

DIAMOND

Fiber Optic Components

E-2000™ COMPACT
**SINGLE MODE/
MULTIMODE**
E-2146.6/E-2156.6
SINGLE MODE APC
E-2148.6

According to the updating of the **E-2000™** connector system, DIAMOND decides to develop a new generation of the **E-2000™ COMPACT DUPLEX**.

It combines the familiarity of the RJ45 design and the renowned optical and mechanical performances of the **E-2000™** system.

Based on components of the **E-2000™** single fiber version joined by a simple clip-bridge and a widened thumb-latch, the new **E-2000™ COMPACT** also presents overall black protection caps, suitable for high power applications, and an innovative version "**0.1 dB**" insertion loss.

The redesigned adapters can be easily fitted to different applications thanks to its modular concept of interchangeable mounting brackets.

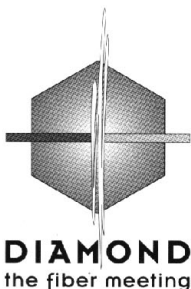
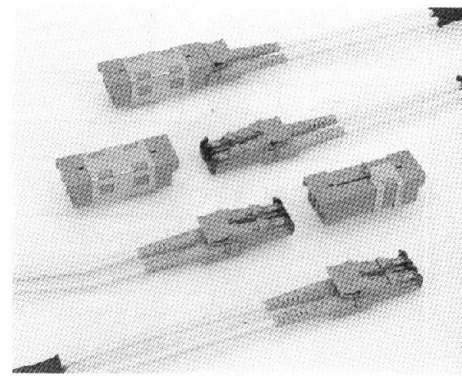
The **E-2000™ COMPACT DUPLEX** is available as multimode and single mode connector, standard or **0.1 dB**, in convex polished (PC) and 8° angle polished (APC) versions.

The **E-2000™ COMPACT DUPLEX** is also available as **E-2000™ FUSION**, the field mountable version (see the separated data sheet).

Fiber to the desk is the requirement for an increasing number of cabling installations. Typically they support multimedia environments including voice, data and image transmission.

The E-2000™ COMPACT DUPLEX covers all needs in this field of applications and offers:

- *The smallest footprint for fiber optic duplex connector compatible to RJ 45*
- *High flexible system permitting the combination of fiber optic and category 5 distribution, using the same panels and outlets*
- *Easy extension of already existing installations*
- *Injection molded housing (UL 94 V0 flammability rating)*
- *Positive latching mechanism with interchangeable, color-coded and/or mechanical keyed thumb-latches*
- *Spring-loaded metal shutters*
- *Integrated protective caps*
- *Guiding tracks*
- *Interchangeable color-coded and/or mechanical keyed mating adapter frames*
- *Existing components can be upgraded to duplex through the use of a simple clip-bridge and an extended thumb-latch*
- *DIAMOND two-component ferrule*



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*Specifications subject to changes
without notice*

002-037-210P004120

Specifications:

	Multimode	Single mode	Single mode 8° APC	Single mode 0.1 dB	Units	Test conditions
Insertion Loss (IL)	type 0.15 max 0.4	type 0.2 max 0.4	type 0.2 max 0.4	max 0.1	dB	IEC 1300-3-4; λ = 1300/1550nm
Return Loss (RL)	type -40	min 50	min 70*	min 85*	dB	IEC 1300-3-6; λ = 1300/1550nm
Repeatability of IL	max ±0.1				dB	Over service life
Service life	1000 mate/demate cycles					
Operating temperature	-40 / +85				°C	May be further limited by cable specifications
Storage temperature	-40 / +90				°C	

* Measured with high precision reflectometer.

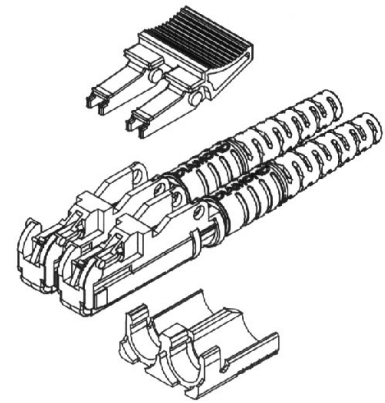
Color keying

The **E-2000™** system permits the user to specify the color of the thumb-latch and the mating adapter frame so that different line types, uses, destinations and points of origin, etc. can be readily identified.

The thumb-latch and frame are available in eight distinct colors:

- | | | | |
|----------|------------|-----------|------------|
| 1. Blue | (RAL 5015) | 5. Orange | (RAL 2003) |
| 2. White | (RAL 9010) | 6. Yellow | (RAL 1016) |
| 3. Black | (RAL 9005) | 7. Green | (RAL 6018) |
| 4. Red | (RAL 3020) | 8. Violet | (RAL 4008) |

In addition, colored connector bodies and mating adapter housings are used to identify the ferrule polish. Blue (RAL 5015) is used for connectors with convex polished (PC) ferrules and green (RAL 6018) identifies 8° angle polished (APC) types.



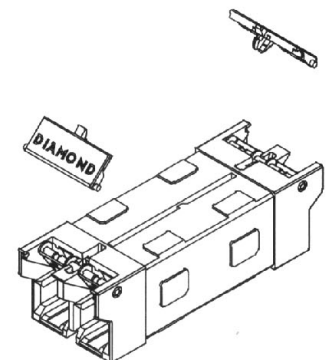
Mechanical keying

Additionally, it will become increasingly necessary to guard against improper connection in multiple-service patch facilities. The **E-2000™** system permits the inclusion of a mechanical keying mechanism to ensure differentiation, for example, between a single mode and a multimode line.

The 2 mechanical keying options are also color-coded as follows:

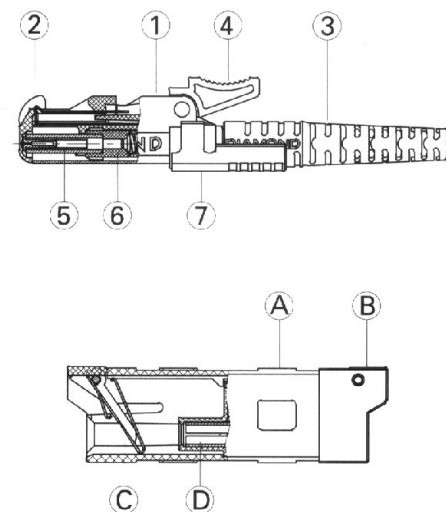
- | | | | |
|-----------|------------|-----------|------------|
| 1. Red | (RAL 3020) | 4. Orange | (RAL 2003) |
| 2. Brown | (RAL 8004) | 5. Violet | (RAL 4008) |
| 3. Yellow | (RAL 1016) | 6. White | (RAL 9010) |

Differently keyed connectors are not intermatable but **can** be mated with the unkeyed adapters listed above.



Materials: Connector and mating adapter

	Item	Component	Material
Connector	1	Housing	PBT
	2	Protective cap	Black metal/Plastic
	3	Cable boot	PUR
	4	Thumb-latch	PBT
	5	Ferrule Ø 2.5 mm	Zirconia/Cu-Ni insert (Pilz)
	6	Ferrule case	LCP
	7	Bridge	POM
Mating adapter	A	Housing	PBT
	B	Coded frame	PBT
	C	Shutters	Metal
	D	Alignment sleeve	Zirconia



Order informations for connectors:

Order Number Codes

¹ Connector code

² Connector code for termination on other end of assembly

- For pigtails: insert 000

- For patch assemblies: insert connector code for other connector

³ Code for fiber or cable

⁴ Connector type:

max 0.4 dB: insert "L"

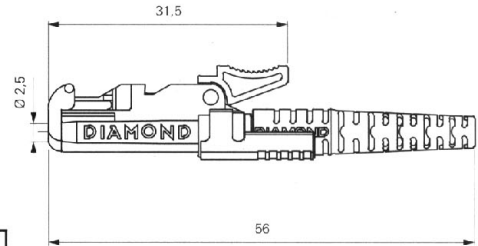
max 0.1dB: insert "H"

⁵ Length in meters

SINGLE MODE

Type designation: **E-2146.6-11 COMPACT**
 Ferrule material: Zirconia/copper-nickel alloy insert (Pilzferrule)
 External parts: Plastic (blue)
 Polish geometry: Convex (PC)

Dimensions Fiber/Cable	Order Number	
	Unterminated connector	Terminated assembly
9/125/900	- 0 0 0 - 0 0 1 L 0 0 0	- x x x - 0 0 1 L x x x
9/125/900/3500/6500	- 0 0 0 - 0 0 5 L 0 0 0	- x x x - 0 0 5 L x x x



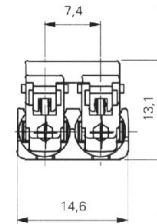
COLOR CODING

Thumb-latch	blue	green	black	red	orange	yellow	white	violet
Order No.	500	510	520	530	540	550	560	570

MECHANICAL KEYING

Thumb-latch No.	1-1 (red)	2-2 (brown)	3-3 (yellow)	4-4 (orange)	5-5 (violet)	6-6 (white)	—	—
Order No.	600	610	620	630	640	650	—	—

Connectors for other fiber and cable dimensions available upon request.



MULTIMODE

Type designation: **E-2156.6 COMPACT**
 Ferrule material: Zirconia/copper-nickel alloy insert (Pilzferrule)
 External parts: Plastic (blue)
 Polish geometry: Convex (PC)

Dimensions Fiber/Cable	Order Number	
	Unterminated connector	Terminated assembly
50/125/900	- 0 0 0 - 0 0 1 L 0 0 0	- x x x - 0 0 1 L x x x
50/125/900/3000/6500	- 0 0 0 - 0 0 4 L 0 0 0	- x x x - 0 5 4 L x x x
62.5/125/900	- 0 0 0 - 0 0 1 L 0 0 0	- x x x - 0 0 1 L x x x
62.5/125/900/3000/6500	- 0 0 0 - 0 0 4 L 0 0 0	- x x x - 0 6 4 L x x x

COLOR CODING

Thumb-latch	blue	green	black	red	orange	yellow	white	violet
Order No.	501	511	521	531	541	551	561	571

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Thumb-latch No.	1-1 (red)	2-2 (brown)	3-3 (yellow)	4-4 (orange)	5-5 (violet)	6-6 (white)	—	—
Order No.	601	611	621	631	641	651	—	—

Connectors for other fiber and cable dimensions available upon request.

SINGLE MODE APC (HRL)

Type designation: **E-2148.6 COMPACT**
 Ferrule material: Zirconia/copper-nickel alloy insert (Pilzferrule)
 External parts: Plastic (green)
 Polish geometry: 8° angled (APC)

Dimensions Fiber/Cable	Order Number	
	Unterminated connector	Terminated assembly
9/125/900	- 0 0 0 - 0 0 1 L 0 0 0	- x x x - 0 0 1 L x x x
9/125/900/3500/6500	- 0 0 0 - 0 0 5 L 0 0 0	- x x x - 0 0 5 L x x x

COLOR CODING

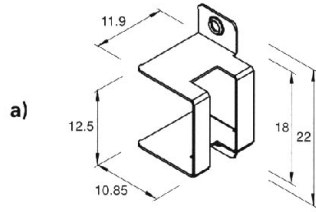
Thumb-latch	green	blue	black	red	orange	yellow	white	violet
Order No.	502	512	522	532	542	552	562	572

MECHANICAL KEYING

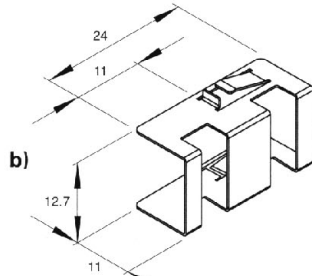
Thumb-latch No.	1-1 (red)	2-2 (brown)	3-3 (yellow)	4-4 (orange)	5-5 (violet)	6-6 (white)	—	—
Order No.	602	612	622	632	642	652	—	—

Connectors for other fiber and cable dimensions available upon request.

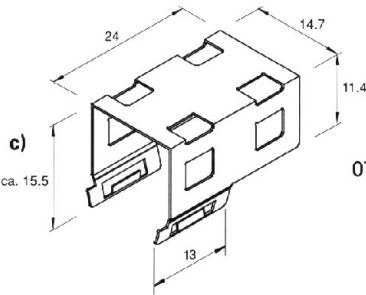
Type designation: **E-2211.2 COMPACT**
 Mating sleeve: Zirconia
 External parts: Plastic blue (V1xx), green (V2xx)



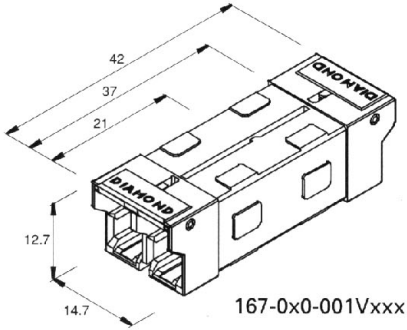
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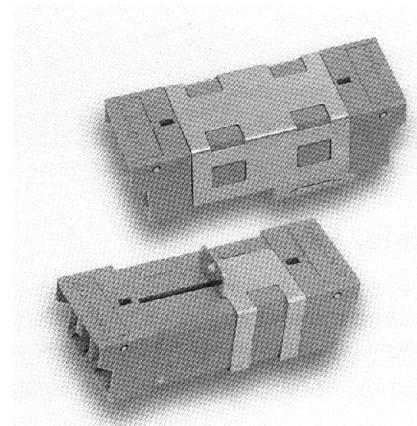


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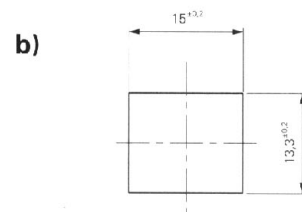
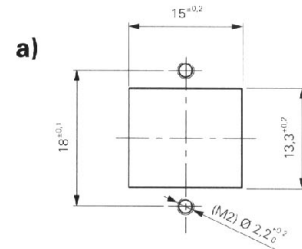


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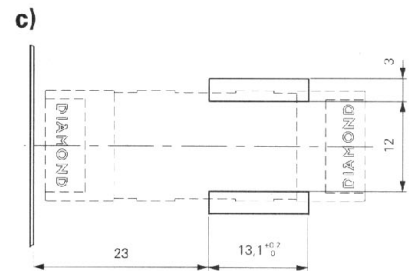
MATING ADAPTER E-2000™ COMPACT PC/APC



MOUNTING INSTRUCTIONS



Max wall thickness 1,6 mm

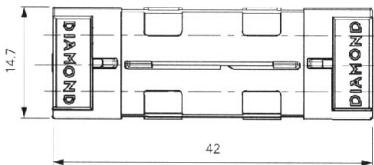
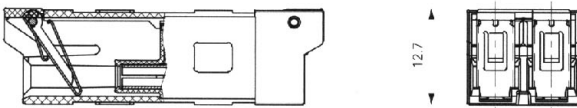


COLOR CODING

Frame color	Order Number	Frame color	Order Number
blue	1 6 7 - 0 x x - 0 0 1 V x 0 1	orange	1 6 7 - 0 x x - 0 0 1 V x 0 5
green	1 6 7 - 0 x x - 0 0 1 V x 0 2	yellow	1 6 7 - 0 x x - 0 0 1 V x 0 6
black	1 6 7 - 0 x x - 0 0 1 V x 0 3	white	1 6 7 - 0 x x - 0 0 1 V x 0 7
red	1 6 7 - 0 x x - 0 0 1 V x 0 4	violet	1 6 7 - 0 x x - 0 0 1 V x 0 8

MECHANICAL KEYING

Frame No.	Order Number	Frame No.	Order Number
1-1 (red)	1 6 7 - 0 x x - 1 0 1 V x 0 0	4-4 (orange)	1 6 7 - 0 x x - 4 0 1 V x 0 0
2-2 (brown)	1 6 7 - 0 x x - 2 0 1 V x 0 0	5-5 (violet)	1 6 7 - 0 x x - 5 0 1 V x 0 0
3-3 (yellow)	1 6 7 - 0 x x - 3 0 1 V x 0 0	6-6 (white)	1 6 7 - 0 x x - 6 0 1 V x 0 0



Order Number Codes for Mating Adapters

- 1 Adapter type: **0.15 dB: insert "3"** **0.1 dB: insert "4"**
 2 Code for fixation type:
 - 0 without fixation - 1 with screw fixing clip - 2 with quick fixing clip - 3 with print fixation
 3 Code for mechanical keying
 4 Code for basic body color:
 - 1 for blue - 2 for green
 5 Code for color coding

Other fixations or colors upon request.