

Biconic Connectors and Accessories

The Biconic connector is a conical connector widely used throughout the telecommunications industry.

Biconic couplings and attenuators have been engineered with a precision sleeve within a flanged or snap-in housing.

Field Mountable Connectors, Biconic



323

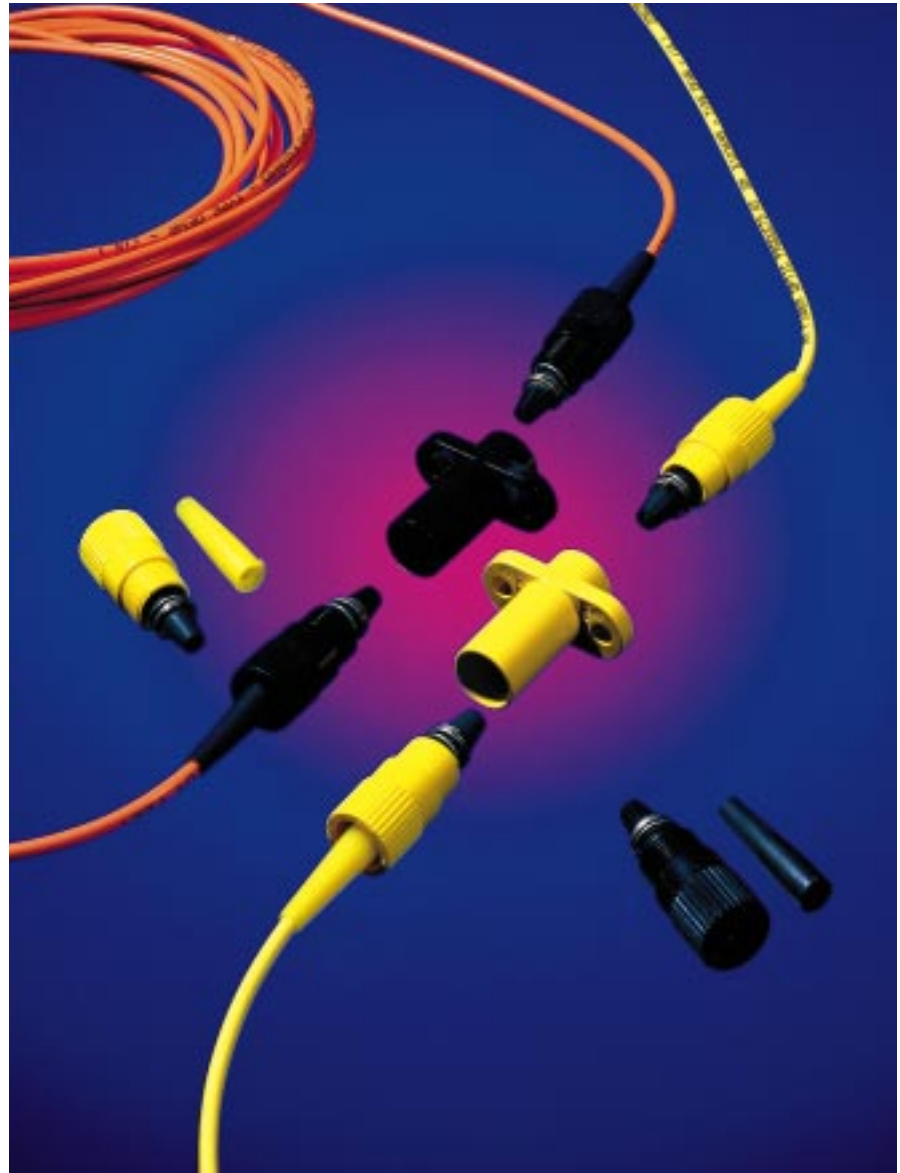
Connector package contains one pre-assembled plug plus dust cap and mounting parts (insert, shrink tube and strain relief).

Couplings, Biconic



324

The flanged coupling is used for direct mounting onto a fiber termination panel. A snap-in coupling is used with a bay receptacle in a variety of fiber distribution panels available from 3M.



322

Features — Benefits

Biconic Connectors, Couplings, and Attenuators

Conical connector	Minimizes wear of sleeve and plug
Field mountability	Mountable on all common fiber sizes
Proprietary plug material	Comparable to fiber's coefficient of thermal expansion



Product Referral Generator

- Photodyne™ Test Equipment pg. 200
- Fiber Distribution Units pg. 184
- Biconic Cable Assemblies pg. 132

Specifications for Biconic Connectors

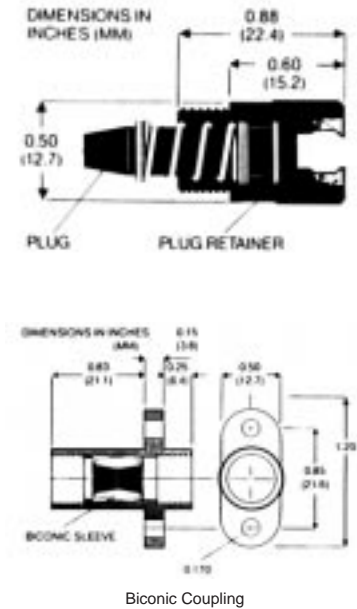


	Multimode		Single-mode	
Product number	6000	6001	8001	8002
Fiber size (µm)	125	125+	126	127
Attenuation (dB) field mount	0.6 typical		0.6 typical	
Reflection (dB) field mount	-14 typical		-30 typical	
Connector durability (dB)	<0.2 change/1000 matings		<0.2 change/500 matings	
Operating temperature connector only (cable dependent)	-40° to 80°C (-40° to 176°F)		-40° to 80°C (-40° to 176°F)	
Storage temperature	-55° to 80°C (-67° to 176°F)		-55° to 80°C (-67° to 176°F)	
Material Plug Housing Boot Backbone	70% silica filled epoxy Engineering Thermoplastic Estane® (non-flammable) Aluminum		70% silica filled epoxy Engineering Thermoplastic Estane® (non-flammable) Aluminum	
Identification Crimp area Housing and boot	Gold Black		Gold Yellow	
Ordering Information				
Packaging	1/cs.	1/cs.	1/cs.	1/cs.
Minimum order	1 each	1 each	1 each	1 each
UPC	054007-63133	054007-63134	054007-63124	054007-63125

Specifications for Biconic Couplings



	Multimode		Single-mode	
Product number	6010	6011	8010	8011
Housing type	Flanged	Snap-in	Flanged	Snap-in
Connector durability	<0.2 dB change/ 1000 matings		<0.2 dB change/ 500 matings	
Operating temperature connector only (cable dependent)	-40° to 80°C (-40° to 176°F)		-40° to 80°C (-40° to 176°F)	
Storage temperature	-55° to 80°C (-67° to 176°F)		-55° to 80°C (-67° to 176°F)	
Material Sleeve Housing	70% silica filled epoxy Polymer		70% silica filled epoxy Polymer	
Identification Coupling	Black		Yellow	
Ordering information				
Packaging	1/cs.	1/cs.	1/cs.	1/cs.
Minimum order	1 each	1 each	1 each [89000416]	1 each [749543]
UPC	054007-63089	054007-63090	054007-63087	054007-63088





Biconic Single-mode Attenuators

325

Specifications for Biconic Fixed Attenuators Single-mode



Product number	8021	8022	8023	8024	8025	8026	8027	8028
Attenuation 1300 nm (dB)	5 ± 1 dB	10 ± 1 dB	15 ± 1.5 dB	20 ± 1.5 dB	5 ± 1 dB	10 ± 1 dB	15 ± 1.5 dB	20 ± 1.5 dB
Housing design	Flanged				Snap-in (requires FDU with bay receptacles)			
Operating temperature	-40° to 80°C (-40° to 176°F)				-40° to 80°C (-40° to 176°F)			
Storage temperature	-55° to 80°C (-67° to 176°F)				-55° to 80°C (-67° to 176°F)			
Reflection	-14 dB typical				-14 dB typical			
Material Sleeve Housing	70% silica filled epoxy Polymer				70% silica filled epoxy Polymer			
Attenuator housing 1300 nm	White				White			
Ordering information								
Packaging	1/cs.	1/cs.	1/cs.	1/cs.	1/cs.	1/cs.	1/cs.	1/cs.
Minimum order	1 each [318292]	1 each	1 each	1 each	1 each	1 each	1 each [930283]	1 each [930284]
UPC	054007- 63095	054007- 63096	054007- 63097	054007- 63098	054007- 63091	054007- 63092	054007- 63093	054007- 63094

Fiber Connector Termination Kits and Accessories

3M Termination Kits and Accessories provide all tools and materials necessary to terminate the major fiber optic connectors in the industry today. A variety of kits are available to meet your needs in terminating all kinds of connectors.

There are a number of conversion kits to make it easy to incorporate both an epoxy process and a hot melt process into one kit, as well as terminate a variety of connector types from one kit. Complementary products such as the Hot Melt Portable Heater and One-Step Polishing Machine provide increased productivity and ease of use in completing the termination process.

Most of the kit parts are available separately to supplement your existing kits and replenish consumables.

Videos, training classes and detailed manuals are available to assure you are achieving the best results. Contact 3M Customer Service or your local Sales Representative for details.

One Step-Polishing

The 6850 One-Step Polishing Machine features a dry, single-paper technology for polishing the ferrule of a single hot melt connector. It is a 12-volt DC unit that provides hands-free operation and delivers consistent performance. Because no wet paper is used, no water is necessary and no clean up is required.

3M also offers connector termination kits utilizing the one-step polishing procedure for a variety of hot melt connectors. The 6150-A and 6151-A Termination Kits contain all materials necessary to terminate either



6850 One Step Polishing Machine

326

hot melt bayonet connectors or the hot melt push-pull connectors (both are compatible with the ST* connector). There are also adapters to do FC and SC connectors.





Kit Contents for Hot Melt Portable Heater



327

Description	Product number	UPC
Heater	Not available separately	—
Battery charger, 120V	Not available separately	—
Two Insert/Removal Tools	Not available separately	—
Battery pack, 12V	Not available separately	—
Instruction Manual	Not available separately	—

Specifications for Hot Melt Portable Heater

Size H x W x D cm (in.)	6.4 x 11.4 x 8.3 (2.5 x 4.5 x 3.25)	
Weight grams (lbs.)	926 (2.04)	
Number of connectors per charge	25	
Time to recharge battery	2 hours (2.5 hrs. for 230V)	
Safety requirements	Heater 120V Battery charger 230V Battery charger	UL Listed UL/CSA Listed VDE Listed

Ordering Information

Product number/ part number	Pkg.	Min. order	UPC
6850-A Polishing Machine with 110V converter, one step	1/cs.	1 ea.	054007-11516
6850-B Polishing Machine (no converter), one step	1/cs.	1 ea.	054007-11517
6890 Hot Melt Portable Heater, 120V Kit	1/cs.	1 ea.	054007-92330
Additional accessories for 6850 Automatic Polisher			
ST* Holder (6892)/ 80-6107-6098-7	1/cs.	1 ea.	054007-92700
SC Holder (6392)/ 80-6107-6099-5	1/cs.	1 ea.	054007-92699
FC Holder (6292)/80-6108-4400-5	1/cs.	1 ea.	054007-92701
Lapping Film, (6192 B) green, 2 µm 4" dia. with center hole /60-6500-2345-4	4 pkg. 50 shts./pkg.	4 pkg.	054007-85930

Hot Melt and Crimplok Field Termination Kits

Description	Quantity	Part number	6955	6350	6351
Connector styles		Items with part numbers can be ordered separately.	Bayonet ST* and SC	SC FC/PC	
Adhesive Type			Crimplok	Hot Melt	Hot Melt
Hot Melt Oven 110V	1 each	Not available separately		•	
Hot Melt Oven 220V	1 each	Not available separately			•
Crimp Tool	1 each	78-8073-8169-0		•	•
Crimp Tool	1 each	80-6109-3725-4	•		
Activation Tool, SC/ST	1 each	80-6109-3662-9	•		
Fiber Optic Stripper (6955-S)	1 each	80-6109-3726-2	•		
One-Step Lap Film, green, 2 µm (6192A)	4 pkg. (50 shts./pkg.)	60-6500-2346-2		•	•
Polishing Jig	2 each	78-8073-7527-0*	•	•	•
Polishing Jig (6891)	1 pkg. (2/pkg.)	80-6107-5575-5			
Polishing Pad, One-Step	1 each	78-8073-7525-4		•	•
Cooling Stand, Hot Melt (6191)	1 each	80-6106-2569-3		•	•
ST* Connector Holder (6190)	1 each (6/pkg.)	80-6106-2552-9			
SC Connector Holders (SP-00504)	1 pkg. (4/pkg.)	80-6108-4630-7		•	•
FC Connector Holders (SP-00505)	1 pkg. (4/pkg.)	80-6108-4614-1		•	•
Stripping collars, SC, FC (Blue)	4 each	78-8073-8168-2		•	•
Stripping collar, PP/ST* (Silver round)	4 each	78-8073-7523-9			
Scribe Carbide	1 each	80-6106-2590-9		•	•
ViewScope 100X	1 each	78-8073-7677-3	•		
Crimplok Polishing Tool	1 each	80-6109-3727-0	•		
Bottle, Iso Alcohol	1 each	Not available separately	•	•	•
Snips	1 each	Not available separately	•	•	•
Cable Stripper	1 each	80-6104-4314-7	•	•	•
No-Nik Stripper Mod 175 µm	1 each	80-6104-5332-8		•	•
ViewScope 100X with adapter	1 each	80-6104-4344-4		•	•
Lint Free Cloth	1 pkg. (100/pkg.)	80-6104-4324-6	•	•	•
Pipe Cleaners, Lint Free	1 pkg. (50/pkg.)	80-6104-4349-3		•	•
Jewelers Loupe 7X	1 each	80-6104-4353-5		•	•
Pocket Ruler, 152.4 mm (6")	1 each	Not available separately		•	•
Instruction Manual ST* 6100	1 each	80-6105-8050-0			
Instruction Manual SC & FC/PC	1 each	34-7033-9146-5		•	•
Instruction Manual ST* 6102H	1 each	78-8073-7529-6			
Instruction One-Step	1 each	78-8073-7572-6			
Instruction Manual Crimplok ST*/SC	1 each	78-8073-7660-9	•		
Lapping Film, gray, 5" dia., 15 µm	1 pkg. (20 shts./pkg.)	60-6500-2344-7			
One-Step Lap Film, oblong, 2 µm	1 pkg. (50 shts./pkg.)	80-6108-4532-5	•		
Crimplok Pouch	1 each	80-6109-9061-8	•		
Instructional Video Hot Melt	1 each	VM76664			
Ordering information					
Packaging			1/cs.	1/cs.	1/cs.
Minimum order			1 each	1 each	1 each
UPC			051138-58238	054007-91968	054007-91967

Note: Each kit has enough supplies to terminate 100-200 connectors. *Only one each in 6955.

Ferrule Epoxy Termination Kits

Description	Quantity	Part number	8350	8351
Connector styles			SC FC/PC	
Connector product numbers			SC MM: 6306, SC SM: 8306, 8307 FC MM: 6202, FC SM: 8203, 8204	
Adhesive			Epoxy	Epoxy
Curing Oven 110V	1 each	80-6104-4351-9	•	
Curing Oven 220V	1 each	80-6104-4354-3		•
Crimp Tool	1 each	78-8073-8169-0	•	•
AlOx Lap Film 5 µm 50/pkg.	1 each	60-0700-0508-1	•	•
AlOx Lap Film 1 µm 50/pkg.	1 each	60-0700-0507-3	•	•
Polishing Jig (SC/FC) (8892)	2 each	78-8073-7527-0	•	•
Polishing Jig (ST*, PP) (6891)	2 each	80-6107-5575-5		
Polishing Pad, Soft	1 each	80-6104-5375-7	•	•
Termination Mounting Stand	1 each	80-6104-4334-5	•	•
ST* Load Adapters	1 pkg. (6/pkg.)	80-6104-4343-6		
FC Load Adapters	1 pkg. (6/pkg.)	80-6108-4568-9		
SC Load Adapters	6 each	80-6108-4567-1	•	•
Stripping Collar (Blue)	4 each	78-8073-8168-2	•	•
Stripping Collar (Hex) (08-0094)	4 each	80-6104-4355-0		
Stripping Collar (Round)	4 each	78-8073-7523-9		
Scribe Carbide	1 each	80-6106-2590-9	•	•
Scribe	1 each	80-6104-4320-4		
Syringes	25 each	80-6104-4347-7	•	•
Dispensing Tips	1 pkg. (25/pkg.)	80-6107-7441-8	•	•
Epoxy (8692)	10 each	80-6107-7202-4	•	•
SS Cleaning Wire .102 mm (.004")	1 each	80-6104-4345-1	•	•
Squirt Bottle, Water	1 each	Not available separately	•	•
Squirt Bottle, Iso Alcohol	1 each	Not available separately	•	•
Scissors	1 each	Not available separately	•	•
Cable Jacket Stripper	1 each	80-6104-4314-7	•	•
No-Nik Buffer Stripper Mod 175 µm	1 each	80-6104-5332-8	•	•
ViewScope 100X with Adapter	1 each	80-6104-4344-4	•	•
Lint Free Cloth	1 each	80-6104-4324-6	•	•
Pipe Cleaners Lint Free	1 each	80-6104-4349-3	•	•
Jewelers Loupe 7X	1 each	80-6104-4353-5	•	•
152.4 mm (6") Pocket Rule	1 each	Not available separately	•	•
Instruction Manual SC & FC/PC	1 each	34-7033-9144-0	•	•
ST* & FC	1 each	78-6900-1806-0		
Push-Pull ST*	1 each	78-8073-7530-4		
1.5 µm Lapping Film, Diamond	1 pkg. (15/pkg.)	78-8073-8167-4	•	•
SM Final Polish Lapping Film	1 pkg. (50/pkg.)	60-0700-0509-9	•	•
Pin Gauge, Jig	1 each	78-8073-7965-2	•	•
Load Adapter FC/PC	6 each	80-6108-4568-9	•	•
SC Align Clips		78-8073-8179-9	•	•
Video		VM 79105		
Ordering information				
Packaging			1/cs.	1/cs.
Minimum order			1 kit	1 kit
UPC			054007-91966	054007-91965

