contains the following:

- One sleeve, solid or split
- One collared end cap
- One multiple end cap
- Hose Clamps:
 - Solid sleeve - two sleeve clamps, one collared clamp
 - Split sleeve - three sleeve clamps, one collared clamp

Steps to Ordering Standard K&B Closures Kits

1. Determine the *maximum* number of cable pairs, entering into the closure. If a 1200-pair field cable enters the closure, but is only spliced to 6-100 pair tip cables, this is still sized at the 1200 potential pairs.

2. Determine the type of module or connector to be used for splicing. The 25-pair module/connector is recommended because this can make for a more compact splice bundle for a smaller closure diameter.

3. Use “Chart A” to make a selection from the standard kits available. With the standard kits, the Collared Cap opening can be up to 6.35 mm (1/4”) larger than the cable diameters. The clamp will tighten it down, and the multiple cap needs to be within the stated diameter range.

4. Fill any vacant multiple holes with the appropriate plug.



Standard 3M™ K&B Closure Selection Guide

Maximum Pair Count		Solid Sleeve		Split Sleeve	
					
3M™ MS2™*	3M™ Scotchlok™	Kit Part Number	Diameter Length	Kit Part Number	Diameter Length
100	50	KB2-100-2	2-24	—	—
200	100	KB3-175-1	3-24	KBS3-175-1	3DS-24
400	200	KB4-175-1 KB4-175-2	4-24 4-24	—	—
600	300	KB5-100-6 KB5-130-6 KB5-175-2	5-26 5-26 5-26	KBS5-100-6 KBS5-130-6 KBS5-175-2	5DS-26 5DS-26 5DS-26
900	400	KB6-100-9 KB6-130-9 KB6-175-3	6-26 6-26 6-26	KBS6-100-9 KBS6-130-9 KBS6-175-3	6DS-26 6DS-26 6DS-26
1200	600	KB7-100-15 KB7-175-5	7-26 7-26	KBS7-100-15 KBS7-175-5	7DS-26 7DS-26
2400	800	KB8-100-24 KB8-130-18 KB8-175-8	8-26 8-26 8-26	KBS8-100-24 KBS8-130-18 KBS8-175-8	8DS-26 8DS-26 8DS-26
2700	900	KB9-100-27 KB9-130-24 KB9-175-9	9-26 9-26 9-26	KBS9-100-27 KBS9-130-24 KBS9-175-9	9DS-26 9DS-26 9DS-26
3600	—	KB10-100-36 KB10-100-36L	10-26 10-26	KBS10-100-36 KBS10-100-36L	10DS-26 10DS-34
4800	—	KB12-130-37	12-28	—	—

* Based on 2-bank In-line splice using 4000D/TR modules.

** Collared Cap opening can be up to 6.35 mm (1/4") longer than the cable diameter, the clamp will tighten it down.

*** Two clamps are included with solid sleeve order. Three clamps are included with split sleeve order. One clamp is included with collared end cap.

**** 254 mm (10") cap with 27- 22 mm to 27 mm (.85" to 1.06") holes around 1- 76 mm (3.0") hole.

Collared End Caps**		Multiple End Caps	
			
Part Number	Hole Size mm (in.)	Part Number	Hole Size mm (in.)
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	—	—
—	—	C7-100-15 C7-175-5	21.5-26.0 (.85-1.06) 31.7-41.4 (1.25-1.75)
C8-300-1C C8-300-1C C8-300-1C	76.2 (3) 76.2 (3) 76.2 (3)	C8-100-24 C8-130-18 C8-175-8	21.5-26.0 (.85-1.06) 27.4-33 (1.08-1.3) 31.7-41.4 (1.25-1.75)
C9-300-1C C9-300-1C C9-300-1C	76.2 (3) 76.2 (3) 76.2 (3)	C9-100-27 C9-130-24 C9-175-9	21.5-26.0 (.85-1.06) 27.4-33 (1.08-1.3) 31.7-41.4 (1.25-1.75)
C10-360-1C C10-360-1C	91.4 (3.6) 91.4 (3.6)	C10-100-36 C10-100-27/300	21.5-26.0 (.85-1.06) 21.5-26.0 (.85-1.06)
C12-390-1C C12-390-1C	99 (3.9) 99 (3.9)	C12-100-48 C12-130-37	21.5-26.0 (.85-1.06) 27.4-33 (1.08-1.3)

* Based on 2-bank In-line splice using 4000D/TR modules.

** Collared Cap opening can be up to 6.35 mm (1/4") longer than the cable diameter, the clamp will tighten it down.

*** Two clamps are included with solid sleeve order. Three clamps are included with split sleeve order. One clamp is included with collared end cap.

**** 254 mm (10") cap with 27- 22 mm to 27 mm (.85" to 1.06") holes around 1- 76 mm (3.0") hole.



Ordering Information for 3M™ K&B Vault with Solid Sleeve Closure Kits

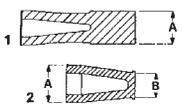
Product Number	Packaging kg (lbs.)	Minimum Order	UPC
KB2-100-2	1/cs., .91 (2.0)/cs.	1 each	054007-26818
KB3-175-1	1/cs., 1.81 (4.0)/cs.	1 each	054007-26820
KB4-175-1	1/cs., 2.27 (5.0)/cs.	1 each	054007-26822
KB4-175-2	1/cs., 2.27 (5.0)/cs.	1 each	054007-26823
KB5-100-6	1/cs., 2.27 (5.0)/cs.	1 each	054007-26825
KB5-130-6	1/cs., 2.27 (5.0)/cs.	1 each	054007-26826
KB5-175-2	1/cs., 2.27 (5.0)/cs.	1 each	054007-26827
KB6-100-9	1/cs., 3.63 (8.0)/cs.	1 each	054007-26829
KB6-130-9	1/cs., 3.63 (8.0)/cs.	1 each	054007-26830
KB6-175-3	1/cs., 3.63 (8.0)/cs.	1 each	054007-26831
KB7-100-15	1/cs., 3.63 (8.0)/cs.	1 each	054007-26833
KB7-175-5	1/cs., 5.90 (13.0)/cs.	1 each	054007-26834
KB8-100-24	1/cs., 7.26 (16.0)/cs.	1 each	054007-26381
KB8-130-18	1/cs., 7.26 (16.0)/cs.	1 each	054007-26382
KB8-175-8	1/cs., 7.26 (16.0)/cs.	1 each	054007-26464
KB9-100-27	1/cs., 7.26 (16.0)/cs.	1 each	054007-26465
KB9-130-24	1/cs., 8.16 (18.0)/cs.	1 each	054007-26466
KB9-175-9	1/cs., 8.16 (18.0)/cs.	1 each	054007-26504
KB10-100-36	1/cs., 9.07 (20.0)/cs.	1 each	054007-26624
KB10-100-36L	1/cs., 9.07 (20.0)/cs.	1 each	054007-26505
KB12-130-37	1/cs., 12.70 (28.0)/cs.	1 each	054007-26507

Ordering Information for 3M™ K&B Vault Closure Kits with Split Sleeve

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
KBS3-175-1	1/cs., 1.81 (4.0)/cs.	1 each	054007-26835
KBS5-100-6	1/cs., 2.27 (5.0)/cs.	1 each	054007-26837
KBS5-130-6	1/cs., 2.27 (5.0)/cs.	1 each	054007-26838
KBS5-175-2	1/cs., 2.27 (5.0)/cs.	1 each	054007-26839
KBS6-100-9	1/cs., 3.63 (8.0)/cs.	1 each	054007-26841
KBS6-130-9	1/cs., 3.63 (8.0)/cs.	1 each	054007-26842
KBS6-175-3	1/cs., 3.63 (8.0)/cs.	1 each	054007-26843
KBS7-100-15	1/cs., 5.9 (13.0)/cs.	1 each	054007-26845
KBS7-175-5	1/cs., 5.9 (13.0)/cs.	1 each	054007-26846
KBS8-100-24	1/cs., 7.26 (16.0)/cs.	1 each	054007-26566
KBS8-130-18	1/cs., 7.26 (16.0)/cs.	1 each	054007-26567
KBS8-175-8	1/cs., 7.26 (16.0)/cs.	1 each	054007-26568
KBS9-100-27	1/cs., 8.16 (18.0)/cs.	1 each	054007-26569
KBS9-130-24	1/cs., 8.16 (18.0)/cs.	1 each	054007-26570
KBS9-175-9	1/cs., 8.16 (18.0)/cs.	1 each	054007-26571
KBS10-100-36 26"	1/cs., 9.07 (20.0)/cs.	1 each	054007-26572
KBS10-100-36L 34"	1/cs., 9.07 (20.0)/cs.	1 each	054007-26573

Note: Solid sleeve kits contain 2 each sleeve clamps and 1 each collar clamp. Split sleeve kits come with 3 each sleeve clamps and 1 each collar clamp.

Specifications for 3M™ K&B Vault Closure Plugs

Rubber Bushings	Dimensional Diagram	Part Number	Dimension A	Dimension B
Plugs				
		Collared PC-175 PC-225 PC-275 PC-298	1.75 (44) 2.25 (57) 2.75 (70) 2.98 (76)	
		Tapered PT-100 PT-120 PT-125 PT-130 PT-175 PT-225	1.0 (25) 1.2 (31) 1.25 (32) 1.3 (33) 1.75 (44) 2.25 (57)	0.75 (19) 1.25 (32) 1.75 (44)

NOTE: inches (mm) *If inside diameter is less than 6.35 mm (0.25"), use KBS-1 to seal.

Ordering Information for 3M™ K&B Vault Closure Collared Plugs

Product Number	Packaging kg (oz.)	Minimum Order	UPC
PC-175	1/cs., 0.06 (2)	1 each	054007-26433
PC-225	1/cs., 0.09 (3)	1 each	054007-26434
PC-275	1/cs., 0.14 (5)	1 each	054007-26436
PC-298	1/cs., 0.17 (6)	1 each	054007-26438

Ordering Information for 3M™ K&B Vault Closure Tapered Plugs

Product Number	Packaging kg (oz.)	Minimum Order	UPC
PT-100	1/cs. 0.03 (1)/cs.	1 each	054007-17602
PT-120	1/cs. 0.03 (1)/cs.	1 each	054007-26441
PT-125	1/cs. 0.03 (1)/cs.	1 each	054007-26440
PT-130	1/cs. 0.06 (2)/cs.	1 each	054007-17603
PT-175	1/cs. 0.06 (2)/cs.	1 each	054007-26443



Selecting and Sizing Bushings

As an example:

- You have a 1200-pair splice, with a 1200 pair field cable that has 50.8 mm (2.0") OD and 12-100 pair tip that has 25.4 mm (1.0") OD.
- The approximate closure size is a KB7-100-15. It has a multiple end

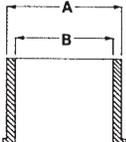
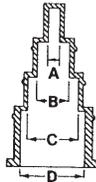
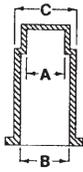
cap with 15 openings of 25.4 mm (1.0") OD and a collared end cap with an opening of 69.9 mm (2.75") OD.

- The multiple end cap will give the tip cable a precise fit.
- The collared end cap is too big and needs a B275-200 bushing to reduce the opening.

The order should be:

- One each KB7-100-15
- One each B-275-200-IC (this bushing fits into the 69.9 mm (2.75") hole and reduces it down to 50.8 mm (2.0"). The "IC" stands for Insert and Cement)
- Three each PT100

Ordering Information for 3M™ K&B Vault Closure Bushings

Rubber Bushings	Dimensional Diagram	Part Number	Dimension A	Dimension B	Dimension C	Dimension D
		B-100-70 B-125-100	1.0 (28) 1.25 (32)	0.92 (23.4) 1.06 (26.9)	0.62 (15.7) 0.85 (21.8)	
		B-175-125 B-175-150 B-225-175 B-225-200 B-275-200 B-275-225 B-275-250 B-300-275 B-360-300 B-360-330 B-390-360	1.75 (44) 1.75 (44) 2.25 (57) 2.25 (57) 2.75 (70) 2.75 (70) 2.75 (70) 3.0 (76) 3.6 (91) 3.6 (91) 3.9 (99)	1.25 (32) 1.5 (38) 1.75 (44) 2.0 (51) 2.0 (51) 2.25 (57) 2.5 (64) 2.75 (70) 3.0 (76) 3.3 (84) 3.6 (91)		
Variable Bushings						
		B-1.00-0.25 B-2.50-1.00	0.49 (12.4) 1.0 (25.4)	0.69 (17.5) 1.40 (35.6)	0.79 (20.1) 1.90 (48.3)	1.0 (25.4) 2.50 (63.5)
		B-1.75-1.50-1.00	1.12 (28.4)	1.50 (38.1)	1.75 (44.5)	

NOTE: inches (mm) *If inside diameter is less than 6.35 mm (0.25"), use KBS-1 to seal.
Collared caps must be bushed to within 1/4" of cable diameter.

Ordering Information for 3M™ K&B Vault Closure Solid Sleeves

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
3-24	1/cs., .45 (1.0)/cs.	1 each	054007-26819
4-24	1/cs., .91 (2.0)/cs.	1 each	054007-26821
5-26	1/cs., .91 (2.0)/cs.	1 each	054007-26824
6-26	1/cs., 1.36 (3.0)/cs.	1 each	054007-26828
7-26	1/cs., 2.27 (5.0)/cs.	1 each	054007-26832
10-26	1/cs., 3.18 (7.0)/cs.	1 each	054007-26623

Ordering Information for 3M™ K&B Vault Closure Split Sleeves

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
5DS-26	1/cs., 1.36 (3.0)/cs.	1 each	054007-26836
6DS-26	1/cs., 1.81 (4.0)/cs.	1 each	054007-26840
7DS-26	1/cs., 2.27 (5.0)/cs.	1 each	054007-26844
10DS-34	1/cs., 3.63 (8.0)/cs.	1 each	054007-26574
12SS-28	1/cs., 4.99 (11.0)/cs.	1 each	054007-26693



Ordering Information for 3M™ K&B Vault Closure Multiple Caps

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
C8-100-24	1/cs., 1.7 (3.75)/cs.	1 each	054007-26410
C8-130-18	1/cs., 1.6 (3.5)/cs.	1 each	054007-26411
C8-175-8	1/cs., 1.6 (3.5)/cs.	1 each	054007-26412
C9-100-27	1/cs., 1.7 (3.75)/cs.	1 each	054007-26413
C9-130-24	1/cs., 1.6 (3.5)/cs.	1 each	054007-26414
C9-175-9	1/cs., 1.6 (3.5)/cs.	1 each	054007-26415
C9-275-3	1/cs., 1.4 (3.0)/cs.	1 each	054007-26853
C10-100-27/300 ESS	1/cs., 2.3 (5.0)/cs.	1 each	054007-26689
C10-100-36	1/cs., 2.3 (5.0)/cs.	1 each	054007-26513
C12-130-37	1/cs., 3.1 (6.75)/cs.	1 each	054007-26497
C12-100-48	1/cs., 3.1 (6.75)/cs.	1 each	054007-26697

Ordering Information for 3M™ K&B Vault Closure Collared End Caps

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
C8-300-1C	1/cs., 1.36 (3.0)/cs.	1 each	054007-26537
C9-300-1C	1/cs., 1.59 (3.5)/cs.	1 each	054007-26538
C10-360-1C	1/cs., 1.59 (3.5)/cs.	1 each	054007-26539
C12-390-1C	1/cs., 2.49 (5.5)/cs.	1 each	054007-26540

Ordering Information for 3M™ K&B Vault Closure Flat Caps

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
C5 (5")	1/cs., 0.45 (1.0)/cs.	1 each	054007-26698
C6 (6")	1/cs., 0.45 (1.0)/cs.	1 each	054007-26699
C7 (7")	1/cs., 0.45 (1.0)/cs.	1 each	054007-26700
C8 (8")	1/cs., 0.9 (2.0)/cs.	1 each	054007-26701
C9 (9")	1/cs., 1.4 (3.0)/cs.	1 each	054007-26702
C10 (10")	1/cs., 1.4 (3.0)/cs.	1 each	054007-26703
C12 (12")	1/cs., 2.3 (5.0)/cs.	1 each	054007-26704

Ordering Information for 3M™ K&B Vault Closure Puddle Caps

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
C8-7	1/cs., 0.91 (2.0)/cs.	1 each	054007-26696
C9-5	1/cs., 1.36 (3.0)/cs.	1 each	054007-26423
C9-7	1/cs., 0.91 (2.0)/cs.	1 each	054007-26424
C10-8	1/cs., 1.81 (4.0)/cs.	1 each	054007-26695
C12-8/6	1/cs., 1.27 (5.0)/cs.	1 each	054007-26852



Ordering Information for 3M™ K&B Vault Closure Bushings

Product Number	Packaging kg (oz.)	Minimum Order	UPC
B100-50	1/cs., 0.09 (3)/cs.	1 each	054007-26446
B100-70	1/cs., 0.09 (3)/cs.	1 each	054007-27182
B125-100	1/cs., 0.03 (1)/cs.	1 each	054007-26692
B175-125	1/cs., 0.06 (2)/cs.	1 each	054007-26528
B175-150	1/cs., 0.06 (2)/cs.	1 each	054007-26527
B225-175	1/cs., 0.09 (3)/cs.	1 each	054007-26519
B225-200	1/cs., 0.17 (6)/cs.	1 each	054007-27185
B275-200	1/cs., 0.17 (6)/cs.	1 each	054007-26520
B275-225	1/cs., 0.11 (4)/cs.	1 each	054007-26521
B275-250	1/cs., 0.06 (2)/cs.	1 each	054007-26522
B300-275	1/cs., 0.09 (3)/cs.	1 each	054007-26523
B360-300	1/cs., 0.11 (4)/cs.	1 each	054007-26524
B360-330	1/cs., 0.11 (4)/cs.	1 each	054007-26525
B390-360	1/cs., 0.11 (4)/cs.	1 each	054007-26526



Ordering Information for 3M™ K&B Vault Closure Variable Bushings

Product Number	Packaging kg (oz.)	Minimum Order	UPC
B-1.0-2.5	1/cs., 0.09 (3)/cs.	1 each	051115-26461
B-2.5-1.0	1/cs., 0.09 (3)/cs.	1 each	054007-26462
B-1.75-1.50-1.0	1/cs., 0.09 (3)/cs.	1 each	054007-26360

3M™ K&B Vault Closure Accessories

5925 Fire Barrier Vault Rehabilitation Kit



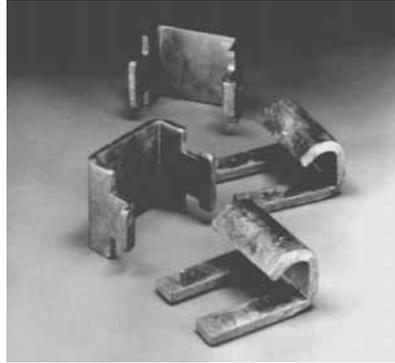
225

For use in conjunction with an existing vertically installed K&B Vault Closure when specific fire retardancy requirements such as the Bell System Technical Reference PUB 55006 (Issue 1, Section 5.53) are required.

Kit contents/size:

- Fire Barrier Foil Mat
298 mm x 3.7 m (11 3/4" x 12')
- No. 69 Glass Cloth Tape
25 mm x 23 m (1" x 25 yds.)

RC-100 Splice Supports



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Designed to reduce closure support costs. The rack clips permit fast, multi-positioning of industry standard manhole racks or uni-struts and hooks to facilitate support of a closure. Two supports per set.

KB-S1 Sealing Kit



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Designed for sealing split K&B vault sleeves and split end caps. Each kit contains a "Mini-Semkit" of 38g of urethane adhesive, a 50.8 mm x 76.2 mm x 9.5 mm (2" x 3" x 3/8") ScotchBrite™ 7H Pad, a wooden spatula, and instructions.

Ordering Information for 3M™ K&B Vault Closure Accessories

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
5925 Fire Barrier Vault Rehabilitation Kit	1/cs., 4.0 (8.9)/cs.	1 kit	051115-02438
RC-100 Splice Supports	10 sets/cs., 3.5 (7.8)/cs.	10 sets	054007-31713
KB-S1 Sealing Kit	1 kit/cs., 0.15 (0.33)/cs.	1 kit	054007-31101

Bonding Harness



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For use in closure to ground shields of spliced cable; 14 AWG.

Cable Lubricant

Designed to make vault closure installation faster by lubricating tip cables before insertion into multiple end caps, the cable lubricant evaporates after use and does not damage closure elements in any way. Supplied in a 113.2 g (4 oz.) dauber-top bottle.



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Ordering Information for 3M™ K&B Vault Closure Bonding Harnesses and Cable Lubricant

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
BH2-6 (2,3,4,5,6" closure)	1/cs., 0.23 (0.5)/cs.	1 set	054007-26362
BH7 (7" closure)	1/cs., 0.45 (1.0)/cs.	1 set	054007-26363
BH8-9 (8-9" closure)	1/cs., 0.68 (1.5)/cs.	1 set	054007-26365
Cable Lubricant	1/cs., 0.11 (0.25)/cs.	1 bottle	054007-26512



3M™ K&B Building Riser Closure

The K&B Riser Closure has the same proven qualities of the K&B Vault Closure but are used in applications that do not require an air or water tight closure. Because of this, the end caps do not need to precisely fit the cable and are more versatile and user friendly. Use "Closure Selection Guide" for determining the proper closure size for your application. All K&B Riser Closures are flame retardant.

NOTE: Single port SRC end caps are optional and must be ordered separately.

Kit contents:

- Split Closure Cover
- Stainless steel hose clamps (2)
- Flex strips (4)
- End caps (2)
 - R3 and R5 – 2 each of double (2) entry conical end caps

-R6-10 – 1 each of a single (1) entry conical end cap and 1 each of a ten (10) port rubber end cap. Also 1 each of a 4 ounce bottle of cable lubricant.

-R7 and R9 – 2 each of triple (3) entry conical end caps

R-6 10 Port/Single Entry Closure



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R3, R5, R7 and R9 Closures



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3M™ K&B Building Riser Closure Selection Guide

Product Number	R-3	R-5	R-6	R-7	R-9
Closure inside dimensions					
Diameter, mm (in.)	76 (3)	127 (5)	152 (6)	178 (7)	228 (9)
Length, mm (in.)	24 (607)	660 (26)	660 (26)	660 (26)	660 (26)
Approx. splice bundle capacity (Super-Mini)	300-pr. 24 AWG or less*	900-pr. 24 AWG*	900-pr. 24 AWG*	1800-pr. 24 AWG*	3000-pr. 26 AWG*
Maximum allowable cable diameter					
Multiple entry end caps					
Port 1, mm (in.)	30 (1.2)	51 (2.0)	84 (3.3)	79 (3.1)	96 (3.8)
Port 2, mm (in.)	30 (1.2)	51 (2.0)	Ports 1-10	61 (2.4)	79 (3.1)
Port 3, mm (in.)	—	—	28 (1.1)	51 (2.0)	61 (2.4)
Optional single entry end caps, mm (in.)	SRC-3 43 (1.7)	SRC-5 61 (2.4)		SRC-7 91 (3.6)	SRC-9 96 (3.8)

*Based on 2-Bank Straight Splice using 4000-D/TR Modules.

Ordering Information for 3M™ K&B Building Riser Closure Kits

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
R3 (Double Cap/Double Cap)	10/cs., 11.62 (25.6)/cs.	10 kits	054007-33484
R5 (Double Cap/Double Cap)	1/cs., 2.86 (6.3)/cs.	1 each	054007-33485
R7 (Triple Cap/Triple Cap)	1/cs., 4.18 (9.2)/cs.	1 each	054007-33486
R9 (Triple Cap/Triple Cap)	1/cs., 5.08 (11.2)/cs.	10 kits	054007-33487
R6 (Multiple Port End Cap)	1/cs., 4.63 (10.2)/cs.	1 each	054007-33488



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3M™ K&B Building Riser Closure End Caps Features

Product Number	Description	Cap Dimension mm (in.)
SRC-3	Riser Closure End Cap	76 (3)
SRC-5	Riser Closure End Cap	127 (5)
SRC-7	Riser Closure End Cap	178 (7)
SRC-9	Riser Closure End Cap	229 (9)

Ordering Information for 3M™ K&B Building Riser Closure End Caps-Single Entry

Product Number	Packaging kg (lbs.)	Minimum Order	UPC
SRC-3	10/cs., 1.22 (2.7)/cs.	10 each	054007-33490
SRC-5	10/cs., 2.8 (6.1)/cs.	10 each	054007-33491
SRC-7	1/cs., 0.63 (1.4)/cs.	1 each	054007-33493
SRC-9	1/cs., 0.77 (1.7)/cs.	1 each	054007-33489

3M™ Network Accessories



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3M™ Compounds and Sealing Kits

4442 High Gel Re-enterable Encapsulant

(Non-Urethane Encapsulant)

This completely re-enterable encapsulant uses a new compound technology. It delivers a high level of adhesion and excellent moisture protection at low cost. It absorbs cable-filling materials, yet remains re-enterable. No cable cleaning is required, even when splicing filled cable. **Contains no isocyanates.**



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It provides better penetration of splice bundles at low temperatures due to its lower viscosity and longer gel time.

3M™ Scotchcast™ Encapsulating and Blocking Compound 4407

Developed for splice encapsulation and pressure blocking, Scotchcast compound 4407 is a two-part compound. It features excellent wetting properties and low viscosity, which means it flows quickly and freely. Its low temperature cure properties mean that it may be used in almost any type of weather.



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Cure time is fast; approximately 1 hour at 22°C (72°F) and 20 hours at -4°C (20°F). 4407 is usable to -18°C (0°F). Designed for both splice encapsulation and cable blocking, Scotchcast 4407 eliminates the need to stock more than one compound.

4408 Haplec Blocking Compound

4408 Haplec Blocking Compound is a high-performance two-part resin having high shear



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adhesion to plastic insulated conductors (PIC), even when the insulation is grease coated (as in filled cable). It was designed to make combination moisture/pressure blocks (especially in filled cable) and pressure dams for transition splices between pressurized and grease filled cable. 4408 Haplec Blocking Compound is conveniently packaged in Unipak Containers.

3M™ Scotchcast™ Pedestal Base Sealant Kit 4411

A two-part expanding sealant used to fill pedestal bases to prevent ground moisture from entering the pedestal. The sealant



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protects the cables against rodents, insects and moisture. An “A” size unipak bag will expand to fill about 753.80 cubic cm (46 cubic inches); a “B” size will fill about 1556.77 cubic cm (95 cubic inches), and a “D” size will expand to fill about 4096.77 cubic cm (250 cubic inches).

RUS Listed

3M™ Scotchcast™ Duct Sealing Kit 4416

The 4416 Duct Sealing Kit prevents water and other liquids from running out of a cable duct and entering a manhole or central office.



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Kit contents:

- Foam strip
- Spacer web strip
- Scotchcast cleaning pads (4)
- Scotchcast expandable sealant (4)
- Plastic tubes

RUS Listed

3M™ Scotchcast™ Foam Kit 4430-F

Open cell polyurethane foam strips used for cable duct sealing or for containing expandable sealants. Kit contents:



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8 rolls foam, 25.4 mm x 76.2 mm x 1.8 m (1" x 3" x 72").

Ordering Information for Compounds and Sealing Kits

Product Number	Volume	Packaging kg (lbs.)/cs.	Minimum Order	UPC
4442 High Gel Re-enterable Encapsulant 4442-6000 Pouch in Pail	6592 ml (6000 g)	1/cs., 13.70 (30.2)	1 units	051138-36611
4442-A	90 ml (82 g)	10/cs., 1 (2.2)	10 bags	051138-36444
4442-C	385 ml (350 g)	10/cs., 3.8 (8.3)	10 bags	051138-36445
4442-D	659 ml (600 g)	10/cs., 6.4 (14.1)	10 bags	051138-36446
4442-E	292 ml (266 g)	10/cs., 3.0 (6.7)	10 bags	051138-36447
4442 High Gel Foil Unipak Bags				
4442-750F	824 ml (750 g)	4/cs., 0.775 (1.71)	4 bags	051138-36510
4442-1500F	1648 ml (1500 g)	2/cs., 1.537 (3.39)	2 bags	051138-36511
4442-3000F	3296 ml (3000 g)	1/cs., 3.055 (6.74)	1 bag	051138-36512
4407 Encapsulating and Blocking Compound				
4407-A	89 ml (94 g)	1 bag/box, 10/cs., 1.6 (3.5)	10 bags	054007-30556
4407-B	197 ml (209 g)	1 bag/box, 10/cs., 3.2 (7.0)	10 bags	054007-30557
4407-C	396 ml (420 g)	1 bag/box, 10/cs., 5.4 (12.0)	10 bags	054007-30558
4407-D	637 ml (675 g)	1 bag/box, 10/cs., 8.7 (19.1)	10 bags	054007-30559
4407-E	283 ml (300 g)	1 bag/box, 10/cs., 4.2 (9.3)	10 bags	054007-30560
4407-1500F	1415 ml (1500 g)	1 unit/cs., 2.04 (4.5)	1 unit	051138-75381
4407-3000F	2830 ml (3000 g)	1 unit/cs., 3.4 (8.8)	1 unit	051138-75382
4408 Haplec Blocking Compound				
4408-D	632 ml (600 g)	1 bag/box, 10/cs., 7.5 (16.5)	10 bags	054007-92966
4408-E	316 ml (300 g)	1 bag/box, 10/cs., 4.1 (9.1)	10 bags	054007-92967
4411 Pedestal Base Sealant Kit				
4411-A	795 ml (96.3 g)	4/box, 16/cs., 2.7 (6.0)	16 bags	051138-33065
4411-B	1570 ml (190 g)	4/box, 16/cs., 4.3 (9.5)	16 bags	051138-32006
4411-D	4130 ml (500 g)	4/box, 16/cs., 10.3 (22.8)	16 bags	051138-32562
4411-750F	6195 ml (750 g)	4 units/cs., 4.7 (10.4)	4 units	051138-70500
4416 Duct Sealing Kit	—	1 kit/cs., 1.5 (3.3)	1 kit	054007-57220
4430-F Duct Foam Kit	—	8 rolls/kit, 1 kit/cs. 1.6 (3.6)	1 kit	051138-33389

Note: Volume in milliliters (ml) is equal to 3,785.4 ml/1 gallon.

3M™ Pressure and Moisture Blocking Kits

3M™ Scotchcast™ Pedestal Pressure/Moisture Blocking Kit 8964

A system for PIC air core cable blocking. Used to make a pressure block and



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moisture seal at the pedestal interface. The kit contains a universal sleeve and the pourable Haplec 4408 compound conveniently packaged in a unipak container. The 8964 kit includes: 1 closure body 254 mm x 355.6 mm (10" x 12"), 1 spacer web 127 mm x 228.6 mm (5" x 9"), 1 mastic strip 254 mm (10"), 1 fibreglas strip roll 38.1 mm x 0.9 mm (1 1/2" x 36"), 1 4408 Haplec blocking compound D bag 600 g (21.2 oz.), 1 Instruction sheet.

3M™ Scotchcast™ Open Sheath Blocking Closures 4530, 4530-L, 4530-S/NB/4408

This system provides full pressure blocking on air core cable (paper or pulp insulated cable that has not been treated



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with anti-wetting agents and PIC).

Compound filling of the cable block can be accomplished by pouring and injecting or, when cable is under air pressure, by injecting alone.

Scotchcast 4407 Encapsulating and Blocking Compound is used with the 4530 and 4530-L closure kits.

Scotchcast 4407 compound is a two-part polyurethane compound characterized by excellent wetting properties and low viscosity which is ideal for pressure blocking applications. The 4407 compound is sold separately from the closure kit to permit optimization of the amount of compound used.

3M™ Scotchcast™ Plugging Under Pressure (PUP) Kit 4477 and 4477-R (Air Pressure Blocking)

This easy-to-use kit is a system that allows the craftsman to make a pressure block without cable line air



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pressure shutdown. The Scotchcast 4477 PUP Kit saves time in making a pressure block because it contains all the necessary components in a system package. The 4477-R kit is a replenishment kit that permits use of 4477 kit components that are removed after plug curing for other pressure block applications. The PUP kit's relief valve and bypass tube automatically equalize pressure to 5 P.S.I. on both sides of the injection point. The system's injection valve permits compound injection without loss or

mess while the cross fitting permits the addition of an "F" valve for adding buffered air or monitoring. The 4477-R kit includes 60 plungers for SCS usage.

3M™ Scotchcast™ Single Cartridge System for Plugging 4407/SCS

The Scotchcast Cable Blocking

System features a reusable injection cartridge which can be used for as many as six injections of Scotchcast 4407



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compound, or up to 72 oz. (2 kg) of compound, depending on the size of the block. The Single Cartridge System can be used on both open and direct sheath applications, on vertical as well as horizontal blocks, and on plugs made under pressure. The cable blocking system comes with an injection gun.

The empty cartridge is screwed onto the injection port of the sheath or 4530 closure. After the compound is poured, a plunger is inserted, the injection gun is placed on the cartridge, and the compound is injected into the sheath or the closure. This is repeated using the same cartridge until the block is completed or six plungers have been used.

Ordering Information for 3M™ Scotchcast Pressure Blocking Kits 8964

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
Scotchcast 8964	1/cs., 1.1 (2.4)	1 kit	054007-92965
Plugging Under Pressure (PUP) Kits			
4477 PUP Kit	1/cs., 0.58 (1.3)	1 kit	054007-31090
4477-R PUP Replenishment Kit	10 petcocks & 60 plungers/kit, 1/cs., 0.49 (1.1)	1 kit	054007-31933

Kit Components for the 3M™ Scotchcast™ Pressure and Moisture Blocking Kits 4530 Series

Kit Product Numbers			
Kit Contents	4530	4530-L	4530-S/NB/4408
Injection sleeve	•	•	•
Fill port caps (2)	•	•	•
W9 channeling wedges (12)	•	•	•
4460-S shield bond connectors (2)	•	•	•
25T grounding braid (356 mm (14") strip)	•	•	•
Fiberglass tape (2 strips)	•	•	•
Spacer web	•	•	•
Air vent plugs (2)	•	•	•
Mastic strip	•	•	•
Stainless steel hose clamps (2)	•	•	•
378 mm (1/10 gal.) injection cartridge	•	•	•
Stackable plungers (5)	•	•	•
Injection caps (2)	•	•	•
13 mm (1/2") O.D. tubing 4"	•	•	•
3 mm (1/8") O.D. tubing 6"	•	•	•
Fiberglass strips (2)	•	•	•
Funnel		•	•
"E" size bag of 4408 Haplec Blocking Compound			•
Ordering information			
Packaging kg (lbs.)	1/box, 10/cs., 7.4 (16.4)	1/cs., 1.2 (2.7)	1/box, 10/cs.
Minimum order	10 kits	1 kit	10 kits
UPC	054007-31110	054007-33812	054007-92964

Kit Components for the 3M™ Scotchcast™ Single Cartridge System Kits 4407 Series

Kit Product Numbers			
Kit Contents	4407/SCS Kit with injection gun	4407/SCS-D Single cartridge system	4407/SCS-IG Direct sheath injection kit
Plungers	12	12	1
Cartridge	6	1	1
4478 Flanges	6		1
Petcocks	6	1	1
"B" Bag 4407			1
"D" Bags 4407	6	1	
W9 Channeling wedges	100		6
4470 Injection gun	1		
Ordering Information			
Packaging	1/cs., 6.3 (13.9)	1/box, 10/cs., 10.5 (23.1)	10/cs., 5.1 (11.3)
Minimum order	1 kit	10 each	10 kits
UPC	054007-31107	054007-31094	054007-31768

3M™ Specialty Tapes

Splicing Tapes

2183 E-Z Wrap Elastic Vinyl

E-Z Wrap is a tough, thin elastic vinyl material which sticks to itself when wrapped in layers. It



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forms a compact, durable, flexible, moisture-proof covering. Protects wire groups, splice bundles and pulp and paper insulated wire. Recommended for Foam Sealed, and Better Buried, Compound Compression closures. Size: 3.0 mil thick, 101.6 mm x 30.4 m (4" x 100')

Scotch® Foam Collar Tape 26-FC

An open-cell (similar to foam rubber), black construction collar with pressure-sensitive adhesive (slight tack)



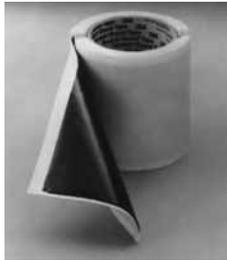
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on both sides. Excellent co-adhesion properties and compatibility with encapsulating compounds. For all enclosure collar applications. Size: 51 mm x 1.01 m (2" x 40')

Mastic Sealing Tapes

Scotch® VM Vinyl Mastic Tape

VM Tape seals out moisture and protects against corrosion without the need for heating tools.



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Two tapes in one (vinyl and mastic) VM is especially designed for cable sheath repair, splice case and load coil case protection, auxiliary sleeve and cable reel end sealing, drop wire insulating, conduit repair and protection of CATV components plus many other general taping applications. VM Tape is a rubber based mastic laminated to an all weather 0.18 mm (7 mil) vinyl, which provides double duty protection in one wrap. Four sizes to meet all possible applications are available.

Size: 38.1 mm x 6.1 m (1-1/2" x 20'), 101.6 mm x 3.1 m (4" x 10'), 152 mm x 3.1m (6" x 10'), 559 mm x 13.5 m (22" x 10')

Scotch® Sealing Tape 2900-R and 2900-3

A non-conductive gray mastic tape with good compression qualities is resistant to solvents and maintains its form in temperatures in excess of 140° C. It can be substituted for B Sealant tape.



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Sizes: 38.1 mm x 1.52 m (1-1/2" x 5'), 76.2 mm x 1.52 m (3" x 5')

2178-125 Mastic Tape

2178-125 Mastic Tape is a non-conductive black mastic that provides excellent sealing properties



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and does not degrade with gasoline or encapsulating compounds. The tape is 3.2 mm (1/8") thick and is available in rolls 38.1 mm x 1.1 m (1-1/2" x 45").

2178-281 Cord Re-enterable Mastic

The 2178 Cord Re-enterable Mastic is available in rolls 1.85 m (6') in length with a 8.7 mm (1/3") cord diameter.



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All Weather Protection Tapes

Scotch® All Weather Telephone Vinyl Plastic Tape 88T

Taping end caps, wrapping for abrasion protection or temporarily securing—88T Tape will suit your needs for inside or outside plant applications as the handiest tool in your kit. The special



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formula adhesive and extra-tough backing offer you superior adhesion and excellent conformability over extended temperature ranges, thus reducing your inventory needs to one vinyl tape.

Available in craftsman size rolls to fit your specific in-the-field use, this 0.22 mm (8-1/2 mil) tape releases smoothly from the roll in zero weather and will not ooze adhesive in hot climates. The 38 mm x 13.5 m (1-1/2" x 44') roll is especially suited as the Splicer's roll, for outside plant usage.

88T Tape resists: water, acids, alkalies, and is flame retardant. It is weather resistant and not affected by sunlight.

3M™ Scotchrap™ All Weather Corrosion Protection Vinyl Tape 50

50 All Weather Tape is used for outdoor corrosion applications and is available in rolls 25 mm x 30.4 m (1" x 100') and 51 mm x 30.4 m (2" x 100').

Build-up Tapes

26-FC Foam Collar Tape

26-FC Build-up Tape is used for closure sealing end collars for compression type closures and comes in a 51 mm x 1.00 m (2" x 40") roll.



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130C Linerless Rubber Splicing Tape

130C Build-up Tape is used for build-up and moisture protection and comes in six sizes: 25.4 mm x 3.0 m (1" x 10'), 25.4 mm x 4.6 m (1" x 15'), 19 mm x 9.1 m (0.75" x 30'), 25.4 mm x 9.1 m (1" x 30'), 38 mm x 9.1 m (1.5" x 30'), 50.7 mm x 9.1 m (2" x 30').

3M™ Scotchfil™ Build-up Tape

Scotchfil Build-up Tape is used for rapid build-up for sealing collars. It is available in 38 mm x 1.5 m (1-1/2" x 60") rolls.

Identification Tapes

Scotch® Vinyl Identification Tape 35

35 Identification Tape is used for identifying special applications. It is available in blue, orange, green, brown, gray, red, violet,



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white and yellow. It is available in two sizes: 12.5 mm x 6.1 m (1/2" x 20') and 19 mm x 20 m (3/4" x 66').

3M™ Specialty Tapes

27 Glass Cloth Tape

27 Tape is used for high strength repair requirements. It comes in three sizes: 19 mm x 32.9 m (3/4" x 36 yd.), 25 mm x 32.9 m (1" x 36 yd.), and 51 mm x 54.8 m (2" x 60 yd.).



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69 Glass Cloth Tape

69 Tape is used for high temperature and high strength requirements. It is available in 25 mm x 22.8 m (1" x 25 yd.) rolls.



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P-4 Cloth Tape

P-4 Cloth Tape is used for restriction for cable blocking and comes in 25 mm x 9 m (1" x 30') rolls.

49 Aluminum Foil Tape

49 Tape is used for EMI and moisture protection. It is available in two sizes: 51 mm x 6.1 m (2" x 20') and 101.6 mm x 6.1 m (4" x 20').



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77 Fire and Arc Proofing Tape

77 Tape is used for fire and arc protection of cable sheath material. It is available in two sizes: 38 mm x 6.1 m (1-1/2" x 20') and 76.1 mm x 6.1 m (3" x 20').



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3M™ Tape Application Chart

Application	Tape Type	Used For	Sizes
All Weather Protection	88T 50	General outdoor use For outdoor applications in corrosive environments	3/4" x 36', 1" x 36", 1-1/2" x 44' 1" x 100', 2" x 100'
Sealing	VM 2900-R 130C	Sealing out moisture and corrosion Closure sealing collars Build-up and moisture protection	1-1/2" x 20', 4" x 10', 6" x 10", 22" x 10' 1-1/2" x 60' 3/4" x 30', 2" x 30'
Build-Up	26-FC 130C Scotchfil™	Closure sealing end collars (for compression type closures) Build-up and moisture protection Rapid build-up for sealing collars	2" x 40' 3/4" x 30', 2" x 30' 1-1/2" x 60'
Identification	35	Identifying special applications Available colors: Blue, Orange, Green, Brown, Gray, Red, Violet, White, Yellow	1/2" x 20', 3/4" x 66'
Special Use	27 49 69 77 P-4	High strength repair requirements EMI and moisture protection High Temperature/high strength requirements Fire and arc protection of cable sheath material Restriction for cable blocking	3/4" x 36 yds., 1" x 36 yds., 2" x 60 yds. 2" x 20', 4" x 20' 1" x 25 yds. 1-1/2" x 20', 3" x 20' 1" x 30'



Ordering Information for 3M™ Tapes and Sealing Products

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
Splicing Film			
2183 E-Z Wrap Elastic Vinyl (3.0 mils thick), Size: 101.6 mm x 30.4 m (4" x 100')	12/cs., 3.6 (8)	12 rolls	054007-37831
Mastic Tapes			
VM Tape Vinyl/Mastic Size: 38 mm x 6.1 m (1-1/2" x 20') Size: 101.6 mm x 3.048 m (4" x 10') Size: 152 mm x 3.048 m (6" x 10') Size: 559 mm x 3.048 m (22" x 10')	1/box, 10/cs., 2.5 (5.5) 1/box, 10/cs., 6.2 (13.7) 1/box, 1/cs., 0.9 (2) 1/box, 1/cs., 2.9 (6.5)	10 rolls 10 rolls 1 roll 1 roll	054007-27575 054007-27576 054007-27577 054007-27578
2900-R Sealing Tape Size: 38.1 mm x 1.52 m (1-1/2" x 5')	5 /box, 50/cs., 14.42 (31.8)	50 rolls	054007-68546
2178-125 Mastic Tape Size: 38.1 mm x 1.1 m (1-1/2" x 45")	1/box, 8/cs., 2.7 (6)	8 rolls	054007-91019
2178 Cord Reenterable Mastic Size: 8.7 mm x 1.85 m (1/3" x 6')	1/box, 14/cs., 2.7 (6)	14 rolls	051138-57614
2228 Sealing Tape Size: 51 mm x 3.048 m (2" x 10')	1/box, 10/cs., 4.23 (9.41)	10 rolls	054007-09656
All Weather Protection			
88T All Weather Telephone Vinyl Plastic Tape Size: 19 mm x 11 m (3/4" x 36') Size: 19 mm x 18 m (3/4" x 60') Size: 25 mm x 11 m (1" x 36') Size: 38 mm x 13.5 m (1-1/2" x 44')	180/cs., 3.5 (7.8) 1/bag, 10/ctn., 100/cs., 11 (24.2) 144/cs., 4.5 (9.9) 5/ctn., 90/cs., 16.5 (36.8)	180 rolls 100 rolls 144 rolls 90 rolls	051138-70878 051138-58517 051138-70879 051138-58516
50 All Weather Tape Size: 25 mm x 30.4 m (1" x 100')	1/box, 10/cs., 2.7 (6)	10 rolls	054007-11149
Build-up Tapes			
26-FC Build-up Tape Size: 51 mm x 1.00 m (2" x 40")	24/cs., 0.8 (1.8)	24 rolls	054007-63835
130C Linerless Rubber Splicing Tape Size: 19 mm x 9 m (3/4" x 30') Size: 51 mm x 9 m (2" x 30')	10/ctn., 50/cs., 9.9 (22.2) 50/cs., 25.76 (57.25)	50 rolls 50 rolls	054007-41717 054007-41754
Scotchfil Build-up Tape Size: 38 mm x 1.5 m (1-1/2" x 60")	1/box, 12/cs., 13 (29)	12 rolls	054007-41750

Ordering Information for 3M™ Tapes and Sealing Products (cont.)

Product Number	Size kg (lbs.)/cs.	Packaging	Minimum Order	UPC
Identification Tapes				
35 Identification Tape				
35-RD20 Red	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10224
35-WH20 White	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10232
35-BL20 Blue	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10240
35-YL20 Yellow	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10257
35-GN20 Green	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10265
35-OR20 Orange	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10273
35-GY20 Gray	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10281
35-BN20 Brown	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-10299
35-VL20 Violet	12.8 mm x 6 m (1/2" x 20')	1/box, 10/ctn., 4.5 (10)	10 rolls	054007-49923
35-RD66 Red	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10810
35-WH66 White	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10828
35-BL66 Blue	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10836
35-YL66 Yellow	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10844
35-GN66 Green	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10851
35-OR66 Orange	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10869
35-GY66 Gray	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-00072
35-BN66 Brown	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-10885
35-VL66 Violet	19 mm x 20 m (3/4" x 66')	1/box, 10/ctn., 100/cs., 14.5 (32)	10 rolls	054007-11271
Special Use Tapes				
27 Glass Tape	19 mm x 32.9 m (3/4" x 36 yd.) 25 mm x 32.9 m (1" x 36 yd.) 51 mm x 54.8 m (2" x 60 yd.)	48/cs., 7.82 (17.25) 48/cs., 10.32 (22.75) 48/cs., 9.07 (20)	48 rolls 48 rolls 20 rolls	054007-27481 054007-27476 054007-27479
49 Tape	51 mm x 6.1 m (2" x 20') 101.6 mm x 6.1 m (4" x 20')	1/box, 10/ctn., 50/cs., 5.7 (13.5) 1/box, 10/ctn., 50/cs., 11.1 (24.4)	50 rolls 50 rolls	054007-27483 054007-27484
69 Tape	25 mm x 22.8 m (1" x 25 yd.)	45/cs., 1.59 (3.5)	45 rolls	051138-49863
77 Tape	38 mm x 6.1 m (1-1/2" x 20') 76.1 mm x 6.1 m (3" x 20')	1/box, 10/cs., 2.9 (6.4) 1/box, 10/cs., 5.5 (12.1)	10 rolls 10 rolls	054007-42007 054007-42006
2183 Tape	101.6 mm x 30.4 m (4" x 100')	12/cs., 3.6 (8)	12 rolls	054007-63835
P-4 Tape	25 mm x 9 m (1" x 30')	1/box, 10/ctn., 50/cs., 4.5 (10)	50 rolls	054007-25743



3M™ Reflective Tapes

5016-1 and 5016-2 Reflective Tape

This orange, reflective adhesive-backed tape with high-tack adhesive suitable for use at low temperatures provides high visibility at night or during daylight conditions.



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For marking pedestal cabinets located in right-of-way areas to warn users of cabinet locations. Highly visible markings are designed to prevent injury and reduce property damage. Use only on flat surfaces. Will not adhere well over rivets, nor on vehicular surfaces. Length: 50 yards

5016-FO Fiber Optic Warning Labels

Orange, reflective adhesive-backed tape with high-tack adhesive is suitable for use at low temperatures. Imprinted "Caution Fiber Optic" on 152 mm (6") spacings.



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Letters are 19.0 mm (3/4") and 9.5 mm (3/8") high, 288 labels per roll.

Ordering Information for 3M Reflective Tapes

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
Reflective Tapes			
5016-1 Reflective Tape	1/box, 0.6 (1.4)	1 roll	054007-33813
5016-2 Reflective Tape	1/cs., 0.64 (2.6)	1 roll	054007-33814
5016-FO Fiber Optic Warning Labels	1/cs., 0.6 (1.4)	1 roll	054007-17422

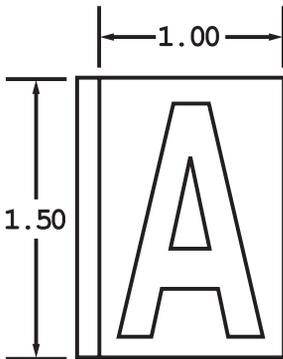
3M™ Lettering Kits and Replenishment Decals

3M™ Scotchlite™ Reflective Lettering System 5005

Black characters on a “safety orange” background conform to the American National Standards Institute (ANSI) Z53.1-1979. All other features are identical to 5000 Reflective Lettering System. **RUS Listed**



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3M™ Decal Strip Holder 5012

Designed for easy attachment to aerial or underground cables, poles and other structural hardware, the 5012 holder holds 4–18 characters to identify splices, load points, poles, etc. Polyethylene plastic strip can be attached with cable ties or nailed to poles. **RUS Listed**



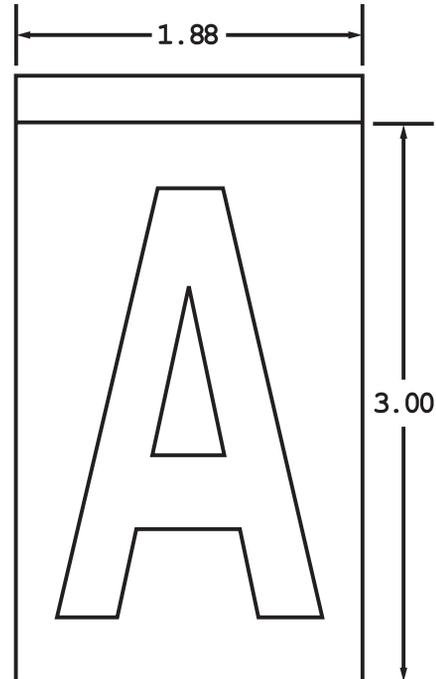
258

3M™ Scotchlite™ Reflective Lettering System 5025

A complete A–Z lettering and numbering system in black on “safety” orange. Characters are 48 mm x 76 mm (1-7/8" x 3"). Packaged in a clear, 36-compartment box. Contains 25 each of the letters A–Z, numbers 0–9, blank and dash. All characters are self-sticking and self-spacing. Application tool is included. Minimum order, 100 each.



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Ordering Information for 3M Lettering Kits

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
Lettering Kits and Replenishment Decals			
5005 Reflective Lettering System Kit	1000/cs., 1.09 (2.4)	1 kit	054007-56488
5012 Decal Strip Holder	25/cs., 0.86 (1.9)	1 box	054007-33388
5025 Reflective Lettering System Kit	100/cs., 2.68 (5.9)	1 kit	054007-34385

Ordering Information for 3M™ Scotchlite™ Reflective Lettering System Kit 5005

Product Number	Product Description	Packaging kgs. (lbs.)/cs.	Minimum Order	UPC
5005-KIT	Reflective lettering kit (orange and black)	1 kit/cs., 1.0 (2.4)	1 kit	054007-56488
5005-A	Replenishment decal "A"	1000/cs., 0.9 (2.0)	1000 each	054007-56172
5005-B	Replenishment decal "B"	1000/cs., 0.9 (2.0)	1000 each	054007-56173
5005-C	Replenishment decal "C"	1000/cs., 0.9 (2.0)	1000 each	054007-56174
5005-D	Replenishment decal "D"	1000/cs., 0.9 (2.0)	1000 each	054007-56175
5005-E	Replenishment decal "E"	1000/cs., 0.9 (2.0)	1000 each	054007-56176
5005-F	Replenishment decal "F"	1000/cs., 0.9 (2.0)	1000 each	054007-56177
5005-G	Replenishment decal "G"	1000/cs., 0.9 (2.0)	1000 each	054007-56178
5005-H	Replenishment decal "H"	1000/cs., 0.9 (2.0)	1000 each	054007-56179
5005-I	Replenishment decal "I"	1000/cs., 0.9 (2.0)	1000 each	054007-56180
5005-J	Replenishment decal "J"	1000/cs., 0.9 (2.0)	1000 each	054007-56181
5005-K	Replenishment decal "K"	1000/cs., 0.9 (2.0)	1000 each	054007-56182
5005-L	Replenishment decal "L"	1000/cs., 0.9 (2.0)	1000 each	054007-56183
5005-M	Replenishment decal "M"	1000/cs., 0.9 (2.0)	1000 each	054007-56184
5005-N	Replenishment decal "N"	1000/cs., 0.9 (2.0)	1000 each	054007-56185
5005-O	Replenishment decal "O"	1000/cs., 0.9 (2.0)	1000 each	054007-56186
5005-P	Replenishment decal "P"	1000/cs., 0.9 (2.0)	1000 each	054007-56187
5005-Q	Replenishment decal "Q"	1000/cs., 0.9 (2.0)	1000 each	054007-56188
5005-R	Replenishment decal "R"	1000/cs., 0.9 (2.0)	1000 each	054007-56189
5005-S	Replenishment decal "S"	1000/cs., 0.9 (2.0)	1000 each	054007-56190
5005-T	Replenishment decal "T"	1000/cs., 0.9 (2.0)	1000 each	054007-56191
5005-U	Replenishment decal "U"	1000/cs., 0.9 (2.0)	1000 each	054007-56192
5005-V	Replenishment decal "V"	1000/cs., 0.9 (2.0)	1000 each	054007-56193
5005-W	Replenishment decal "W"	1000/cs., 0.9 (2.0)	1000 each	054007-56194
5005-X	Replenishment decal "X"	1000/cs., 0.9 (2.0)	1000 each	054007-56795
5005-Y	Replenishment decal "Y"	1000/cs., 0.9 (2.0)	1000 each	054007-56196
5005-Z	Replenishment decal "Z"	1000/cs., 0.9 (2.0)	1000 each	054007-56197
5005-DASH	Replenishment decal "—"	1000/cs., 0.9 (2.0)	1000 each	054007-56198
5005-BLANK	Replenishment decal "BLANK"	1000/cs., 0.9 (2.0)	1000 each	054007-56199
5005-0	Replenishment decal "0"	1000/cs., 0.9 (2.0)	1000 each	054007-56162
5005-1	Replenishment decal "1"	1000/cs., 0.9 (2.0)	1000 each	054007-56163
5005-2	Replenishment decal "2"	1000/cs., 0.9 (2.0)	1000 each	054007-56164
5005-3	Replenishment decal "3"	1000/cs., 0.9 (2.0)	1000 each	054007-56165
5005-4	Replenishment decal "4"	1000/cs., 0.9 (2.0)	1000 each	054007-56166
5005-5	Replenishment decal "5"	1000/cs., 0.9 (2.0)	1000 each	054007-56167
5005-6	Replenishment decal "6"	1000/cs., 0.9 (2.0)	1000 each	054007-56168
5005-7	Replenishment decal "7"	1000/cs., 0.9 (2.0)	1000 each	054007-56169
5005-8	Replenishment decal "8"	1000/cs., 0.9 (2.0)	1000 each	054007-56170
5005-9	Replenishment decal "9"	1000/cs., 0.9 (2.0)	1000 each	054007-56171
5005-DAS	Replenishment decal "arrow"	1000/cs., 0.9 (2.0)	1000 each	054007-56489



Ordering Information for 3M™ Scotchlite™ Reflective Lettering System Kit 5025

Product Number	Product Description	Packaging kgs. (lbs.)/cs.	Minimum Order	UPC
5025-KIT	Reflective lettering system kit	1 kit/cs., 2.7 (6.0)	1 kit	054007-34385
5025-A	Replenishment decal "A"	100/cs., 2.7 (6.0)	100 each	054007-56210
5025-B	Replenishment decal "B"	100/cs., 2.7 (6.0)	100 each	054007-56211
5025-C	Replenishment decal "C"	100/cs., 2.7 (6.0)	100 each	054007-56212
5025-D	Replenishment decal "D"	100/cs., 2.7 (6.0)	100 each	054007-56213
5025-E	Replenishment decal "E"	100/cs., 2.7 (6.0)	100 each	054007-56214
5025-F	Replenishment decal "F"	100/cs., 2.7 (6.0)	100 each	054007-56215
5025-G	Replenishment decal "G"	100/cs., 2.7 (6.0)	100 each	054007-56216
5025-H	Replenishment decal "H"	100/cs., 2.7 (6.0)	100 each	054007-56217
5025-I	Replenishment decal "I"	100/cs., 2.7 (6.0)	100 each	054007-56218
5025-J	Replenishment decal "J"	100/cs., 2.7 (6.0)	100 each	054007-56219
5025-K	Replenishment decal "K"	100/cs., 2.7 (6.0)	100 each	054007-56220
5025-L	Replenishment decal "L"	100/cs., 2.7 (6.0)	100 each	054007-56221
5025-M	Replenishment decal "M"	100/cs., 2.7 (6.0)	100 each	054007-56222
5025-N	Replenishment decal "N"	100/cs., 2.7 (6.0)	100 each	054007-56223
5025-O	Replenishment decal "O"	100/cs., 2.7 (6.0)	100 each	054007-56224
5025-P	Replenishment decal "P"	100/cs., 2.7 (6.0)	100 each	054007-56225
5025-Q	Replenishment decal "Q"	100/cs., 2.7 (6.0)	100 each	054007-56226
5025-R	Replenishment decal "R"	100/cs., 2.7 (6.0)	100 each	054007-56227
5025-S	Replenishment decal "S"	100/cs., 2.7 (6.0)	100 each	054007-56228
5025-T	Replenishment decal "T"	100/cs., 2.7 (6.0)	100 each	054007-56229
5025-U	Replenishment decal "U"	100/cs., 2.7 (6.0)	100 each	054007-56230
5025-V	Replenishment decal "V"	100/cs., 2.7 (6.0)	100 each	054007-56231
5025-W	Replenishment decal "W"	100/cs., 2.7 (6.0)	100 each	054007-56232
5025-X	Replenishment decal "X"	100/cs., 2.7 (6.0)	100 each	054007-56233
5025-Y	Replenishment decal "Y"	100/cs., 2.7 (6.0)	100 each	054007-56234
5025-Z	Replenishment decal "Z"	100/cs., 2.7 (6.0)	100 each	054007-56235
5025-DASH	Replenishment decal "—"	100/cs., 2.7 (6.0)	100 each	054007-56236
5025-BLANK	Replenishment decal "BLANK"	100/cs., 2.7 (6.0)	100 each	054007-56237
5025-0	Replenishment decal "0"	100/cs., 2.7 (6.0)	100 each	054007-56200
5025-1	Replenishment decal "1"	100/cs., 2.7 (6.0)	100 each	054007-56201
5025-2	Replenishment decal "2"	100/cs., 2.7 (6.0)	100 each	054007-56202
5025-3	Replenishment decal "3"	100/cs., 2.7 (6.0)	100 each	054007-56203
5025-4	Replenishment decal "4"	100/cs., 2.7 (6.0)	100 each	054007-56204
5025-5	Replenishment decal "5"	100/cs., 2.7 (6.0)	100 each	054007-56205
5025-6	Replenishment decal "6"	100/cs., 2.7 (6.0)	100 each	054007-56206
5025-7	Replenishment decal "7"	100/cs., 2.7 (6.0)	100 each	054007-56207
5025-8	Replenishment decal "8"	100/cs., 2.7 (6.0)	100 each	054007-56208
5025-9	Replenishment decal "9"	100/cs., 2.7 (6.0)	100 each	054007-56209



Miscellaneous 3M™ Accessories

3M™ Scotchcast™ Filled Cable Cleaning Kit 4413

A specially formulated cleaning solvent for cleaning grease and Flex-Gel filling compound from filled core cable without damaging connectors, cable or individual conductors. One bag will clean both cable ends at splice point. Comes complete with the right amount of solvent sealed in the bag. No special tools are required. Virtually no personnel contact with the solvent or solvent vapors occurs during cleaning because of the unique packaging concept.



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Kit contents:

- Heat-sealed cleaning bag with solvent
- Pair gloves
- Puncture-protection bags (2)

Four different sizes are available to meet a wide range of applications.

3M™ Scotchcast™ Filled Cable Cleaning Kit 4414

The Scotchcast 4414 Filled 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. This kit includes 15 pads saturated in cleaning solvent, five scraper pads and 10 towels.



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The specially formulated cleaning solvents are contained in premeasured portions on saturated pads for fast, easy, convenient solvent application to cable core after sheath has been removed. The solvent and wet pads effectively remove cable filling compound from conductors and connectors with no damage to either.

Kit contents:

Additional materials required:

- Solvent Saturated Pads (15)
- Scotchcast 4435 Sheath Scuff
- Scraper Pads (5)
- Scotch 88T Vinyl Tape
- Towels (10)

3M™ Scotchcast™ Service Wire Cleaning Kit 4415

Everything needed to clean troublesome filled service wire is included in the 4415 Kit. Solvent saturated pads are individually bagged for convenience. No extra tools are needed, and an instruction sheet is included in each kit.



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Kit contents:

- Towels (10)
- Solvent Saturated Pads (10)



Product Referral Generator

3M™ Scotchcast™ 4435 Sheath Scuff	pg. 199
Scotch® 88T Vinyl Tape	pg. 190

3M™ Scotchcast™ Channeling Wedge W-9

The Scotchcast W-9 Channeling Wedge is used in separating bundles of conductors when plugging cable. Made of flexible plastic, tapered at one end and grooved, the W-9 wedge

separates conductors to ensure maximum penetration of the compound when forming a plug.



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3M™ Scotchcast™ Sheath Scuff 4435

This flexible 80 grit, non-conductive, aluminum oxide strip is used to clean and rough up cable sheath. The clean, scuffed

sheath greatly enhances the bond between the compound and sheath. Since the strip is 25.4 mm (1") wide, it encourages the craftsperson to scuff around the sheath rather than along it, thus eliminating moisture paths along the sheath, and also makes it easy to get into tight places.

Size: 25.4 mm x 22.86 m (1" x 75') roll



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3M™ Scotchcast™ Pair Saver 4458, 4458-W

Protect cable pairs from the sharp edges of the shield and template, while permitting standard bond connector installations.

4458 Size: 21.6 mm x 5.4 m (0.85" x 18') rolls
4458-W Size: 38 mm x 5.5 m (1.5" x 18') rolls



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Ordering Information for Miscellaneous Accessories

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
4413 Filled Cable Cleaning Kit			
4413-S (for up to 200-pair cables)	8/cs., 5.18 (11.5)	8 kits	054007-17442
4413-L (for up to 600-pair cables)	4/cs., 4.95 (11)	4 kits	054007-17443
4413-XL (for 600- to 900-pair)	2/cs., 5.40 (12)	2 kits	054007-17441
4413-SXL (for 900-pair and more)	2/cs., 9.54 (21.2)	2 kits	054007-68466
4414 Filled Cable Cleaning Kit	1/cs., 0.63 (1.4)	1 kit	054007-57218
4415 Service Wire Cleaning Kit	10/kit, 10 kits/cs., 3.3 (7.3)	10 kits	054007-57219
4435 Sheath Scuff	1/box, 10/cs., 5.9 (13)	10 rolls	051144-13947
4458, 4458-W Pair Saver			
4458– 21.6 mm x 5.4 m (.85" x 18') rolls	1/box, 10/cs., 1.9 (4.0)	10 rolls	054007-32560
4458-W– 38 mm x 5.5 m (1.5" x 18') rolls	1/box, 10/cs., 3.7 (7.9)	10 rolls	054007-33629
Scotchcast W-9 Channeling Wedge	100/box, 1000/cs., 1.8 (4)	1000 each	054007-30229



3M™ Shield Bonding Products

3M™ Scotchlok™ Shield Bond Connector 4460 (No Tabbing Required)

The 4460 Shield Bond Connector is designed to make a stable, low-resistance electrical connection between the shield of a communications cable and a conductor such as a strap, bar, or wire. The connector consists of four parts: lower member (base), upper member (top), and two securing nuts (lock nuts). The base teeth are set at such an angle as to permit easy insertion under the cable shield. Top and base members are made of tin-plated tempered brass, slightly curved to exert a continuous spring force on sheath and shield after clamping.



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3M™ Scotchlok™ Shield Bond Connector 4460-S

The 4460-S Shield Bond Connector is designed to make a stable, low-resistance electrical connection between the shield of a communications cable and a conductor such as a strap, bar, or wire. The connector consists of five parts: lower member (base), upper member (top), two securing nuts (lock nuts) and a plastic shoe to aid connector insertion and to protect conductors. The base teeth are set at such an angle as to permit easy insertion under the cable shield. Top and base members are made of tin-plated tempered brass, slightly curved to exert a continuous spring force on sheath and shield after clamping.



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3M™ Scotchlok™ Shield Bond Connector 4460-D

The 4460-D Shield Bond Connector is a downsized version of the 4460 Shield Bond Connector. Its small size makes it an excellent choice for cables of 100-pair or less. Its current-carrying capacity is equal to or better than aluminum-shielded cables of 100-pair or less and can be used on all cable with 20.3 mm (0.8") or smaller O.D. RUS Listed.



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3M™ Scotchlok™ Shield Bond Connector Assembly 4460-D/FO

The 4460-D/FO Shield Bond Connector is specifically designed to meet the bonding needs of fiber optic cables that contain metallic or fiberglass strength members. The connector is a version of the 4460-D Connector Assembly which utilizes two additional plates to capture and secure the strength members. Its current-carrying capacity is equal to or better than aluminum-shielded fiber optic cable and can be used on all cables with 20.3 mm (0.8") or smaller O.D. RUS Listed.



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3M™ Scotchlok™ Shield Bond Connector 4462 (Designed Specifically For C.A.C.S.P. Cable)

The 4462 Shield Bond Connector is designed to make a stable, low resistance electrical connection between the shield of a communications cable and a conductor such as a strap, bar, wire or braid.



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3M™ Scotchlok™ Shield Bond Connector 4462-FN

Includes flanged nuts.

3M™ Scotchlok™ Shield Bond Connector 4462-SN

The 4462-SN Shield Bond Connector is an improved version of the popular 4462 Shield Bond Connector, with a longer and stronger stud to easily accommodate two bond braids (with eyelets). It is specifically designed to supply greater pullout strength than the 4462 Shield Bond Connector. The nuts have been deepened, too, making them much easier to hold and tighten. The 4462-SN Shield Bond Connector is also designed for use with coated cables and has superior electrical properties for the protection of data circuits.



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3M™ Scotchlok™ 4462-SNA

The 4462-SNA has a longer stud, deepened nuts and an insulating shoe.



Product Referral Generator

Closures	pg. 117
Fiber Protection	pg. 215

3M™ Scotchlok™ Service Wire Shield Connector 4463

The 4463 Service Wire Shield Connector is designed to make a stable, low resistance electrical

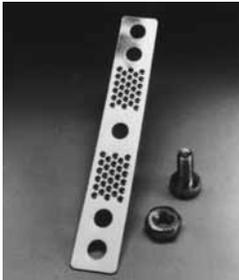


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connection between the shield of a buried service wire and the ground stud of a house terminal box or other shield connector. The 4463 can be used on service wire with an O.D. up to 11 mm (0.45").

3M™ Scotchlok™ Shield Bond Connector 4464

The 4464 Shield Bond Connector is a strip of tin-plated brass, punched with mounting holes and two sets of sharp teeth.



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Each connector can join the shields of up to four two-pair service wires to a stud type shield connector. In addition to providing a stable, low-resistance electrical contact, the connector

provides excellent strain relief and occupies a minimum of space. Each connector will accommodate up to four service wires with a shield diameter of up to 5.6 mm (0.21") or two service wires with a shield diameter up to 819 mm (0.35").

Scotch® Grounding Braid 25T

This flat, tin-plated copper braid conductor is supplied for use with Scotchlok shield bond connectors.



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When clamped firmly, 25T Braid provides low electrical resistance connections for dependable shield bonding, and its physical strength contributes to strain relief across spliced cables, 25T Braid is 13 mm (1/2") wide, and is supplied in 7.6 m (25') rolls. Size: 13 mm x 7.6 m (1/2" x 25')

Scotch® Grounding Braid with Eyelets 25T

Provides low electrical resistance connections, contributes to strain relief across cables. Eyelets fit shield connector studs up to 6 mm (1/4") diameter. Size: 13 mm x 7.6 m (1/2" x 25'), eyelets spaced 76 mm (3")

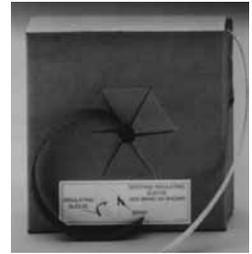


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Size: 13 mm x 7.6 m (1/2" x 25'), eyelets spaced 152 mm (6")

3M™ Grounding Braid Dispenser Pack 25/4467

The 25/4467 Grounding Braid Dispenser Pack is a combination of our dependable grounding braid and insulation



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sleeve in one convenient package. Equal lengths of each can be dispensed from the 7.6 m (25') roll. Size: Braid 13 mm x 7.6 m (1/2" x 25') Sleeve 13 mm x 7.6 m (1/2" x 25') 25/4467 without eyelets

Ordering Information for 3M™ Shield Bonding Products

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
4460 Shield Bond Connector (No Tabbing Required)	100/cs., 1.8 (4)	100 each	054007-30193
4460-S Shield Bond Connector	100/cs., 2.1 (4.4)	100 each	054007-30625
4460-D Shield Bond Connector	100/cs., 2.1 (4.6)	100 each	054007-71217
4460-D/FO Shield Bond Connector Assembly	100/cs.	100 each	054007-92757
4462 Shield Bond Connector	100/box, 500/cs., 8.8 (19.4)	500 each	054007-17302
4462-FN Shield Bond Connector	100/box, 500/cs., 10.0 (22.1)	500 each	054007-63990
4462-SN Shield Bond Connector	100/box, 500/cs., 11.0 (24.3)	500 each	054007-71291
4462-SNA Shield Bond Connector with Shoe	100/box, 500/cs., 10.9 (24)	500 each	054007-57157
4463 Service Wire Shield Connector	10/bag, 1000/cs., 3.90 (8.6)	1000 each	054007-17301
4464 Shield Bond Connector	20/bag, 1000/cs., 7.03 (15.5)	1000 each	054007-30280
25ST-GB 25T Grounding Braid Size: 13 mm x 7.6 m (1/2" x 25')	1/cs., 1 (2.1)	1 roll	054007-31102
25ST-BBE3 25T Grounding Braid with Eyelets Size: 13 mm x 7.6 m (1/2" x 25') Eyelets spaced 78 mm (3") Eyelets spaced 156 mm (6")	1/cs., 1.08 (2.3) 1/cs., 1.08 (2.3)	1 roll 1 roll	054007-32670 054007-32671
25T-BBE6 25/4467 Grounding Braid Disp. Pack Size: Braid 13 mm x 7.6 mm (1/2" x 25') Sleeve 13 mm x 7.6 mm (1/2" x 25')	1/box, 5/cs., 6.7 (14.7)	5 packs	054007-30561

3M™ Sheath Repair Products

3M™ Armorcast™ Structural Material

Armorcast Structural Material is a flexible fiberglass knit fabric strip saturated with black resin syrup then dried. No heat is required in the installation process, just water. It forms a tough durable covering that cures in just 20 minutes. For use on pressurized, non-pressurized, polyethylene or lead sheathed cable.

3M™ Armorcast™ Structural Material Bulk 4560

Available in rolls of 1.5 m (5'), 3 m (10') and 4.57 m (15'), each 101.6 mm (4") wide. Each package contains five rolls and five pairs of gloves.



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Scotch® Tape Vinyl/Mastic VM

VM Tape seals out moisture and protects against corrosion without the need for heating tools.



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Two tapes in one (Vinyl and Mastic)—VM tape is especially designed for cable sheath repair, splice case and load coil case protection, auxiliary sleeve and cable reel end sealing, drop wire insulating, conduit repair and protection of CATV components plus many other general taping applications.

VM tape is a rubber based mastic laminated to an all weather 0.18 mm (7 mil) vinyl, which provides double duty protection in one wrap. Four sizes to meet all possible applications are available; 38 mm – 559 mm (1-1/2" – 22") width.

Size: 38 mm x 6 m (1-1/2" x 20')
 101.6 mm x 3 m (4" x 10')
 152 mm x 3 m (6" x 10')
 559 mm x 3 m (22" x 10')

3M™ Armorcast™ Sheath Repair Kit 4561

Contains all products required to repair damaged Cable Sheath. Kit components are designed for use with Armorcast materials.



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Kit contents:

- 1 roll Armorcast material, 101.6 mm x 4.57 m (4" x 15')
- 1 roll Scotch VM Tape, 101.6 mm x 3 m (4" x 10')
- 1 roll Scotch 50 Tape, 50 mm x 30 m (2" x 100')
- 1 pair gloves

Product Referral Generator

Dome Closures	pg. 128
Better Buried Closures	pg. 133
Foam-Sealed Closures	pg. 131

Ordering Information for 3M™ Sheath Repair Products

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
4560 Armorcast Structural Material Bulk			
4560-5 (Bulk, 1.5 m (5'))	5 rolls, 0.63 (1.4)	5 rolls	051138-57719
4560-10 (Bulk, 3 m (10'))	5 rolls, 1.27 (2.8)	5 rolls	051138-57717
4560-15 (Bulk, 4.5 m (15'))	5 rolls, 1.86 (4.1)	5 rolls	051138-57718
4561 Armorcast Sheath Repair Kit	1 kit/cs., 1.68 (3.7)	1 kit	051138-57720
VM Vinyl/Mastic Tape			
VM-1.5x20 Size: 38 mm x 6 m (1-1/2" x 20')	1 roll/box, 10/cs., 2.5 (5.7)	10 rolls	054007-27575
VM-4x10 Size: 101.6 mm x 3 m (4" x 10')	1 roll/box, 10/cs., 6.2 (11.6)	10 rolls	054007-27576
VM-6x10 Size: 152 mm x 3 m (6" x 10')	1 roll/box, 1/cs., 0.9 (2)	1 roll	054007-27577
VM-22x10 Size: 559 mm x 3 m (22" x 10')	1 roll/box, 1/cs., 2.9 (6.9)	1 roll	054007-27578

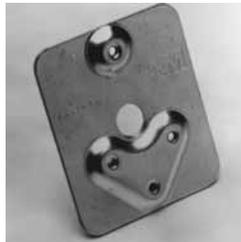
3M™ Adhesive and Magnetic Mounting Plates

Metal Mounting Plates with pressure-sensitive adhesive and magnetic backings are available in a wide variety to accommodate most telephone terminals and connector blocks. Foam adhesive sticks aggressively to most surfaces, with no holes to drill. Quick to install, no cumbersome equipment is required. Magnetic Mounting Plates hold firmly to any flat steel surface.

- Drilled, tapped, complete with screws
- Fit most terminals and connector blocks
- No holes to drill, installs quickly
- Foam adhesive or flexible magnet backings

3M™ Mounting Plate 733

For modular connecting blocks: WE 42D, WE 103, SE 725A. 51 mm x 60 mm (2" x 2-1/3").



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3M™ 733-M

Magnetic version of 733 plate.

3M™ Mounting Plate 734

For modular connecting blocks: (3M) M-625SA, (3M) M-625TD, WE 42E, WE 104A, KR 625SA, KR 625TD, SE 6255A, SE 625TD, SE 725S. 51 mm x 79 mm (2" x 3-1/8").



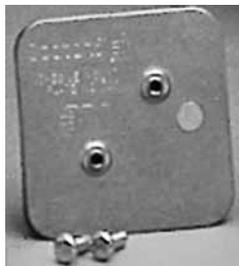
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3M™ 734-M

Magnetic version of 734 plate.

3M™ Mounting Plate 735

For connecting blocks: WE 42A, SE 42A, 625A, CAC 625A, Kellogg 38, Murdock 51 mm x 51 mm (2" x 2").



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3M™ 735-M

Magnetic version of 735 Plate.

3M™ Surface Primer 725

For surface preparation prior to applying flat station wire and adhesive backed accessories.



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Use on clean, dry surfaces to increase adhesion qualities of wire and accessories. For use on rough, unfinished or hard-to-adhere wall surfaces.

Size: 222 ml (7.5 fl. oz.) can



Ordering Information for 3M™ Adhesive and Magnetic Mounting Plates

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
733 Mounting Plate	1/bag, 50/cs., 1.7 (3.8)	50 each	054007-17106
733-M	1/bag, 50/cs., 2.31 (5.1)	50 each	054007-17107
734 Mounting Plate	1/bag, 50/cs., 2.2 (4.8)	50 each	054007-17108
734-M	1/bag, 50/cs., 2.95 (6.5)	50 each	054007-17109
735 Mounting Plate	1/bag, 50/cs., 1.5 (3.2)	50 each	054007-31615
735-M	1/bag, 50/cs., 2.2 (4.5)	50 each	054007-31616
725 Surface Primer Size: 22 ml (7.5 fl. oz.)	1/box, 12/cs., 3.3 (7.5)	12 cans	054007-30546

3M™ Holding and Fastening Products

3M™ Cable Tie and Base Assembly 790

For securing cable and cable bundles to a surface, the self-locking cable tie can be removed



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and replaced with another 760 Cable Tie when desired. For cable or bundles with maximum O.D. of 45 mm (1-3/4"). Adhesive-backed base has knock-out holes for screws. Base color: Ivory. Ties: Clear. Size: Base, 25 mm x 50 mm (1" x 2"). Tie length: 182 mm (7.18").

3M™ Cable Tie and Base Assembly 792

For securing cable bundles of 125 mm (1") or less. Base color: Ivory. Ties: Clear.



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Size: 25 mm x 25 mm (1" x 1")
Tie length: 182 mm (7.18").

3M™ Cable Clips

Clips are made of vinyl with foam adhesive backing. They may be mounted on most clean, dry surfaces without drilling.



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- Fit cables from 3.18 mm (1/8") to 12.7 mm (1/2")
- Low profile
- Eliminate drilling and nailing
- Use for internal equipment wiring and around desks, furniture and machines
- Wire can be removed without removing clip
- Clips made of flame retardant material (Oxygen index > 28)

3M™ Cable Ties

Self-locking, clear plastic ties are used to bundle and secure conductors or cable.



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3M™ Cable Ties and Bases

Cable Ties and Tie-Base Assemblies are available in various sizes for securing cable and cable bundles to a surface. Bases are adhesive-backed, with screw mounting provisions.

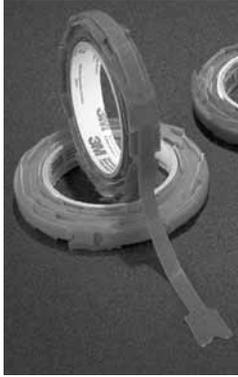
- All-nylon ties
- ABS base
- Flame retardant
- Fungus insert
- Solvent resistant
- Service temperature range -40° to 85°C (-40° to 185°F)

Ordering Information for 3M™ Holding and Fastening Products

Product Number	Packaging kg (lbs.)/cs.	Minimum Order	UPC
Cable Clips-Size: mm (in.)/Max Cable O.D. 706 Size: 25 (1), Max. Cable O.D.: 3 (1/8) 707 Size: 25 (1), Max. Cable O.D.: 6 (1/4) 708 Size: 32 (1-1/4), Max. Cable O.D.: 5 (3/16) 710 Size: 38 (1-1/2), Max. Cable O.D.: 6 (1/4) 712 Size: 44 (1-3/4), Max. Cable O.D.: 8 (5/16) 713 Size: 51 (2), Max. Cable O.D.: 10 (3/8)	100/bag, 1000/cs., 1.5 (3.2) 100/bag, 1000/cs., 3.0 (6.7) 100/bag, 1000/cs., 2 (4.5) 100/bag, 1000/cs., 2.4 (5.2) 100/bag, 1000/cs., 3.86 (8.5) 100/bag, 1000/cs., 5.35 (11.8)	1000 each 1000 each 1000 each 1000 each 1000 each 1000 each	054007-12972 054007-30445 054007-12998 054007-13012 054007-21387 054007-21429
Cable Ties 06226 7-15/16" Standard Natural (Box) 06227 12-1/16" Standard Natural (Box) 06264 15-1/16" Heavy Duty Natural (Bulk)	100/bag, 1000/cs., (3.35) 100/bag, 1000/cs., (4.55) 500/bag, 2500/cs., (34)	1000 each 1000 each 2500 each	054007-06226 054007-06227 054007-06264
Mounting Cable Ties 06256 8-7/16" Mounting Natural (Bulk) 06267 15-21/32" Mounting Heavy Duty Natural (Bulk)	1000/bag, 10,000/cs., (35.6) 500/bag, 2500/cs., (34.6)	10,000 each 2500 each	054007-06256 054007-06267
790 Cable Tie and Base Assembly	100/bag, 1000/cs., 7.8 (17.2)	1000 each	054007-11115
792 Cable Tie and Base Assembly	100/bag, 1000/cs., 1.4 (3.1)	1000 each	054007-27618

Scotch® Cable and Wire Tie Wrap

Scotch Cable and Wire Tie Wrap provides a convenient new way to bundle wire and cables, assemblies and to handle other fastening needs more safely and securely. This reliable fastener provides



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many advantages over traditional ones:

- Strong — holds greater suspended weight than traditional fasteners
- Gentle on sensitive cable and wire,

eliminating crimping, abrasion and work damage

- Reusable, making maintenance and retrofits easier
- Flexible and easier to adapt to most configurations
- Thinner profile less likely to snag in pulling
- Cinches with less of the hand and wrist stress required for more rigid fasteners
- Available in a variety of colors, sizes and shapes, including easy-to-apply straps, plus perforated and continuous rolls
- Economical for both permanent and temporary applications

Scotch Cable and Wire Tie Wrap 100 is a general purpose fastener. Scotch 200 is designed for applications requiring a flame-retardant or ultraviolet-resistant fastener.

Scotch® Hand-Held Dispenser HHD-100

The Scotch Hand-Held Dispenser HHD-100 is a lightweight hand-operated applicator made of high-impact, durable plastic.



It includes a metal cutting blade with blade safety guard and hangs easily from a tool belt with a weight of only three ounces. When used with rolls of Scotch Cable and Wire Tie Wrap, the Scotch HHD-100 is useful for a wide variety of applications.

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Specifications and Ordering Information for Scotch® Cable & Wire Tie Wrap

Product Number	Product Description	Roll width (in.)	Roll length (ft.)	Lengths/roll	T-Peel, hook-to-loop	Shear Strength	Tensile Strength	% Elongation	Temp. Rating	UPC (051128-)
Scotch® Cable & Wire Tie Wrap 100 6-inch (152 mm) straps										
100-3/8-WH	White	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54118
100-3/8-YL	Yellow	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54119
100-3/8-RD	Red	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54120
100-3/8-BU	Blue	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54121
100-3/8-GN	Green	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54122
100-3/8-BK	Black	3/8" (9.5 mm)	25' (7.6 m)	50	4.25 oz/in	27 psi	34 lbs/ 1/2 in width	37%	100°C (212°F)	54040
Scotch® Cable & Wire Tie Wrap 100 perforated rolls										
Perforated in 6-inch (152 mm) strips										
100-3/8P6-BK	Black	3/8" (9.5 mm)	54' (16.5 m)	100	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53596
100-1/2P6-BK	Black	1/2" (13 mm)	54' (16.5 m)	100	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53597
100-1P6-BK	Black	1" (25 mm)	54' (16.5 m)	100	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53598
Perforated in 8-inch (203 mm) strips										
100-3/8P8-BK	Black	3/8" (9.5 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53599
100-1/2P8-BK	Black	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53600
100-1/2P8-WH	White	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54139
100-1/2P8-GN	Green	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54140
100-1/2P8-BU	Blue	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54141
100-1/2P8-RD	Red	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54142
100-1/2P8-YL	Yellow	1/2" (13 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54143
100-1P8-BK	Black	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53601
100-1P8-BU	Blue	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54153
100-1P8-GN	Green	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54152
100-1P8-RD	Red	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54154
100-1P8-WH	White	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54151
100-1P8-YL	Yellow	1" (25 mm)	54' (16.5 m)	75	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	54155
Scotch® Cable & Wire Tie Wrap 100 continuous rolls										
100-3/8UC-BK	Black	3/8" (9.5 mm)	54' (16.5 m)	-	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53593
100-1/2UC-BK	Black	1/2" (13 mm)	54' (16.5 m)	-	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53594
100-1UC-BK	Black	1" (25 mm)	54' (16.5 m)	-	12 oz/in	20 psi	40 lbs/ 1/2 in width	35%	100°C (212°F)	53595
Scotch® Cable & Wire Tie Wrap 200 6-inch (152 mm) strap										
200-6ST	Black	3/8" (9.5 mm)	25' (7.6 m)	50	8 oz/in	20 psi	40 lbs/ 1/2 in width	35%	110°C (230°F)	54031
Scotch® Cable & Wire Tie Wrap Dispenser HHD-100										
3M100-HHD	Hand-held dispenser	-	-	-	-	-	-	-	-	53604
3M100-HHD Blade	Replacement Blade for HHD-100 Hand-Held Dispenser									021200-10833

* For straps, refers to body width. Strap heads are 3/4-inch wide.

