

# DIAMOND

## Fiber Optic Components

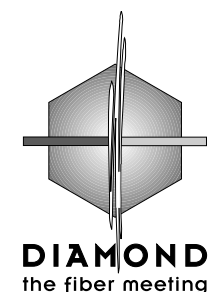
Constant innovation in the field of fiber optics has created demand for products with ever increasing performance requirements. Diamond has responded to this challenge and expanded the E-2000™ connector system to address these increased needs throughout all market segments. In addition to the already existing superior design of the E-2000™ technology, new innovative features have been added to the next generation of E-2000™ to address the customer's highest expectations. The new E-2000™ 0.1 dB offers now unparalleled 0.1 dB maximum insertion loss random mating, exceptional repeatability, while maintaining the already well established, superior features of the E-2000™ connector family.

### FEATURES AND BENEFITS INCLUDE

- Color-coding and mechanical keying to ensure correct matings.
- Spring-loaded protective cap for high power applications providing increased safety protection.
- Modular designed mating adapters with metal protective shutters for high power applications (available as single and compact duplex).
- E-2000™ body designed to prevent endface damages during mating process.

### STANDARDS

- EN 86 275-801 Detail Specification: "Connector sets of assessed quality for optical fibers and cables - Type LSH universal" (05/99)
- EN 86 275-802 Detail Specification: "Connector sets of assessed quality for optical fibers and cables - Type LSH-HRL universal" (05/99)
- IEC 61 754-15 "Fiber optic connector interfaces – Part 15: Type LSH connector family"
- ctc 222 Diamond internal Standard: "E-2000™ - 0.1 dB original"



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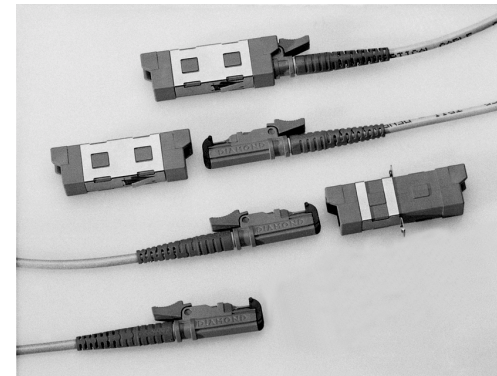
## E-2000™

### SINGLE MODE / MULTIMODE (CECC/IEC LSH)

### E-2106.6/E-2116.6

### SINGLE MODE APC

### E-2108.6 (CECC/IEC LSH-HRL)



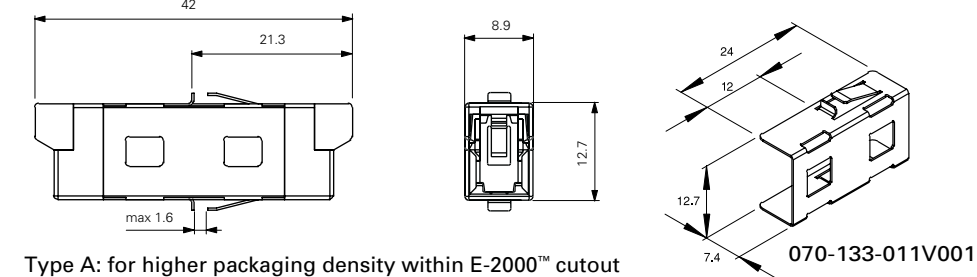
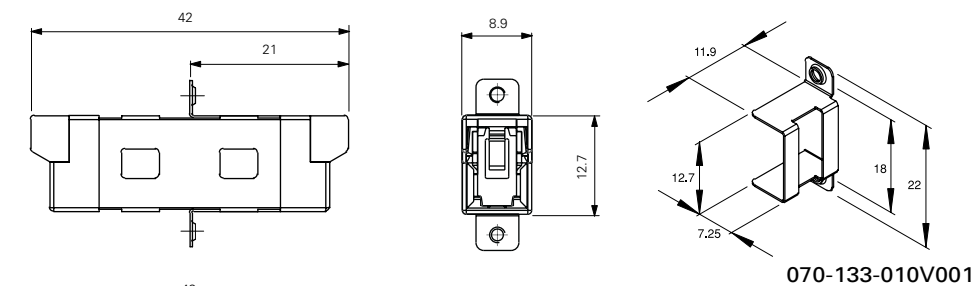
Type designation: **E-2201.2**  
Mating sleeve: Zirconia  
External parts: Plastic blue (V1xx), green (V2xx)

### COLOR CODING

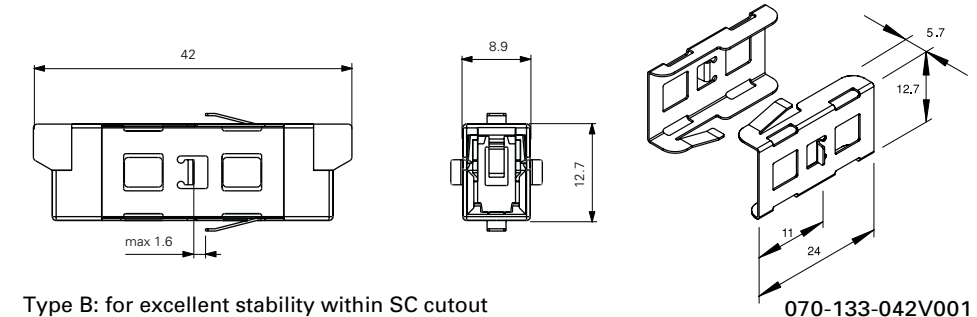
Frame color	Order Number	Frame color	Order Number
blue	1 6 7 - 0 x x - 0 0 1 V x 0 1	orange	1 6 7 - 0 x x - 0 0 1 V x 0 5
green	1 6 7 - 0 x x - 0 0 1 V x 0 2	yellow	1 6 7 - 0 x x - 0 0 1 V x 0 6
black	1 6 7 - 0 x x - 0 0 1 V x 0 3	white	1 6 7 - 0 x x - 0 0 1 V x 0 7
red	1 6 7 - 0 x x - 0 0 1 V x 0 4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

### MECHANISCHE CODIERUNG

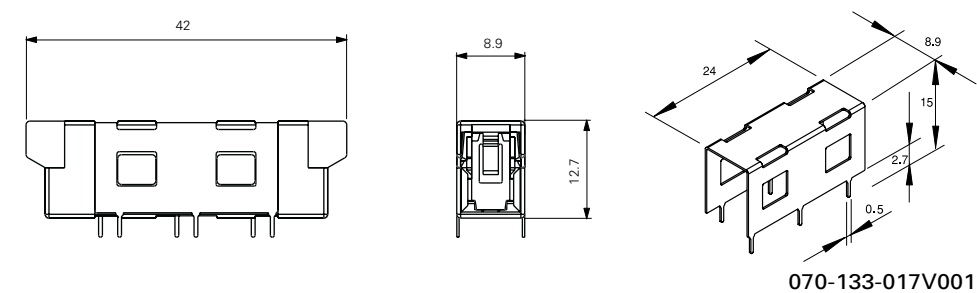
Frame no.	Order Number	Frame no.	Order Number
1 (red)	1 6 7 - 0 x x - 1 0 1 V x 0 0	4 (orange)	1 6 7 - 0 x x - 4 0 1 V x 0 0
2 (brown)	1 6 7 - 0 x x - 2 0 1 V x 0 0	5 (violet)	1 6 7 - 0 x x - 5 0 1 V x 0 0
3 (yellow)	1 6 7 - 0 x x - 3 0 1 V x 0 0	6 (white)	1 6 7 - 0 x x - 6 0 1 V x 0 0



Type A: for higher packaging density within E-2000™ cutout



Type B: for excellent stability within SC cutout



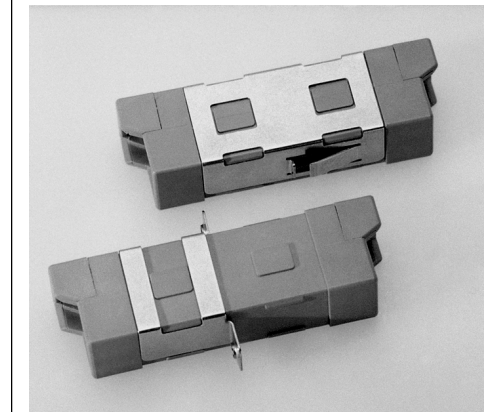
### ORDER NUMBER CODES FOR MATING ADAPTERS

- 1 Adapter type: **0.15 dB: insert "0"** **0.1 dB: insert "1"**
- 2 Code for fixation type:
  - 0 for basic body
  - 1 for assembled screw fixing clip
  - 2 for assembled quick fixing clip (type A)
  - 4 for print fixation
  - 6 for assembled quick fixing clip (type B)
- 3 Code for mechanical keying
- 4 Code for basic body color:
  - 1 for blue
  - 2 for green
- 5 Code for color coding

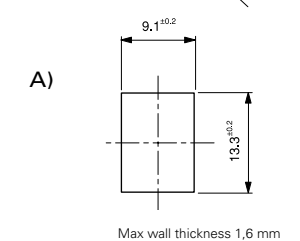
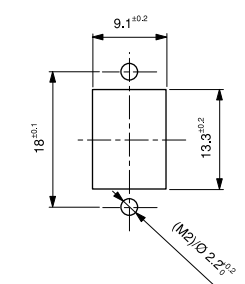
Other fixations or colors upon request.

## MATING ADAPTER

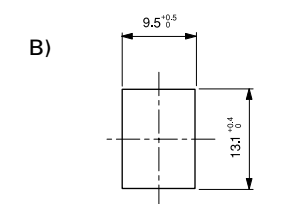
### E-2000™ PC/APC



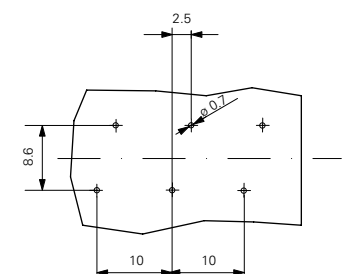
### CUTOUT DIMENSIONS



Max wall thickness 1,6 mm

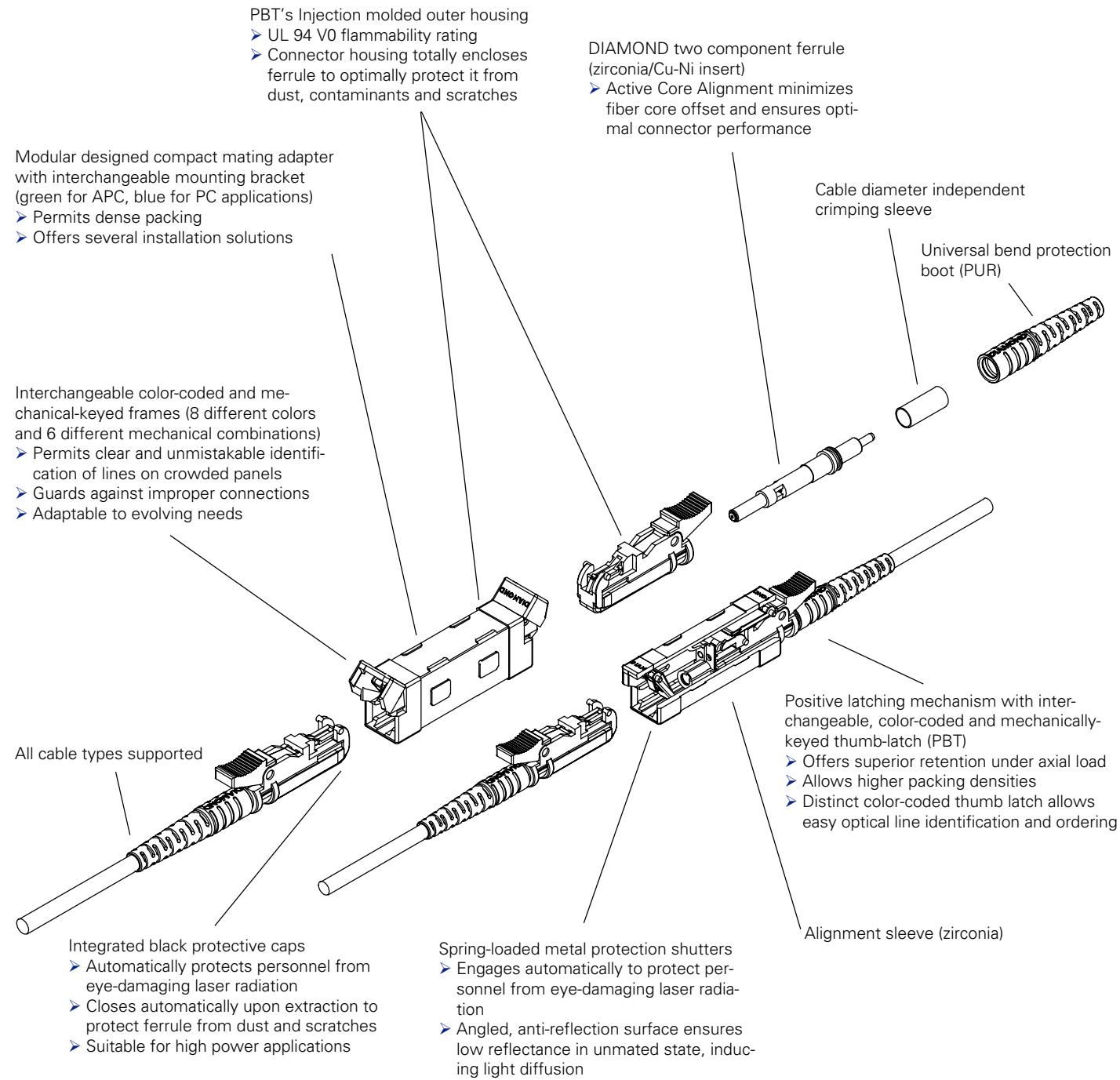


Max wall thickness 1,6 mm



Specifications subject to changes without notice

002-037-210P009083



### SPECIFICATIONS

	Multimode	Single mode 0°PC	Single mode 8°APC	Single mode 8° 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 61300-3-4; λ = 1300/1550nm
Return Loss (RL)	typ 40	min 50	min 70*	min 85*	dB	IEC 61300-3-6; λ = 1300/1550nm
Repeatability of IL	max ±0.1			-	dB	Over service life
Service life	1000 mate/demate cycles					
Operating temperature	-40 / +85 **				°C	
Storage temperature	-40 / +90 **				°C	

\* Measured with high precision reflectometer.

\*\* May be further limited by cable specifications.

### ORDER INFORMATION FOR CONNERCTORS

ORDER NUMBER CODES	
<sup>1</sup> Connector code	
<sup>2</sup> Connector code for termination on other end of assembly:	
- For pigtails	insert 000
- For patch assemblies	insert connector code for other connector
<sup>3</sup> Code for fiber or cable	
<sup>4</sup> Connector type:	<b>max 0.4 dB: insert "L"</b> <b>max 0.1 dB: insert "H"</b>
<sup>5</sup> Length in meters	

**Type designation:** E-2106.6-11  
**Ferrule material:** Zirconia/copper-nickel alloy insert (Pilzferrule)  
**External parts:** Plastic (blue)  
**Polish geometry:** Convex (PC)

Dimensions Fiber/Cable	Order Number	
	Underterminated connector	Terminated assembly
9/125/900	3 0 0 - 0 0 0 - 0 0 1 L 0 0 0	3 0 0 - x x x - 0 0 1 L x x x
9/125/900/2100	3 0 0 - 0 0 0 - 0 0 2 L 0 0 0	3 0 0 - x x x - 0 0 2 L x x x
9/125/900/2500	3 0 0 - 0 0 0 - 0 0 3 L 0 0 0	3 0 0 - x x x - 0 0 3 L x x x
9/125/900/3000	3 0 0 - 0 0 0 - 0 0 4 L 0 0 0	3 0 0 - x x x - 0 0 4 L x x x
9/125/900/3500	3 0 0 - 0 0 0 - 0 0 5 L 0 0 0	3 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.	300	310	320	330	340	350	360	370

### MECHANICAL KEYING

Thumb-latch No.	1 (red)	2 (brown)	3 (yellow)	4 (orange)	5 (violet)	6 (white)	—	—
Order No.	400	410	420	430	440	450	—	—

Connectors for other fiber and cable dimensions available upon request.

**Type designation:** E-2116.6-11  
**Polish geometry:** Convex (PC)

Dimensions Fiber/Cable	Order Number	
	Underterminated connector	Terminated assembly
50/125/900	3 0 1 - 0 0 0 - 0 0 1 L 0 0 0	3 0 1 - x x x - 0 0 1 L x x x
50/125/900/2100	3 0 1 - 0 0 0 - 0 0 2 L 0 0 0	3 0 1 - x x x - 0 0 2 L x x x
50/125/900/2500	3 0 1 - 0 0 0 - 0 0 3 L 0 0 0	3 0 1 - x x x - 0 0 3 L x x x
50/125/900/3000	3 0 1 - 0 0 0 - 0 0 4 L 0 0 0	3 0 1 - x x x - 0 0 4 L x x x
50/125/900/3500	3 0 1 - 0 0 0 - 0 0 5 L 0 0 0	3 0 1 - x x x - 0 0 5 L x x x
62.5/125/900	3 0 1 - 0 0 0 - 0 0 1 L 0 0 0	3 0 1 - x x x - 0 1 1 L x x x
62.5/125/900/3000	3 0 1 - 0 0 0 - 0 0 4 L 0 0 0	3 0 1 - x x x - 0 1 4 L x x x

### COLOR CODING

Thumb-latch	blue	green	black	red	orange	yellow	white	violet
Order No.	301	311	321	331	341	351	361	371

### MECHANICAL KEYING

Thumb-latch No.	1 (red)	2 (brown)	3 (yellow)	4 (orange)	5 (violet)	6 (white)	—	—
Order No.	401	411	421	431	441	451	—	—

Connectors for other fiber and cable dimensions available upon request.

**Type designation:** E-2108.6-22  
**Ferrule material:** Zirconia/copper-nickel alloy insert (Pilzferrule)  
**External parts:** Plastic (green)  
**Polish geometry:** 8° angled (APC)

Dimensions Fiber/Cable	Order Number	
	Underterminated connector	Terminated assembly
9/125/900	3 0 2 - 0 0 0 - 0 0 1 L 0 0 0	3 0 2 - x x x - 0 0 1 L x x x
9/125/900/2100	3 0 2 - 0 0 0 - 0 0 2 L 0 0 0	3 0 2 - x x x - 0 0 2 L x x x
9/125/900/2500	3 0 2 - 0 0 0 - 0 0 3 L 0 0 0	3 0 2 - x x x - 0 0 3 L x x x
9/125/900/3000	3 0 2 - 0 0 0 - 0 0 4 L 0 0 0	3 0 2 - x x x - 0 0 4 L x x x
9/125/900/3500	3 0 2 - 0 0 0 - 0 0 5 L 0 0 0	3 0 2 - x x x - 0 0 5 L x x x

### COLOR CODING

Thumb-latch	green	blue	black	red	orange	yellow	white	violet
Order No.	302	312	322	332	342	352	362	372

### MECHANICAL KEYING

Thumb-latch No.	1 (red)	2 (brown)	3 (yellow)	4 (orange)	5 (violet)	6 (white)	—	—
Order No.	402	412	422	432	442	452	—	—

Connectors for other fiber and cable dimensions available upon request.

