## **3**M

## **Crimplok™ Connectors**

## **Quick, easy installation and superior performance**

To successfully design, install or operate today's fiber optic networks, you need components that offer speed and reliability – from the fiber itself all the way down to the connectors. That's why 3M developed a connector that combines the speed of non-adhesive connectors with the performance characteristics of epoxy and hot melt connectors. 3M™ Crimplok™ Connectors are the ideal solution for quickly making fiber connections at the desk or for emergency restoration work.

Crimplok connectors were designed to:

- · Save time in installation
- Provide rugged, reliable performance, meeting or exceeding current EIA/TIA-568B.3 specifications
- Install cleanly and simply with fewer parts and tools

#### **Saves time**

Available in both SC and ST, single-mode and multimode connector versions, Crimplok connectors are faster to install than epoxy connectors since there is no set-up or curing time. Crimplok connectors do not require special heating tools or ovens, so time spent searching for electrical outlets is eliminated. Polishing the connector is also a simple process that can be performed in seconds.

#### **Provides reliable performance**

The Crimplok connector incorporates proven 3M malleable metal element fiber gripping technology. There is no fiber splice or second joint inside the connector, so there is no added attenuation at the connection.

When the conformable metal element closes, it grips a length of the fiber, eliminating fiber movement associated with other crimp-style connectors. The strength of the metallic element ensures that Crimplok connectors meet industry standards for temperature and humidity.

The plastic buffer retention insert also prevents fiber movement by gripping the buffer without crushing it when the crimp ring is crimped. On jacketed cable, the crimp ring also grips the Kevlar® strands and



3M™ Crimplok™ ST Connector Multimode



3M™ Crimplok™ SC Connector Single-mode

cable jacket to prevent the fiber connection from breaking when the cable is pulled.

The buffer retention insert and the crimp ring combine to ensure that Crimplok connectors perform extremely well and meet rigorous tensile strength requirements in building wiring applications.

#### **Installs cleanly and simply**

Preparing and installing Crimplok connectors is as simple as the concept behind them.

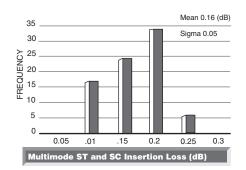
During installation, the fiber passes through the back end of the connector, through the metallic element and extends beyond the end of the activation tool. Pressing the activation tool locking arm closes the metal element around the fiber. It's that simple.

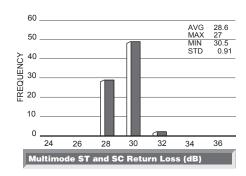
The few tools required for installing a Crimplok connector can be conveniently stored in a small tool pouch.

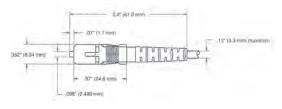
#### 3M™ CRIMPLOK™ CONNECTORS

#### Features Benefits

Easy to install	Saves time
Meets EIA/TIA-568A specifications	Rugged, reliable performance
Non-adhesive design	Clean and simple terminations
Intermateability with standard connectors	Convenience, quick restoration of existing systems
No workstation setup required	Saves time and money
Minimal tools required	Low-cost kit
No electricity required	Installation anywhere
Pre-radiused PC zirconia ceramic ferrule	Assured contact of fibers; stability through temperature change; quality performance







3M<sup>™</sup> Crimplok<sup>™</sup> SC Connector

### 3M<sup>™</sup> CRIMPLOK<sup>™</sup> SC CONNECTOR MULTIMODE 6900

### **Specifications**

Attenuation @ 1300 mm (dB)	<0.2 typical (62.5/125 µm fiber)	
Reflection (dB)	≤-29 typical	
Operational temperature (cable dependent)	-10° to 60°C (14° to 140°F)	
Storage temperature (unassembled connector)	-40° to 80°C (-40° to 176°F)	
Environmental		
Humidity	Max loss increase < 0.20 dB; Reflection < -25 dB	
Cold	Max loss increase < 0.20 dB; Reflection < -25 dB	
Temperature life	Max loss increase < 0.20 dB; Reflection < -25 dB	
Mechanical		
Impact	Mean loss 0.18 dB; Mean reflection -28 dB	
Cyclic flex	Mean loss 0.16 dB; Mean reflection -28 dB	
Twist	Mean loss 0.16 dB; Mean reflection -28 dB	
Cable retention	Mean loss 0.16 dB; Mean reflection -28 dB	
Mating durability 500 matings	<0.22 change	
Materials		
Connector ferrule Connector body and housing Boot	Zirconia ceramic Thermoplastic polymer Elastomeric resin	
Identification	Black body, beige shell, black boot	
Fiber size	125 µm multimode	
Couplings Housing Sleeve	Engineering thermoplastic Ceramic	

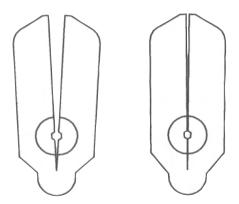
Note: Testing performed on cable assemblies with 3 mm jacketed cable and 900  $\mu m$  buffered fiber.

# 3M<sup>™</sup> CRIMPLOK<sup>™</sup> ST CONNECTOR MULTIMODE 6901

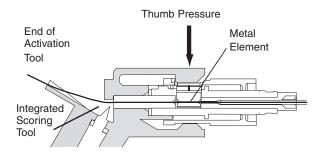
### **Specifications**

-		
Attenuation @ 1300 mm (dB)	<0.2 typical	
Reflection (dB)	≤-29 typical	
Operational temperature (cable dependent)	-10° to 60°C (14° to 140°F)	
Storage temperature (unassembled connector)	-40° to 80°C (-40° to 176°F)	
Environmental		
Humidity	Max loss increase < 0.20 dB; Reflection < -25 dB	
Cold	Max loss increase < 0.20 dB; Reflection < -25 dB	
Temperature life	Max loss increase < 0.20 dB; Reflection < -25 dB	
Mechanical		
Impact	Mean loss 0.12 dB; Mean reflection -28 dB	
Cyclic flex	Mean loss 0.11 dB; Mean reflection -28 dB	
Twist	Mean loss 0.11 dB; Mean reflection -28 dB	
Cable retention	Mean loss 0.12 dB; Mean reflection -27 dB	
Mating durability 500 matings	<0.3 change	
Materials		
Connector ferrule Connector body and housing Boot	Zirconia ceramic Thermoplastic polymer Elastomeric resin	
Identification	Black body, beige shell, beige boot	
Fiber size	125 µm multimode	
Couplings Housing Sleeve	Nickel plated zinc Phosphor bronze	

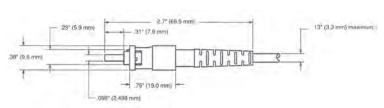
Note: Testing performed on cable assemblies with 3 mm jacketed cable and  $900\,\mu m$  buffered fiber.



Malleable metal element assures fiber retention and a reliable connection.



The metal element inside the connector closes around the fiber.

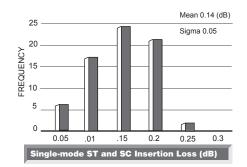


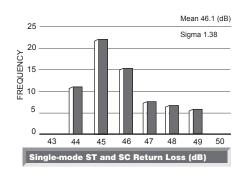
3M<sup>™</sup> Crimplok<sup>™</sup> ST Connector

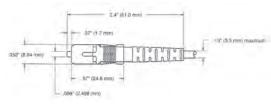
### **3M™ CRIMPLOK™ CONNECTORS**

## Features Benefits

Installation in less than two minutes	Saves time
Meets EIA/TIA-568A specifications	Rugged, reliable performance
Non-adhesive design	Clean and simple terminations
Intermateability with standard connectors	Convenience, quick restoration of existing systems
No workstation setup required	Saves time and money
Minimal tools required	Low-cost kit
No electricity required	Installation anywhere
Pre-radiused PC zirconia ceramic ferrule	Assured contact of fibers; stability through temperature change; quality performance







3M<sup>™</sup> Crimplok<sup>™</sup> SC Connector

### 3M<sup>™</sup> CRIMPLOK<sup>™</sup> SC CONNECTOR SINGLE-MODE 8900

#### **Specifications**

-		
Attenuation @ 1300 mm (dB)	<0.2 typical	
Reflection (dB)	≤-40 dB typical	
Operational temperature (cable dependent)	-10° to 60°C (14° to 140°F)	
Storage temperature (unassembled connector)	-40° to 80°C (-40° to 176°F)	
Environmental		
Humidity	Max loss increase < 0.20 dB; Reflection < -40 dB	
Cold	Max loss increase < 0.20 dB; Reflection < -40 dB	
Temperature life	Max loss increase < 0.20 dB; Reflection < -40 dB	
Mechanical		
Impact	Mean loss 0.18 dB; Mean reflection -40 dB	
Cyclic flex	Mean loss 0.16 dB; Mean reflection -40 dB	
Twist	Mean loss 0.16 dB; Mean reflection -40 dB	
Cable retention	Mean loss 0.16 dB; Mean reflection -40 dB	
Mating durability 500 matings	<0.22 change	
Materials		
Connector ferrule Connector body and housing Boot	Zirconia ceramic Thermoplastic polymer Elastomeric resin	
Identification	Black body, blue shell, black boot	
Ferrule size	126 µm single-mode	
Couplings Housing Sleeve	Engineering thermoplastic Zirconia Ceramic	

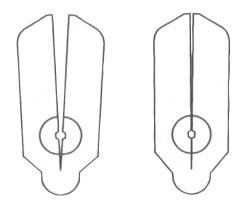
Note: Testing performed on cable assemblies with 3 mm jacketed cable and 900 µm buffered fiber.

# 3M" CRIMPLOK" ST CONNECTOR SINGLE-MODE 8901

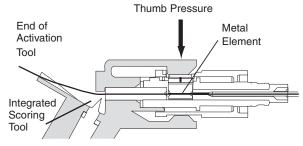
### **Specifications**

-	
Attenuation @ 1300 mm (dB)	<0.2 typical
Reflection (dB)	≤-40 dB typical
Operational temperature (cable dependent)	-10° to 60°C (14° to 140°F)
Storage temperature (unassembled connector)	-40° to 80°C (-40° to 176°F)
Environmental	
Humidity	Max loss increase < 0.20 dB; Reflection < -40 dB
Cold	Max loss increase < 0.20 dB; Reflection < -40 dB
Temperature life	Max loss increase < 0.20 dB; Reflection < -40 dB
Mechanical	
Impact	Mean loss 0.12 dB; Mean reflection -40 dB
Cyclic flex	Mean loss 0.11 dB; Mean reflection -40 dB
Twist	Mean loss 0.11 dB; Mean reflection -40 dB
Cable retention	Mean loss 0.12 dB; Mean reflection -40 dB
Mating durability 500 matings	<0.3 change
Materials	
Connector ferrule Connector body and housing Boot	Zirconia ceramic Thermoplastic polymer Elastomeric resin
Identification	Black body, beige bayonnet cap, blue boot
Ferrule size	126 µm single-mode
Couplings Housing Sleeve	Nickel plated zinc Zirconia ceramic

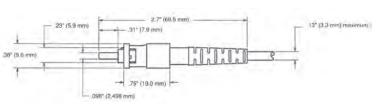
Note: Testing performed on cable assemblies with 3 mm jacketed cable and  $900\,\mu m$  buffered fiber.



Malleable metal element assures fiber retention and a reliable connection.



The metal element inside the connector closes around the fiber.



3M™ Crimplok™ ST Connector

#### 3M™ CRIMPLOK™ CONNNECTORS

#### **Ordering Information**

To order, specify the correct product number from the chart below. For more information, please contact your authorized 3M distributor or a 3M Communication Markets Division sales representative at 800/426 8688.

Product #	Description	Packaging Order	Minimum
6900	Crimplok Connector, SC MM, 125 µm	1/bag, 60 bags/case	60 each
6901	Crimplok Connector, ST MM, 125 µm	1/bag, 60 bags/case	60 each
8900	Crimplok Connector, SC SM, 126 µm	1/bag, 60 bags/case	60 each
8901	Crimplok Connector, ST SM, 126 µm	1/bag, 60 bags/case	60 each
6900-1K-S	Crimplok Connector, SC MM, 125 µm	1/bag, 1000 bags/case	1000 each
6901-1K-S	Crimplok Connector, ST MM, 125 µm	1/bag, 1000 bags/case	1000 each
8900-1K-S	Crimplok Connector, SC SM, 126 µm	1/bag, 1000 bags/case	1000 each
8901-1K-S	Crimplok Connector, ST SM, 126 µm	1/bag, 1000 bags/case	1000 each
6955	Crimplok Termination Kit	1/case	1 each
6955-P	Polishing Tool	1/case	1 each
6955-T	Activation Tool, ST/SC	1/case	1 each
6112	ST Multimode Simplex Coupling	1/bag, 60 bags/case	60 each
6113	ST Multimode Duplex Coupling	1/bag, 60 bags/case	60 each
6310	SC Multimode Simplex Coupling	1/bag, 60 bags/case	60 each
6313	SC Multimode Duplex Coupling	1/bag, 60 bags/case	60 each
8113	ST Single-mode Duplex Coupling	1/bag, 60 bags/case	60 each
8119	ST Single-mode Simplex Coupling	1/bag, 60 bags/case	60 each
8310	SC Single-mode Simplex Coupling	1/bag, 60 bags/case	60 each
8313	SC Single-mode Duplex Coupling	1/bag, 60 bags/case	60 each



3M™ Crimplok™ Activation Tool 6955-T



3M™ Crimplok™ Termination Kit 6955



Tools for the Crimplok Connector are stored in a small tool pouch.



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