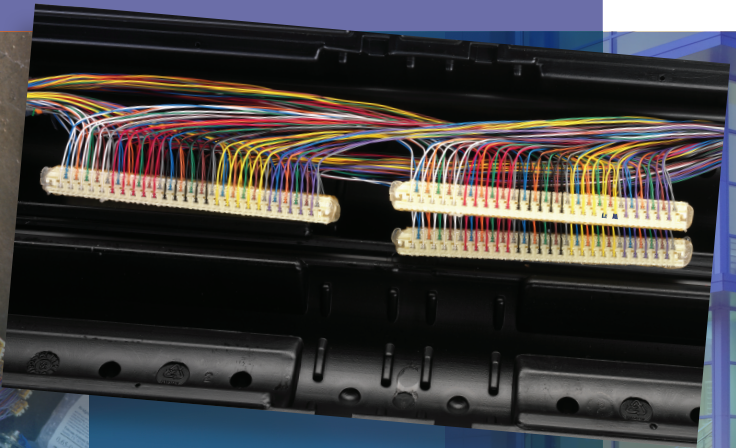
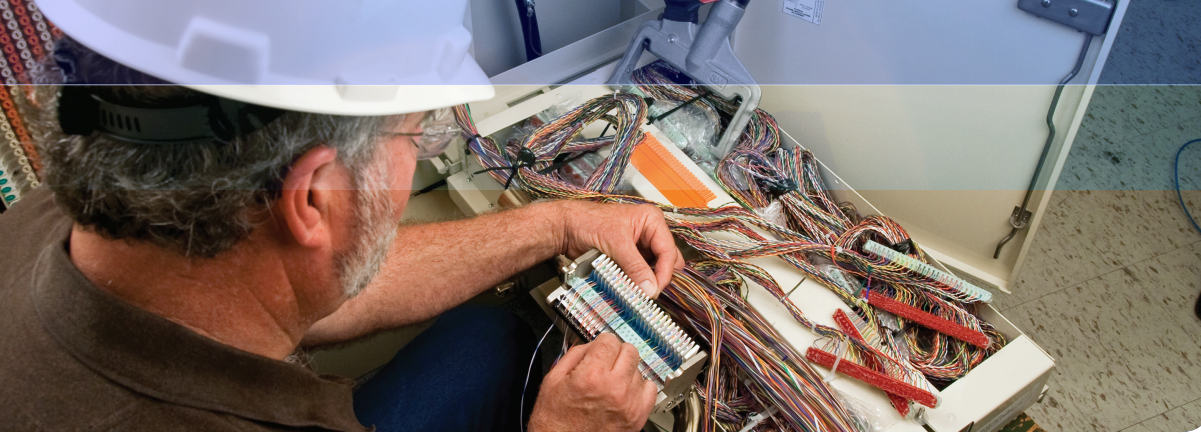


Communication Markets Division  
3M™ MS2™ Splicing Modules



# Simple Cost-effective Multi-pair Splicing

**3M**



## 3M™ MS<sup>2</sup>™ Splicing Modules

3M™ MS<sup>2</sup>™ Super-Mini and Super Mate Splicing Modules provide the reliability of gas-tight soldered connections, plus the efficiency of multi-pair splicing.

You can have faster and more accurate craftwork, better housekeeping, plus the proven performance of MS<sup>2</sup> Modular System Splicing. As basic components of MS<sup>2</sup> Modular System Splicing from 3M, the 4000 Series Super-Mini and 4005 Series Super Mate Modules are building blocks of a systematized splicing technology that can reduce installation time in outside or inside plant, reduce reworking demands, and save both time and effort in your construction and maintenance programs.

Cutting-edge  
reliability

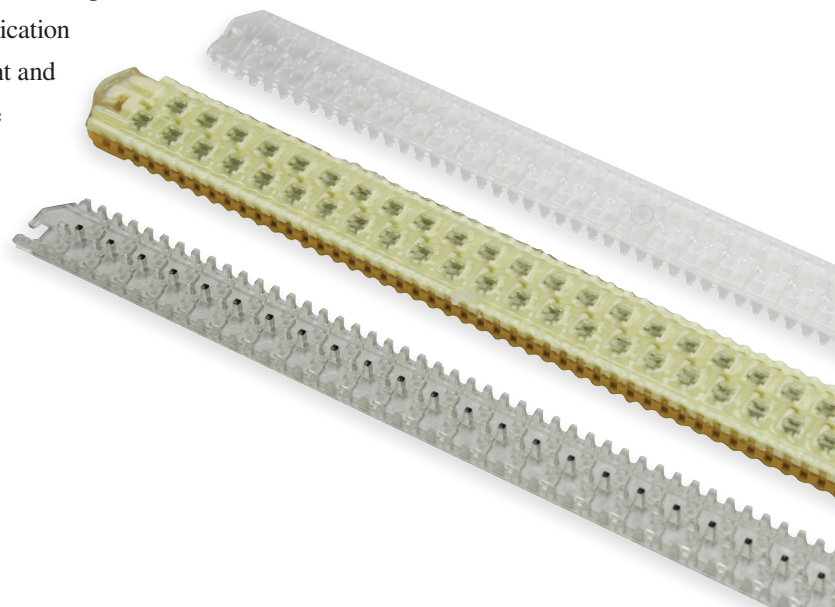
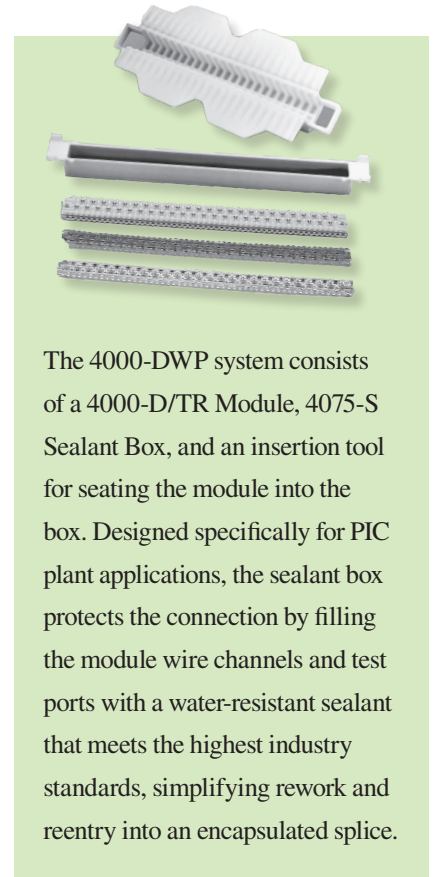
## 3M™ MS<sup>2</sup>™ Super Mini Modules 4000 Series

The 4000 Series Super-Mini and 4005 Series Super Mate Modules feature an array of U-shaped, phosphor-bronze contacts and stainless steel cut-off blades. As a module is crimped, each contact strips the insulation from the positioned wire and securely grips the conductor. During this crimping operation, the cut-off blades inside each module trim the excess wire. A single crimp completes a gas-tight connection on all 25 pairs in the module, making the entire process simple and fast.

Test entry ports in the front side of the modules allow you to test without opening the module, stripping insulation, or otherwise interrupting service. Module covers, bodies, and bases are constructed of durable polycarbonate, and are compatible with materials common to telecommunications installations. The rugged design and construction of the modules withstands crimping and reopening, facilitating transfers and cable rearrangements at any time. All Super-Mini Modules accept 22-28 AWG (0.7 mm–0.32 mm) solid copper with any PIC, pulp or paper insulation with a maximum conductor outside diameter (OD) of .065 (1.65 mm).

All MS<sup>2</sup> Modules have test ports that make the module available for testing with either single or 25-pair test probes. The modules permit easy access for testing and transferring with cut-and-throw type test sets. Test set cords, terminated with 25-pair modules, are plugged into the working cable modules and the relief cable. Circuits are verified, then held through the test set while the transfer is made. The test set is then unplugged and continuation of service is maintained.

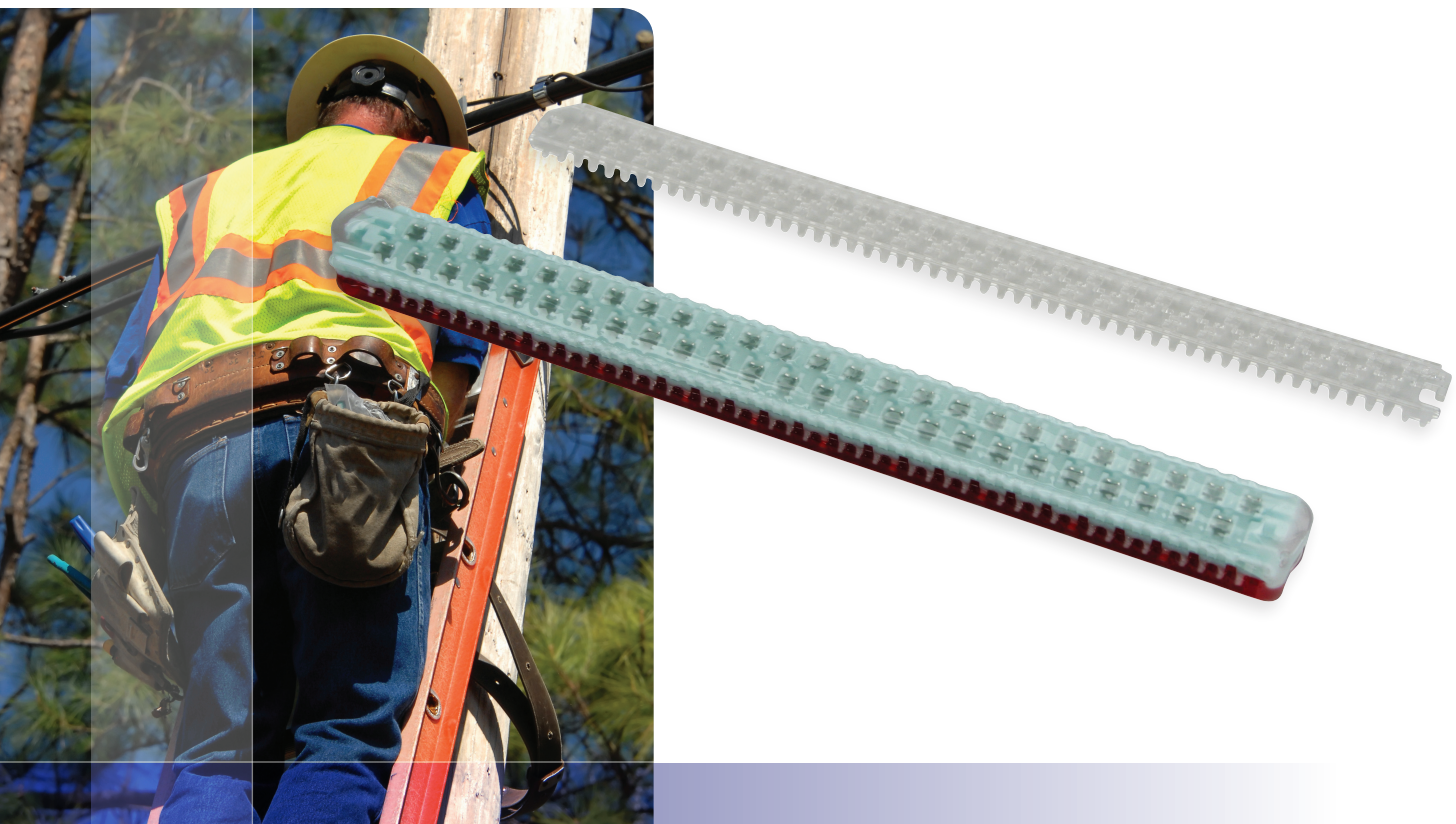
The smaller size of the 3M™ MS<sup>2</sup> Super-Mini Module 4000 Series allows smaller diameter splice bundles, improving housekeeping and reducing the costs associated with larger closures. Module covers are clear, with smokey bases for identification. Both are transparent for easy pair identification and trouble-shooting. Modules are available encapsulated (designated with “G” suffix) or nonencapsulated (designated with “D” suffix), with use determined by application requirement. Super-Mini Modules are available for straight and half-tap splicing applications. The 4005-DPM/TR module is available for pluggable plant and bridging applications. The UL-listed 4000-DCO module is available for applications requiring a flame-retardant module.



## 3M™ MS2™ Super Mate Pluggable Modules 4005 Series

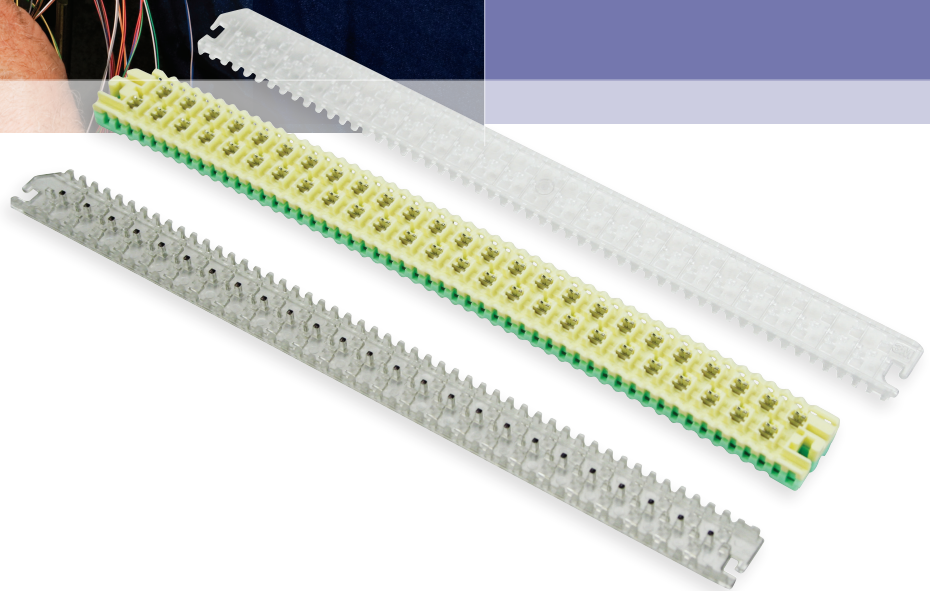
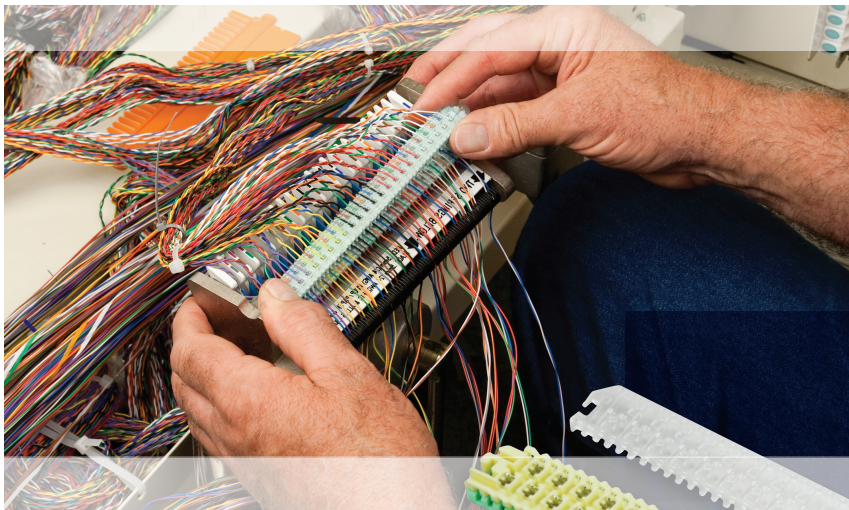
Like the 4000 Series Super-Mini Modules, the 4005 series modules also features an array of U-shaped, phosphor-bronze contacts and stainless steel cut-off blades. In addition, the 4005 series modules allow you to test without opening the module, allowing you to work without interrupting service. Once a 4005-DPM/TR Super Mate Module splice is made, resplicing conductors should not be necessary — you can complete all your future transfers by simply plugging and unplugging existing pluggable modules. By placing 4005-DPM/TR modules at branches and expansion points along your main cable, you can maximize your plant's effectiveness. In the future, you will be able to transfer 25 pair at a time without interrupting service, with an anticipated coil transfer rate of approximately 800 pair per day.

With the Super Mate Module, cutting out load coils or carrier is no problem. Its self-mating capability means you can load by plugging to the top and bottom of the main splice and then splitting the field from the feed. To cut out a load or other apparatus, reconnect the field and feed, then separate the equipment modules from the top and bottom of the main splice. Circuits are not interrupted, and the apparatus can be used over again because the conductors have not been cut.



## 3M™ MS2™ Super Mini Modules for Half-Tap Splicing 4008 Series

The 4008-G/TR and 4008-D/TR Super-Mini Modules are similar to the 4000-G and 4000-D modules, but without the cut-off blades in the bottom of the module body. The through wires of a half-tap application are electrically connected to the tap wires, but not cut off by the module. The 4008-G/TR and 4008-D/TR body bottom and base are colored green for identification. The UL-listed 4008-DCO module is available for applications requiring a flame-retardant module.



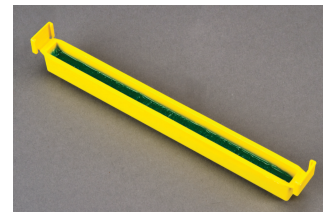
# 3M™ MS2™ Splicing Modules

Features	Benefits
Smaller splice bundle diameters	Improve housekeeping and enable use of smaller closure
Clear module covers and smoky bases	Enable easier parts identification
U-shaped contacts	Provide gas-tight solder-equivalent connection
4000 DT/TR Base	Allows testing of 25 spliced pairs
Test ports on Super Mate Modules	Permit easy access for testing without stripping wires
Preconnectorization capability	Reduces labor costs and splicing errors

## 3M™ MS2™ Sealant Box

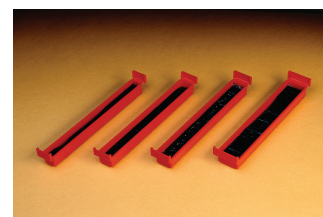
### 4075-S

The 3M™ MS2™ Sealant Box 4075-S can be ordered separately for use with 3M™ MS2™ Super Mini Modules 4000-D/TR Series. With the DWP system, the box and encapsulating sealant provide waterproof<sup>1</sup> protection for any two-wire splice. To facilitate installation, an applicator tool is provided with all sealant boxes.



### 4077 Series

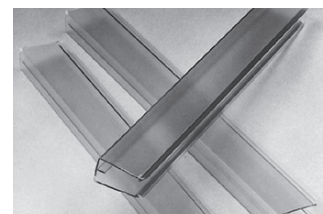
Four sizes of sealant boxes exist for the 3M™ MS2™ Super Mate Module combinations: 4077-A (one Super Mate Module), 4077-B (one Super Mate Module/one Super-Mini Module), 4077-C (two Super Mate Modules), 4077-D (three Super Mate Modules). To facilitate installation, an applicator tool is provided with all sealant boxes.



## 3M™ MS2™ Module Components

### 4078-C Half-Tap Cover

The 3M™ MS2™ Half-Tap Cover 4078-C is designed to protect wire ends after a half-tap has been cut out of a 3M™ MS2™ Super Mini Module 4008. You can also use a 4075-S sealant box to protect wire ends and add waterproof protection with dry module.



## 3M™ MS2™ Tools

### 4270 Series Hand Pressers

The 3M™ MS2™ Hand Pressers 4270 Series enable you to plug up to seven preterminated module combinations together. The jaws of the tool are positioned over the module combination to be crimped and adjusted by the screw knob on the tool. The crimp is completed by triggering the torque handle.



### 4053-PM Separator Tool

The 3M™ MS2™ Separator Tool 4053-PM allows you to easily unplug Super Mate Modules from any other module.



## 3M™ MS<sup>2</sup>™ Splicing Modules and Accessories Ordering Information

Product Number	Description	3M ID	Packaging	Minimum Order
4000-G/TR	Super-Mini Module (Gel)	80-6110-1310-5	24/bag, 120/cs., 9 lbs./cs.	120
4000-D/TR	Super-Mini Module (Dry)	80-6108-6307-0	24/bag, 120/cs., 6.7 lbs./cs.	120
4000-D/CO	Super-Mini Splicing Module (Flame Retardant)	80-6100-6954-6	24/bag, 120/cs., 6.7 lbs./cs.	120
4000-DT/TR	Super-Mini Test Module (Dry)	80-6104-1619-2	24/bag, 120/cs., 6.7 lbs./cs.	120
4005-DBM/TR/NB	Super Mate Bridge Module (Dry) with No Cut Off Blades	80-6107-5736-3	24/bag, 120/cs., 7.8 lbs./cs.	120
4005-GBM/TR	Super Mate Bridging Module (Gel)	80-6111-5023-8	24/bag, 120/cs., 11.1 lbs./cs.	120
4005-GBM/TR/NB	Super Mate Bridging Module (Gel) with No Cut Off Blades	80-6113-0441-3	24/bag, 120/cs., 11.32 lbs./cs.	120
4005-DPM/TR	Super Mate Plug Module (Dry)	80-6104-1621-8	24/bag, 120/cs., 7.8 lbs./cs.	120
4008-G/TR	Super-Mini Half-tap Module (Gel)	80-6110-2049-8	24/bag, 120/cs., 9.1 lbs./cs.	120
4008-D/TR	Super-Mini Half-tap Module (Dry)	80-6104-1623-4	24/bag, 120/cs., 6.6 lbs./cs.	120
4008-D/CO	Super-Mini Half-tap Module (Flame Retardant)	80-6100-6955-3	24/bag, 120/cs., 6.6 lbs./cs.	120
4000-DWP/TR	Super-Mini Module Dry w/Sealant Box	80-6108-6361-7	12/bag, 120/cs., 15.2 lbs./cs.	120
4036-25	MS <sup>2</sup> Hand Crimper	80-6108-4550-7	1/cs., 9 lbs./cs.	1 each
4053-Cover	Removal Tool	80-6091-0007-0	1/cs., .08 lbs./cs.	1 each
4053-PM	Separation Tool	80-6101-3340-9	1/cs., 1.3 lbs./cs.	1 each
4075-S	Super-Mini Sealant Box	80-6108-6354-2	12/bag, 120/cs., 9.0 lbs./cs.	120
4077-A	Pluggable Module Sealant Box	80-6108-6356-7	12/bag, 120/cs., 10.8 lbs./cs.	120
4077-B	Pluggable Module Sealant Box	80-6108-6357-5	12/bag, 120/cs., 12.0 lbs./cs.	120
4077-C	Pluggable Module Sealant Box	80-6108-6359-1	12/bag, 120/cs., 13.3 lbs./cs.	120
4077-D	Pluggable Module Sealant Box	80-6108-6360-9	12/bag, 120/cs., 16.6 lbs./cs.	120
4078-C	Half-tap Cover	80-6101-2986-0	12/bag, 120/cs., 2.8 lbs./cs.	120
4270-A	Hand Presser	80-6104-1535-0	1/cs., 3.4 lbs./cs.	1 each
4003-D/TR	Super-Mini Module Cover (Clear)	80-6105-7928-8	24/bag, 120/cs., 6.4 lbs./cs.	120
4004-D/TR	Super-Mini Module Base (Smoke)	80-6105-7929-6	24/bag, 120/cs., 6.5 lbs./cs.	120

<sup>1</sup>The term "waterproof" applies to this system as determined according to 3M Test Method Number TP0200-05. User should write for this method to determine suitability for application.

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