

SUN CONEC
-Singapore & Malaysia-

Zirconiaceramic ferrule



Make Connections Much Simpler

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SC/UPC ZIRCONIA FERRULE

SPECIFICATION

DESCRIPTION	SM	MM
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0005$	$\Phi 2.499 \pm 0.0010$
Concentricity(mm)	≤ 0.0010	≤ 0.0040
Ferrule Length(mm)	10.5 ± 0.05	

CODE STANDARDS

SP-5363-05-FP

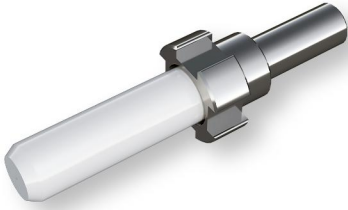
TYPE		ID Range(μm)		Concentricity		Flange	
SP	SC/PC	5055	125.0-125.5	03	0.3 μm	FP	SC/PC Flange
		5257	125.2-125.7	05	0.5 μm	☒	Without Flange
		5363	125.3-126.3	10	1.0 μm		
		5565	125.5-126.5	14	1.4 μm		
		6070	126.0-127.0	40	4.0 μm		
		6090	126.0-129.0				

Note: Customized flange slot width and length are available upon request.

Performance:

- The product complies with RoHS requirements.
- Salt mist resistance:
48h salt mist test duration $\leq 168\text{h}$ (IEC 61300-2-26)
- Ferrule hardness: $> 1200\text{HV}$
- Ferrule density: $\geq 6.0 \text{ g/cm}^3$
- Ferrule bending strength: $> 1200 \text{ MPa}$
- Ferrule-to-tailstock retention: $> 7\text{kgf}$
- The ferrule passed the 85°C/85% RH test for 2000 hours
- The ferrule passed the aging test at 140°C for 24 hours

SC/UPC Ferrule With Flange



SC/UPC Ferrule



SC/APC ZIRCONIA FERRULE

SPECIFICATION

DESCRIPTION	SM	MM
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0005$	$\Phi 2.499 \pm 0.0010$
Concentricity(mm)	≤ 0.0010	≤ 0.0040
Ferrule Length(mm)	10.5 ± 0.05	
Bevel angle degree($^{\circ}$)	$30^{\circ}/35^{\circ}/45^{\circ}$	

CODE STANDARDS

SA-5363-05-FA

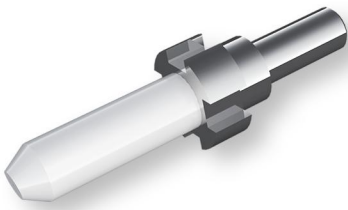
TYPE		ID Range(μm)		Concentricity		Flange	
SA	SC/APC	5055	125.0-125.5	03	0.3 μm	FA	SC/APC Flange
		5257	125.2-125.7	05	0.5 μm	☒	Without Flange
		5363	125.3-126.3	10	1.0 μm		
		5565	125.5-126.5	14	1.4 μm		
		6070	126.0-127.0	40	4.0 μm		
		6090	126.0-129.0				

Note: Customized flange slot width and length are available upon request.

Performance:

- The product complies with RoHS requirements.
- Salt mist resistance:
48h salt mist test duration $\leq 168\text{h}$ (IEC 61300-2-26)
- Ferrule hardness: $> 1200\text{HV}$
- Ferrule density: $\geq 6.0 \text{ g/cm}^3$
- Ferrule bending strength: $> 1200 \text{ MPa}$
- Ferrule-to-tailstock retention: $> 7\text{kgf}$
- The ferrule passed the 85°C/85% RH test for 2000 hours
- The ferrule passed the aging test at 140°C for 24 hours

SC/APC Ferrule With Flange



SC/APC Ferrule



SC/APC (STEP) ZIRCONIA FERRULE

SPECIFICATION

DESCRIPTION	SM	MM
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0005$	$\Phi 2.499 \pm 0.0010$
Concentricity(mm)	≤ 0.0010	≤ 0.0040
Ferrule Length(mm)	10.5 ± 0.05	

CODE STANDARDS

ST-5363-05-FA

SC/STEP Ferrule With Flange

TYPE	ID Range(μm)	Concentricity	Flange
ST SC/APC (STEP)	5055 125.0-125.5	03 0.3 μm	FA SC/APC Flange
	5257 125.2-125.7	05 0.5 μm	☒ Without Flange
	5363 125.3-126.3	10 1.0 μm	
	5565 125.5-126.5	14 1.4 μm	
	6070 126.0-127.0	40 4.0 μm	
	6090 126.0-129.0		

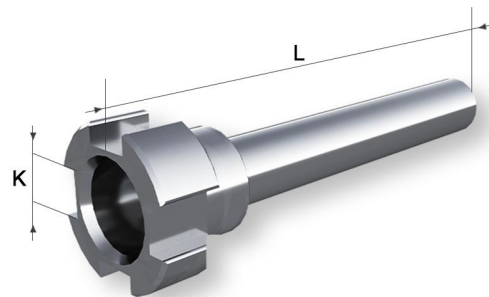
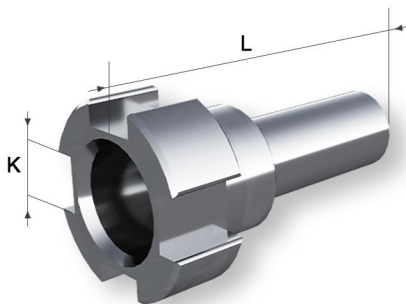
Note: Customized flange slot width and length are available upon request.

Performance:

- The product complies with RoHS requirements.
- Salt mist resistance:
48h salt mist test duration $\leq$ 168h (IEC 61300-2-26)
- Ferrule hardness: $> 1200\text{HV}$
- Ferrule density $\geq 6.0 \text{ g/cm}^3$
- Ferrule bending strength: $> 1200 \text{ MPa}$
- Ferrule-to-tailstock retention $> 7\text{kgf}$
- The ferrule passed the $85^\circ\text{C}/85\% \text{ RH}$ test for 2000 hours
- The ferrule passed the aging test at 140°C for 24 hours

SC/APC (STEP) Ferrule

SC FERRULE FLANGE



L=Length Parameter K=Aperture Parameter

SC Flange Dimensional Specifications

K	L	8.05 (mm)	15.4 (mm)
$1.27^{+0.05}_0$ (mm)		FS	FSL
$1.30^{+0.05}_0$ (mm)		FN	FNL
1.35 ± 0.05 (mm)		FA	FAL
$1.50^{+0.1}_0$ (mm)		FP	FPL

Notes:

- The Flange length and slot width can be customized according to customer requirements.
- The Flange material can be selected as nickel-plated Copper or SUS303Cu.

LC ZIRCONIA FERRULE

SPECIFICATION

DESCRIPTION	SM	MM
Material	Zirconia	
Outer Diameter(mm)	$\Phi 1.249 \pm 0.0005$	
Concentricity(mm)	≤ 0.0010	≤ 0.0040
Ferrule Length(mm)	$6.4^{+0.1}_0$	

CODE STANDARDS

LC-5363-03-FL

TYPE	ID Range(μ m)	Concentricity	Flange
LC LC Ferrule	5055 125.0-125.5	03 0.3 μ m	FL LC Ferrule With Flange
	5257 125.2-125.7	05 0.5 μ m	FLK LC Ferrule With Slotted Flange
	5363 125.3-126.3	10 1.0 μ m	☒ Without Flange
	5565 125.5-126.5	14 1.4 μ m	
	6070 126.0-127.0	40 4.0 μ m	
	6090 126.0-129.0		

Note: Customized flange slot width and length are available upon request.

Performance:

- The product complies with RoHS requirements.
- Salt mist resistance:
48h salt mist test duration $\leq$ 168h (IEC 61300-2-26)
- Ferrule hardness: $> 1200\text{HV}$
- Ferrule density $\geq 6.0 \text{ g/cm}^3$
- Ferrule bending strength: $> 1200 \text{ MPa}$
- Ferrule-to-tailstock retention $> 5\text{kgf}$
- The ferrule passed the $85^\circ\text{C}/85\% \text{ RH}$ test for 2000 hours
- The ferrule passed the aging test at 140°C for 24 hours

LC Ferrule With Flange

LC Ferrule With Slotted Flange

LC Ferrule

MU ZIRCONIA FERRULE

SPECIFICATION

DESCRIPTION	SM	MM
Material	Zirconia	
Outer Diameter(mm)	$\Phi 1.249 \pm 0.0005$	$\Phi 1.249 \pm 0.001$
Concentricity(mm)	≤ 0.0010	≤ 0.0040
Ferrule Length(mm)	$6.4^{+0.1}_0$	

CODE STANDARDS

MU-5363-05-FM

TYPE	ID Range(μ m)	Concentricity	Flange
MU MU Ferrule	5055 125.0-125.5	03 0.3 μ m	FM MU Ferrule With Flange
	5257 125.2-125.7	05 0.5 μ m	FML MU Ferrule With Slotted Flange
	5363 125.3-126.3	10 1.0 μ m	
	5565 125.5-126.5	14 1.4 μ m	
	6070 126.0-127.0	40 4.0 μ m	
	6090 126.0-129.0		

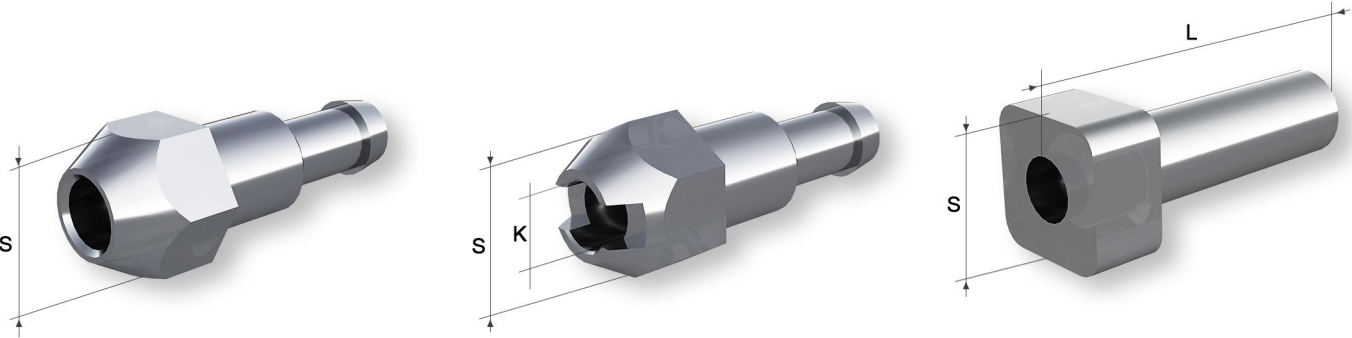
Note: Customized flange slot width and length are available upon request.

Performance:

- The product complies with RoHS requirements.
- Salt mist resistance:
48h salt mist test duration $\leq$ 168h (IEC 61300-2-26)
- Ferrule hardness: $> 1200\text{HV}$
- Ferrule density $\geq 6.0 \text{ g/cm}^3$
- Ferrule bending strength: $> 1200 \text{ MPa}$
- Ferrule-to-tailstock retention $> 5\text{kgf}$
- The ferrule passed the $85^\circ\text{C}/85\% \text{ RH}$ test for 2000 hours
- The ferrule passed the aging test at 140°C for 24 hours

MU Ferrule With Flange

LC FERRULE FLANGE



L=Length Parameter S=Flat-to-flat dimension

LC Flange Dimensional Specifications

sK		Non-Slotted	Slotted (K=0.79mm)
2.54±0.05 (mm)		FL	FLK
2.65±0.05 (mm)		FW	FWK

MU Flange Dimensional Specifications

sL		5.5mm	7mm
2.78 ^{+0.1} _{0.05} (mm)		FM	FML
2.6 ^{+0.1} _{0.05} (mm)		FU	FUL

Notes:

- 1、 The tail handle length and slot width can be customized according to customer requirements.
- 2、 The tail handle material can be selected as nickel-plated Copper or SUS303Cu.

PREMIUM

Performance:

- Attenuation grade of Grade B (untuned): $\leq 0.12\text{dB}$ mean, $\leq 0.25\text{dB}$ max, for $\geq 97\%$ of the connections.

SPECIFICATION

DESCRIPTION	SC	LC
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0003$	$\Phi 1.249 \pm 0.0003$
Concentricity(mm)	≤ 0.0005	
Ferrule Length(mm)	10.5 ± 0.05	$6.4^{+0.1}_0$

Note: 1. The premium ferrule maintains $\leq 0.3\mu\text{m}$ concentricity for $200\mu\text{m}$ fiber cores, achieving ultra-precision alignment standards.
 2. Grade B is defined in IEC 61753-1.

SUPER PREMIUM

Performance:

- Attenuation grade of Grade B: $\leq 0.07\text{dB}$ mean, $\leq 0.15\text{dB}$ max, for $\geq 97\%$ of the connections.

SPECIFICATION

DESCRIPTION	SC	LC
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0002$	$\Phi 1.249 \pm 0.0002$
Concentricity(mm)	≤ 0.0003	
Ferrule Length(mm)	10.5 ± 0.05	$6.4^{+0.1}_0$

Note: 1. The super premium ferrule maintains $\leq 0.3\mu\text{m}$ concentricity for $200\mu\text{m}$ fiber cores, achieving ultra-precision alignment standards.
 2. Grade A* is not defined in IEC standards.

ULTRA PREMIUM

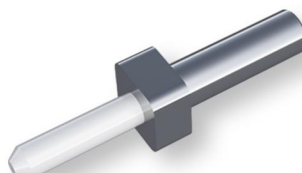
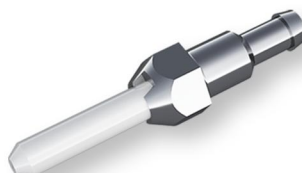
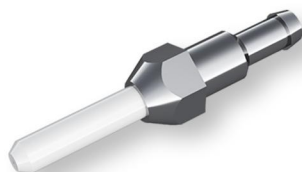
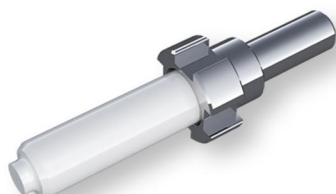
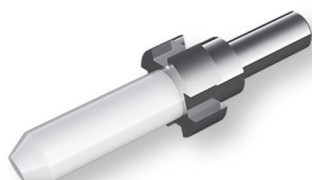
Performance:

- Attenuation grade of Grade B: $\leq 0.05\text{dB}$ mean, $\leq 0.10\text{dB}$ max, for $\geq 97\%$ of the connections.

SPECIFICATION

DESCRIPTION	SC	LC
Material	Zirconia	
Outer Diameter(mm)	$\Phi 2.499 \pm 0.0002$	$\Phi 1.249 \pm 0.0002$
Concentricity(mm)	≤ 0.00015	
Ferrule Length(mm)	10.5 ± 0.05	$6.4^{+0.1}_0$

Note: 1. The ultra premium ferrule maintains $\leq 0.15\mu\text{m}$ concentricity for $200\mu\text{m}$ fiber cores, achieving ultra-precision alignment standards.
 2. Grade A*+ is not defined in IEC standards.



CUSTOMIZED FERRULE



Concentricity at both ends



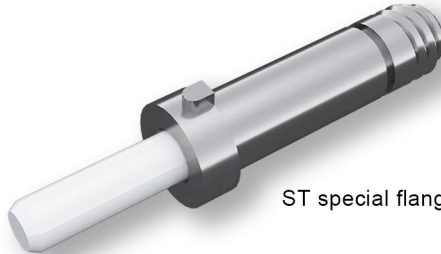
Special APC chamfer (45°)



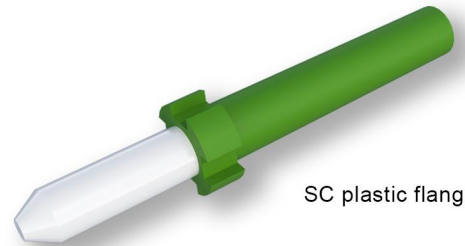
Slotted ferrule



SC ferrule with special length



ST special flange



SC plastic flange



Grooved ferrule



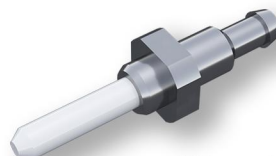
LC ferrule with special length



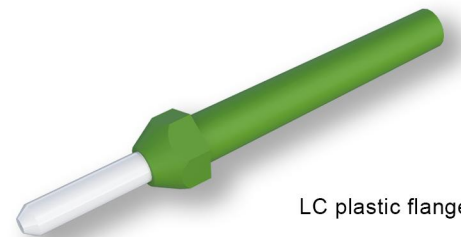
Black LC Ferrule



LC special flange



MU special flange



LC plastic flange

Outer diameter	0.18mm-3.0mm
Inner diameter	50μm-500μm
Concentricity	minimum 0.15μm
Slotting	a variety of customized sizes
Chamfering	a variety of customized sizes
Length	2.0mm-13mm

Note: Inner diameter tolerance: $\pm 0.5\mu\text{m}$ (default), customizable based on customer's fiber outer diameter.



Aerospace



Medical



Data Center



FTTX systems



Test Equipment

STANDARD SLEEVES

SPECIFICATION

DESCRIPTION	ST	SC	LC
Material	Zirconia		
Withdrawal Force (gf)	200-600		100-250
Insertion Loss	Max 0.5dB, 0.1dB typical or better		
Durability	<0.02dB deviation after 1000 matings & temp cycling		
Outer Diameter (mm)	3.2±0.02		1.62±0.01
Inner Diameter (mm)	(2.49)		(1.246)
Length (mm)	10.1±0.1	11.4±0.1	6.8 ⁰ _{-0.1}
Slit Width (mm)	Max 0.5 ± 0.01		Max 0.2 ± 0.01
Chamfer	2 x R0.1		

Note: For Zirconia Sleeves ST, SC, FC, LC and MU.

Performance:

- Zirconia sleeves and tubes are precision manufactured according to strict quality and performance standards. They are available for singlemode and multimode applications. Reliable mating is assured with strictly controlled.
- Dimensions and withdrawal force. Standard styles for FC include SC, FC, ST, D4, LC and MU, with custom designs also available. Diagonal split sleeves are available for superior durability requirements. Tubes are also available.

CODE STANDARDS

ZRS-25-101

SLEEVE CODE	INNER DIAMETER	LENGTH
ZRS Straight Split Sleeve	25 (2.49)mm	101 10.1mm ST
		114 11.4mm SC & FC

- Note:** 1. Outer diameter and inner diameter dimensions are for reference only and should be adjusted to the required withdrawal force as specified.
 2. Custom configurations and dimensions are available upon request.

ZRS-12-680

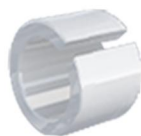
SLEEVE CODE	INNER DIAMETER	LENGTH
ZRS Straight Split Sleeve	12 (1.25)mm	680 6.8mm for LC/MU

- Note:** 1. Outer diameter and inner diameter dimensions are for reference only and should be adjusted to the required withdrawal force as specified.
 2. Custom configurations and dimensions are available upon request.

NON STANDARD SLEEVES



SC Non-Standard Sleeve, 5.0mm



SC Non-Standard Sleeve, 2.5mm



LC Non-Standard Sleeve, 4.9mm



LC Non-Standard Sleeve, 4.5mm



LC Non-Standard Sleeve, 4.0mm

MT ZIRCONIA FERRULE

Fiber Type:Single-Mode Elite



MT Ferrule with boot, 12F, Single-mode,
MT Elite, Pre-Angled, Dimple



MT Ferrule with boot, 24F, Single-mode,
MT Elite, Pre-Angled, Dimple, 9.8N



MT Ferrule with boot, 24F, Single-mode,
MT Elite, Pre-Angled, Dimple, 9.8N

Performance:

- ≤ 12Fibers per row
- 0.7mm guide pins; 4.6mm guide pin pitch
- High Density; fiber pitch: 0.25mm
- Highly glass filled for dimensional stability and stable environmental performance
- Low hygroscopic PPS material for stable environmental performance
- Low insertion loss optimized for 40G, 100G and 400G link applications
- Standards Compliance IEC 61754-5
- Standards Compliance IEC 61754-7-1; 61754-7-2
- Standards Compliance TIA 604-5



MT Ferrule with boot, 12F, Single-mode,
Pre-Angled, 80 um

Fiber Type:Single-Mode

Performance:

- ≤ 12Fibers per row
- 0.7mm guide pins; 4.6mm guide pin pitch
- High Density; fiber pitch: 0.25mm
- Highly glass filled for dimensional stability and stable environmental performance
- Low hygroscopic PPS material for stable environmental performance
- Low insertion loss optimized for 40G, 100G and 400G link applications
- Standards Compliance IEC 61754-5
- Standards Compliance IEC 61754-7-1; 61754-7-2
- Standards Compliance TIA 604-5

Fiber Type:Multimode Elite



MT Ferrule with boot, 12F, Multimode,
MT Elite, Dimple



MT Ferrule with boot, 12F, Multimode,
MT Elite, Dimple

Performance:

- ≤ 12Fibers per row
- 0.7mm guide pins; 4.6mm guide pin pitch
- High Density; fiber pitch: 0.25mm
- Highly glass filled for dimensional stability and stable environmental performance
- Low hygroscopic PPS material for stable environmental performance
- Low insertion loss optimized for 40G, 100G and 400G link applications
- Standards Compliance IEC 61754-5
- Standards Compliance IEC 61754-7-1; 61754-7-2
- Standards Compliance TIA 604-5

Fiber Type:Multimode Elite



MT Ferrule with boot, 48F, Multimode, PPS



MT Ferrule, 72F, Multimode, PPS

Performance:

- ≤ 12Fibers per row
- 0.7mm guide pins; 4.6mm guide pin pitch
- High Density; fiber pitch: 0.25mm
- Highly glass filled for dimensional stability and stable environmental performance
- Low hygroscopic PPS material for stable environmental performance
- Low insertion loss optimized for 40G, 100G and 400G link applications
- Standards Compliance IEC 61754-5
- Standards Compliance IEC 61754-7-1; 61754-7-2
- Standards Compliance TIA 604-5

SUN CONEC

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Sale and Service

"Integrity in Sales, Excellence in Service."

Trust is the foundation of our growth. By prioritizing superior quality and responsive service, we build lasting relationships with our clients.

Our unwavering commitment:

"To cooperate sincerely and share prosperity with all partners."

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