

# Fiber Optic Mating Sleeve Adapters

**Description**

Wirewerks™ fiber optic mating sleeve adapters allow users to interconnect and precisely align two connectors of same interface and same gender. Their precise alignment mechanisms provide flawless contact between connectors' end face, and mating sleeves are manufactured with phosphorus bronze or zirconia ceramic, depending on network requirements, to uphold the level of desired performance.

**Features and Benefits**

Low insertion loss to minimize impact of loss budgets

Precise alignment for a reliable glass-to-glass contact

High repeatability to ensure durable multi-mating applications

Manufactured with high performance component materials

**Applications**

Data center

Fiber-to-the-home (FTTH)

Test facilities and instruments

Central office

Cellular tower base station

Telecommunications room

Equipment room

Consolidation point

**Certification and Compliance**

GR-326-CORE

ANSI/TIA-568-C.3

TIA-604 series

TIA-455 series

IEC 60874-1

IEC 61300 series

UL 94

RoHS

Generic Requirements for Single Mode Optical Connectors and Jumper Assemblies.

Optical Fiber Cabling Components Standard.

Fiber Optic Connector Intermateability Standard.

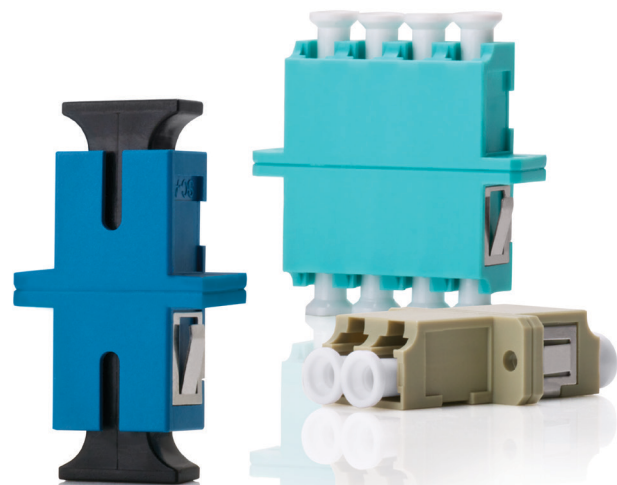
Standard Test Procedure for Fiber Optic Components.

Connectors for Optical Fibers and Cables, Generic Standard.

Fiber Optic Interconnecting Devices and Passive Components, Basic Test and Measurement Procedures.

Tests for Flammability of Plastic Material for Parts in Devices and Appliances.

Directive on Restriction of Hazardous Substances.



# Fiber Optic Mating Sleeve Adapters

wirewerks



LC single mode simplex  
**MS-LC1SS**



LC APC single mode simplex  
**MS-LC1AS**



LC multimode simplex  
**MS-LC2MS**



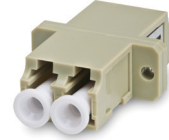
LC OM3/OM4 multimode simplex  
**MS-LC23S**



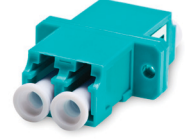
LC single mode duplex  
with SC footprint flanged  
**MS-LC1SF**



LC APC single mode duplex  
with SC footprint flanged  
**MS-LC1AF**



LC multimode duplex  
with SC footprint flanged  
**MS-LC2MF**



LC OM3/OM4 multimode duplex  
with SC footprint flanged  
**MS-LC13F**



LC single mode quad  
with SC duplex footprint flanged  
**MS-LC1SQ**



LC APC single mode quad  
with SC duplex footprint flanged  
**MS-LC1AQ**



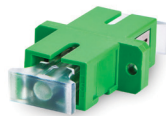
LC multimode quad  
with SC duplex footprint flanged  
**MS-LC2MQ**



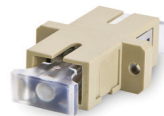
LC OM3/OM4 multimode quad  
with SC duplex footprint flanged  
**MS-LC23Q**



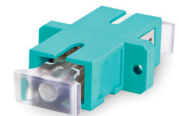
SC single mode simplex flanged  
**MS-SC1SSP1**



SC APC single mode simplex flanged  
**MS-SC1ASP1**



SC multimode simplex flanged  
**MS-SC2MSP1**



SC OM3/OM4 multimode  
simplex flanged  
**MS-SC23SP1**



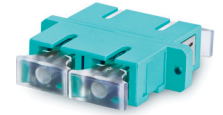
SC single mode duplex flanged  
**MS-SC1SDP1**



SC APC single mode duplex flanged  
**MS-SC1ADP1**



SC multimode duplex flanged  
**MS-SC2MDP1**



SC OM3/OM4 multimode  
duplex flanged  
**MS-SC23DP1**

# Fiber Optic Mating Sleeve Adapters

wirewerks



FC single mode D-shape  
**MS-FC1DS1**



FC single mode square solid body  
**MS-FC1SB1**



ST single mode simplex  
**MS-ST1SSM**



ST multimode simplex  
**MS-ST2MSM**



FC APC single mode D-shape  
**MS-FC1DS3**



FC APC single mode square solid body  
**MS-FC1SB3**



ST single mode duplex  
**MS-ST1SDP**



ST multimode duplex  
**MS-ST2MDP**



FC multimode D-shape  
**MS-FC2DS2**



FC multimode square solid body  
**MS-FC2SB2**



MTRJ single mode/multimode  
with SC footprint  
**MS-MTRJ**



MPO single mode/multimode  
flanged  
**MS-MPO**

## Other Options

We also offer a variety of Mating Sleeves as **Keywerks modules**, available in **LC, SC, ST**, as well as in different modes and colors. For more details, see our **Keywerks Catalogue** ref. **MBC-1108**.



ST simplex adapter  
KW-FNN-STZ-BK



LC duplex adapter  
KW-FM3-LCZ-BK



SC simplex adapter  
KW-FM3-SCZ-BK

# LC

LC Fiber Optic Mating Sleeve Adapter  
Part Number Builder

## MS - LC A BB

SLEEVE	BODY TYPE - SINGLE MODE		
	<b>1</b>	<b>SS</b>	<b>SF</b>
Zirconia Ceramic	Simplex Blue	Duplex Flanged Blue	Quad Flanged Blue
<b>2</b>	<b>AS</b>	<b>AF</b>	<b>AQ</b>
Phosphor Bronze	APC Simplex Green	APC duplex Flanged Green	APC Quad Flanged Green
BODY TYPE - MULTIMODE			
	<b>MS</b>	<b>MF</b>	<b>MQ</b>
	Simplex Beige	Duplex Flanged Beige	Quad Flanged Beige
	<b>3S</b>	<b>3F</b>	<b>3Q</b>
	OM3/OM4 Simplex Aqua	OM3/OM4 Duplex Flanged Aqua	OM3/OM4 Quad Flanged Aqua

# ST

ST Fiber Optic Mating Sleeve Adapter  
Part Number Builder

## MS - ST A BB C

SLEEVE	PERFORMANCE & CONFIGURATION		HOUSING
<b>1</b>	<b>SS</b>	<b>SD</b>	<b>P</b>
Zirconia Ceramic	Single Mode Simplex	Single Mode Duplex	Thermoplastic
<b>2</b>	<b>MS</b>	<b>MD</b>	<b>M</b>
Phosphor Bronze	Multimode Simplex	Multimode Duplex	Metal

# SC

SC Fiber Optic Mating Sleeve Adapter  
Part Number Builder

## MS - SC A BB C D

SLEEVE	BODY TYPE - SINGLE MODE		HOUSING	DESIGN
<b>1</b>	<b>SS</b>	<b>SD</b>	<b>P</b>	<b>0</b>
Zirconia Ceramic	Simplex Blue	Duplex SC footprint Blue	Thermoplastic	No Flange
<b>2</b>	<b>AS</b>	<b>AD</b>	<b>M</b>	<b>1</b>
Phosphor Bronze	APC Simplex Green	APC Duplex SC footprint Green	Metal	Flanged
<b>BODY TYPE - MULTIMODE</b>				
	<b>MS</b>	<b>MD</b>		
	Simplex Beige	Duplex Beige		
	<b>3S</b>	<b>3D</b>		
	OM3/OM4 Simplex Aqua	OM3/OM4 Duplex Aqua		

# FC

FC Fiber Optic Mating Sleeve Adapter  
Part Number Builder

## MS - FC A BB C

SLEEVE	DESIGN	HOUSING
<b>1</b>	<b>SB</b>	<b>1</b>
Zirconia Ceramic	Square Solid Body	Single Mode
<b>2</b>	<b>TP</b>	<b>2</b>
Phosphor Bronze	Square 2-piece Body	Multimode
	<b>DS</b>	<b>3</b>
	D Shape	APC (Single Mode)



**TP**  
Square solid body

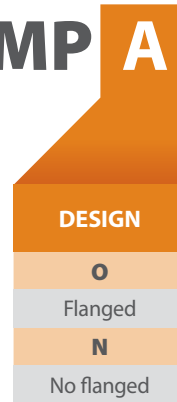
**SB**  
Square 2-piece body

**DS**  
D shape

# MPO

MPO Fiber Optic Mating Sleeve Adapter  
Part Number Builder

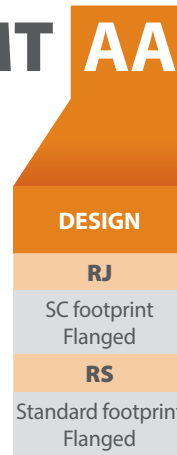
## MS - MP A



# MTRJ

MTRJ Fiber Optic Mating Sleeve Adapter  
Part Number Builder

## MS - MT AA



### Packaging

#### Description

Clear poly bag, 1 unit per bag.

### Physical Characteristics

Parameter	Value
Fiber count capacity	Simplex (1 fiber), duplex (2 fibers), and quad (4 fibers)
Plastic material	UL 94V-0 ABS high-impact thermoplastic

### Mechanical Characteristics

Parameter	Value
Operating temperature	-40° C (-40° F) ~ 75° C (167° F)
Storage temperature	-40° C (-40° F) ~ 85° C (185° F)
Temperature cycling	-40° C (-40° F) ~ 75° C (167° F), 40 cycles = 0.2 dB change
High temperature	70° C for 96 hours = <0.4 dB change
Mating durability	500 mating cycles (cleaning every 25 matings) = <0.2dB change
Damp heat	40° C (104° F) at 93% RH for 96 hours = <0.4 dB change

### Optical Performance

Parameter	Single Mode UPC	Single Mode APC	Multimode OM1	Multimode OM2	Multimode OM3
Insertion Loss	0.3 dB Max.	0.3 dB Max.	0.3 dB Max.	0.3 dB Max.	0.3 dB Max.
Return Loss	≤-55 dB	≤-65 dB	N.A	N.A	N.A

**Notes:** The optical performances of MPO/MTP and MTRJ mating sleeves are dependent on the connectors' alignment guide pins tolerance.

Optical performances of MTRJ mating sleeves are compliant with TIA-604-12.

Optical performances of MPO mating sleeves are compliant with TIA-604-5.

MPO/MTP and MTRJ are compliant with ANSI/TIA-568-C.3.