

# DIAMOND

## Fiber Optic Components

### F-3000™ ODVA

(HARSH ENVIRONMENT)

SINGLE MODE PC/APC  
MULTIMODE PC

#### CABLE ASSEMBLIES AND ADAPTERS

The F-3000™ ODVA connector system provides exceptional optical performance in a robust, IP67-rated and shock resistant EN 50516-2-1 compliant housing. The rugged design makes it suitable for fiber to the antenna, industrial applications, laboratory environments, food processing plants and other harsh environments such as: field-deployable communications, mobile diagnostic units, industrial machine networks, and machine controls installations requiring long transmission distances, high data rates, or reliability in a harsh environment. The F-3000™ ODVA panel adapters include 1x F-3000™ duplex mating adapter PC or APC version, which combines the advantages of a spring-loaded metal protection shutters and a high precision alignment sleeve (zirconia). The F-3000™ ODVA connector is terminated with Diamond's homologated MM and SM cable (Customer cable assemblies available upon request).

#### FEATURES

- ▶ Rugged IP67 rated enclosure
- ▶ F-3000™ (LC) SFF PC/APC connector system terminated with Diamond's Active Core Alignment  
*Exceptional optical performance in a high density LC standard compliant connector. Integrated caps on the connectors and shutters in the couplers provide both laser eye safety and end face protection during mating/demating*
- ▶ Bayonet-style self-aligning, keyed housing  
*Ease of use in all mating situations*

#### STANDARDS

- ▶ IEC 50516-2-1 "Industrial connector sets and interconnect components to be used in optical fibre control and communication systems".

#### AVAILABLE TYPES

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

#### SPECIFICATIONS (obtained with the diamond proposed cables)

	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; λ = 1300/1550nm
Return Loss (RL)	typ. 40	min. 50	min. 75*	dB	IEC 61300-3-6; λ = 1300/1550nm
Repeatability of IL	max. ±0.1			dB	Over service life
Service life	500 mate/demate cycles				
Operating temperature	-40/+85**			°C	

\* Measured with high precision reflectometer

\*\* May be further limited by cable specifications

Proposed suitable	ITU-T G.657.A1	<b>BX002DSLA9KR</b>
OCC cable:	ISO/IEC 11801 OM3 50/125	<b>BX002DALT9KR</b>
	ISO/IEC 11801 OM1 62.5/125	<b>BX002DWLS9KR</b>



F-3000™ ODVA 2 channel male connector



F-3000™ ODVA 2 channel bulkhead



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Specifications subject to change  
without notice

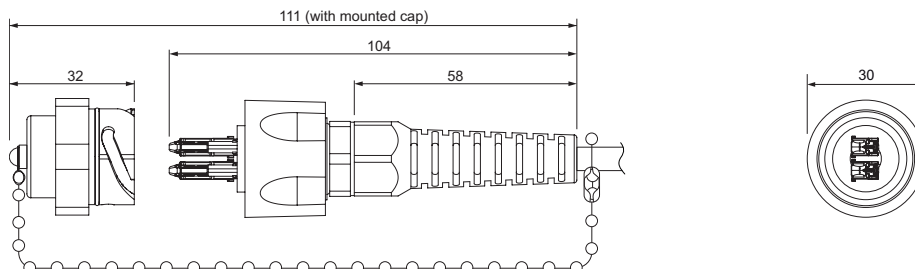
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CONNECTOR AND BULKHEAD TYPES AND DIMENSIONS

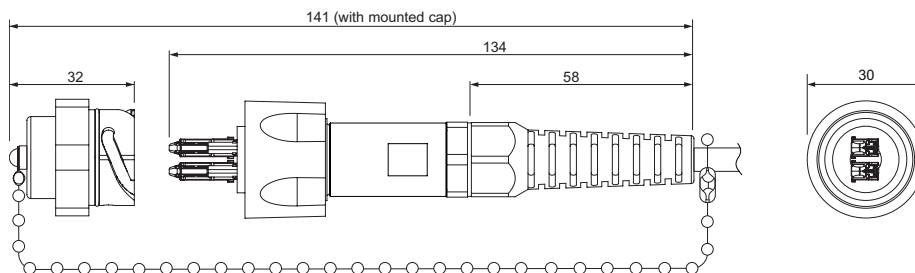
F-3000™ ODVA male connector

Available types: **F-3000™ ODVA male PC**  
**F-3000™ ODVA male APC**

Housing material: Plastic

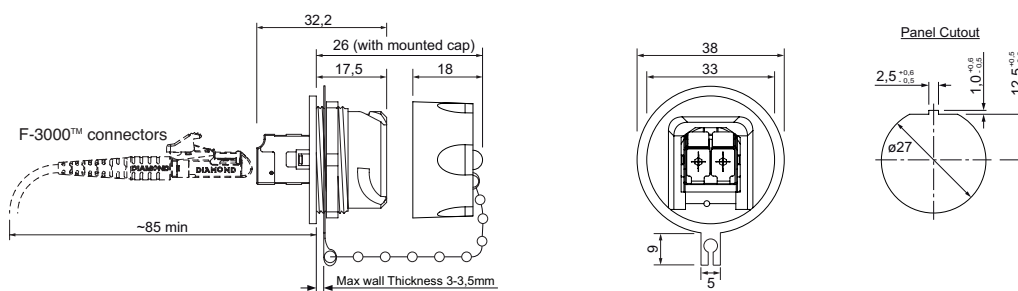


F-3000™ ODVA Fusion version

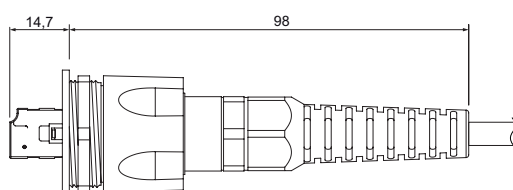


F-3000™ ODVA bulkhead

Housing material: Plastic  
 Mating sleeve: Zirconia

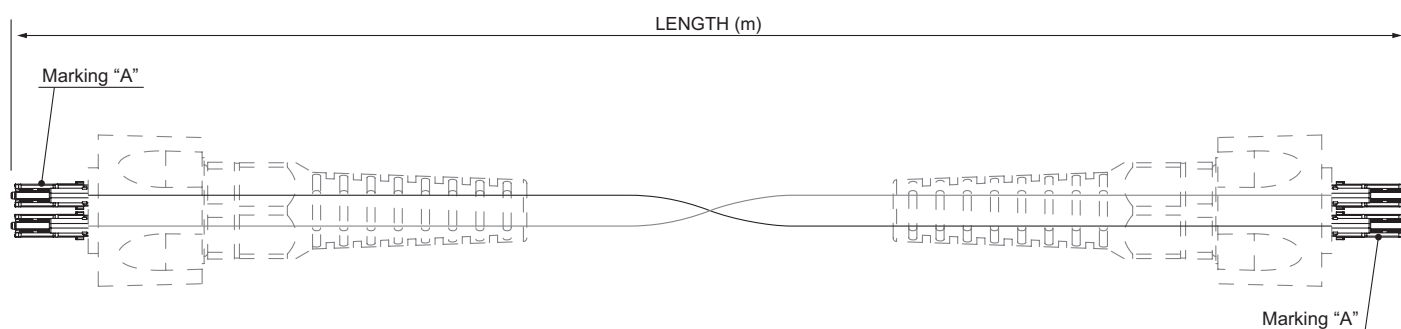


Bulkhead and male connector

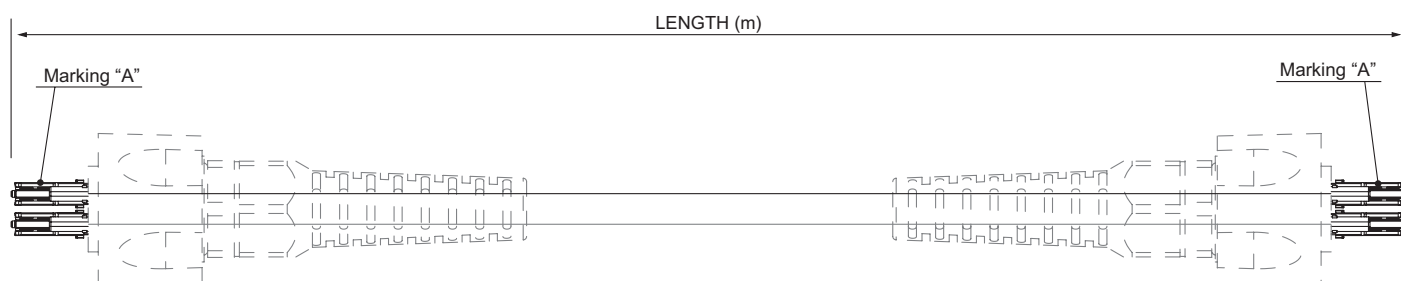


## AVAILABLE CONFIGURATIONS

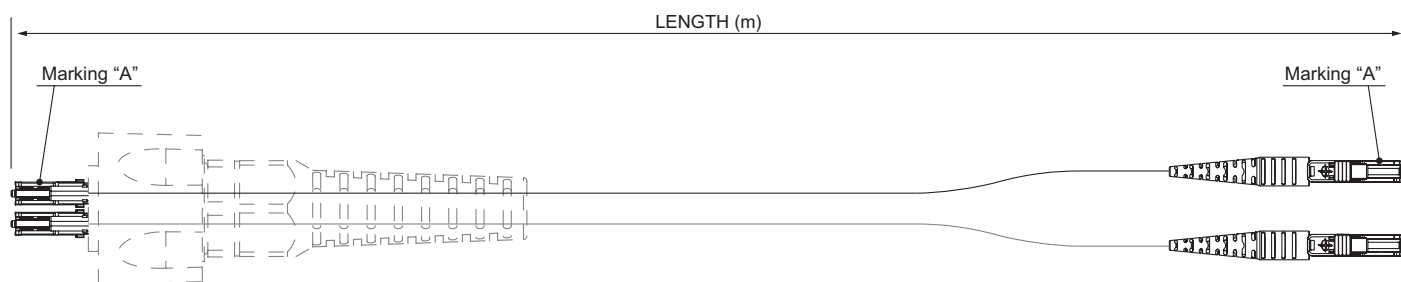
### Patchcord “=”



### Patchcord “X”



### Hybrid Patchcord



**NOTE** As standard, Diamond uses colored connector bodies and mating adapter housings to identify the fiber type (SM or MM) and ferrule polish (PC or APC).  
Diamond's standard **connector/adaptor** colors are as follows: Beige/Beige for MM PC, Blue/Blue for SM PC, and Green/Green for SM APC. Other colors are available upon request.

## ORDER INFORMATION

Please refer to the part numbers provided in the separate P/N list.

For assemblies or other configurations, please contact your nearest local Diamond representative or fill in the contact form available on the [www.diamond-fo.com](http://www.diamond-fo.com) website.