

DIAMOND

Fiber Optic Components

CABLE ASSEMBLIES AND ADAPTERS

The MU incorporates the positive mechanical and optical performance features of the SC style connector in a high density small form factor (SFF) design. The miniature unit-coupling MU is currently recognized by the IEC International standard organization.

This fiber optic connector system features a compact connector housing and a $\varnothing 1.25$ mm diameter ferrule.

The MU is available as a Simplex or Duplex connector for both Single Mode (PC or APC) and Multimode applications.

Diamond, leveraging its experience in SFF connector design and manufacturing, has incorporated its unique ferrule design and proprietary active alignment process which has made their own E-2000™ & F-3000™ connectors recognized performance leaders. The end result is an MU connector with superior optical performance.

APPLICATIONS

- ▶ Fiber optic subscriber network transmission / switching equipment
- ▶ Optical MDF (Multi Distribution frames)
- ▶ CATV, LAN
- ▶ SONET/SDH, ATM and WDM communication systems
- ▶ Test equipment

The MU connector system presents the following features :

- ▶ High packing density
- ▶ Excellent optical performance (SM & MM)
- ▶ Wide range of applications
- ▶ Ease of operation (Push-pull)

STANDARDS

- ▶ IEC 61 754-6 “Fiber optic connector interfaces – Type MU connector family”
- ▶ TIA/EIA 604-17 “Fiber optic intermateability standard - Type MU”

AVAILABLE AS

- ▶ Terminated connector
- ▶ Connector set, (to be terminated with Diamond special equipment)

SPECIFICATIONS

	MULTIMODE 0° PC	SINGLE MODE 0° PC	SINGLE MODE 8° APC	UNITS	TEST CONDITIONS
Insertion Loss (IL)	typ. 0.15 max. 0.4	typ. 0.2 max. 0.4	typ 0.2 max. 0.4	dB	IEC 61300-3-4; $\lambda = 1300/1550\text{nm}$
Return Loss (RL)	typ. 40	min. 50	min. 70*	dB	IEC 61300-3-6; $\lambda = 1300/1550\text{nm}$
Repeatability of IL	max. ± 0.1			dB	IEC 61300-2-2; $\lambda = 1300/1550\text{nm}$
Service life	1000 mate/demate cycles				According to field experience
Operating temperature	-25/+70**			°C	

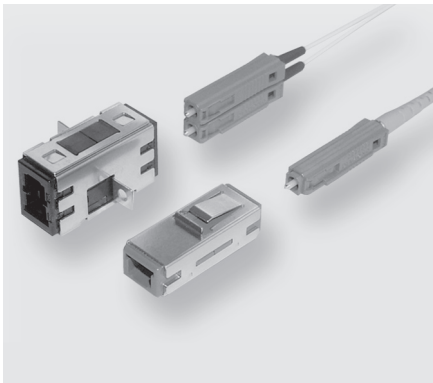
* Measured with high precision reflectometer
** May be further limited by cable specifications



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MU Simplex & Duplex

SINGLE MODE PC/APC
MULTIMODE PC



MU DUPLEX CONNECTOR TYPES AND DIMENSIONS

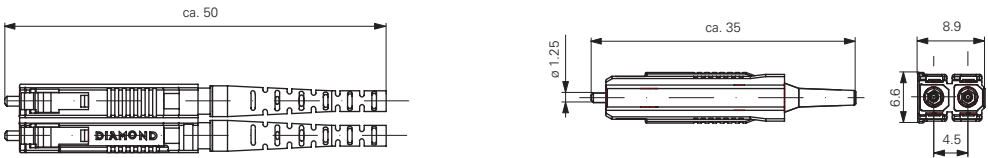
Connectors 900 μm - 2.1 mm boot style

Available types:

MU Duplex PC
MU Duplex APC

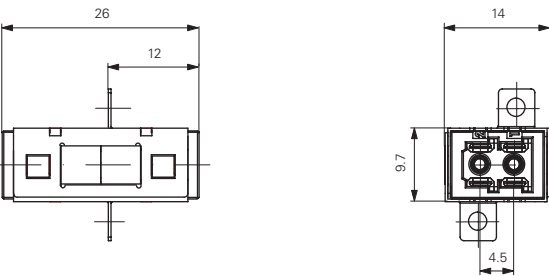
Ferrule material:
External parts:

Zirconia/copper-nickel alloy insert
Plastic

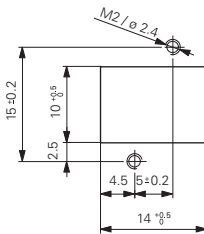


MU DUPLEX ADAPTER TYPES AND DIMENSIONS

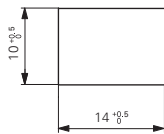
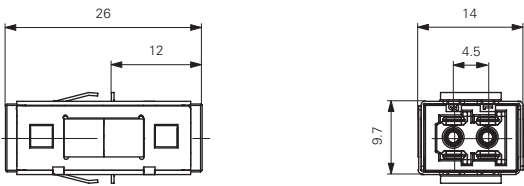
Mating adapter with screw fixing clip

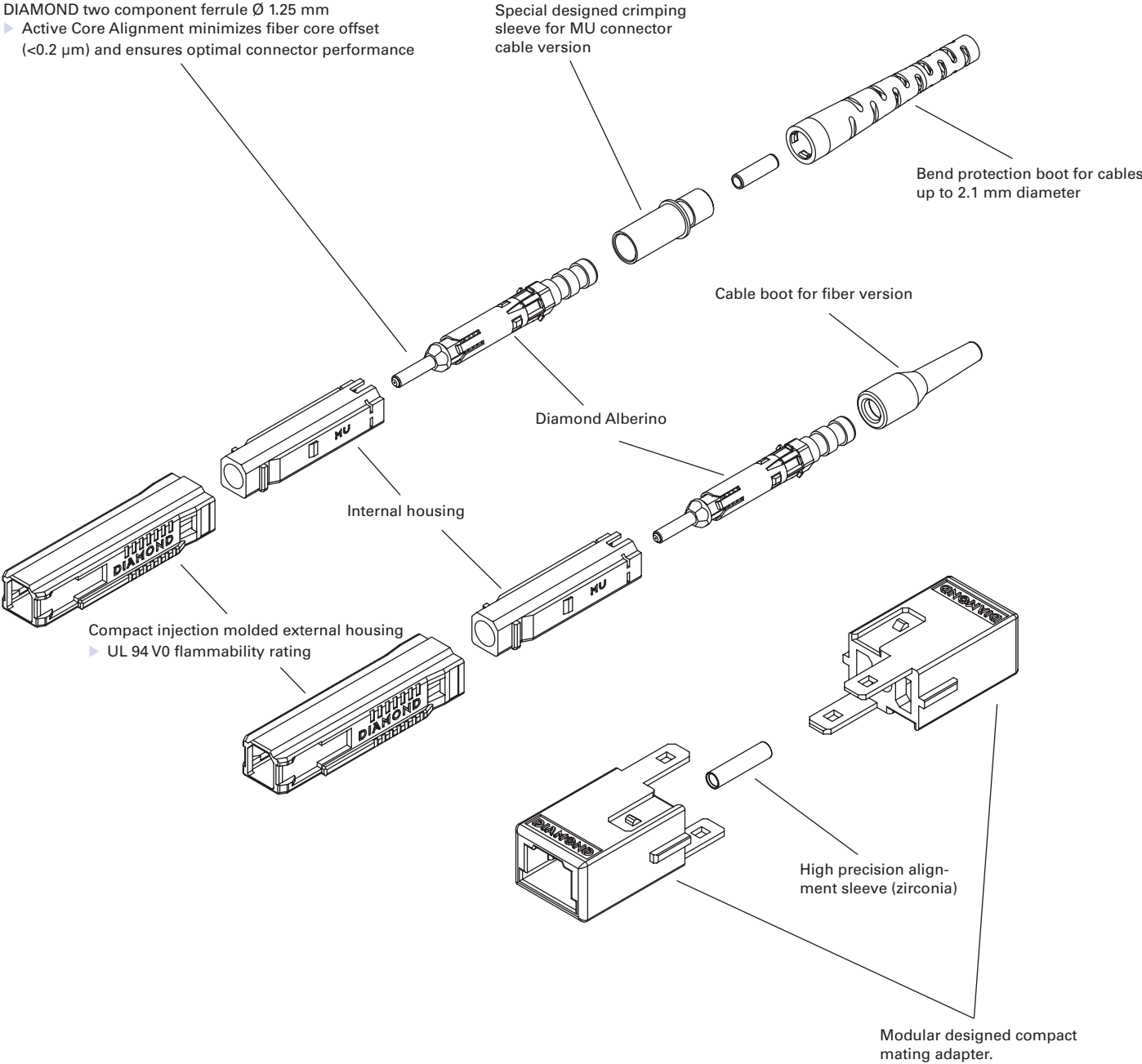


CUTOUT DIMENSIONS



Mating adapter with quick fixing clip

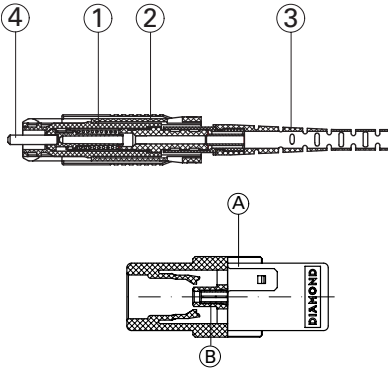




NOTE As standard, Diamond uses colored connector bodies, cable boots and mating adapter housings to identify the fiber type (SM or MM 50/62.5µm) and ferrule polish (PC or APC). Diamond's standard **connector/boot/adaptor** colors are as follows: Beige/Black/Beige for MM PC 50µm, Beige/Beige/Beige for MM PC 62.5µm, Blue/Blue/Blue for SM PC, and Green/Green/Green for SM APC. Other colors are available upon request. Please refer to the Simplex, Duplex, Multiple fiber Assemblies order form for standard duplex channel identification.

MATERIALS: CONNECTOR AND MATING ADAPTER

	ITEM	COMPONENT	MATERIAL
Connector	1	Internal Housing	PBT (UL 94 V0)
	2	External Housing	PEI (UL 94 V0)
	3	Cable boot	EPTR (UL 94 V0)
	4	Ferrule Ø 1.25 mm	Zirconia/Cu-Ni insert
Mating Adapter	A	Outer housing	PEI (UL 94 V0)
	B	Sleeve	Zirconia



MU SIMPLEX CONNECTOR TYPES AND DIMENSIONS

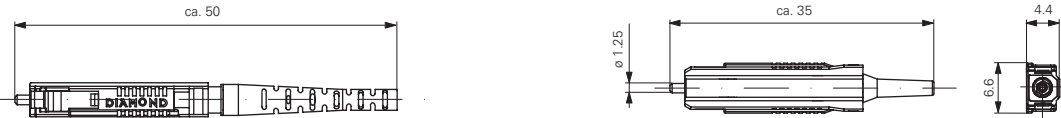
Connectors 900µm - 2.1 mm boot style

Available types:

MU Simplex PC
MU Simplex APC

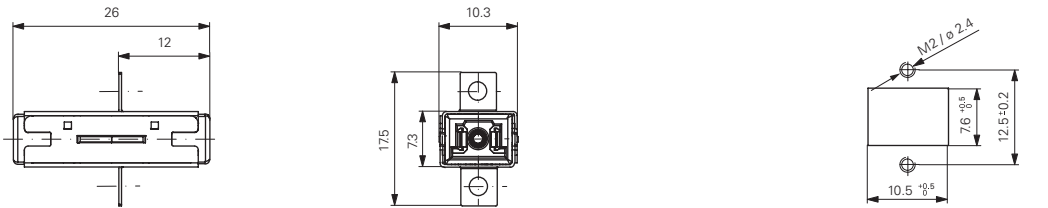
Ferrule material:
External parts:

Zirconia/copper-nickel alloy insert
Plastic

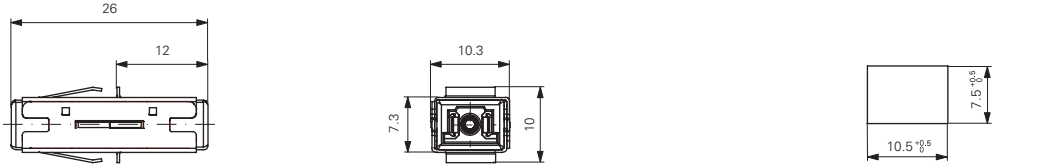


MU SIMPLEX ADAPTER TYPES AND DIMENSIONS

Mating adapter with screw fixing clip



Mating adapter with quick fixing clip



ORDER INFORMATION

When ordering **standard** pigtails und patchcords and mating adapters, please refer to the part numbers provided in the enclosed P/N list.

When ordering pigtails or cable assemblies, please refer to the **connector type description** in the Available types section, and fill in the Simplex, Duplex, Multiple fiber Assemblies order form according to **those** denominations.