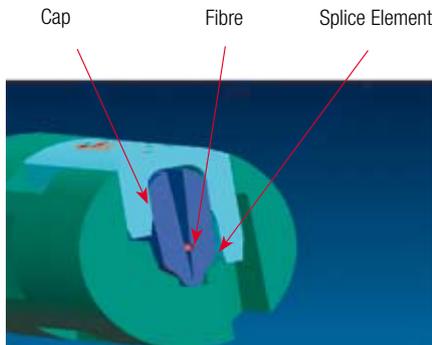


7.4 3M™ No Polish Connector



Cross-sectional view of actuated splice: After the fibre is inserted, the assembly tool depresses the cap to force clamping and locating surfaces against the fibre, locking and aligning the fibre place.



3M No Polish Connector Assembly Tool

Description

3M No Polish Connector (NPC) enables fast, on-site installation of 250µm and 900µm connections utilizing a one piece, pre-assembled design.

The SC compatible connector consists of a factory-polished ceramic ferrule, fibre stub and a mechanical splice that is installed with a simple field tool. A bell-shaped boot is attached to the connector body, minimizing the chance of losing or forgetting to install the boot during the connection.

The No Polish Connector is tested for Premises and FTTP applications for indoor and outdoor locations and is available in SM, 62.5µm, 50µm and also 50µm LOMMF (laser optimised multimode fibre) for 10 Gb applications.

The NPC-SC is RoHS compliant.



Features

- Field installation
- One piece, pre-assembled design
- Simple assembly tool
- 900µm buffer strain relief
- Fibre holder for assembly
- Factory-polished fibre stub in ferrule
- Bell-shaped boot

Benefits

- Always right cable length with no cable slack to store
- No small, loose parts
- Fast, easy installation
- Excellent pull out strength
- Designed to eliminate the need to touch bare fibre
- No on-site polish or adhesives required
- Helps prevent fibre from bending below minimum bend radius

7. 3M™ Fibre Connectivity Products

7.4 3M™ No Polish Connector

Specifications

	6800-50	Multimode 6800-50/LOMMF	6800-62.5	Singlemode 8800
Insertion loss typical @ 1300nm	0.2	0.2	0.2	0.3
Reflection typical (dB)	<-30	<-30	<-25	<-40
Connector Durability after 500 matings (dB)	<0.1 change	<0.1 change	<0.1 change	<0.2 change after 100 matings
Operating Temperature	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)	0°C to 60°C (32°F to 140°F)	-40°C to 75°C (-40°F to 167°F)
Cable tension (in service)	< 0.1 dB decrease at 0.5 lbs for 900µm	< 0.1 dB decrease at 0.5 lbs for 900µm	< 0.1 dB decrease at 0.5 lbs for 900µm	< 0.5 dB increase at 4.8 N (1.10lbf) for 250µm < 0.5 dB increase at 6.9 N (1.54lbf) for 900µm
Testing Specifications	TIA*	TIA*	TIA*	TIA*
Material				
Connector Ferrule	Zirconia ceramic	Zirconia ceramic	Zirconia ceramic	Zirconia ceramic
Connector housing and body	Engineered resin	Engineered resin	Engineered resin	Engineered resin
Boot	Thermoplastic elastomer	Thermoplastic elastomer	Thermoplastic elastomer	Thermoplastic elastomer
Flame retardancy	UL-94 V-0	UL-94 V-0	UL-94 V-0	UL-94 V-0
Connector Identification				
Backbone	Black	Black	Black	Black
Housing	Black	Aqua	Beige	Blue
Boot	White	White	White	White
Field Termination Kit	8865-C	8865-C	8865-C	8865-C

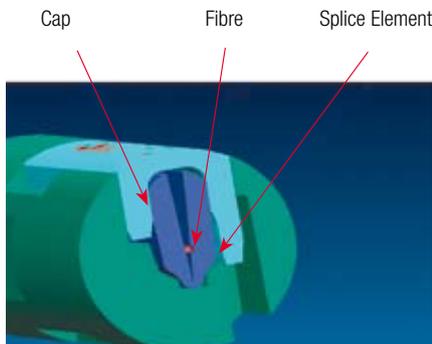
*TIA = TIA/EIA 568-B.3

Ordering Information

Product Description	Ref. No.
3M No Polish SC Connector SM Plug 250/900 (blue housing)	8800
3M No Polish SC Connector MM 50µm 250/900 (black housing)	6800-50
3M No Polish SC Connector MM 50µm LOMMF 250/900 (aqua housing)	6800-50/LOMMF
3M No Polish SC Connector MM 62.5µm 250/900 (beige housing)	6800-62.5

7.4 3M™ No Polish Connector

Description



Cross-sectional view of actuated splice: After the fibre is inserted, the assembly tool depresses the cap to force clamping and locating surfaces against the fibre, locking and aligning the fibre place.



**3M No Polish Connector SC/APC Angle Splice,
250µm/900µm**

3M No Polish Connector (NPC) SC/APC provides fast, on-site installation of 250µm and 900µm singlemode fibre.

The SC/APC compatible connector consists of a factory-polished ferrule assembly and a mechanical splice that is installed with a simple, field tool. It is available with a standard, flat splice configuration or with a keyed, angle splice for excellent back reflection of <-60 dB.

NPC has a bell-shaped boot that is attached to the connector body, virtually minimizing the chance of losing or forgetting to install the boot during the connection. After installation, the boot keeps the fibre from kinking, even during side pull.

The no polish connector is tested for premises and FTTP applications for indoor and outdoor locations.

The NPC-SC/APC is RoHS compliant.

Features

- Field installation
- One piece, pre-assembled design
- Simple assembly tool
- Keyed, angle cleave splice
- 900µm buffer strain relief
- Factory polished stub in ferrule

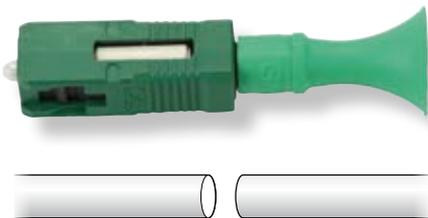
Benefits

- Always the right cable length with no cable slack to store
- No small, loose parts
- Fast, easy installation
- Low reflection, < -60 dB across temperature extremes
- Excellent pull out strength
- No on-site polish or adhesives required

7. 3M™ Fibre Connectivity Products

7.4 3M™ No Polish Connector

Flat Splice Connectors

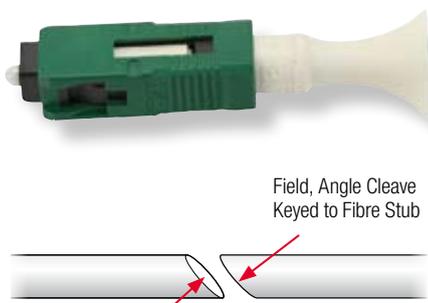


Flat Cleave Splice
Uses standard fibre cleaver for field termination

NPC SC/APC flat splice connectors provide excellent performance for digital transmission networks that require a SC/APC termination, such as an Optical Network Terminal that is pre-installed with a SC/APC interface.

SC/APC flat splice connectors provide acceptable analog video performance for indoor applications since the flat splice has a typical reflection of -55 dB for room temperatures.

Angle Splice Connectors



Factory Formed Angle
Inside Connector

Field, Angle Cleave
Keyed to Fibre Stub

Keyed, Angle Cleave Splice
Using the 3M Fibre Optic Angle Cleaver 2535, a precise angle can be formed on the field fibre end. With the assembly tool, angles of the field fibre and connector fibre are aligned to optimize optical coupling and minimize back reflections.

3M No Polish Connector SC/APC Keyed, Angle Splice Connectors are specifically designed for analog video transmission with very low optical reflection of < -60 dB across temperature extremes.

Based upon 3M laboratory testing, keying of the angle cleaves is important for optical reflection performance.

Assembly Tool for 250/900 µm



3M No Polish Connector Assembly Tool is included in every box of 60 connectors. Keeps angle cleaves aligned during installation process.

Specifications

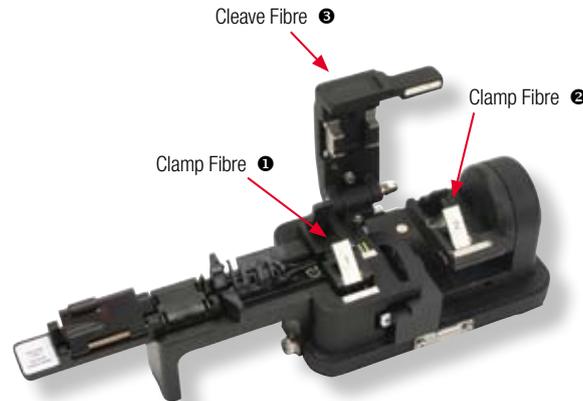
Fibre diameter	125µm
Insertion loss	0.3 dB typical
Reflection	(Flat splice) -55 dB typical at room temperature < -35 dB for -40°C to 75°C (-40°F to 167°F) (Angle splice) -65 dB at room temperature < -60 dB for -40°C to 75°C (-40°F to 167°F)
Connection durability, after 100 matings	< 0.2 dB change
Operating temperature	-40°C to 75°C (-40°F to 167°F)
Cable tension (in service)	< 0.5 dB increase at 4.8N (1.10 lbf) for 250µm < 0.5 dB increase at 6.9N (1.54 lbf) for 900µm
Side pull (in service)	< 0.5 dB increase at 6.9N (1.54 lbf) for 900µm
Water immersion, 43°C (109°F), 3 days	< 0.2 dB increase after 24 hour dry time
Dimensions	12.7 x 12.7 x 49 mm (0.5" x 0.5" x 1.9")

7.4 3M™ No Polish Connector

Simple Installation Process

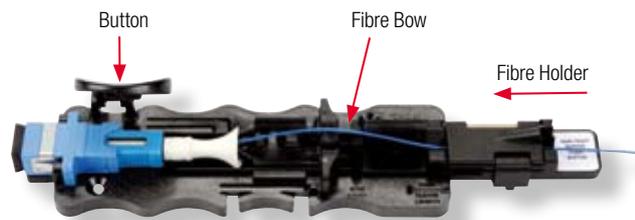
The 3M™ No Polish Connector is easy to install, even for the SC/APC connector with angle splice.

Step 1: Angle Cleave Fibre



After stripping the coating and cleaning the glass, secure the fibre with the two clamps and activate the cleaver in one step by pressing the lever. The fibre holder maintains the angle orientation from the cleaver to the connector in the assembly tool.

Step 2: Assemble Connector



Use the holder to automatically align and to guide the fibre into the connector. Once there is a fibre bow to indicate the fibre is fully inserted, activate the connector by depressing the button.

Ordering Information

Product Description	Ref. No.
3M No Polish Connector SC/APC SM Angle Splice 250/900	8800-APC/AS
3M No Polish Connector SC/APC SM Flat Splice 250/900	8800-APC/FS

7.4 3M™ No Polish Connector

Description - 3M Tools for NPC-SC and NPC-SC/APC

3M Fibre Optic Angle Cleave Kit 2565



The 3M Fibre Optic Angle Cleave Kit 2565 includes the 3M Fibre Optic Angle Cleaver 2535 and all tools necessary for 8800-APC/AS.



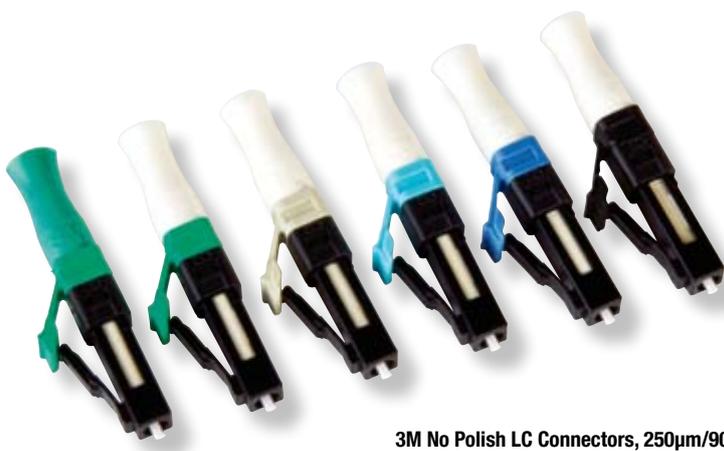
3M No Polish Connector Kit 8865-C for 8800-APC/FS flat splice connectors.

Ordering Information

Product Description	Ref. No.
3M No Polish Connector Kit	8865
3M No Polish Connector Preparation Kit with Flat Cleaver	8865-C
3M No Polish Connector Assembly Tool	8865-AT
3M Fibre Optic Angle Cleaver	2535
3M Fibre Optic Angle Cleave Kit with Angle Cleaver	2565

7.4 3M™ No Polish Connector

Description



3M No Polish LC Connectors, 250µm/900µm

As the LC connector type becomes more and more the connector of choice in several FTTH concepts as well as for enterprise networks, 3M has developed a whole range of LC NPC connectors.

Same as for the SC range we offer single-mode versions with UPC and APC endface geometry. Multimode LC NPC connectors are available for all common fibre types, like 50/125µm OM2 and OM3, as well as for 62,5/12µm fibre.

Features

- Field installation
- One piece, pre-assembled design
- Simple assembly tool
- 900µm buffer strain relief
- Fibre holder for assembly
- Factory-polished fibre stub in ferrule

Benefits

- Always right cable length with no cable slack to store
- No small, loose parts
- Fast, easy installation
- Excellent pull out strength
- Designed to eliminate the need to touch bare fibre
- No on-site polish or adhesives required

Ordering Information

> LC NPC Connectors, Single-mode

	Ref. No.
• 8830 No Polish Connector LC SM Plug 250/900UM W/Tool	8830
• 8830-APC/AS No Polish Connector LC/APC SM Angle Splice 250/900µm	8830-APC/AS
• 8830-APC/FS No Polish Connector LC/APC SM Flat Splice 250/900µm	8830-APC/FS

> LC NPC Connectors, Multimode

	Ref. No.
• 6830-50 No Polish Connector LC MM 50UM 250/900UM W/Tool	6830-50
• 6830-50/LOMMF No Polish Connector LC MM 50UM 250/900UM W/Tool	6830-50/LOMMF
• 6830-62.5 No Polish Connector LC MM 62.5UM 250/900UM W/Tool	6830-62.5

> LC/NPC Termination Kit and Tools

	Ref. No.
• 8835-AT LC No Polish Connector Assembly Tool 250/900UM	8835-AT