

Fibre Optic Connectors

and Adaptors Guide

About FibreFab

FibreFab[™]

Established in 1992, FibreFab is a leading provider of fibre optic connectivity products used in data communications and telecommunication networks. The company designs, develops, manufactures and sells fibre optic cabling, connectivity, management and systems solutions. It offers a broad range of products directly and through distributors, installers and OEM partners.

Customer Service

FibreFab's growth has been founded on quality products, rapid response and excellent customer service.

Quality

All products are manufactured in ISO9001:2000 certified facilities and conform to applicable international standards and FibreFab is dedicated to value and continuous improvement of all its products and services.

Global Logistics

With headquarters in Milton Keynes (UK), FibreFab has manufacturing activities in the UK, China and US. The Company has both volume and quick response manufacturing capabilities and is able to support the global logistics requirements of its customers. FibreFab provides customised and customer branded products for OEM customers.



OPTRONICS

In 1994 FibreFab acquired Optronics, a company with over 20 years experience in fibre optic manufacturing. Optronics products are available directly from FibreFab or from our worldwide distribution partners.

Wide Range

The Optronics fibre-optic cable range includes simplex, duplex and flat ribbon patchcords, tight buffered, single loose tube and multi loose tube distribution cables for internal and external applications as well as many variations of armoured, aerial, rodent resistant and water blocked cables.

Solutions

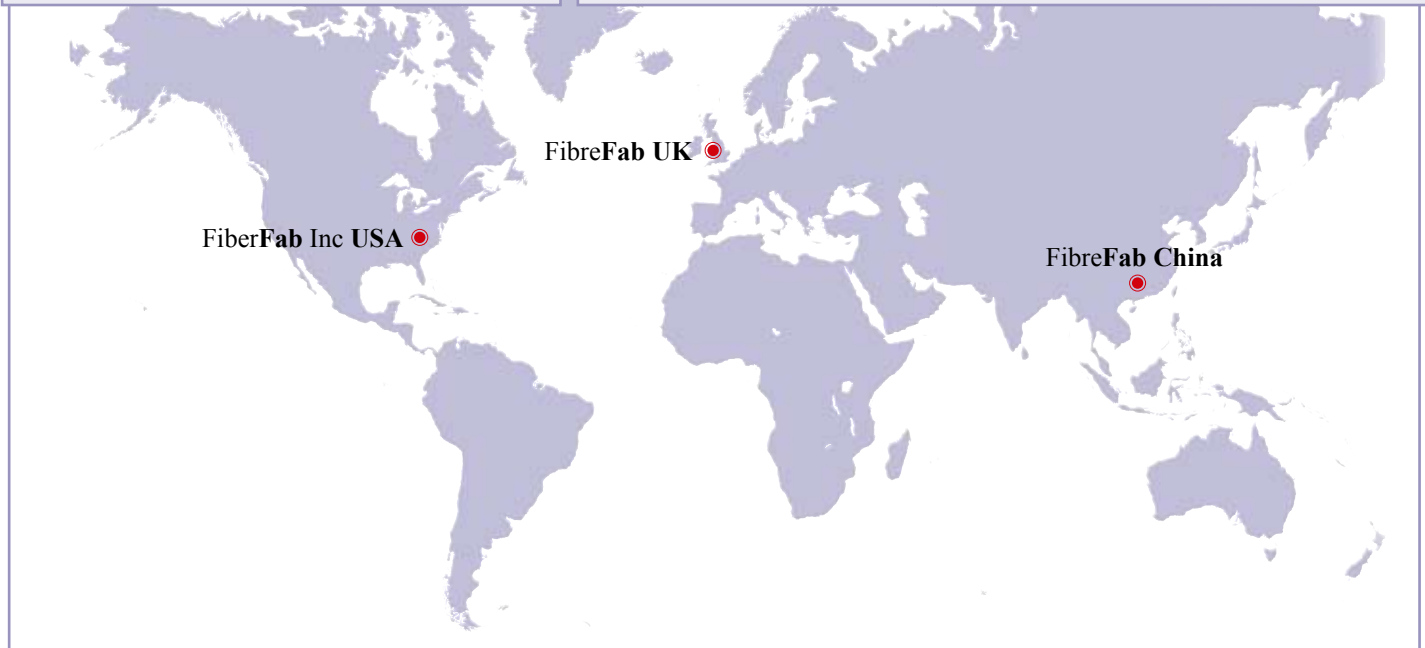
The FibreFab Optronics range has the solution for almost any application and can offer a cut to length service for specific fibre optic cables. Please call the sales team for more information.



UK Rapid Response & Production Facilities



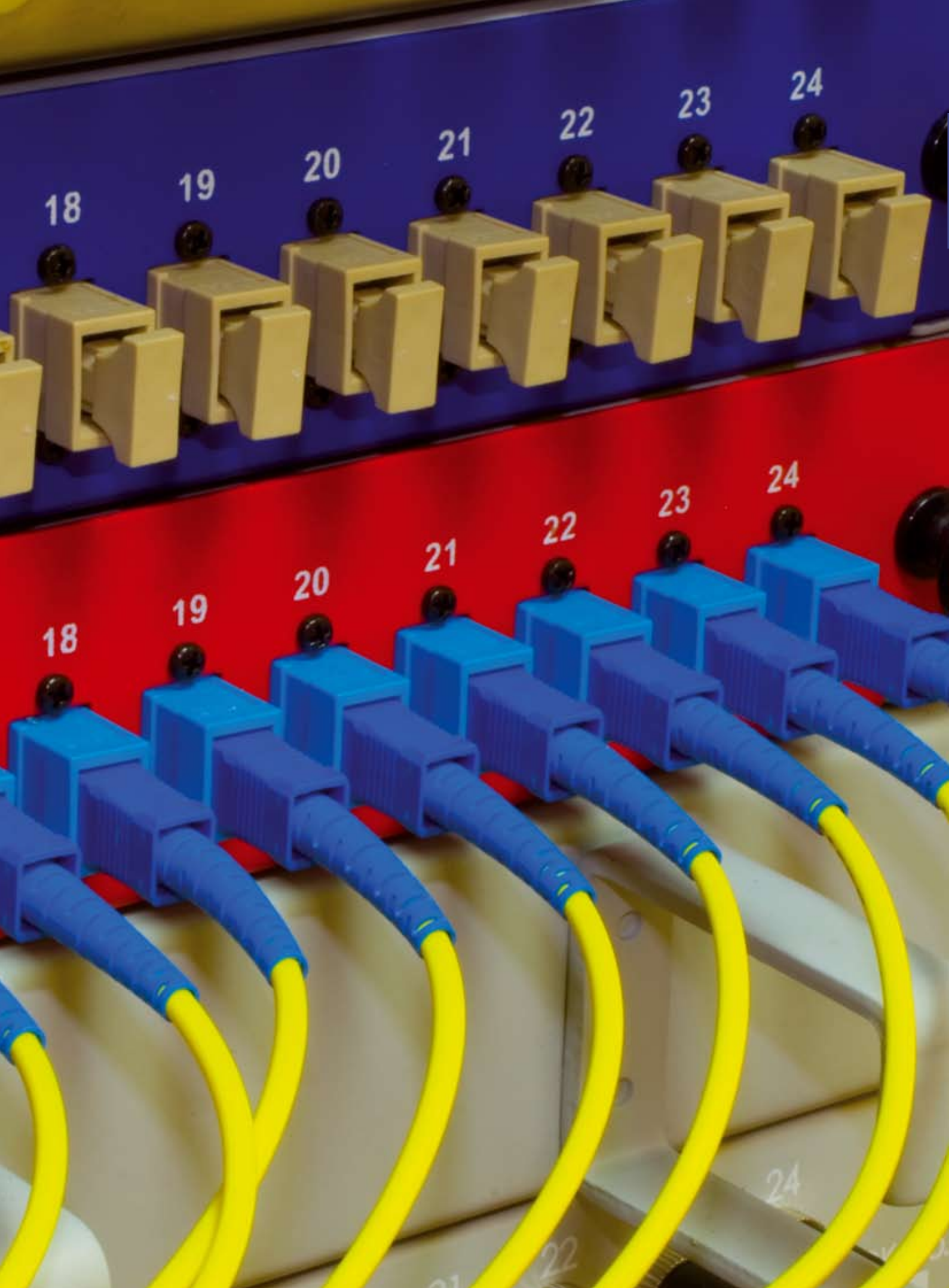
Chinese Production Facility



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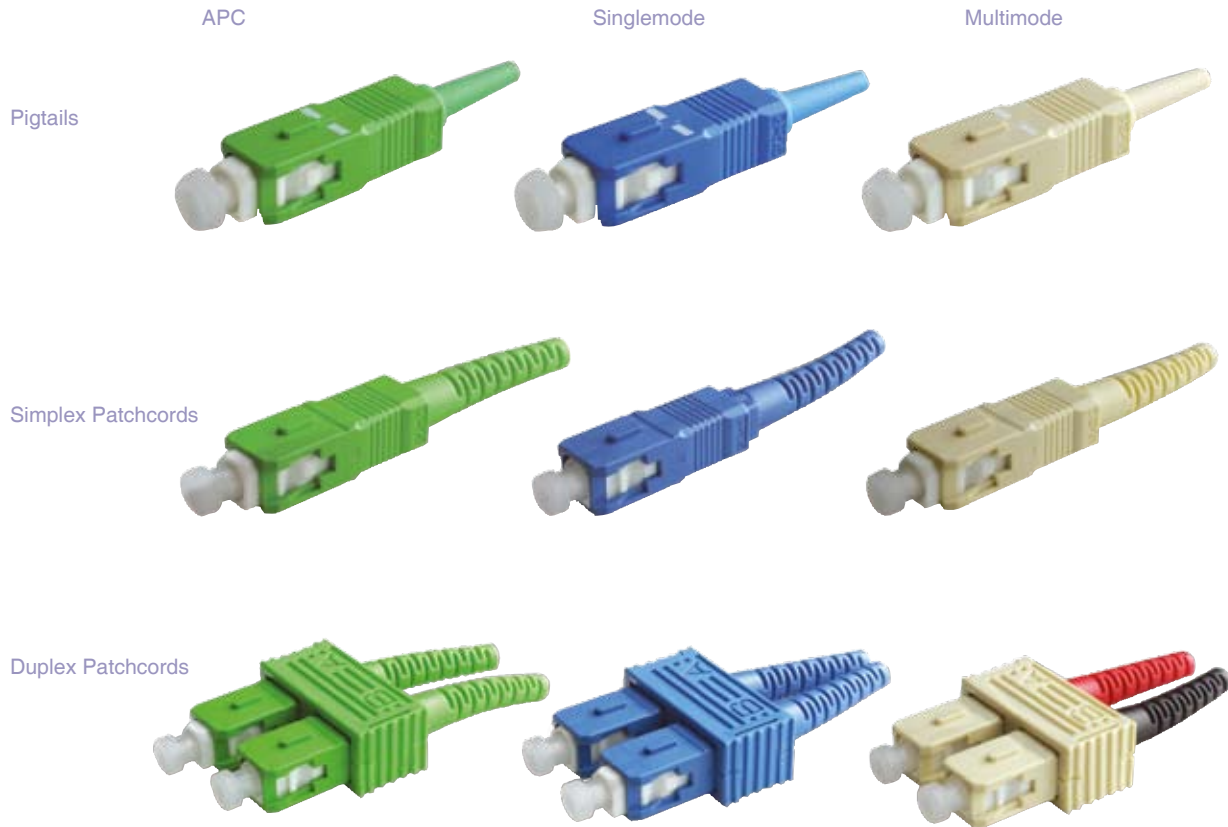




Connectors and Adaptors

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SC Connectors



FibreFab manufactures a range of SC connectors suitable for various applications.

SC connectors are used in most of the newer network applications and with less parts and a plastic body it offers an economical option. The SC connectors are available in singlemode for both PC and APC and in

multimode PC. The connectors come with standard FibreFab boots suitable for 900µm, 2mm and 3mm cable diameters.

The FibreFab SC connector is available in standard colours including blue, green and beige.

Features

- ▶ Complies with IEC 61754-4, IEC 60784-14 and TIA 604-3
- ▶ A push-pull coupling mechanism for easy insertion and consistent connection
- ▶ Zirconia ceramic ferrule with high end Ultra Physical Contact (UPC) finish
- ▶ Low insertion loss and back reflection
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in standard colours and standard packaging

Applications

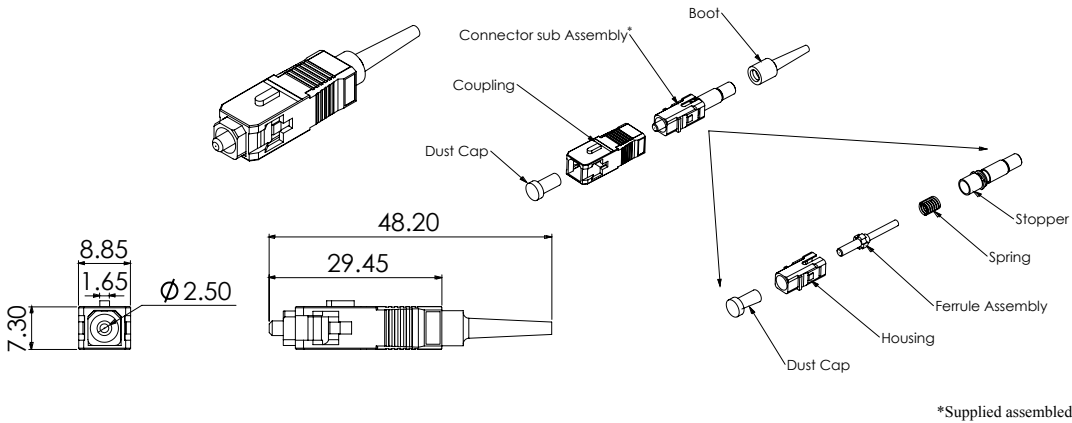
- ▶ Data centres, premise installations, telecommunication networks
- ▶ Ethernet, fibre channel, ATM, LAN, MAN and WAN

DO YOU KNOW?

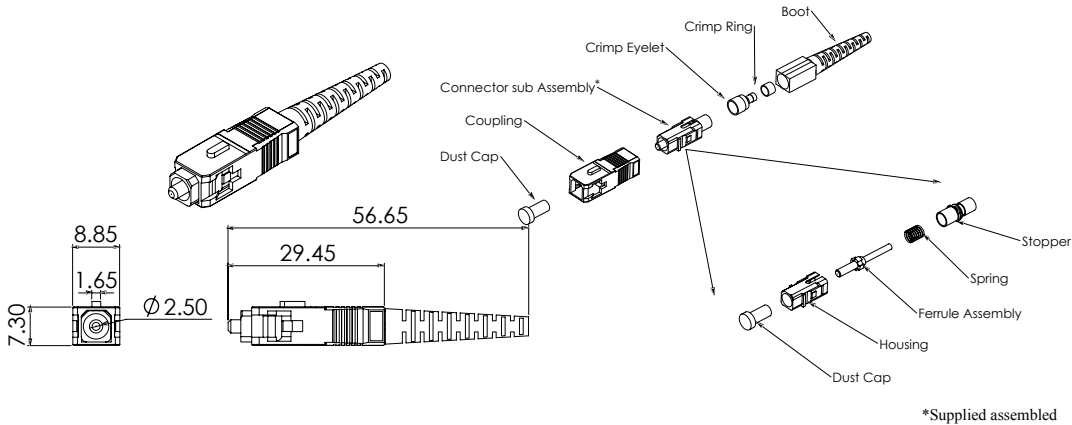
For data centre applications FibreFab can supply OM3 and OM4 products and bend insensitive fibre.

Technical Drawings

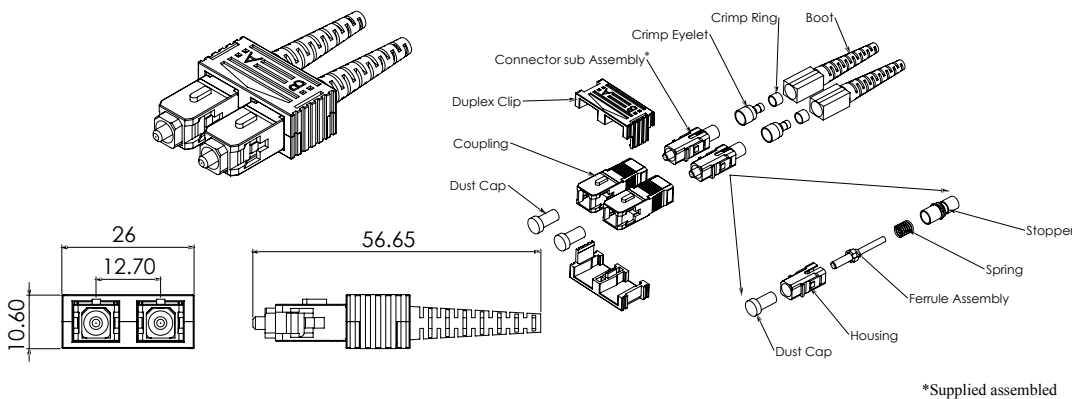
SC Pigtail Connector (900µm)



SC Simplex Connector (2mm / 3mm)



SC Duplex Connector (2mm / 3mm)



SC Connectors

Technical Specification

Mechanical Properties	Criteria	Effect	Conformance
Mechanical endurance	500 matings	<0.2 dB change	IEC 61300-2-2
Vibration	10-55Hz, 0.75 amplitude	<0.2 dB change	IEC 61300-2-1
Drop	Drop height 1m, 5 drops	<0.2 dB change	IEC 61300-2-12
Cable retention	Magnitude 90 N	<0.2 dB change	IEC 61300-2-4
Cable torsion	1.5kg - 2.5kg for 2mm-3mm cable diameter	<0.2 dB change	IEC 61300-2-5
Operating temperature	-25 to +70, 12 cycles	<0.2 dB change	IEC 61300-2-22
Cold	-25 for 96 hrs	<0.2 dB change	IEC 61300-2-17
Dry Heat	+70 for 96 hrs	<0.2 dB change	IEC 61300-2-18

SC connector PC and APC- Singlemode

Optical Performance	High Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.10 dB	0.15 dB	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.20 dB	0.30 dB	0.40 dB	IEC 61300-3-4
Ave/Master	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Ave/Random	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-34
Return Loss	55/70 dB	55/65 dB	55/65 dB	IEC 61300-3-6

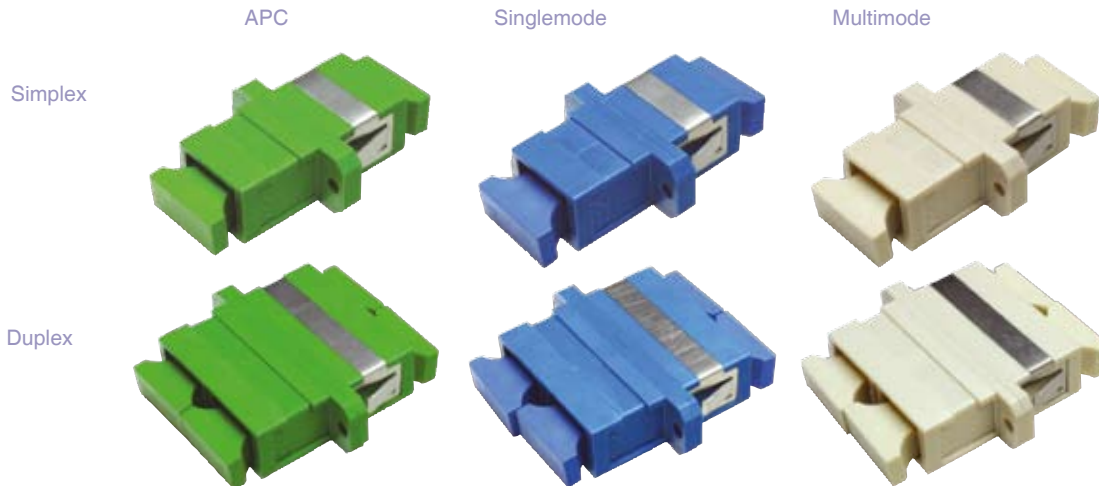
SC connector PC - Multimode

Optical Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.15 dB	0.30 dB	IEC 61300-3-4
Insertion loss (97%)	0.25 dB	0.40 dB	IEC 61300-3-4
Ave/Master	0.08 dB	0.15 dB	IEC 61300-3-4
Ave/Random	0.10 dB	0.20 dB	IEC 61300-3-4

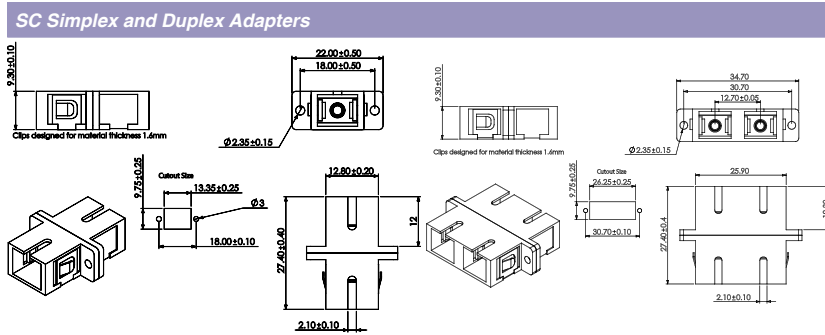
Ordering Information

		High Performance	Premium	Standard	
Singlemode					
PC	Simplex	900µm	SCSM9SMPX-H	SCSM9SMPX-P	SCSM9SMPX
		2mm	SCSM2SMPX-H	SCSM2SMPX-P	SCSM2SMPX
		3mm	SCSM3SMPX-H	SCSM3SMPX-P	SCSM3SMPX
	Duplex	2mm	SCSM2DPX-H	SCSM2DPX-P	SCSM2DPX
		3mm	SCSM3DPX-H	SCSM3DPX-P	SCSM3DPX
APC	Simplex	900µm	SCAPC.9MM-H	SCAPC.9MM-P	SCAPC.9MM
		2mm	SCAPC2MM-H	SCAPC2MM-P	SCAPC2MM
		3mm	SCAPC3MM-H	SCAPC3MM-P	SCAPC3MM
	Duplex	2mm	SCAPC2DPX-H	SCAPC2DPX-P	SCAPC2DPX
		3mm	SCAPC3DPX-H	SCAPC3DPX-P	SCAPC3DPX
Multimode					
PC	Simplex	900µm	SCMM9SMPX-H	SCMM9SMPX-P	SCMM9SMPX
		2mm	SCMM2SMPX-H	SCMM2SMPX-P	SCMM2SMPX
		3mm	SCMM3SMPX-H	SCMM3SMPX-P	SCMM3SMPX
	Duplex	2mm	SCMM2DPX-H	SCMM2DPX-P	SCMM2DPX
		3mm	SCMM3DPX-H	SCMM3DPX-P	SCMM3DPX

SC Adaptors



Technical Drawings



Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability	-	500	IEC 61300-2-2
Receptacle Retention force	-	2N - 5.9N	IEC 61754-4
Operating temperature	-	-25 to +70, 12 cycles	IEC 61300-2-22

Ordering Information

Mode	Type	Colour	Part No.	
			Simplex	Duplex
SM	APC	GREEN	SCAPCUSGREEN	SCAPCUDGREEN
SM	PC	BLUE	SCUSZR02	SCUDZR02
MM	PC	BEIGE	SCUSPHBRBEIGE	SCUDPHBRBEIGE
MM	PC	AQUA	SCSMPXAQUA	SCDPXAQUA

FibreFab offers a range of high quality SC adaptors which have high precision alignment sleeves for reliability and improved reconnectability. For singlemode applications a ceramic sleeve is supplied to ensure a high precision alignment. For multimode applications a phosphor bronze sleeve is supplied. The housing is available in different colours with options for flange or flangeless body, metal clips or inbuilt clips

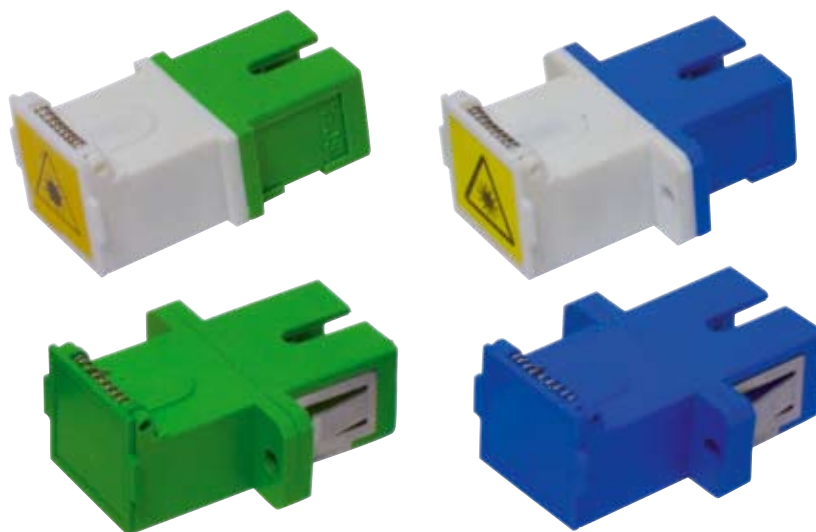
Features

- ▶ Complies with IEC 61754-4 and IEC 60784-14 standards
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and improved reconnectability
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in simplex and duplex adaptors
- ▶ SC simplex adaptors are available with a shutter (see page 8 for details)

Applications

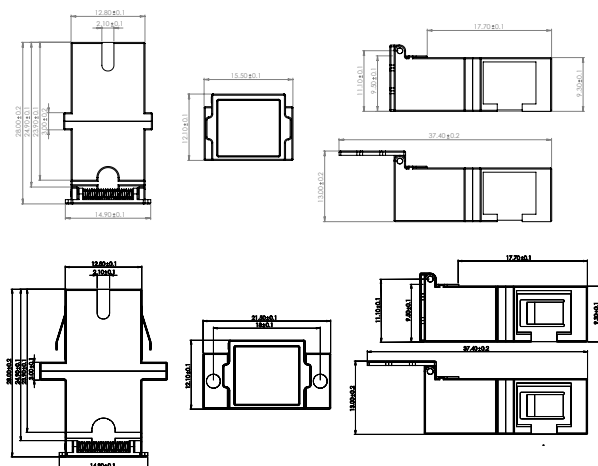
- ▶ Data centres, premise installations, telecommunication networks
- ▶ Ethernet, fibre channel, ATM, LAN, MAN and WAN

SC Shuttered Adaptors



Technical Drawings

SC Shuttered Adaptor



FibreFab SC shuttered adaptor integrates safety features suitable for FTTH and other telecom applications. It has a high precision zirconia alignment sleeve designed for high reliability and excellent reconnectability in all singlemode networks. It has a spring loaded plastic shutter for laser safety and dust protection. The shutter displays a warning label to indicate laser risk. The adaptors are available in standard colours and packaging.

Features

- ▶ Complies with IEC 61754-4, IEC 60784-14 and TIA 604-3
- ▶ High precision alignment sleeve
- ▶ High quality and durable shuttered adaptor
- ▶ Low insertion loss and high reconnectability
- ▶ RoHS, REACH SvHC
- ▶ Available in standard colours and standard packaging

Technical Specification

	Ceramic	Conformance
Insertion Loss (Typ)	0.1dB	IEC 61300-3-4
Mating Durability	500 matings	IEC 61300-2-2
Receptacle Retention force	2N - 5.9N	IEC 61754-4
Vibration Test	10 - 55Hz, 0.75 amplitude	IEC 61300-2-1
Drop test	Drop height 1m, 5 drops	IEC 61300-2-12
Operating temperature	IEC 61300-2-22	IEC 61300-2-22

Ordering Information

Please contact FibreFab sales department on +44 (0)870 127 3330 for part numbers and lead time.

FOR MORE INFORMATION CALL +44 (0)870 127 3330

Applications

- ▶ Specially designed for Fibre to the home applications
- ▶ Telecommunication networks
- ▶ CATV, LAN and WAN
- ▶ Broadband
- ▶ Indoor and outdoor applications

DO YOU KNOW?

FibreFab manufactures specialized boots suitable for flexible handling and mapping. For more information go to page 30

LC Connectors



The FibreFab LC connector is a small form factor fibre optic connector. The LC connector helps to reduce space on panels or outlets by 50%. It is cost effective as it simplifies movement, addition and modification. It uses the standard RJ-style telephone connector which gives an audible click upon engaging.

FibreFab manufactures a range of LC connectors suitable for various applications. The LC connector uses a 1.25mm ferrule which is half the diameter of the standard ferrule. The FibreFab LC connectors are available in singlemode for both PC and APC and in multimode PC. The connectors come with standard boots suitable for 900um and 2mm cable diameters. The connector are also available in simplex and duplex (with clips) options.

Features

- ▶ Complies with IEC 61754-20 and TIA 604-10-A
- ▶ Compact design based on RJ45 style interface
- ▶ Low insertion loss and back reflection
- ▶ Zirconia ceramic ferrule with high end PC finish
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in standard colours and standard packaging

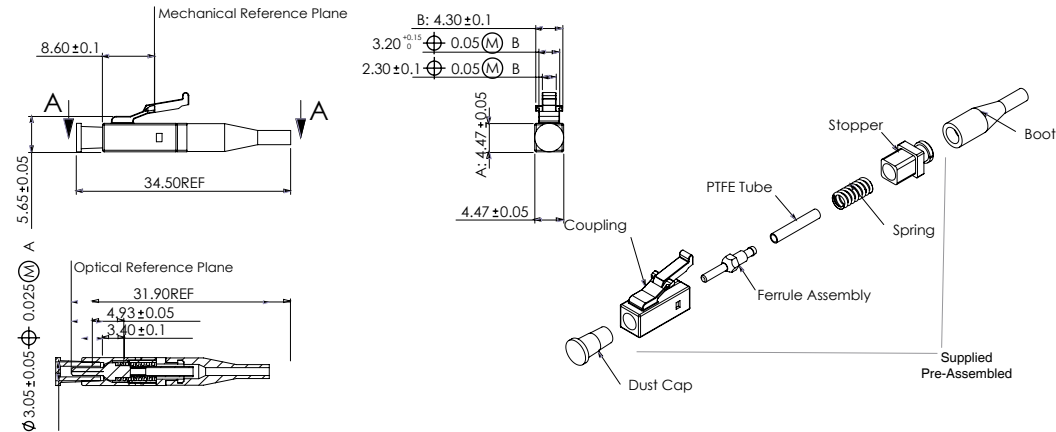
Applications

- ▶ Telecommunications networks
- ▶ CATV, LAN, MAN and WAN application
- ▶ Data processing networks
- ▶ Cable television
- ▶ Fibre-to-the-home
- ▶ Premises distribution

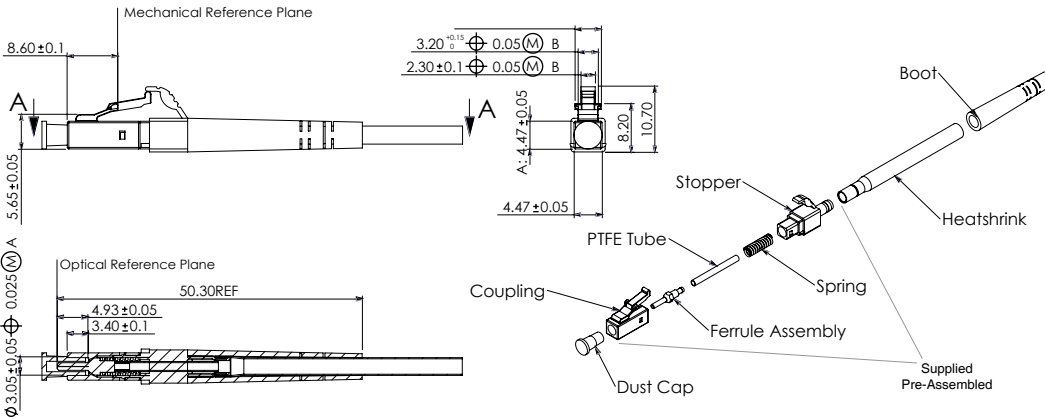
LC Connectors

Technical Drawings

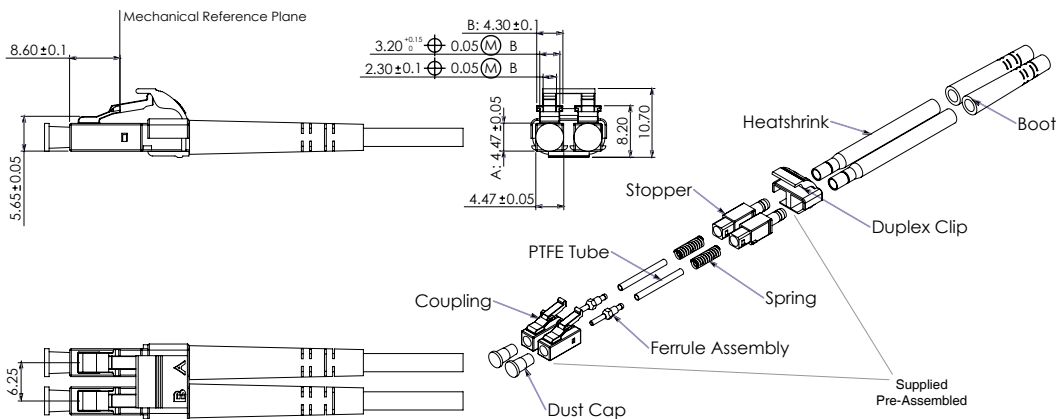
LC Pigtail Connector



LC Simplex Connector



LC Duplex Connector



Technical Specification

Mechanical Properties	Criteria	Effect	Conformance
Mechanical endurance	500 matings	<0.2 dB change	IEC 61300-2-2
Vibration	10-55Hz, 0.75 amplitude	<0.2 dB change	IEC 61300-2-1
Drop	Drop height 1m, 5 drops	<0.2 dB change	IEC 61300-2-12
Cable retention	Magnitude 90 N	<0.2 dB change	IEC 61300-2-4
Cable torsion	1.5kg -2.5kg for 2mm-3mm cable diameter	<0.2 dB change	IEC 61300-2-5
Operating temperature	-25 to +70, 12 cycles	<0.2 dB change	IEC 61300-2-22
Cold	-25 for 96 hrs	<0.2 dB change	IEC 61300-2-17
Dry Heat	+70 for 96 hrs	<0.2 dB change	IEC 61300-2-18

LC connector PC and APC- Singlemode

Optical Performance	High Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.10 dB	0.15 dB	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.20 dB	0.30 dB	0.40 dB	IEC 61300-3-4
Ave/Master	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Ave/Random	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Return Loss	55/70 dB	55/65 dB	55/65 dB	IEC 61300-3-6

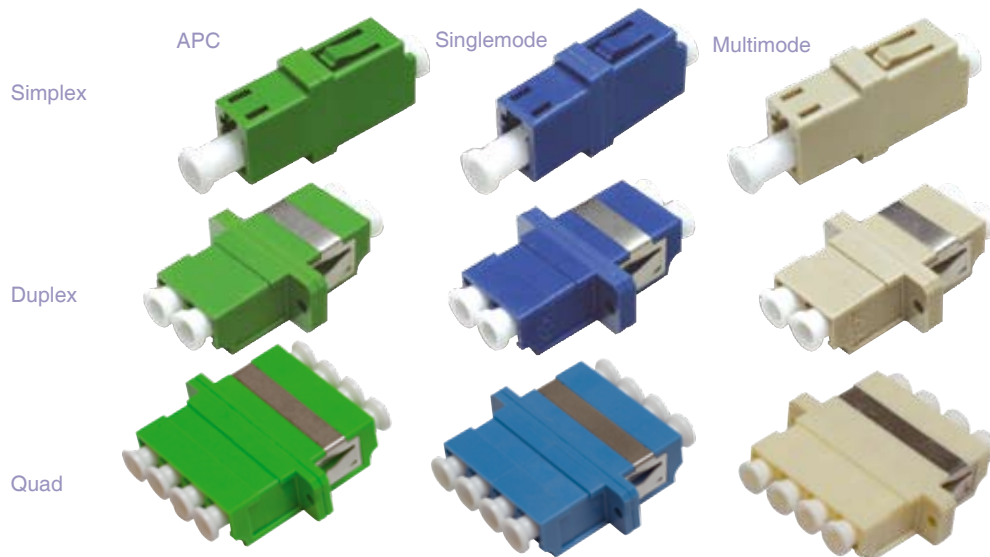
LC connector- Multimode

Optical Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.15	0.3	IEC 61300-3-4
Insertion loss (97%)	0.25	0.4	IEC 61300-3-4
Ave/Master	0.08	0.15	IEC 61300-3-4
Ave/Random	0.1	0.2	IEC 61300-3-4

Ordering Information

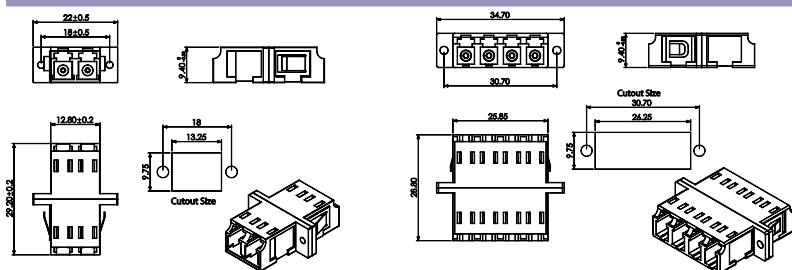
		High Performance	Premium	Standard	
Singlemode					
PC	Simplex	900µm	LCSM9-H	LCSM9-P	LCSM9
		2mm	LCSM2-H	LCSM2-P	LCSM2
		3mm	LCSM3SMPX-H	LCSM3SMPX-P	LCSM3SMPX
	Duplex	2mm	LCSM2DPX-H	LCSM2DPX-P	LCSM2DPX
		3mm	LCSM3DPX-H	LCSM3DPX-P	LCSM3DPX
APC	Simplex	900µm	LCAPC.9MM-H	LCAPC.9MM-P	LCAPC.9MM
		2mm	LCAPC2MM-H	LCAPC2MM-P	LCAPC2MM
	Duplex	2mm	LCAPC2DPX-H	LCAPC2DPX-P	LCAPC2DPX
Multimode					
PC	Simplex	900µm	LCMM9-H	LCMM9-P	LCMM9
		2mm	LCMM2-H	LCMM2-P	LCMM2
		3mm (Black)	LCMM3BLK-H	LCMM3BLK-P	LCMM3BLK
		3mm (Red)	LCMM3RED-H	LCMM3RED-P	LCMM3RED
	Duplex	2mm	LCMM2DPX-H	LCMM2DPX-P	LCMM2DPX
		3mm	LCMM3DPX-H	LCMM3DPX-P	LCMM3DPX

LC Adaptors



Technical Drawings

LC Adaptor



Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability		500	IEC 61300-2-2
Receptacle Retention force		1N - 2.5N	IEC 61754-20
Operating temperature		-25 to +70, 12 cycles	IEC 61300-2-22

Ordering Information

Mode	Type	Colour	Part No.			Configuration
			Simplex	Duplex	Quad	
SM	APC	GREEN	-	LCAPCUDGREEN	LCQUADGREEN-W	Flange with two holes and SC footprint with metal clips
SM	PC	BLUE	LCUSZR02	LCDPXBLUE	LCQUADBLUE-W	
MM	PC	BEIGE	LCUSPHBR	LCDPXBEIGE	LCQUADBEIGE-S	
MM	PC	AQUA	-	LCDPXAQUA/S	LCQUADAQUA-W	

FibreFab offers a range of quality LC adaptors which have high precision alignment sleeves for improved reliability and better reconnectability. The LC adaptors come with ceramic sleeves for singlemode and phosphor bronze sleeves for multimode. The housing is available in different colours with options for flange or flangeless body and metal, or inbuilt, clips.

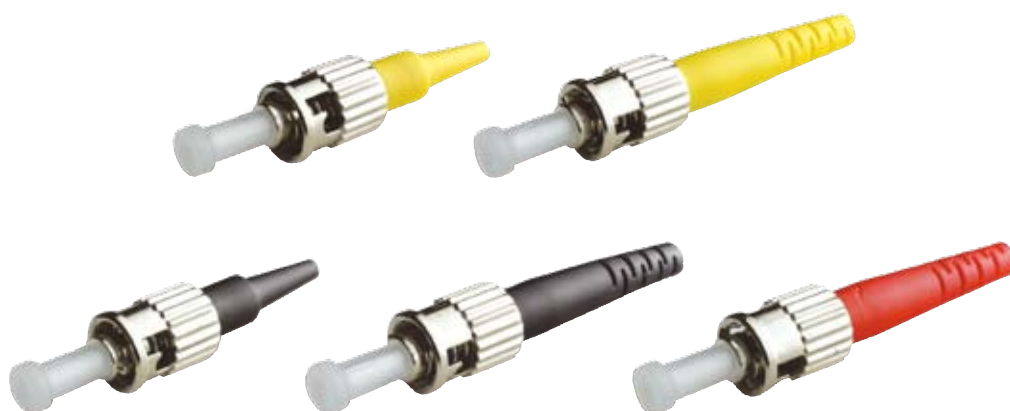
Features

- ▶ Complies with IEC 61754-20
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and high reconnectability
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in simplex, duplex and quad adaptors

Applications

- ▶ Telecommunications networks
- ▶ CATV, LAN, MAN and WAN application
- ▶ Data processing networks
- ▶ Cable television
- ▶ Fibre-to-the-home
- ▶ Premises distribution

ST Connectors



The ST connector has a quick release bayonet style body and spring loaded ferrule. ST connectors are commonly used in networking applications.

FibreFab manufactures a range of ST connectors suitable for various applications.

Features

- ▶ Complies with IEC 61754-2 and TIA 604-2
- ▶ Low insertion loss and back reflection
- ▶ Bayonet shaped housing for easy termination
- ▶ Nickel plated brass body
- ▶ Zirconia ceramic ferrule with high end PC finish
- ▶ RoHS, REACH SvHC compliant

FibreFab ST connectors are available in singlemode PC and multimode PC. The connectors come with standard boots suitable for 900µm, 2mm and 3mm cable diameters.

Applications

- ▶ Local area networks
- ▶ Data processing networks
- ▶ Distribution application
- ▶ Premises distribution
- ▶ Test and laboratory equipment

DID YOU KNOW?

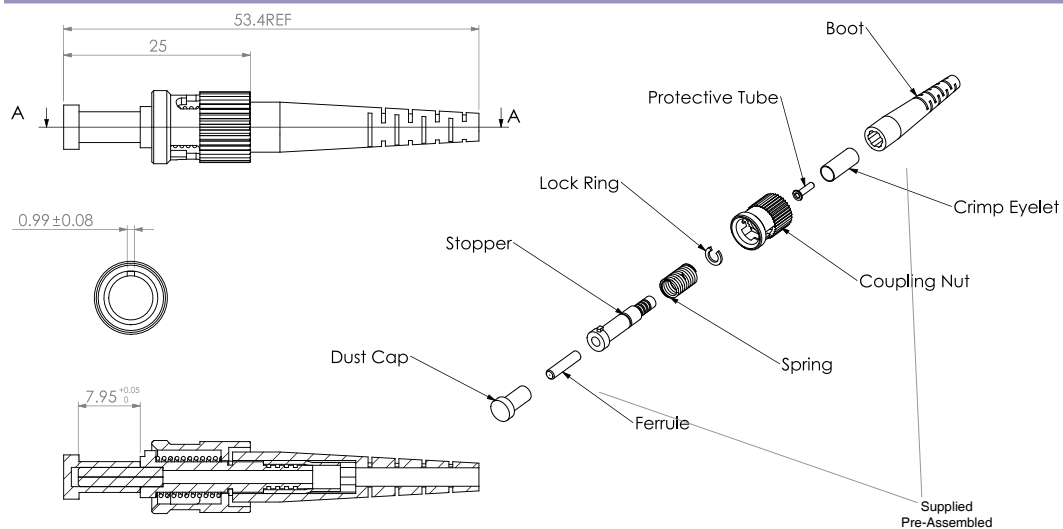
FibreFab also offers an extensive range network infrastructure components including pre-terminated assemblies, patch panels, cabling and cabinets

Visit www.fibrefab.com for more details.

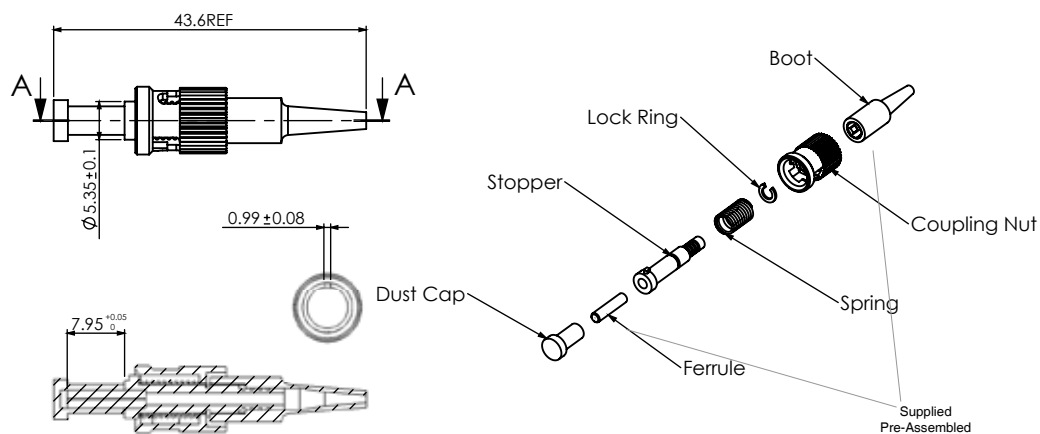
ST Connectors

Technical Drawings

ST Connector



ST Pigtail Connector



Technical Specification

Mechanical Properties	Criteria	Effect	Conformance
Mechanical endurance	500 matings	<0.2 dB change	IEC 61300-2-2
Vibration	10-55Hz, 0.75 amplitude	<0.2 dB change	IEC 61300-2-1
Drop	Drop height 1m, 5 drops	<0.2 dB change	IEC 61300-2-12
Cable retention	Magnitude 90 N	<0.2 dB change	IEC 61300-2-4
Cable torsion	1.5kg - 2.5kg for 2mm-3mm cable diameter	<0.2 dB change	IEC 61300-2-5
Operating temperature	-25 to +70, 12 cycles	<0.2 dB change	IEC 61300-2-22
Cold	-25 for 96 hrs	<0.2 dB change	IEC 61300-2-17
Dry Heat	+70 for 96 hrs	<0.2 dB change	IEC 61300-2-18

ST connector PC and APC- Singlemode

Optical Performance	High Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.10 dB	0.15 dB	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.20 dB	0.30 dB	0.40 dB	IEC 61300-3-4
Ave/Master	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Ave/Random	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Return Loss	55/70 dB	55/65 dB	55/65 dB	IEC 61300-3-6

ST connector PC - Multimode

Optical Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.15	0.3	IEC 61300-3-4
Insertion loss (97%)	0.25	0.4	IEC 61300-3-4
Ave/Master	0.08	0.15	IEC 61300-3-4
Ave/Random	0.1	0.2	IEC 61300-3-4

Ordering Information

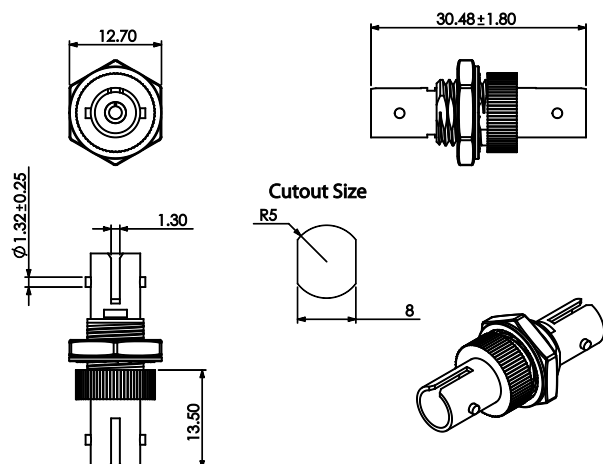
		High Performance	Premium	Standard	
Singlemode					
		900µm	STSM9-H	STSM9-P	STSM9
PC	Simplex	2mm	STSM2YEL-H	STSM2YEL-P	STSM2YEL
		3mm	STSM3YEL-H	STSM3YEL-P	STSM3YEL
Multimode					
		900µm	STMM9-H	STMM9-P	STMM9
PC	Simplex	2mm (Black)	STMM2BLK-H	STMM2BLK-P	STMM2BLK
		2mm (Red)	STMM2RED-H	STMM2RED-P	STMM2RED
		3mm (Black)	STMM3BLK-H	STMM3BLK-P	STMM3BLK
		2mm (Red)	STMM3RED-H	STMM3RED-P	STMM3RED

ST Adaptors



Technical Drawings

ST Adaptor



FibreFab ST adaptors have high precision alignment sleeves for reliability and better reconnectability. ST adaptors come with a ceramic sleeve for the singlemode and phosphor bronze sleeve for the multimode. The housing is available in single D or double D types.

Features

- ▶ Complies with IEC 61754-20
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and high reconnectability
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in simplex only

Applications

- ▶ Data processing networks
- ▶ Premises distribution

Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability	500		IEC 61300-2-2
Receptacle Retention force	1N - 2.5N		IEC 61754-20
Operating temperature	-25 to +70, 12 cycles		IEC 61300-2-22

Ordering Information

Mode	Type	Part No.
SM	PC	STUZR02
MM	PC	STUPHBR

FOR MORE INFORMATION CALL **+44 (0)870 127 3330**

FC Connectors



The FibreFab FC features a 2.5 mm ferrule and a threaded coupling nut, for a secure connection in high vibration environments and in lab testing for consistent results.

FibreFab manufactures a range of FC connectors suitable for various applications.

Features

- ▶ Complies with IEC 61754-13 and TIA 604-4-A
- ▶ Low insertion loss and back reflection
- ▶ Precision anti rotation key
- ▶ Nickel plated metal body corrosion resistant
- ▶ Zirconia ceramic ferrule with high end PC finish.
- ▶ 2.06mm narrow key
- ▶ RoHS, REACH SvHC compliant

The FC connectors are available in singlemode both PC and APC and multimode PC. The connectors come with standard FibreFab boots suitable for 900µm, 2mm and 3mm cable diameters. The FC connectors are available in standard colours like blue, green and beige.

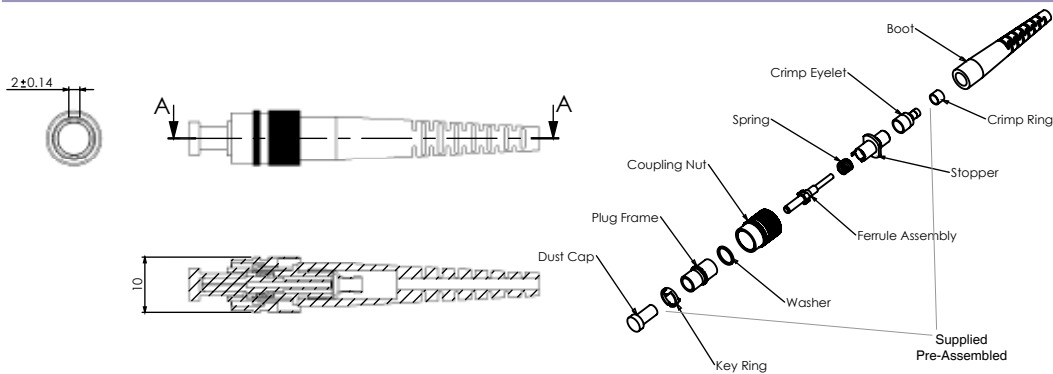
Applications

- ▶ Telecommunications networks
- ▶ Local area networks
- ▶ Data processing networks
- ▶ Distribution application
- ▶ Premises distribution
- ▶ Test and laboratory equipment

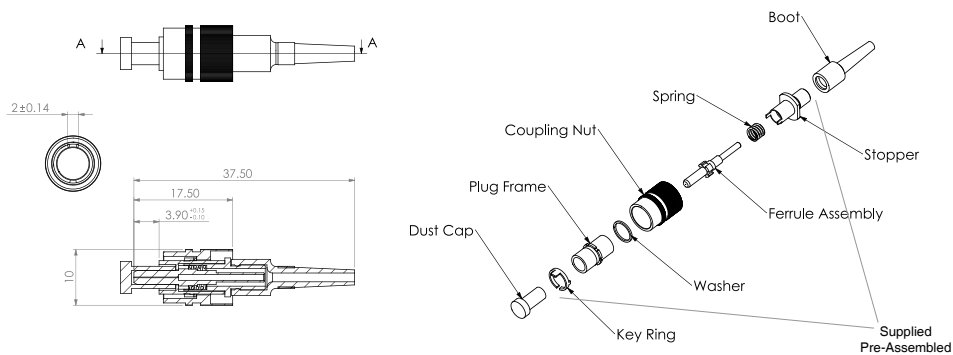
FC Connectors

Technical Drawings

FC Connector



FC Pigtail Connector



Technical Specification

Mechanical Properties	Criteria	Effect	Conformance
Mechanical endurance	500 matings	<0.2 dB change	IEC 61300-2-2
Vibration	10-55Hz, 0.75 amplitude	<0.2 dB change	IEC 61300-2-1
Drop	Drop height 1m, 5 drops	<0.2 dB change	IEC 61300-2-12
Cable retention	Magnitude 90 N	<0.2 dB change	IEC 61300-2-4
Cable torsion	1.5kg - 2.5kg for 2mm-3mm cable diameter	<0.2 dB change	IEC 61300-2-5
Operating temperature	-25 to +70, 12 cycles	<0.2 dB change	IEC 61300-2-22
Cold	-25 for 96 hrs	<0.2 dB change	IEC 61300-2-17
Dry Heat	+70 for 96 hrs	<0.2 dB change	IEC 61300-2-18

FC connector PC and APC- Singlemode

Optical Performance	High Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.10 dB	0.15 dB	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.20 dB	0.30 dB	0.40 dB	IEC 61300-3-4
Ave/Master	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Ave/Random	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Return Loss	55/70 dB	55/65 dB	55/65 dB	IEC 61300-3-6

FC connector- Multimode

Optical Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.15	0.3	IEC 61300-3-4
Insertion loss (97%)	0.25	0.4	IEC 61300-3-4
Ave/Master	0.08	0.15	IEC 61300-3-4
Ave/Random	0.1	0.2	IEC 61300-3-4

Ordering Information

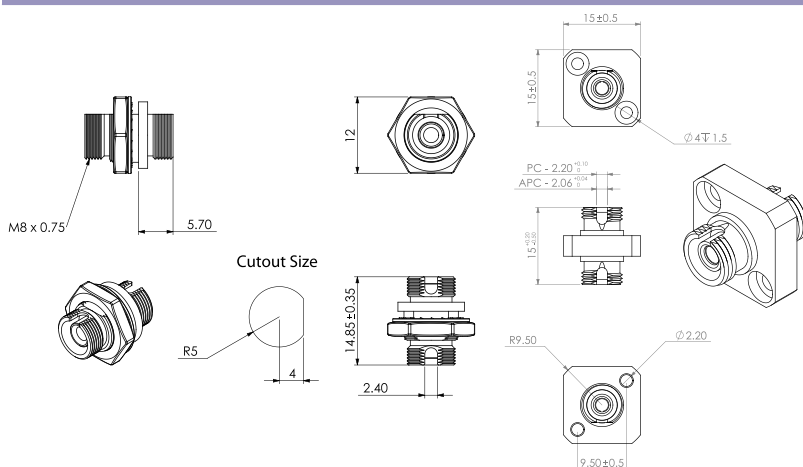
		High Performance	Premium	Standard	
Singlemode					
		900µm	FCSM9-H	FCSM9-P	FCSM9
PC	Simplex	2mm	FCSM2-H	FCSM2-P	FCSM2
		3mm	FCSM3-H	FCSM3-P	FCSM3
APC	Simplex	900µm	FCAPC.9MM-H	FCAPC.9MM-P	FCAPC.9MM
		2mm	FCAPC2MM-H	FCAPC2MM-P	FCAPC2MM
		3mm	FCAPC3MM-H	FCAPC3MM-P	FCAPC3MM
Multimode					
PC	Simplex	900µm	FCMM9-H	FCMM9-P	FCMM9
		2mm	FCMM2-H	FCMM2-P	FCMM2

FC Adaptors



Technical Drawings

FC Adaptor



FibreFab offers a range of high quality FC adaptors which have precision alignment sleeves for high reliability and better reconnectability. FC adaptors come with ceramic sleeves for the singlemode and phosphor bronze sleeve for the multimode. The housing has a metal body and a M8 nut.

Features

- ▶ Complies with IEC 61754-13 and TIA 604-4-A
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and high reconnectability
- ▶ Narrow key
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in simplex only

Applications

- ▶ Telecommunications networks
- ▶ Local area networks
- ▶ Data processing networks
- ▶ Cable television
- ▶ Premises distribution
- ▶ Test and laboratory equipment
- ▶ Industrial and military application

Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability	500		IEC 61300-2-2
Receptacle Retention force	2N – 5.9N		IEC 61754-13
Operating temperature	-25 to +70, 12 cycles		IEC 61300-2-22

Ordering Information

Mode	Type	Part No.
SM	APC	FCADAZ1NRSP3
SM	PC	FCADSZ1NRSP3
MM	PC	FCADMP1NRSP3
SM	PC	FCUZR02SQUARE
MM	PC	FCUPHBSQUARE

DO YOU KNOW?

The new SC adaptors come in AQUA for the OM3 + (OM4) fibre types suitable for Data centre applications.

MU Connectors



FibreFab MU connectors are similar to the SC connectors in construction and mechanical function, but have a ferrule diameter of 1.25mm.

FibreFab offers a range of MU connectors suitable for various applications. FibreFab MU connectors are available in Singlemode APC, PC and Multimode PC.

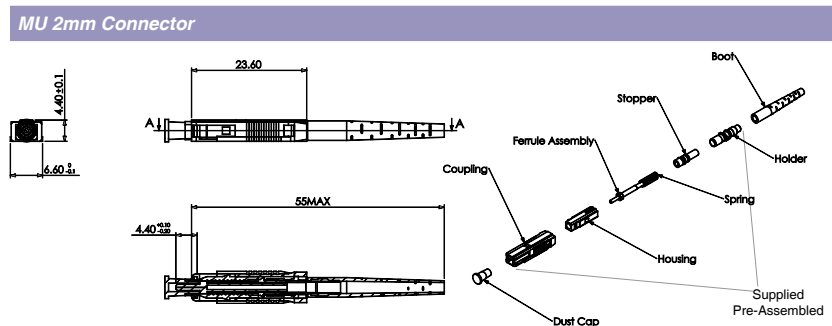
Features

- ▶ Complies with IEC 61754-6
- ▶ A push-pull coupling mechanism for easy insertion and high reconnectability
- ▶ Two connections in one SC shape adapter
- ▶ Zirconia ceramic ferrule with high end PC finish
- ▶ Low insertion loss and back reflection
- ▶ RoHS, REACH SvHC
- ▶ Available in standard colours and standard packaging

Applications

- ▶ Data centres, premise installations, telecommunication networks
- ▶ Ethernet, fibre channel, ATM, LAN, MAN and WAN
- ▶ Suited for high density application
- ▶ Distribution cable assemblies
- ▶ Board mounted application
- ▶ Data processing networks

Technical Drawings



Technical Specification

Mechanical Properties	Criteria	Effect	Conformance
Mechanical endurance	500 matings	<0.2 dB change	IEC 61300-2-2
Vibration	10-55Hz, 0.75 amplitude	<0.2 dB change	IEC 61300-2-1
Drop	Drop height 1m, 5 drops	<0.2 dB change	IEC 61300-2-12
Cable retention	Magnitude 90 N	<0.2 dB change	IEC 61300-2-4
Cable torsion	1.5kg - 2.5kg for 2mm-3mm cable dia.	<0.2 dB change	IEC 61300-2-5
Operating temperature	-25 to +70, 12 cycles	<0.2 dB change	IEC 61300-2-22
Cold	-25 for 96 hrs	<0.2 dB change	IEC 61300-2-17
Dry Heat	+70 for 96 hrs	<0.2 dB change	IEC 61300-2-18

MU connector PC Singlemode

Optical Performance	Standard	Conformance
Insertion loss (Typ)	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.40 dB	IEC 61300-3-4
Ave/Master	0.18 dB	IEC 61300-3-4
Ave/Random	0.18 dB	IEC 61300-3-34
Return Loss	55/65 dB	IEC 61300-3-6

Ordering Information

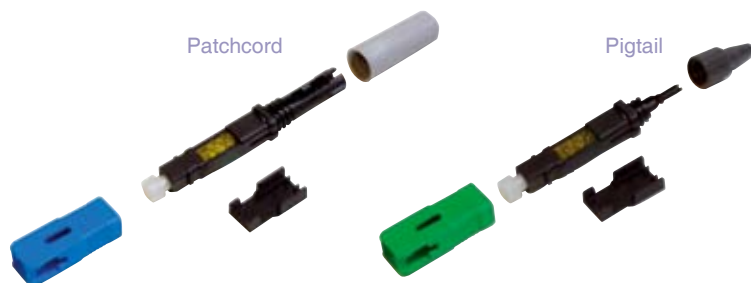
Please contact FibreFab sales department on +44 (0)870 127 3330 for part numbers and lead time.

VISIT US ONLINE NOW WWW.FIBREFAB.COM

Field Installable Connectors



Field Installable Connector Components



Optronic field-installable connectors make fibre terminations really fast, easy and reliable. These fibre optic connectors offer terminations in less than five seconds without any hassles and require no epoxy, no polishing and no crimping. The FIC greatly reduces the installation and set up time. It also has a small window feature to see the light escaping while using a visual fault locator.

Features

- ▶ Available in singlemode and multimode
- ▶ Durable, reliable and superior optical performance
- ▶ Compatible with standard SC connectors
- ▶ Termination can be repeated 2-3 times
- ▶ Packaging comes with a cable/buffer stripping template
- ▶ Complies with IEC, EIA/TIA and Telecordia standards

Applications

- ▶ Telecommunication network
- ▶ Local Area Network
- ▶ Premise installation
- ▶ Data centre applications

Technical Specification

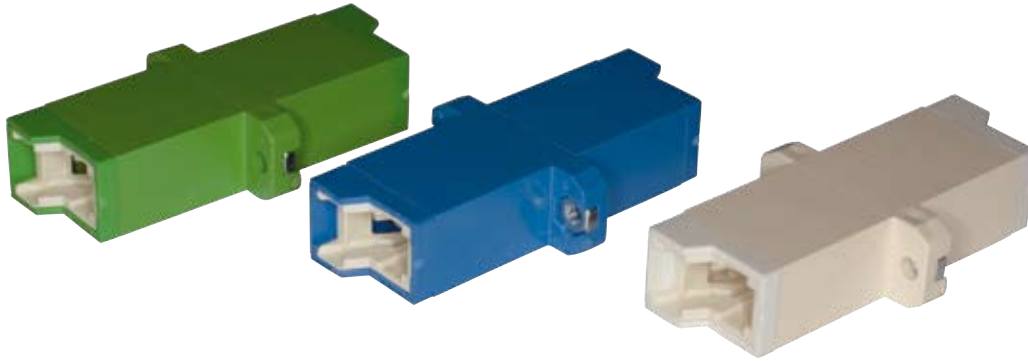
Fibre Type	Singlemode and Multimode
Insertion Loss	≤ 0.4dB (Typical)
Reflectance	≥ 50dBV
Polishing Type	UPC and APC
Operational Temperature	-40 to 70

Ordering Information

				<i>Standard</i>
Multimode				
PC	Simplex	900µm		SCMM9BGFIC
		3mm		SCMM3BGFIC
Singlemode				
PC	Simplex	900µm		SCSM9BLFIC
		3mm		SCSM3BLFIC
Singlemode				
APC	Simplex	900µm		SCASM9GNFIC
		3mm		SCASM3GNFIC

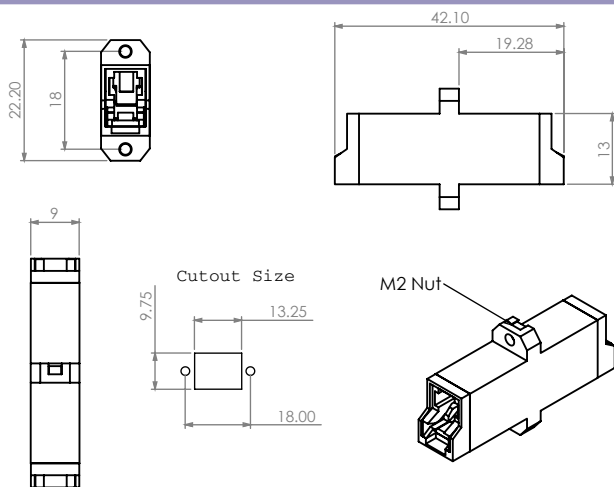
FOR MORE INFORMATION CALL +44 (0)870 127 3330

E2000 Adaptors



Technical Drawings

E2000 Adaptor



FibreFab offers a range of high quality E2000 adaptors which have high precision alignment sleeves for reliability and better reconnectability. Each E2000 connector has an inbuilt mechanism to open the shutter and guide the ferrule in the alignment sleeve. E2000 adaptors come with a ceramic sleeves for the singlemode and phosphor bronze sleeves for the multimode. The housing is available in different colours and a flangeless body option.

Features

- ▶ Complies with IEC 61754-15
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and high reconnectability
- ▶ RoHS, REACH SvHC compliant
- ▶ Available in simplex only

Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability	500		IEC 61300-2-2
Receptacle Retention force	2N – 5.9N		IEC 61754-20
Operating temperature	-25 to +70, 12 cycles		IEC 61300-2-22

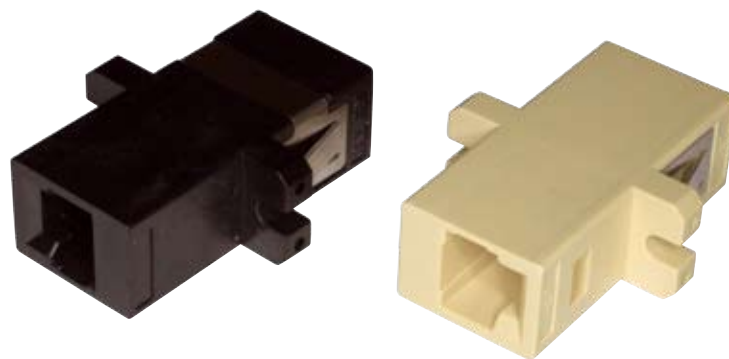
Applications

- ▶ Suitable for high power laser applications
- ▶ Telecommunications networks
- ▶ WDM, DWDM applications
- ▶ Testing and measurement equipment

Ordering Information

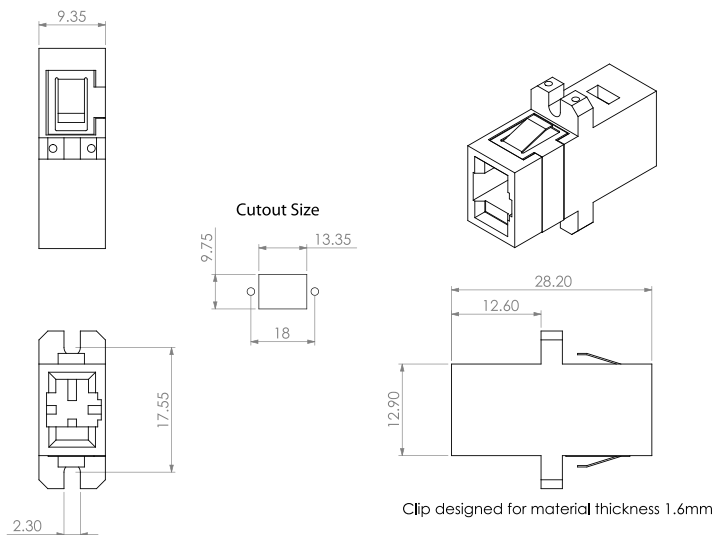
Mode	Type	Colour	Simplex	Configuration
SM	APC	Green	E2APCUGREEN	Flange with two holes and SC footprint
SM	PC	Blue	E2UBLUE	
MM	PC	Beige	E2UBEIGE	
SM	APC	Green	E2APCUGREEN/FL	Flangeless with SC footprint
SM	PC	Blue	E2UBLUE/FL	
MM	PC	Beige	E2UBEIGE/FL	

MT-RJ Adaptors



Technical Drawings

MTRJ Connector



An optical fibre adapter or uniter is used to mate two connectors together, usually mounted in a distribution panel or wall box. In most cases it is the critical part of the system that aligns the ferrule part of the connectors keeping the fibres in perfect alignment.

In the case of the MT-RJ and MPO the alignment is carried out by two small pins fitted to one of the connectors and the adapter is purely to support and lock the connectors. When joining MT-RJ connectors, one connector must always be male with pins and one must be female without pins.

Features

- ▶ Gigabit Ethernet, Asynchronous Transmission Method (ATM)
- ▶ Premise installations
- ▶ Industrial and military applications

Applications

- ▶ Plug-jack (RJ-45) design
- ▶ TIA/EIA568-A Compliant
- ▶ Precision moulded for proper alignment
- ▶ Available in black and beige coloured body

Technical Specification

	Singlemode	Conformance
Insertion Loss (Typ)	0.2dB	IEC 61300-3-4
Mating Durability	500 matings	IEC 61300-2-2
Receptacle Retention force	2N - 5.9N	IEC 61754-13
Vibration Test	10 - 55Hz 0.75 amplitude	IEC 61300-2-1
Drop test	Drop height 1m, 5 drops	IEC 61300-2-12
Operating temperature	-25 to +70, 12 cycles	IEC 61300-2-22

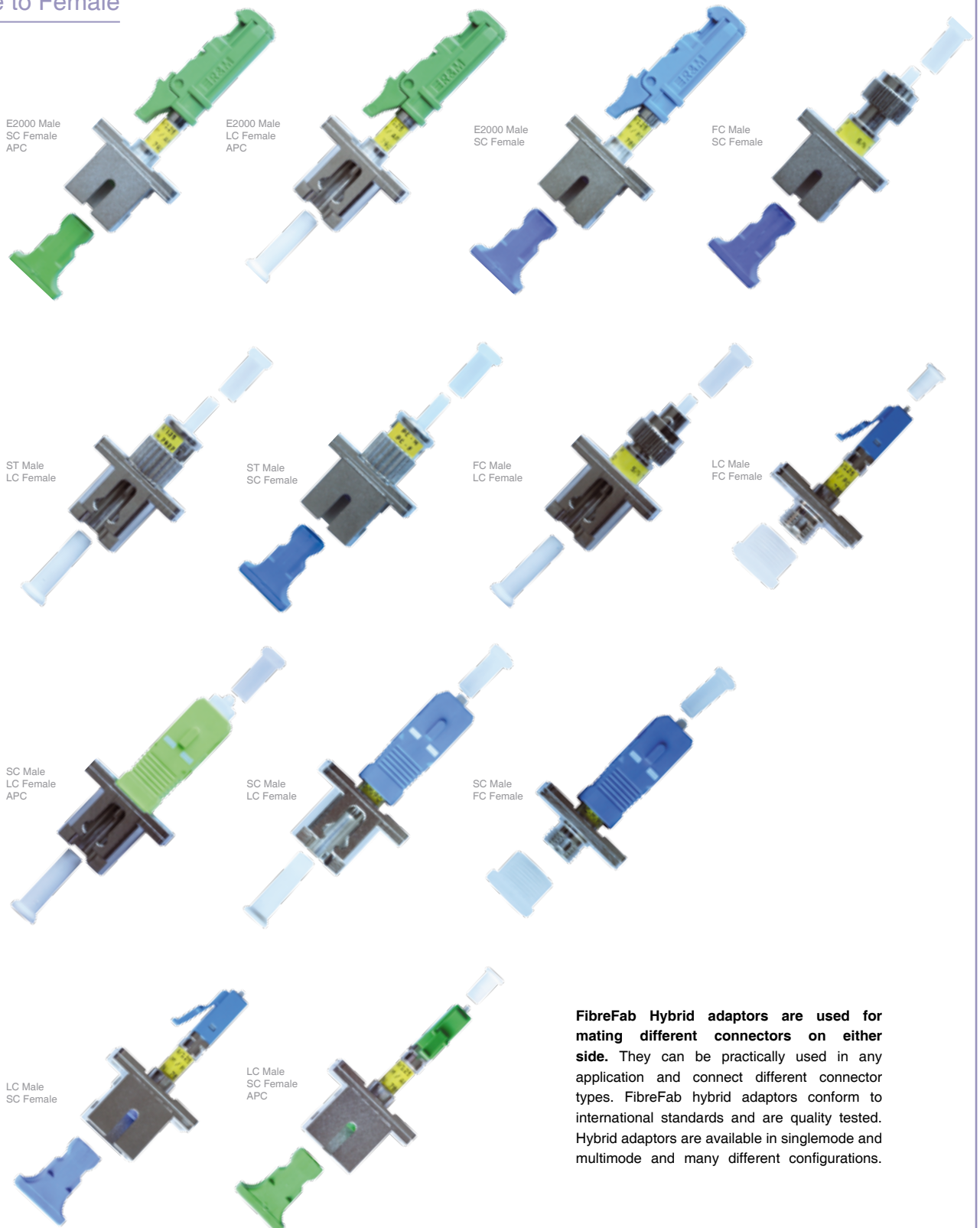
Ordering Information

Type	Color	Part No.
MM	BEIGE	MTRJUNITER
MM	BLACK	MTRJ-BLK

FOR MORE INFORMATION CALL **+44 (0)870 127 3330**

Hybrid Adaptors

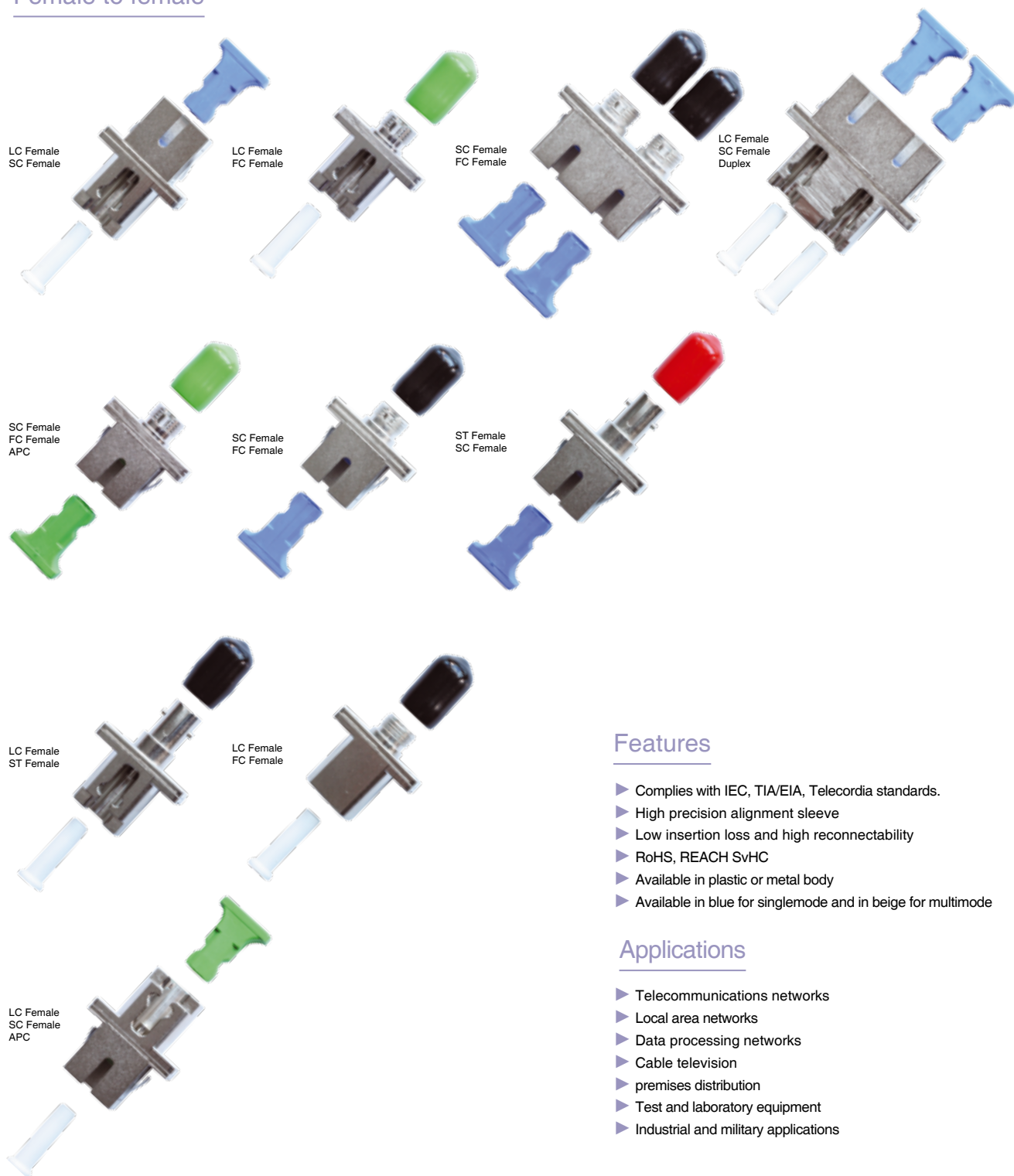
Male to Female



FibreFab Hybrid adaptors are used for mating different connectors on either side. They can be practically used in any application and connect different connector types. FibreFab hybrid adaptors conform to international standards and are quality tested. Hybrid adaptors are available in singlemode and multimode and many different configurations.

Hybrid Adaptors

Female to female



Features

- ▶ Complies with IEC, TIA/EIA, Telecordia standards.
- ▶ High precision alignment sleeve
- ▶ Low insertion loss and high reconnectability
- ▶ RoHS, REACH SvHC
- ▶ Available in plastic or metal body
- ▶ Available in blue for singlemode and in beige for multimode

Applications

- ▶ Telecommunications networks
- ▶ Local area networks
- ▶ Data processing networks
- ▶ Cable television
- ▶ premises distribution
- ▶ Test and laboratory equipment
- ▶ Industrial and military applications

Technical Specification

	Ceramic	Phosphor Bronze	Conformance
Insertion Loss (Typ)	0.1 dB	0.15 dB	IEC 61300-3-4
Mating Durability	500		IEC 61300-2-2
Receptacle Retention Force	2N – 5.9N		IEC 61754-13
Operating Temperature	-25 to +70, 12 cycles		IEC 61300-2-22

Ordering Information

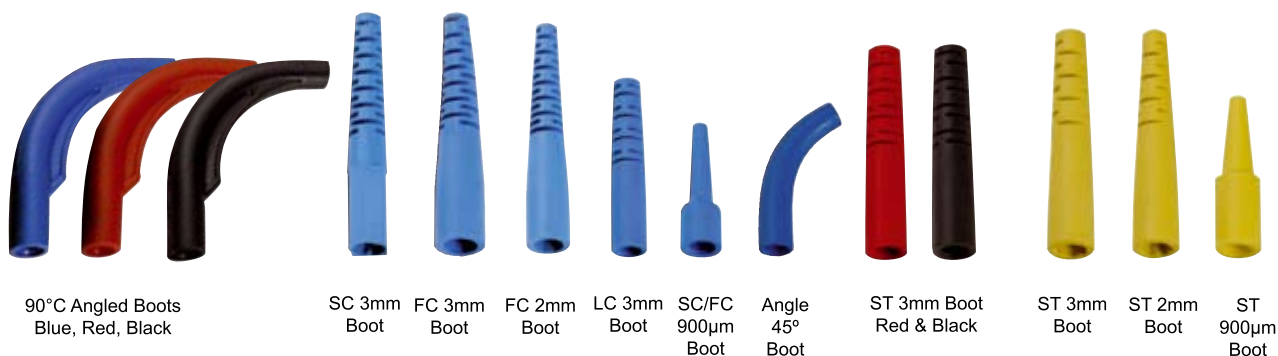
Male to female adaptors

Item description	Part No.
ADAPTOR HYB - LCFCA MALE TO FEMALE- ZR- SX - NO CLIP - STD	LCFCADSZ1MF-S
ADAPTOR HYB - LCSC MALE TO FEMALE- ZR- SX - NO CLIP - STD	LCSCADSZ1MF-S
ADAPTOR HYB - LCSCA MALE TO FEMALE- ZR- SX - NO CLIP - STD	LCSCADAZ1MF-S
ADAPTOR HYB - SCFC MALE TO FEMALE- ZR- SX - NO CLIP - STD	SCFCADSZ1MF-S
ADAPTOR HYB - SCLC MALE TO FEMALE- ZR- SX - NO CLIP - STD	SCLCADSZ1MF-S
ADAPTOR HYB - SCLCA MALE TO FEMALE- ZR- SX - NO CLIP - STD	SCLCADAZ1MF-S
ADAPTOR HYB - FCSC MALE TO FEMALE- ZR- SX - NO CLIP - STD	FCSCADSZ1MF-S
ADAPTOR HYB - FCLC MALE TO FEMALE- ZR- SX - NO CLIP - STD	FCLCADSZ1MF-S
ADAPTOR HYB - STSC MALE TO FEMALE- ZR- SX - NO CLIP - STD	STSCADSZ1MF-S
ADAPTOR HYB - STLC MALE TO FEMALE- ZR- SX - NO CLIP - STD	STLCADSZ1MF-S
ADAPTOR HYB - E2SC MALE TO FEMALE- ZR- SX - NO CLIP - STD	E2SCADSZ1MF-S
ADAPTOR HYB - E2LC MALE TO FEMALE- ZR- SX - NO CLIP - STD	E2LCADSZ1MF-S
ADAPTOR HYB - E2SCA MALE TO FEMALE- ZR- SX - NO CLIP - STD	E2SCADAZ1MF-S
ADAPTOR HYB - E2LCA MALE TO FEMALE- ZR- SX - NO CLIP - STD	E2LCADAZ1MF-S

Female to female adaptors

Item description	Part No.
PC Simplex	
ADAPTOR HYB - SCST METAL BODY- ZR- SX - NO CLIP - STD	SCSTADSZ1NOMB-S
ADAPTOR HYB - LCST METAL BODY- ZR- SX - NO CLIP - STD	LCSTADSZ1NOMB-S
ADAPTOR HYB - FCSC METAL BODY- ZR- SX - NO CLIP - STD	FCSCADSZ1NOMB-S
ADAPTOR HYB - LCSC METAL BODY- ZR- SX - NO CLIP - STD	LCSCADSZ1NOMB-S
ADAPTOR HYB - FCLC METAL BODY- ZR- SX - NO CLIP - STD	FCLCADSZ1NOMB-S
APC/APC Simplex	
ADAPTOR HYB - FCSC APC-METAL BODY- ZR- SX - NO CLIP - STD	FCSCADAZ1NOMB-S
ADAPTOR HYB - LCSC APC-METAL BODY- ZR- SX - NO CLIP - STD	LCSCADAZ1NOMB-S
ADAPTOR HYB - FCLC APC-METAL BODY- ZR- SX - NO CLIP - STD	FCLCADAZ1NOMB-S
PC/PC Duplex	
ADAPTOR HYB - FCSC METAL BODY- ZR- DX - NO CLIP - STD	FCSCADSZ2NOMB-S
ADAPTOR HYB - LCSC METAL BODY- ZR- DX - NO CLIP - STD	LCSCADSZ2NOMB-S

Connector Boots



Features

- ▶ Connector boots available in different colours
- ▶ 90° boots to reduce stress on the fibre and maintain the bending radius
- ▶ 45° angle boots for bending flexibility
- ▶ Short boots for small diameter cables

Applications

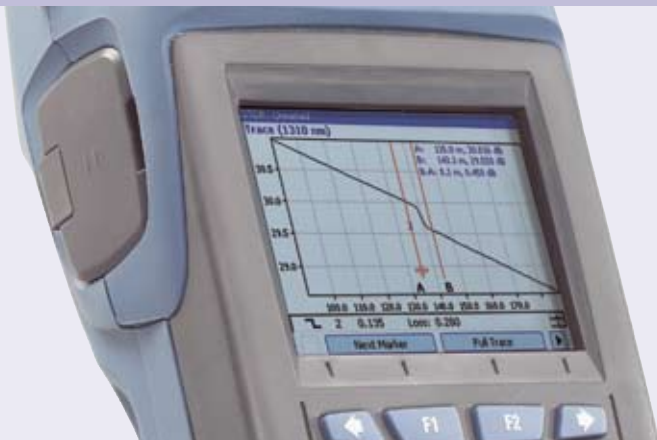
- ▶ Customized options of boot colours and types for channel identification
- ▶ 90° boots 45° angle boots are suitable for data centre applications for optimising cable management
- ▶ Short boots are suitable for 1.2mm to 2mm cable diameters and saves space in the patching area when compared to the conventional boots

Ordering Information

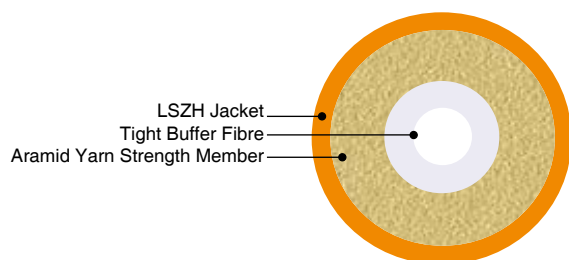
Item description	Part No.
90°C Angled Boot Blue	LC3BLUEBOOT90
90°C Angled Boot Red	LC3REDBOOT90
90°C Angled Boot Black	LC3BLACKBOOT90
SC 3mm Boot	SC3BLUEBOOT
FC 3mm Boot	FC3BLUEBOOT
FC 2mm Boot	FC2BLUEBOOT
LC 3mm Boot	LC3BLUEBOOT
SC/FC 900µm Boot Blue	SC9BLUEBOOT
45°C Angled Boot Blue	LC3BLUEBOOT45
ST 3mm Boot Red	ST3REDBOOT
ST 3mm Boot Black	ST3BLACKBOOT
ST 3mm Boot	ST3YELLOWBOOT
ST 2mm Boot	ST2YELLOWBOOT
ST 900µm Boot	ST9YELLOWBOOT

Related Products

<i>Patch Cable</i>	32
<i>Cleaning Products</i>	35
<i>Termination and Installation Tools</i>	36
<i>Test and Measurement</i>	38



Simplex Patch Cable



Optronic Simplex fibre optic patch cable is ideal for use in office LAN connections, patchcords, pigtails and internal point-to-point links where frequent handling is likely (e.g. data cabinets, equipment rooms, user outlets). Utilising 600 or 900µm buffered fibre, the cable is suitable for use with industry standard connectors and can be easily made into a patchcord.

Fire Retardant Internal Use Standard Length



Technical Specification

Item description		1-CORE LSZH	1-CORE LSZH	1-CORE LSZH	1-CORE LSZH	1-CORE LSZH
Outer diameter	mm	1.6	1.8	2.0	2.4	3.0
Weight	kg/km	2.9	3.2	3.5	5.0	6.8
Max. Load (installation)	N	80	80	100	100	150
Max. Load (installed)	N	40	40	60	60	80
Min. Bend Radius (installation)		20D	20D	20D	20D	20D
Min. Bend Radius (installed)		10D	10D	10D	10D	10D
Fire Performance		LSZH	LSZH	LSZH	LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Storage Temp.	°C	-20~+70	-20~+70	-20~+70	-20~+70	-20~+70
Installation Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60	-20~+60
Max Crush Resistance	N/100mm	500	500	500	500	500

Ordering Information

Item description	Part No.	Item description	Part No.
OM1 62.5/125µm Multimode		OM3 50/125µm Multimode	
1-Core 2.0mm	OM1SIMOR2MM6-C	1-Core 2.0mm	OM3SIMPU2MM6-C
1-Core 3.0mm	OM1SIMOR-C	1-Core 3.0mm	OM3SIMPU-C
OM2 50/125µm Multimode		OS1 9/125µm Singlemode	
1-Core 2.0mm	OM2SIMOR2MM6-C	1-Core 2.0mm	OS1SIMYE2MM6-C
1-Core 3.0mm	OM2SIMOR-C	1-Core 3.0mm	OS1SIMYE-C



Other diameters available on request.

Features

- ▶ Choice of fibre type
- ▶ Choice of outer diameter
- ▶ High strength aramid yarn strength member
- ▶ Easy to strip
- ▶ LSZH jacket

Applications

- ▶ Patchcords
- ▶ Pigtails
- ▶ Internal inter-connections



Pre-terminated cables are available.
Please call the sales team on
44 (0)870 127 3330
for more details.

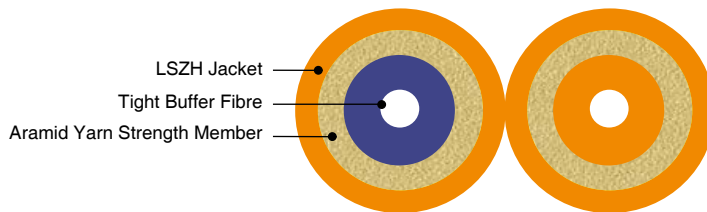


Alternatively download a copy of our
Pre-terminated Cable Catalogue
from www.fibrefab.com



FOR MORE INFORMATION CALL +44 (0)870 127 3330

Zip Duplex Patch Cable



Optronics zip duplex fibre optic patch cable is constructed with two simplex units joined together with a central web. Ideal for use in office LAN connections, patchcords, pigtails and internal point-to-point links where frequent handling is likely (e.g. data cabinets, equipment rooms, user outlets). Utilising 600 or 900µm buffered fibre, the cable is suitable for use with industry standard connectors and can be easily made into a patchcord.



Technical Specification

Item description		2-CORE LSZH	2-CORE LSZH	2-CORE LSZH	2-CORE LSZH
Outer diameter	mm	1.6*3.3	1.8*3.7	2.0*4.1	2.8*5.7
Weight	kg/km	5.7	6.7	8.2	13.2
Max. Load (installation)	N	160	160	200	300
Max. Load (installed)	N	80	80	100	160
Min. Bend Radius (installation)		20D	20D	20D	20D
Min. Bend Radius (installed)		10D	10D	10D	10D
Fire Performance		LSZH	LSZH	LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Storage Temp.	°C	-20~+70	-20~+70	-20~+70	-20~+70
Installation Temp.	°C	-20~+60	-20~+60	-20~+60	-20~+60
Max Crush Resistance	N/100mm	1000	1000	1000	1000

Ordering Information

Item description	Part No.	Item description	Part No.
OM1 62.5/125µm Multimode		OM3 50/125µm Multimode	
2-Core 2.0mm	OM1ZIPOR2MM6-C	2-Core 2.0mm	OM3ZIPPU2MM6-C
2-Core 2.8mm	OM1ZIPOR-C	2-Core 2.8mm	OM3ZIPPU-C
OM2 50/125µm Multimode		OS1 9/125µm Singlemode	
2-Core 2.0mm	OM2ZIPOR2MM6-C	2-Core 2.0mm	OS1ZIPYE2MM6-C
2-Core 2.8mm	OM2ZIPOR-C	2-Core 2.8mm	OS1ZIPYE-C

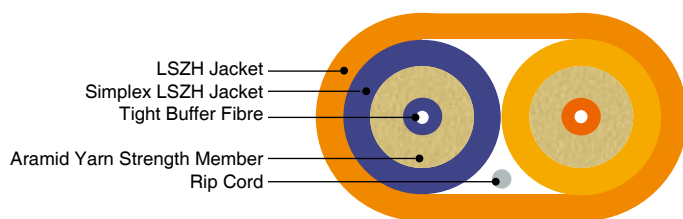
Features

- ▶ Choice of fibre type
- ▶ Choice of outer diameter
- ▶ High strength aramid yarn strength member
- ▶ Easy to strip
- ▶ LSZH jacket

Applications

- ▶ Patchcords
- ▶ Pigtails
- ▶ Internal inter-connections

Flat Duplex Patch Cable



Technical Specification

Item description		2-CORE LSZH	2-CORE LSZH
Outer diameter	mm	3.0 x 5.0	3.8 x 6.6
Weight	kg/km	11	24
Max. Load (installation)	N	250	250
Max. Load (installed)	N	125	125
Min. Bend Radius (installation)	mm	20D	20D
Min. Bend Radius (installed)	mm	10D	10D
Fire Performance		LSZH	LSZH
Operating Temp.	°C	-20~+60	-20~+60
Storage Temp.	°C	-20~+70	-20~+70
Installation Temp.	°C	-20~+60	-20~+60
Max Crush Resistance	N/100mm	200	200

Ordering Information

Item description	Part No.	Item description	Part No.
OM1 62.5/125µm Multimode		OM3 50/125µm Multimode	
2-Core 2.0mm	OM1FLATORANGE2-C	2-Core 2.0mm	OM3FLATPURPLE2-C
2-Core 2.8mm	OM1FLATORANGE-C	2-Core 2.8mm	OM3FLATPURPLE-C
OM2 50/125µm Multimode		OS1 9/125µm Singlemode	
2-Core 2.0mm	OM2FLATORANGE2-C	2-Core 2.0mm	OS1FLATYELLOW2-C
2-Core 2.8mm	OM2FLATORANGE-C	2-Core 2.8mm	OS1FLATYELLOW-C



Other diameters available on request.

Optronics flat duplex fibre optic patch cable is constructed with two simplex units held together with an overall LSZH jacket. Ideal for use in office LAN connections, patchcords, pigtails and internal point-to-point links where frequent handling is likely (e.g. data cabinets, equipment rooms, user outlets). Utilising 900µm buffered fibre, the cable unit is suitable for use with industry standard connectors and can be easily made into a patchcord.

Fire Retardant Internal Use Standard Length



Features

- ▶ Choice of fibre type
- ▶ Choice of outer diameter
- ▶ High strength aramid yarn strength member
- ▶ Easy to strip
- ▶ LSZH jacket
- ▶ LSZH overall jacket

Applications

- ▶ Patchcords
- ▶ Pigtails
- ▶ Internal inter-connections



Pre-terminated cables are available.



Please call the sales team on 44 (0)870 127 3330 for more details. Alternatively download a copy of our Pre-terminated Cable Catalogue from www.fibrefab.com



FOR MORE INFORMATION CALL **+44 (0)870 127 3330**

Cleaning Products

Lint Free Tissues

Lint free tissues are a versatile consumable for many applications. They are mainly used to clean bare fibre as part of the termination or splicing process.

The lint free characteristic allows them to be used for a multitude of other purposes such as cleaning optical equipment and preparing work surfaces.

Description	Part No.
100 Lint free tissues	CLEANTISSUE/100
400 Lint free tissues	CLEANTISSUE/400



CLEANTISSUE

IPA Wipes

The Optronics pre-saturated wipes contain 99% pure IPA or isopropyl alcohol. The wipe material is made from a high quality, non-abrasive, lint free fabric.

They can efficiently remove dust, grease, oil, flux, soils and other contaminants and residues from substrates prior to bonding such as bare optical fibre during a termination or splicing process.

Description	Part No.
50pcs IPA saturated wipes	CLEANWIPES
Single IPA saturated wipes	CLEANWIPES/S



CLEANWIPES

Foam Buds

Foam buds are the ideal consumable for cleaning bulkheads after installation. They are used to clean the end faces of connectors that are installed from inside the enclosure, the snug fit of the foam head will also remove any contaminants found inside the adapter.

Description	Part No.
2.5mm foam buds	CLEANBUDS



CLEANBUDS

Micro Fibre Sticks

Micro fibre sticks are the ideal consumable for cleaning 1.25mm bulkheads after installation. They can be used to clean the end faces of connectors that are installed from inside the enclosure. Cleaning is achieved by inserting the micro fibre tip inside the adapter's aperture and twisting once.

The micro fibre material allows the user to clean installed connector end faces without scratching the surface and ensures a perfect clean first time.

Description	Part No.
100 1.25mm micro fibre sticks	CLEANSTICKS



CLEANSTICKS

Termination and Installation Tools

Easy Handle Stripper

The stripper has 3 stripping guides which are used to remove the 2 to 3mm jacket from patchcord cable, 900µm buffer insulation and 250µm acrylic coating. This leaves the 125µm bare fibre exposed for termination. The stripping holes are angular as opposed to rounded, this gives the blades better grip onto the fibre which results in a quality strip.

Description	Part No.
Easy handle stripper	OPT-FOS



OPT-FOS

Carbide Pen Cleaver

Optronics has two styles of cleavers in it's range, The OPT-CPC is a pen style scribe which has a 30 degree wedge tip made from carbide, the material and angle ensures a precision cleave. The pen cap is great for keeping the tip protected when stored.

Description	Part No.
Carbide pen cleaver	OPT-CPC



OPT-CPC

Jacket Stripper

Ideal for removing the outer jacket from multi-core fibre optic cables between 4.5 and 25mm in diameter. The stripper removes the jacket by slitting the sheath around the cables circumference and then horizontally to the desired length, the jacket is then peeled away from the cable. You can also gain access to fibres at mid length, this is achieved by making two cuts around the circumference at the desired position then by cutting horizontally between the two.

Description	Part No.
Jacket stripper	OPT-CS



OPT-CS

Kevlar™ Shears

Specialist scissors are required to cut the Kevlar from multi-core and patchcord cables.

These scissors are specifically designed with robust hardened steel and very sharp serrated blades to make the removal of Kevlar very easy. They have a chrome plated finish and ergonomic handles. Due to the sharpness and robust design of the blades they can also be used on a multitude of other materials.

Description	Part No.
High quality Kevlar shears.	OPT-KS



OPT-KS

Ratchet Style Crimping Tool

The OPT-FOCT is a very rugged crimping tool. It has a universal die which allows you to crimp any standard fibre optic connector including ST, SC, FC, LC and MTRJ.

The comfort grip handles makes regular use easy on the user's hand. The design incorporates a ratchet mechanism which ensures there is a consistent and quality crimp every time irrespective of the user.

Description	Part No.
Ratchet style crimping tool	OPT-FOCT



OPT-FOCT

Polishing Machine

The Optronics PC20 polishing machine has been designed specifically to meet the needs of small termination houses. It is a low cost and easy-to-use manufacturing solution that supports quick turnaround manufacturing.

Optronics provide a complete technical support service and can supply detailed instructions from cable preparation to final test. These processes have been tried, tested and honed for over a decade and are the same as used in our facilities.

Description	Part No.
Polishing Machine, UK Power Cord	PC20POLISHER-UK
Polishing Machine, EU Power Cord	PC20POLISHER-EU
ST/PC Polish Jig, 12 Position Polishing Plate	STPC12JIG
LC/PC Polish Jig, 12 Position Polishing Plate	LCPC12JIG
LC/APC Polish Jig, 12 Position Polishing Plate	LCAPC12JIG
FC/PC Polish Jig, 12 Position Polishing Plate	FCPC12JIG
FC/APC Polish Jig, 12 Position Polishing Plate	FCAPC12JIG
SC/PC Polish Jig, 12 Position Polishing Plate	SCPC12JIG
SC/APC Polish Jig, 8 Position Polishing Plate	SCAPC8JIG
Rubber Pad, Durometer Reading 60 4"/10mm	DUR060PAD110MM
Rubber Pad, Durometer Reading 70 4"/10mm	DUR070PAD110MM
Rubber Pad, Durometer Reading 80 4"/10mm	DUR080PAD110MM

Polishing Discs

Optronics offers a superior range of diamond polishing disc. They are ideally suited for polishing machines but can also be used for hand polishing applications. Available in packs of 25 as standard and measure 127mm (5") in diameter, in the following grades, 9µm, 5µm, 3µm and 1µm.

Description	Part No.
1 µm Diamond Lapping Film 127mm Disk Pk25	OPT1UMDISC127
3 µm Diamond Lapping Film 127mm Disk Pk25	OPT3UMDISC127
5 µm Diamond Lapping Film 127mm Disk Pk25	OPT5UMDISC127
9 µm Diamond Lapping Film 127mm Disk Pk25	OPT9UMDISC127
0.5 µm Diamond Lapping Film 127mm Disk Pk25	OPT0.5MDISC127
Finishing Diamond Lapping Film 127mm Disk Pk25	FIDISC127

Fibre Inspection

The OPT-FHS series hand-held fibre inspection microscopes are an ideal choice for checking field terminations for fibre end face quality.

A combination of durable construction, comfortable design, easy operation and quality optics ensures that this tool will enhance the performance of installation and maintenance staff.

The OPT-FHS scopes are designed with a professional grade coaxial illumination system. This maximizes the detail seen by the user, because the light travels along the same axis as the end face making even fine scratches and contaminants easily visible.

The OPT-FHS series is equipped with a laser attenuation filter for your safety. Laser attenuation filters provide excellent eye protection. However, they are not a substitute for practising good laser safety. Never attach or view a live fibre with any optical fibre microscope.

Description	Part No.
200 x Coaxial Illumination Hand Held Fibre Scope	OPT-FHS-200X
400 x Coaxial Illumination Hand Held Fibre Scope	OPT-FHS-400X



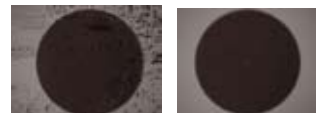
PC20POLISHER



Lapping Discs



Image viewed through coaxial illumination
left slide shows contaminant detail
right slide shows clean connector



OPT-FHS

Test and Measurement

Multimode & Singlemode Optical Test Kit

The test kit combines the **OPT-EPM-500** optical power meter and **OPT-ELS-100** light source and is ideally suited for testing fibre optic links within singlemode and multimode premises networks.

Description	Part No.
MM & SM Optical Test Kit With EU AC Adaptor	OPTMSKIT-2
MM & SM Optical Test Kit With UK Adaptor	OPTMSKIT-2/UK

ST Multimode Kit

The OPTMKIT-2 test kit combines the OPT-EPM-50 optical power meter and OPT-ELS-50 light source and provides a cost-effective solution for testing multimode fibre networks.

The OPT-EPM-50 power meter offers reference setting function and readings in dB, dBm and Watts. Added to this are an InGaAs detector and tone recognition for fibre identification. The battery has the capability to support up to 300 hours use.

With excellent power stability the OPT-ELS-50 light source gives the end user the confidence that they will have reliable loss measurements time and again. The unit also offers tone generation for fibre finding and up to 60 hours of battery life.

Description	Part No.
ST Test Kit	OPTMKIT

Pen-style Visual Fault Locator

The OPTVFL-2 is a slim-line, compact visual fault locator, designed to troubleshoot faults on fibre optic cables. It's light-weight, pen style makes it ideal for the installer to carry with them on site.

The OPTVFL-2 is an excellent addition to an engineers tool set because it can locate broken fibre inside the OTDR's dead-zone. Being portable and light it lends itself to other applications, including end-to-end continuity checks, identifying connectors in patch panels, and identifying fibres during splicing operations. The universal connector interface provides fast operation with many connector styles, without the need to change adapters

Description	Part No.
Pen-style Visual Fault Locator	OPTVFL-2

Optronics OTDR

A user friendly multimode and singlemode OTDR specifically designed for testing and trouble-shooting enterprise, campus and access networks.

It's robust construction and long battery life make it ideal for use in the field. A single button push starts a test, making it simple to use for beginner or expert. The result is then shown as a trace or table of events in full colour, making the location of faults of fibre cable uncomplicated. By transferring the result to a USB memory stick or directly to a PC via the USB port, easy management of the results can be achieved using the free software provided.

Improved fibre testing capability can be achieved by adding the optional power meter, visual fault locator and connector end face inspection probe making the Optronics OTDR a truly versatile fibre optic instrument.

Description	Part No.
Optronics Test Multimode/ Singlemode Quad OTDR	OPT-OTDR



OPTMSKIT-2



OPTMKIT



OPTVFL-2



OPT-OTDR

Technical Information

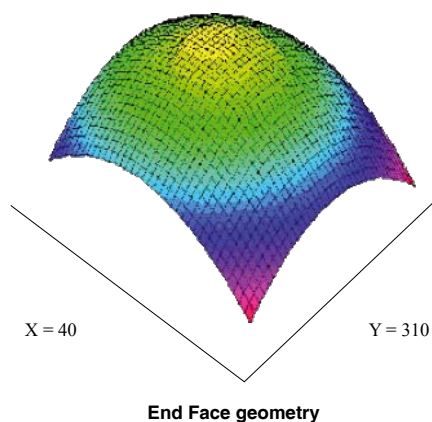
<i>Introduction</i>	40
<i>Singlemode Connector Specifications</i>	41
<i>Multimode Connector Specifications</i>	42



Technical Information on Connector Performance

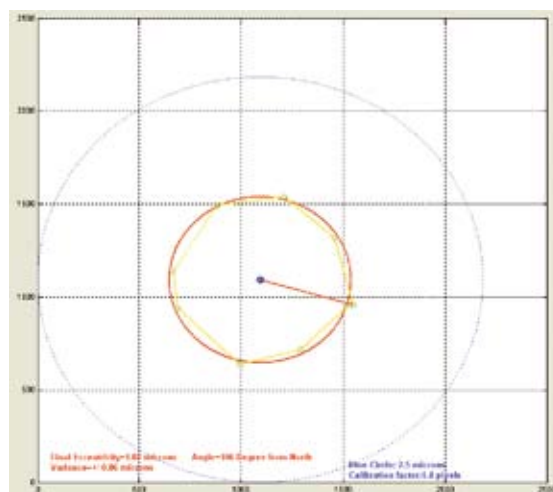
FibreFab connectors and adaptors are subjected to reliability and performance testing in a programme including type approval and continuous monitoring. When terminated using best practices, typical optical performance meets or exceeds the stated performance and will meet appropriate standards including IEC 61755-3-1/2, ISO/IEC 11801 and TIA/EIA 598.

Production quality control procedures monitor all critical parameters including ferrule OD, ID, roundness and concentricity. A unique, in-house developed concentricity test set is used to inspect ferrules and terminated assemblies. Our products conform to LSZH, OFNR and OFNP material classifications and to the RoHS directive and REACH SvHC regulations.



Terminated connectors are tested for insertion loss (master lead/ random mating) and reflection loss which follows the IEC 61300-3-4/34 and IEC 61300-3-6 standards. FibreFab has developed a proprietary random mating simulation tool which gives a strong insight into the complex interaction between the factors including ferrule and fibre dimensions, end face geometry, polish surface finish and axial contact force for the master lead test and the random mating test. The random mating tests gives a good indication about the average test results and the worst case performance results which depend on the above factors.

Parameter	Criteria
RADIUS (PC)	5 - 30 μ
RADIUS (APC)	5 - 12 μ
APEX	0 - 70 μ
UNDERCUT	-100 TO + F(R,A)



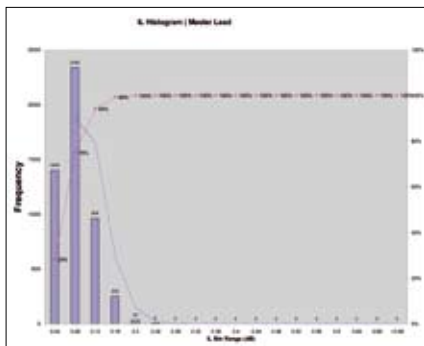
Singlemode Connectors – (PC and APC)

Specifications

Optical Performance	High Performance	Logix Premium	Standard	Conformance
Insertion loss (Typ)	0.10 dB	0.15 dB	0.25 dB	IEC 61300-3-4
Insertion loss (97%)	0.20 dB	0.30 dB	0.40 dB	IEC 61300-3-4
Av/Master	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Av/Random	0.08 dB	0.12 dB	0.18 dB	IEC 61300-3-4
Return Loss	55/70 dB	55/65 dB	55/65 dB	IEC 61300-3-6

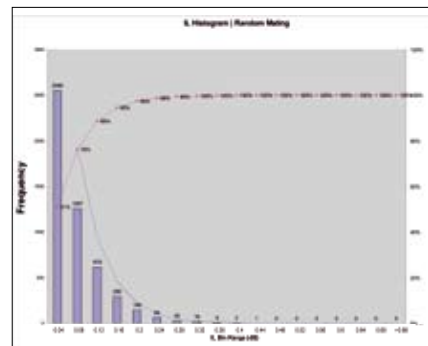
High performance Singlemode Connectors

- ▶ High surface quality and maximum reliability
- ▶ Very low insertion loss and return loss
- ▶ High precision G652D/G657A fibre types



Distribution chart (Master lead)

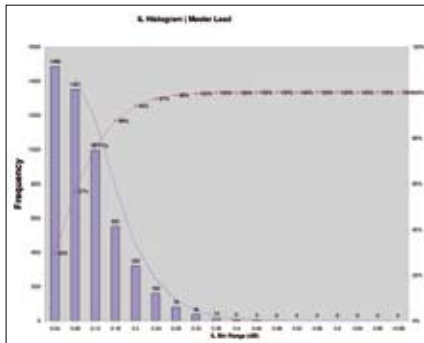
- ▶ Suitable for very low link loss transmission
- ▶ Suitable for use as reference leads and for instrumentation
- ▶ Suitable for critical telecom applications



Distribution chart (Random mating)

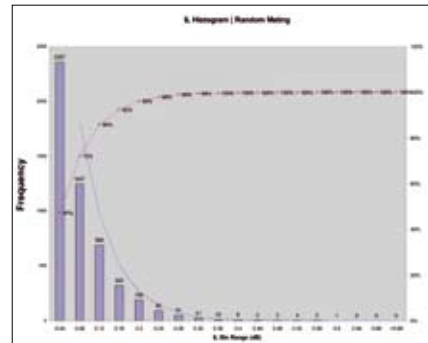
Premium Singlemode Connectors

- ▶ Good surface quality and reliability
- ▶ Low insertion and return loss
- ▶ Suitable for low link loss transmission



Distribution chart (Master lead)

- ▶ Suitable for Critical Datacom (LAN, WAN) applications
- ▶ Suitable for low loss Telecom application

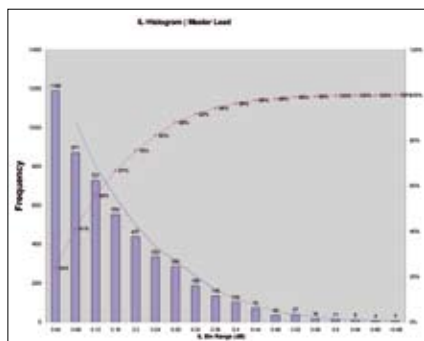


Distribution chart (Random mating)

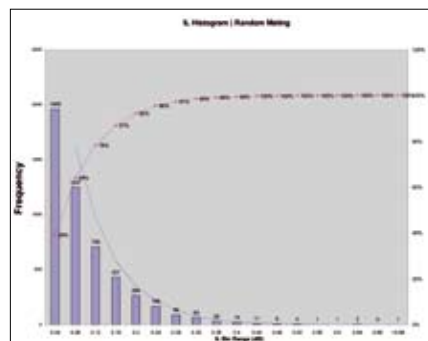
Standard Singlemode Connectors

- ▶ Standard insertion and return loss in accordance to the IEC 61755-1 standard
- ▶ Good surface quality and reliability

- ▶ Considerable cost saving for general application
- ▶ Suitable for general telecom and data centres



Distribution chart (Master lead)



Distribution chart (Random mating)

Technical Information on Connector Performance

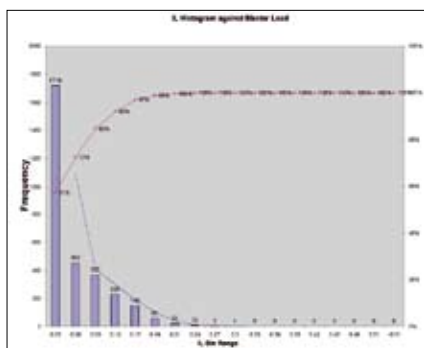
Multimode Connectors - PC

Specifications

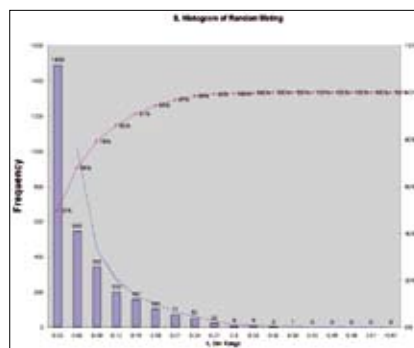
Optical Performance	Premium	Standard	Conformance
Insertion loss (Typ)	0.15	0.3	IEC 61300-3-4
Insertion loss (97%)	0.25	0.4	IEC 61300-3-4
Av/Master	0.08	0.15	IEC 61300-3-4
Av/Random	0.1	0.2	IEC 61300-3-4

Premium Multimode Connectors

- ▶ High surface quality and maximum reliability
- ▶ Less insertion and return loss
- ▶ Suitable for critical data centre application
- ▶ Suitable for high speed network protocols (fibre channel, Ethernet, etc.)
- ▶ Suitable for enterprise applications
- ▶ Suitable for FTTX and premise networks



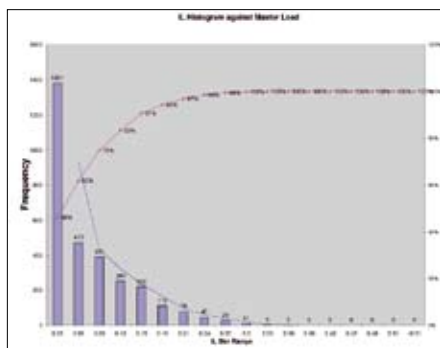
Distribution chart (Master lead)



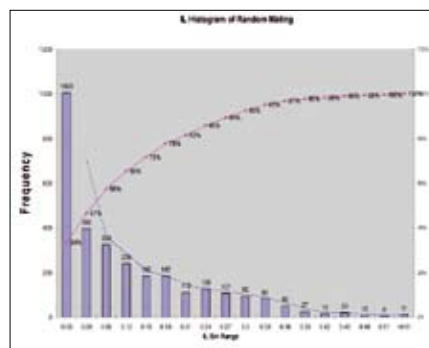
Distribution chart (Random mating)

Standard Multimode Connectors

- ▶ Good surface quality and maximum reliability
- ▶ Insertion and return loss in accordance with standards
- ▶ Suitable for data centre application
- ▶ Suitable for enterprise applications
- ▶ Suitable for premise networks



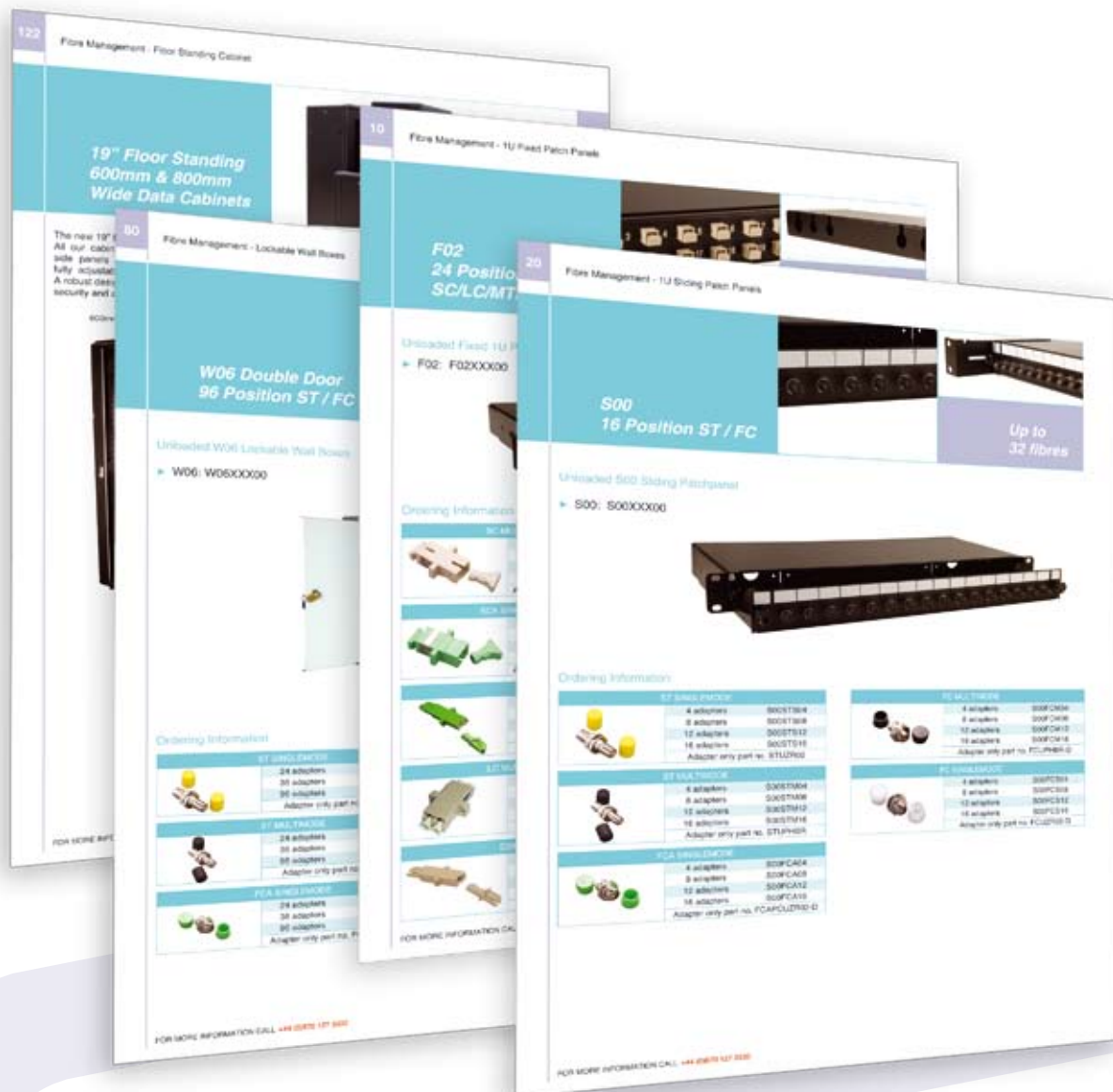
Distribution chart (Master lead)



Distribution chart (Random mating)

We also stock a wide array of Cable Management products

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Cable Management



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FibreFab Group and UK Headquarters

FibreFab Ltd

Davy Avenue, Knowlhill,
Milton Keynes, MK5 8ND,
United Kingdom.
Tel: +44 (0) 870 127 3330
Fax: +44 (0) 870 127 3331
E-mail: sales@fibrefab.com
www.fibrefab.com

UK Manufacturing Plant

FibreFab Ltd

Boundary Road, Haverhill
Suffolk, CB9 7YH,
United Kingdom.
Tel: +44 (0) 870 127 3330
Fax: +44 (0) 870 127 3331
E-mail: sales@fibrefab.com
www.fibrefab.com

Dubai



FibreFab General Trading LLC

WH #410 Business District
Dubai Maritime City
P.O. Box 378978 – Dubai
United Arab Emirates
Call: +971 4 443 0168
or +971-55-954-1474
Fax: + 971 4 442 8697
E-mail: mea@optronicsnet.com
www.optronicsnet.com

United States of America



FibreFab Inc

517 Progress Drive
Suite N, Linthicum,
MD 21090, USA.
Tel: +1-410-242-9026
Fax: +1-410-242-7747
E-mail: sales@fibrefabinc.com
www.fibrefabinc.com

China



FibreFab Asia Pacific

7D, Block A, Hongsong Building
Tairan 6th Road,
Futian, Shenzhen China.
Tel: +86-755-2561-3694
Fax: +86-755-2561-3697
E-mail: asia@fibrefab.com
www.fibrefab.com