

DIAMOND

Fiber Optic Components

The FC FUSION allows you to quickly and easily make field terminations with the performance you expect from Diamond-quality FC connectors.

The key to this system is DIAMOND's advanced "crocodile alberino" fusion field ferrule assembly. The ferrule assembly consists of a factory-terminated fiber endface, fiber stub, and integrated splice protection. The fiber endface is core-centered via Diamond's well-known Active Core Alignment process and factory-polished to the company's exacting specifications. The FC FUSION is then field terminated via a low loss fusion splice using the Diamond Fusion Field Termination Kit. The FC FUSION is available for SM and MM fiber (250 & 900 μm) and cable (2.1- to 3.1 mm) in both 0° PC or 8° APC versions. Other fiber types can also be accommodated upon request.

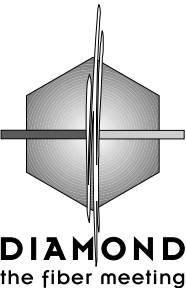
FEATURES AND BENEFITS

- Simple, fast and reliable field termination
reduces operator error and cost per termination
- Outstanding optical performance
consistent and repeatable low IL / high RL
- No polishing
eliminates the need for costly consumables
operator independent performance
- Fusion spliced pigtail performance and reliability without the cost and space associated with splice enclosures, trays and protectors.

SPECIFICATIONS

	Multimode	Single mode	Single mode 8° APC	Units	Test conditions
Insertion loss (IL)	typ 0.2 max 0.5	typ 0.25 max 0.5	typ 0.25 max 0.5	dB	IEC 61300-3-4; λ= 1300/1550nm
Reflectance (RL)	min 40	min 50	min 70*	dB	IEC 61300-3-6; λ= 1300/1550nm
Repeatability of IL	max ±0.1			dB	
Service life	1000 mate/demate cycles				
Operating temperature	-25 / +70**			°C	
Storage temperature	-25 / +70**			°C	

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



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FC FUSION

SINGLE MODE/ MULTIMODE



Crocodile Alberino



Initial condition



Spliced

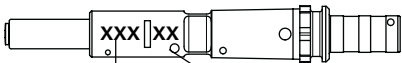


Closed before housing assembly

Specifications subject to change
without notice

002-037-202P004083

DIAMOND FUSION MARKINGS



Reference SM or MM



Production date

Orientation mark for 8° APC-type assembly

Codes for preterminated standard fiber stubs	
100	SMF-28 9 μm
210	MM TB OM3 50 μm
201	MM TB GI 62.5 μm

Standard components are preterminated with Corning SMF - 28 fiber stubs.
Please contact your DIAMOND sales office if another fiber type is required.

Standard components are preterminated with 50/125 μm OM3 type and GI 62.5/125 μm fiber stubs.
Please contact your DIAMOND sales office if another fiber type is required.

TERMINATION KIT

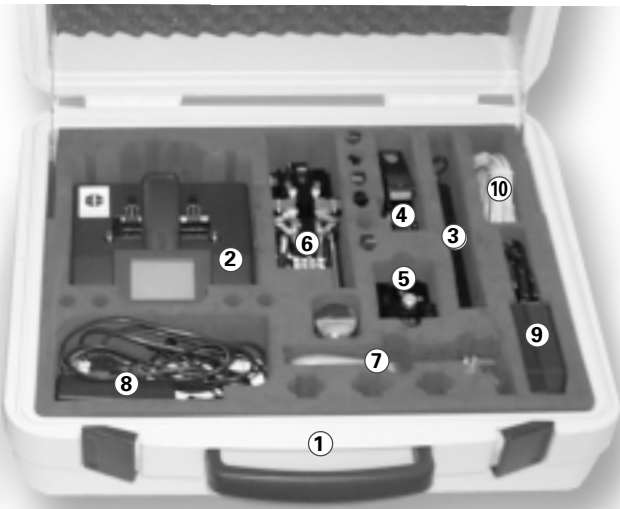
DIAMOND's Fusion Field Termination Kit provides all the tools and instructions necessary for high performance field terminations of DIAMOND's FUSION connectors.

ORDER INFORMATION

Fusion Field Termination Kit: 241-100-050V001

KIT CONTENTS

Description
1 Rugged carrying case
2 Diamond Fusion Splicer (DFS)
3 DFS battery
4 Fiber stripper
5 Precision cleaver
6 "Crocodile alberino" closing tool
7 E-2000, SC, FC and ST connector assembly tools
8 Power supply 120/240 V
9 Battery charger 120/240 V
10 RJ-45 crossed interface cable



Space requirement: ca. 540 x 430 x 210 mm
Weight: ca. 12.5 Kg

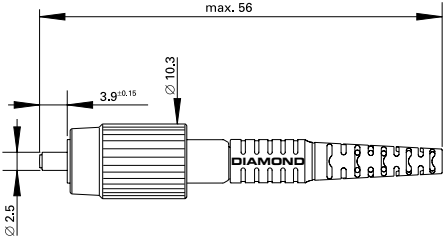
CONNECTORS

FUSION SINGLE MODE PC, Key Ø 2.14 mm

Type designation: **HPC-S0.86 Alb**
Ferrule material: Zirconia/copper-nickel alloy insert (Pilzferrule)
External parts: Ni-plated brass / Plastic black
Polish geometry: Convex (PC)

Dimensions Fiber/Cable	Order Number
9/125/900	1 8 9 - 0 0 3 - 0 0 1 L 0 0 0
9/125/900/1800	1 8 9 - 0 0 3 - 0 0 6 L 0 0 0
9/125/900/2100	1 8 9 - 0 0 3 - 0 0 2 L 0 0 0
9/125/900/2500	1 8 9 - 0 0 3 - 0 0 3 L 0 0 0
9/125/900/3000	1 8 9 - 0 0 3 - 0 0 4 L 0 0 0

Connectors for other fiber and cable dimensions available upon request



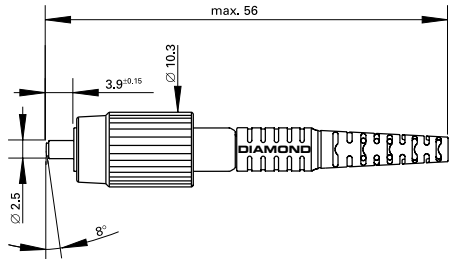
CONNECTORS

FUSION SINGLE MODE APC, Key Ø 2,14 mm

Type designation: **HPC-S8.86 Alb**
Ferrule material: Zirconia/copper-nickel alloy insert (Pilzferrule)
External parts: Ni-plated brass / Plastic black
Polish geometry: 8° angled convex (APC)

Dimensions Fiber/Cable	Order Number
9/125/900	1 9 1 - 0 0 3 - 0 0 1 L 0 0 0
9/125/900/1800	1 9 1 - 0 0 3 - 0 0 6 L 0 0 0
9/125/900/2100	1 9 1 - 0 0 3 - 0 0 2 L 0 0 0
9/125/900/2500	1 9 1 - 0 0 3 - 0 0 3 L 0 0 0
9/125/900/3000	1 9 1 - 0 0 3 - 0 0 4 L 0 0 0

Connectors for other fiber and cable dimensions available upon request



FUSION MULTIMODE PC, Key Ø 2,14 mm

Type designation: **HPC-M0.86 Alb**

Dimensions Fiber/Cable	Order Number	
	GI 50/125	GI 62.5/125
50-62.5/125/900	1 9 0 - 0 0 3 - 0 0 1 L 0 0 0	1 9 0 - 0 0 3 - 0 1 1 L 0 0 0
50-62.5/125/900/1800	1 9 0 - 0 0 3 - 0 0 6 L 0 0 0	1 9 0 - 0 0 3 - 0 1 6 L 0 0 0
50-62.5/125/900/2100	1 9 0 - 0 0 3 - 0 0 2 L 0 0 0	1 9 0 - 0 0 3 - 0 1 2 L 0 0 0
50-62.5/125/900/2500	1 9 0 - 0 0 3 - 0 0 3 L 0 0 0	1 9 0 - 0 0 3 - 0 1 3 L 0 0 0
50-62.5/125/900/3000	1 9 0 - 0 0 3 - 0 0 4 L 0 0 0	1 9 0 - 0 0 3 - 0 1 4 L 0 0 0

Connectors for other fiber and cable dimensions available upon request

FUSION SINGLE MODE APC, Key Ø 2 mm

Type designation: **HPC-S8.86/X Alb**

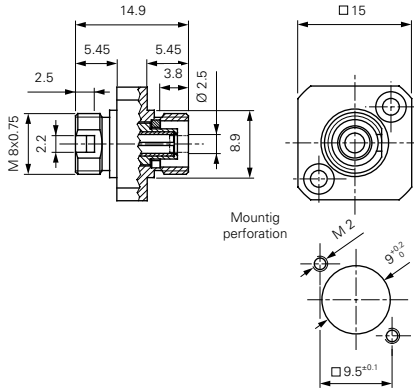
Dimensions Fiber/Cable	Order Number
9/125/900	1 9 2 - 0 0 3 - 0 0 1 L 0 0 0
9/125/900/1800	1 9 2 - 0 0 3 - 0 0 6 L 0 0 0
9/125/900/2100	1 9 2 - 0 0 3 - 0 0 2 L 0 0 0
9/125/900/2500	1 9 2 - 0 0 3 - 0 0 3 L 0 0 0
9/125/900/3000	1 9 2 - 0 0 3 - 0 0 4 L 0 0 0

Connectors for other fiber and cable dimensions available upon request

ADAPTORS

Type designation: **MPC-*0.22**
Mating sleeve: Zirconia

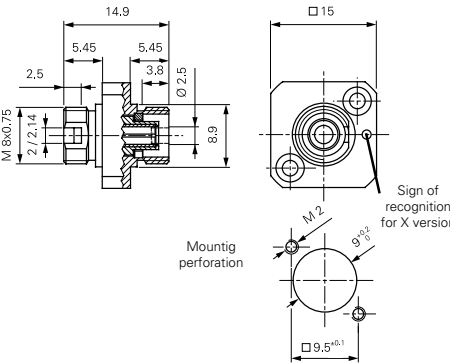
Type designation	External parts	Order Number
MPC-S0.22	Ni-plated brass	1 1 0 - 3 0 1 - 9 0 7 V 0 0 1
MPC-M0.22	Ni-plated brass	1 1 0 - 3 0 1 - 9 1 9 V 0 0 1



ADAPTORS

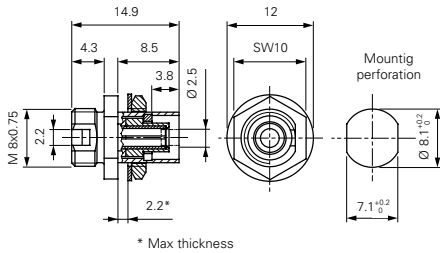
Types: **MPC-S8.22***
Mating sleeve: Zirconia

Type designation	External parts / key ø	Order Number
MPC-S8.22	Ni-plated brass / 2.14 mm	1 1 0 - 3 0 1 - 9 0 4 V 0 0 1
MPC-S8.22/X	Ni-plated brass / 2 mm	1 1 0 - 3 0 1 - 9 0 4 V 0 0 2

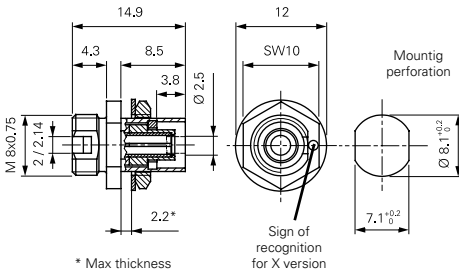


Type designation: **MPC-*0.22/6 Kt.**

Type designation	External parts	Order Number
MPC-S0.22/6 Kt.	Ni-plated brass	1 1 0 - 3 0 1 - 9 0 3 V 0 0 1
MPC-M0.22/6 Kt.	Ni-plated brass	1 1 0 - 3 0 1 - 9 2 0 V 0 0 1

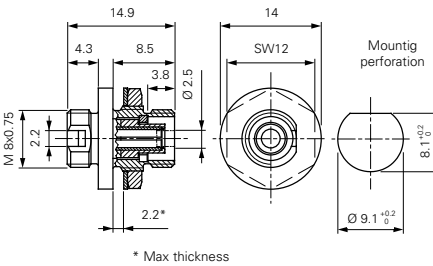


Type designation	External parts / key ø	Order Number
MPC-S8.22/6 Kt.	Ni-plated brass / 2.14 mm	1 1 0 - 3 0 1 - 9 0 3 V 0 0 2
MPC-S8.22/6 Kt. X	Ni-plated brass / 2 mm	1 1 0 - 3 0 1 - 9 1 1 V 0 0 2



Type designation: **MPC-*0.22/Y**

Type designation	External parts	Order Number
MPC-S0.22/Y	Ni-plated brass	1 1 0 - 3 0 1 - 9 0 5 V 0 0 1
MPC-M0.22/Y	Ni-plated brass	1 1 0 - 3 0 1 - 9 2 1 V 0 0 1



Type designation	External parts / key ø	Order Number
MPC-S8.22/Y	Ni-plated brass / 2.14 mm	1 1 0 - 3 0 1 - 9 0 5 V 0 0 2
MPC-S8.22/YX	Ni-plated brass / 2 mm	1 1 0 - 3 0 1 - 9 1 2 V 0 0 2

