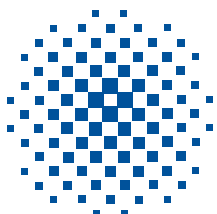



# FIBER OPTIC CONNECTORS

For SM and MM applications



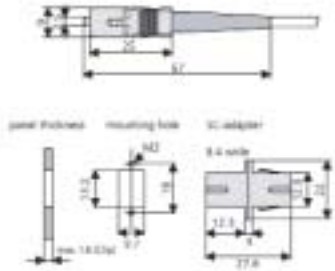
**KRONE**®

**SC-SM**




**Applications:** - optical fiber networks for telecommunication applications  
-LAN, inhouse networks (Diatom)  
-measuring technology  
-cable TV

- can be mounted in rows, giving high packing density
- for SM fibers (9/125µm)
- cable versions: buffered fiber (ø 0.9mm) cable (ø 3mm) duplex cable (2 x ø 3mm)
- due to push-pull locking mechanism easy-to-use with high tensile strength
- types of polishing: PC, UPC, APC8°, APC 9°
- colour coding: PC, UPC: blue housing APC: green housing
- plastic connector housing with ceramic ferrule
- plastic adaptor housing with ceramic sleeve, mounted using two M2 screws or snap-in connection
- conforms to IEC 874-14, CECC 86260 and FTZ TL 6060-3016 AS/NZ 3080



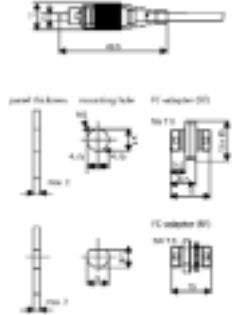
- insertion loss: <0.5dB  
typ. 0.2dB
- return loss: PC polishing: >40dB  
UPC polishing: >50dB  
APC8° polishing: >60dB  
APC9° polishing: >55dB
- service life: 1000 cycles (PC, APC)
- tensile strength: 100 N (cable)

**FC**




**Applications:** - optical fiber networks for telecommunication applications  
-LAN, inhouse networks (Datacom)  
-measuring technology  
-cable TV

- compatible to NTT standard
- for SM fibers (9/125µm) optional: MM fibers (50/125 and 62.5/125µm)
- cable versions: buffered fiber (ø 0.9 mm) cable (ø 3mm) duplex cable (2 x ø 3mm)
- thread coupling
- types of polishing: for SM fibers: PC, UPC, APC8°, for MM fibers: PC
- colour coding: PC, UPC: black bend protection APC: green bend protection
- brass connector housing (nickel plated) with ceramic ferrule
- brass adaptor housing (nickel plated) with ceramic sleeve, on SF version mounted using two M2 screws or on RF version using union nut
- meets IEC 874-7 and CECC 86115-802 AS/NZ 3080



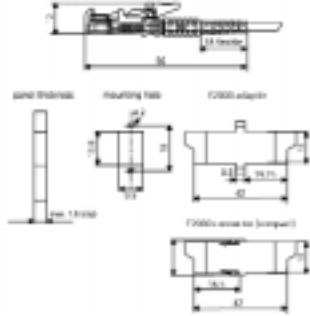
- insertion loss: <0.5dB  
typ. 0.2dB
- return loss: PC polishing: >40dB  
UPC polishing: >50dB  
APC polishing: >60dB
- service life: 1000 cycles (PC, APC)
- tensile strength: 100 N (cable)

**E2000**



**Applications:** - optical fiber networks for telecommunication applications  
-LAN, inhouse networks (Datacom)  
-measuring technology  
-cable TV

- can be mounted in rows, giving high packing density
- integrated dust and laser protection
- mechanical or colour coding (optional)
- for SM fibers (9/125µm)
- cable versions: buffered fiber (ø 0.9 mm) cable (ø 3mm) duplex cable (2 x ø 3mm)
- due to push-pull locking mechanism easy-to-use
- types of polishing: PC, APC8°, APC: green housing
- colour coding: PC: blue housing, APC: green housing
- plastic connector housing with ceramic ferrule
- plastic adaptor housing with ceramic sleeve, mounted using – two M2 screws or metal clip, or – integrated plastic clip (= compact adaptor)

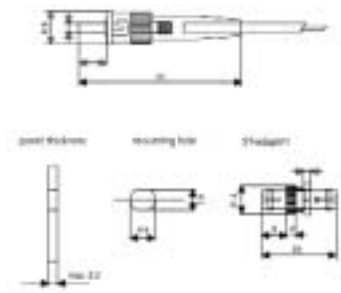


- meets CECC 86275-801 and –802 and FTZ TL 6060-3015
- insertion loss: < 0.5dB  
typ. 0.2dB
- return loss: PC polishing: >40dB  
APC polishing: >60dB
- service life: 1000 cycles
- tensile strength: 100N (cable)

**ST**

**Applications:** - LAN, inhouse networks, (Datacom), - computer peripherals

- compatible with AT&T-STII standard
- for MM fibers (50/125µm and 62.5/125µm)
- cable versions: buffered fiber (ø 0.9 mm) cable (ø 3mm) duplex cable (2 x ø 3mm)
- bayonet coupling, quick and easy-to-use
- types of polishing : PC
- Zinc diecast connector housing with ceramic ferrule
- Zinc diecast adaptor housing with ceramic sleeve, mounted using union nut
- meets IEC 874-10 and CECC BFOC/2.5

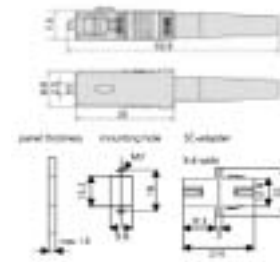


- insertion loss: <0.5dB  
typ.0.2dB
- service life: 1000 cycles (PC, APC)
- tensile strength: 100 N (cable)

**SC-MM**

**Applications:** - LAN, inhouse networks (Datacom) – computer peripherals

- can be mounted in rows, giving high packing density
- for MM fibers (50/125µm and 62.5/125µm)
- cable versions: buffered fiber (ø 0.9 mm) cable (ø 3mm) duplex cable (2 x ø 3mm)
- due to push-pull locking mechanism easy-to-use with high tensile strength
- types of polishing: PC
- colour coding: beige housing
- connector housing in plastic with ceramic ferrule
- adaptor housing in plastic with ceramic or phosphor bronze sleeve, mounted using two M2 screws or snap-in connection.
- meets EN 50173 and ANSI/TIA/EIA-568-A

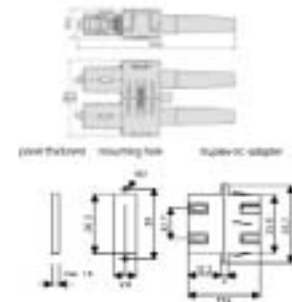


- insertion loss: <0.5dB  
type.0.2dB
- service life: 1000 cycles
- tensile strength: 100N (cable)

**SC-Duplex**

**Applications:** - LAN, inhouse networks (Datacom)

- can be mounted in rows, giving high packing density
- for MM fibers (50/125µm and 62.5/125µm)
- cable versions: duplex cable (2 x ø 3mm)
- due to push-pull locking mechanism easy-to-use with high tensile strength
- types of polishing: PC
- colour coding: beige housing
- connector housing in plastic with ceramic ferrule
- adaptor housing in plastic with ceramic or phosphor bronze sleeve, mounted using two M2 screws or snap-in connection.
- meets EN 50173 and ANSI/TIA/EIA-568-A



- insertion loss: <0.5dB  
type.0.2dB
- service life: 1000 cycles
- tensile strength: 100N (cable)

**MT-RJ**

**Applications:** - LAN, inhouse networks (Datacom)

- for MM fibers (50/125µm and 62.5/125µm)
- types of polishing: PC
- colour: dark gray
- connector housing in plastic with ceramic ferrule
- meets EN 186530 (draft) and ANSI/TIA/EIA-568-B, ISO/IEC 11801

- insertion loss: <0.5dB  
type.0.2dB
- service life: 1000 cycles
- tensile strength: 50N (cable)

### SM connections

The SM connector ferrules are offered with different types of polishing. Losses and reflections, which can occur in the connection, depend to a large degree on the form and the surface quality of the ferrule face. This in turn has a decisive influence on the signal transmission quality, especially in the case of high-rate digital as well as analogue transmission.

The following ferrule polishing types are characterised:

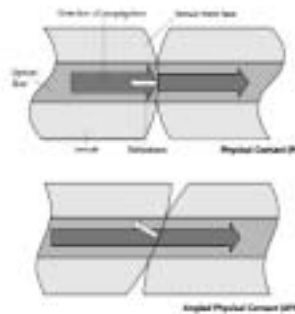
- **PC polishing (Physical Contact):**  
The convex form of the end surfaces ensures that there is no gap between the fiber ends and thus hardly any reflection. The ferrule end surfaces are pressed against each other, when connected inside the adaptor, so that the opposing fibers come into direct physical contact. Minimum return loss is 40 dB (SM fibres).
- **UPC polishing (Ultra Physical Contact):**  
In the case of UPC polishing, further polishing on the end surface achieves a minimum return loss of 50 dB (SM fibres).  
Only available for SC and FC.
- **APC polishing (Angled Physical Contact):**  
Further improvement of the return loss can be achieved by angled polishing technology. The convex end

surfaces of the plug pins are polished at an angle of 8° or 9° to the fiber axis. The resulting reflections are therefore led out of the fiber core, independent of whether the connection has been established (fiber fiber transmission).

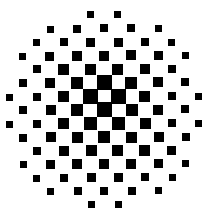
Minimum return loss is 60dB (SM cables).

### MM connections

On MM connectors, which are used almost exclusively in inhouse applications, reflections have no great influence on transmission quality. For this reason, MM connectors polishing are offered only with PC-MM.



Combination Possibilities:		SC-SM	FC	E2000	ST	SC-MM	SC-Duplex
<b>Fiber Type</b>	SM (9/125µm)	✓	✓	✓	✓		
	MM (GI, 50/125µm)		✓	✓	✓	✓	✓
	MM (GI, 62.5/125µm)		✓	✓	✓	✓	✓
<b>Cable</b>	Buffered fiber (ø 0.9mm)	✓	✓	✓	✓	✓	
	Cable (ø 3mm)	✓	✓	✓	✓	✓	
	Duplex cable (2 x ø 3mm)	✓	✓	✓	✓	✓	✓
<b>Polishing</b>	PC-MM				✓	✓	✓
	PC-SM (RL > 40dB)	✓	✓	✓	✓		
	UPC (RL > 50dB)	✓	✓				
	APC8° (RL > 60dB)	✓	✓	✓			
	APC9° (RL > 55dB)	✓					



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