

# ST\* (Epoxy, Hot Melt and Crimplok™) Connectors and Accessories

The ST\* Connector product line provides high repeatability and low light loss for premises, LAN and telco applications. The improved connector design is compatible with the AT&T ST\* connector product line as well as Systimax\* components and other ST\* connector products.

The 3M products are supplied with a high quality PC finish on zirconia ceramic ferrules.

## Hot Melt ST\* Connector, Bayonet Multimode/Single-mode



The Hot Melt ST\* Fiber Optic Connector is a keyed bayonet style multimode/single-mode connector, compatible with ST\* connectors, which incorporates 3M's hot melt adhesive and pre-radiused PC zirconia ceramic ferrule technology. The result is a quick mount fiber optic connector that delivers low light-loss, solid intermateability and mechanical stability, while costing less to install.

## Crimplok™ ST\* Connector, Bayonet Multimode



The ST\* connector, is also available as the Crimplok Connector. The Crimplok connector combines the speed of non-adhesive connectors with the performance characteristics of epoxy and hot melt connectors. Crimplok connectors are the ideal solution for emergency restoration work or for quickly making fiber connections at the desk. Crimplok connectors are faster to install than epoxy connectors since there is no set-up or curing time. And Crimplok connectors do not require special heating tools or ovens, so time spent searching for electrical outlets is eliminated. The Crimplok connector is ideal for fiber-to-the-desk and other applications where a few connectors are installed at a time.

## ST\* Connector, Epoxy Bayonet Multimode/Single-mode



The Epoxy ST\* Connector is bayonet style for quick interconnect and high repeatability.



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## Push-Pull ST\* Connector, Multimode/Single-mode Epoxy/Hot Melt



The Push-Pull Connector is a high-performance fiber optic connector with a rectangular push-pull coupling mechanism that provides easy insertion and high repeatability. The connector is available in single-mode or multimode versions, with color-coded boots and housings to simplify identification. The multimode version accepts epoxy or may be ordered pre-loaded with hot melt adhesive.

Simplex and duplex versions comply with industry standards and are compatible with all standard ST\* connectors, and related accessories.

The push-pull boot actuation allows use in high density configurations and hard-to-reach places such as board mounts and recessed outlets.

The push-pull connector converts from simplex to duplex quickly and easily in the field with no additional tools or training. Using the Duplex Clip Package, the installer simply snaps the simplex connectors together to produce a duplex connector.



### Product Referral Generator

ST* Field Termination Kits	
Epoxy	pg. 160
Hot Melt	pg. 158
ST*/FC Consumable Kits	pg. 161
Photodyne Test Equipment	pg. 200
Fiber Distribution Units	pg. 184
ST* Cable Assemblies	pg. 132
ST* Duplex Clip	pg. 160

**✓ Features — Benefits**

**Hot Melt Bayonet ST\* Connectors**

Pre-loaded hot melt adhesive	No epoxy to mix; no syringe needed; shorter set-up time; fewer consumables; no shelf life; no mess; no waste
Fast cure time	Short heat and cool cycle; saves time
Unlimited adhesive shelf life	Eliminates outdated epoxy inventory and stock rotation requirements
No crimping required	Fewer tools; saves time
Pre-radiused PC ferrule	Assured contact of fibers; consistent performance
Zirconia ceramic ferrule	Durability; stability through temperature change; quality performance



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**✓ Features — Benefits**

**Crimplok ST Connectors**

Non-adhesive design	Clean and simple terminations; no toxicology issues
No set-up required	Saves time and money
No electricity required	Installation anywhere
Meets TIA-568 specifications	Rugged, reliable performance



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**✓ Features — Benefits**

**Epoxy Bayonet ST Connectors**

Bayonet design	Quick interconnect
Keyed connector	Assures high repeatability
Pre-radiused PC ferrule	Assures contact of fibers; low reflection, consistent performance
Zirconia ceramic ferrule	Durability; stability through temperature change; quality performance



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**✓ Features — Benefits**

**Push-Pull ST Connectors**

Compatible with ST connectors	Intermateable with standard couplings
Push-pull mating	Easy insertion, quick interconnect
Boot or housing actuated	Easy to use in dense configurations and recessed outlets
Duplexability in the field	Less inventory; standards compliance (see pg. 160)
Pull-proof, side-pull resistant	Maintains better optical contact; fewer transmission problems
PC finish	Optimizes optical contact; low reflection
Zirconia ceramic ferrule	Compliant, durable
Keyed rectangular design	Repeatable; prevents fiber damage
Thermoplastic shell	Corrosion-resistant; no flaking (contamination)
Available with hot melt adhesive	Quick multimode terminations



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# Specifications for ST\* Bayonet Connectors

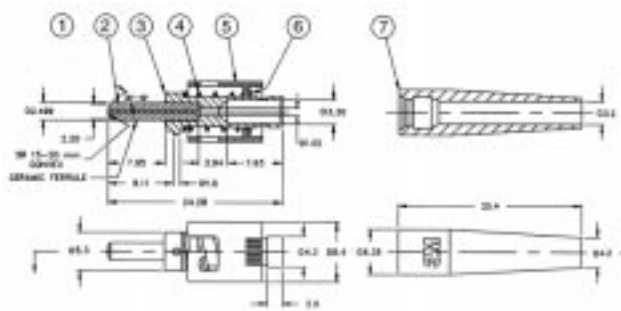


	Hot Melt Bayonet			Crimplok	Epoxy Bayonet			
	Multimode		Single-mode	Multimode	Multimode	Single-mode		
Product number	6100	6100-R†	6100-B††	8100YS	6901	6105	8106	8107
Connector type	Hot Melt			Crimplok	Epoxy			
Fiber size μm	125		126	125	125	126	127	
Attenuation (dB) @ 1300 nm field mount	<0.2 typical (62.5/125 μm fiber)		0.2 typical	<0.2 typical	<0.2 typical	0.3 typical (62.5/125 μm fiber)		
Reflection (dB) field mount	≤-25 typical		-30 typical,	≤-25 typical	≤-25 typical	≤-45 typical		
Connector durability (dB) 500 matings	<0.2 change		<0.2 change	<0.3 change	<0.2 change/1000 matings	<0.2 change		
Operating temperature	-40° to 60°C (-40° to 140°F)		-40° to 60°C (-40° to 140°F)	-10° to 60°C (14° to 140°F)	-40° to 80°C (-40° to 176°F)	-40° to 80°C (-40° to 176°F)		
Storage temperature	-40° to 85°C (-40° to 185°F)		-40° to 80°C (-40° to 176°F)	-40° to 80°C (-40° to 176°F)	-40° to 85°C (-40° to 185°F)	-40° to 85°C (-40° to 185°F)		
Material								
Connector ferrule	Zirconia ceramic		Zirconia ceramic	Zirconia ceramic	Zirconia	Zirconia		
Connector housing	Nickel plated zinc		Nickel plated zinc	Thermoplastic polymer	Nickel plated zinc	Nickel plated zinc		
Boot	Estane®		Estane®	Elastomeric resin	Estane®	Estane®		
Flame retardancy	UL-94 V-0		UL-94 V-0	UL-94 V-O	UL-94 V-O	UL-94 V-O		
Identification	Blue dot on end of ferrule, white boot		Blue dot on end of ferrule, yellow boot	Black Body Beige shell	Black Backbone	Silver Backbone		
Field Termination Kit								
110V	6150		6150	6950	8250	8250		
220V	6151		6151	(no power needed)	8251	8251		

## Ordering information

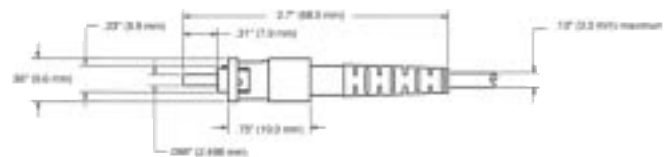
Product number	6100	6100-R	6100-B	8100YS	6901	6105	8106	8107
Packaging	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.	1/pkg, 60/cs.
Minimum order	60 each [342208]	60 each	60 each	60 each	60 each	60 each	60 each	60 each
UPC	054007-91141	054007-91143	054007-91142	051138-36650	054007-92813	054007-91144	054007-17772	054007-70637

† — With red boot  
 †† — With black boot



ST Bayonet

1. Dust cap
2. Ferrule
3. Backbone
4. Coupling nut
5. Spring
6. C-Ring
7. Boot

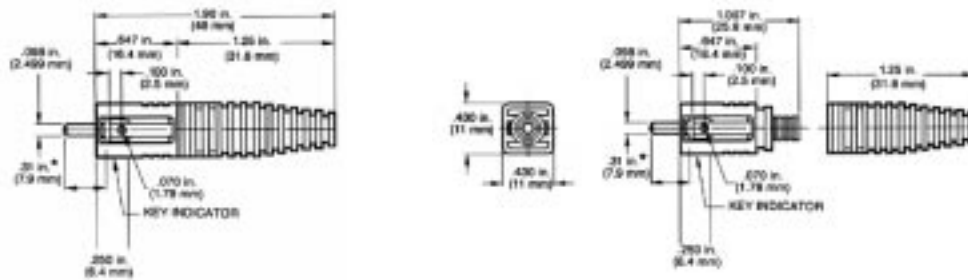


Crimplok™ Bayonet

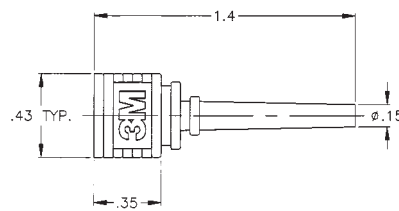
# Specifications for ST\* Push-Pull Connectors



Multimode		
<b>Product number</b>	<b>6102-H</b>	<b>6102</b>
Connector type	Hot Melt	Epoxy
Fiber size $\mu\text{m}$	125	125
Attenuation (dB)	<0.2 typical @ 1300 nm (62.5/125 $\mu\text{m}$ fiber)	
Reflection (dB)	$\leq$ -25 typical	
Connector durability (dB) 500 matings	<0.2 change	
Operational temperature	-10° to 40°C (14° to 104°F)	
Storage temperature	-40° to 85°C (-40° to 185°F)	
Material Connector ferrule Connector housing Boot	Zirconia ceramic Engineering Thermoplastic Thermoplastic elastomer	
Cable tension (in service) Straight pull Side pull Ultimate pull-out from coupling	<0.2 dB increase at 20 lbs. <0.5 dB increase at 5 lbs. 25 lb. minimum	
Flame retardancy	UL-94 V-O	
Identification	Black collar	Grey connector housing Silver collar
Field Termination Kit 110V 220V	6150-A 6151-A	8154 8155
<b>Ordering information</b>		
Product number	6102-H	6102
Packaging	1/pkg., 60/cs.	1/pkg., 60/cs.
Minimum order	60 each	60 each
UPC	054007-91148	054007-91149



ST\* Connector Push-Pull



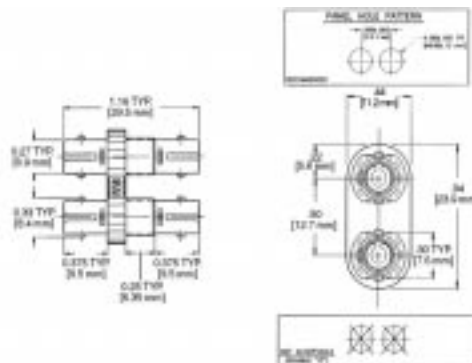
Buffer Boot

# ST\* Couplings, Attenuators and Accessories

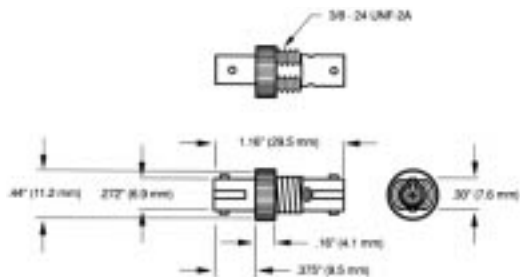


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## Couplings Multimode/Single-mode



ST\* Coupling, Duplex



ST\* Coupling, Threaded

## Specifications for ST Couplings



Multimode				
Product number	6112	6113	8113	8119
Description	Threaded Coupling with panel nut and lock washer	Duplex Threaded	Duplex Threaded Coupling	Threaded Coupling with panel nut and lock washer
Operating temperature	-40° to 85°C (-40° to 185°F)		-40° to 85°C (-40° to 185°F)	
Material	Nickel plated zinc Beryllium copper		Nickel plated zinc Zirconia ceramic	
Housing	Nickel plated zinc		Nickel plated zinc	
Sleeve	Beryllium copper		Zirconia ceramic	
<b>Ordering information</b>				
Packaging	6/bag, 60/cs.	6/bag, 60/cs.	1/cs.	1/cs.
Minimum order	60 each [368965]	60 each [409931]	1 each	1 each [409932]
UPC	054007-91153	054007-91025	054007-91026	054007-68747

## Specifications for ST Push-Pull Clips



Product number	Description	Spacing	Packaging	Min. order	UPC
6199 DC	Duplex clip	Duplex 0.5"	100 Clips 50 dust caps/pkg. 1 pkg./cs.	1 pkg.	054007-91114
6199 DLC	Duplex locking clip	Duplex 0.5" locking	100/pkg., 1 pkg./cs.	1 pkg.	054007-91969
6199 LC	Locking clip	Simplex locking	100/pkg., 1 pkg./cs.	1 pkg.	054007-11912
6199 DFC	Locking clip	Duplex 0.7"	100/pkg., 1 pkg./cs.	1 pkg.	054007-91995



ST\* 8120 Variable Attenuator 320

ST\* Attenuators, Single-mode



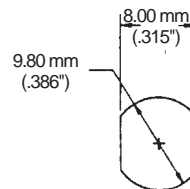
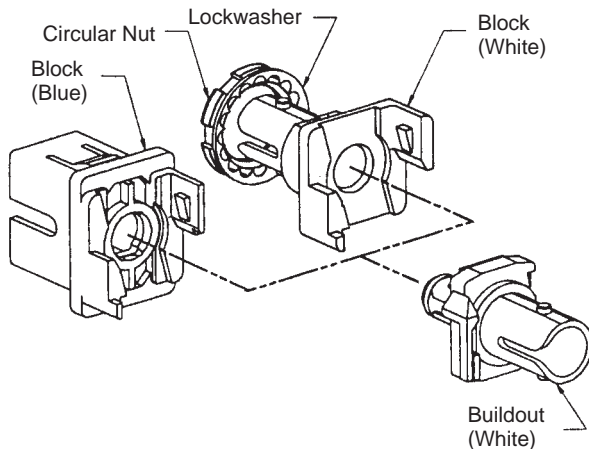
ST\* Fixed Attenuators, Buildout Block and Buildout 321

Specifications for ST Attenuators, Single-mode



Product number	8121	8122	8123	8124	8115	8112-A	8125-A	8126-A	8127-A	8128-A	8120
Description	Fixed, Bulkhead threaded, panel mount				Fixed, Buildout (requires 8115 block)						Variable, In-Line
Attenuation (dB) Single-mode w/SM fiber w/MM 50/125 μm fiber w/MM 62.5/125 μm fiber w/MM 100/140 μm fiber SM to MM fiber	5	10	15	20	Block	0	5	10	15	20	0.25 to -50 dB 0.25 to -20 dB 0.25 to -20 dB 0.25 to -15 dB 0.25 to -15 dB
Reflection (dB)	-14 dB typical				<-40 dB typical (film attenuator)						-14 dB typical
Operating temperature	40° to 80°C -40° to 176°F)				-40° to 65°C (-40° to 149°F)						-40° to 80°C (-40° to 176°F)
Material Housing	Nickel plated zinc				Plastic						Nickel plated zinc
Sleeve	Zirconia ceramic				Zirconia ceramic						Zirconia ceramic
Identification	Mylar label with attenuation value				Numeric attenuation value						none
<b>Ordering information</b>											
Packaging	1/pkg.				1/pkg.						1/pkg.
Minimum order	1 each				1 each						1 each [321046]
UPC	054007-49043	054007-48731	054007-48732	054007-49044	054007-92476	054007-92475	054007-92477	054007-92478	054007-92479	054007-92480	054007-68837

SM and/or MM Buildout System



ST Panel Mounting Hole  
(Other Options Available)  
Horizontal Spacing 12.7 mm (.50"), Minimum  
Vertical Spacing 13.2 mm (.52"), Minimum  
Panel Thickness Range 1.3-2.3 mm (.050" - .090")  
Panel Without Lockwasher 1.3-3.2 mm (.050" - .125")