

# DIAMOND

## Fiber Optic Components

### CABLE ASSEMBLIES AND ADAPTERS

The Diamond X-BEAM FUSION is a genderless tactical fiber optic connector which uses lens based expanded beam technology for ease of cleaning and mating in outdoor applications. The X-BEAM FUSION incorporates a special insert with removable Fiber Optic termini which allow an easy field termination and repair, this thanks to a quick termini locking mechanism and the Diamond ZEUS D50 HE Fusion splicer.

The X-BEAM FUSION connector is an ideal choice for use within harsh environments such as field-deployable communications, mobile diagnostic units, avionics, security systems and much more. The Diamond X-BEAM FUSION connector is available with up to 4 channels and can be terminated on most types of Multimode cable constructions.

### FEATURES AND BENEFITS

- ▶ Rugged construction  
*Highly reliable optical connections*
- ▶ IP 67 rated enclosure, IEC 60529 compliant
- ▶ High tolerance connector housings  
*Easily mated, repeatable, low loss connections*
- ▶ Integrated expanded beam lens system  
*Protects the fiber endface and improves optical performance in harsh environment applications*
- ▶ Genderless design  
*Simplifies mating*
- ▶ Easy field termination and repair

### AVAILABLE AS

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

### SPECIFICATIONS

		UNITS	TEST CONDITIONS
Insertion Loss (IL) MM	typ. 0.9 max. 1.4 (97%)	dB	IEC 61300; $\lambda = 1300$ nm; CPR 18dB
Return Loss (RL) MM	min. 18	dB	IEC 61300; $\lambda = 1300$ nm
Vibration, sinusoidal	10-500	Hz	3 directions, 10g acceleration
Free fall	500 falls		On concrete; severity 1.2m
Coupling endurance	2500 couplings		According to field experience
Operating temperature	-40/+85*	°C	IEC 61300-2-22
Storage temperature	-55/+85* ( $\Delta$ IL < 0.8 dB)	°C	
Damp heat, cyclic	+55*	°C	IEC 61300-2-46
Cable retention	800	N	IEC 61300-2-4

\* May be further limited by cable specifications

## X-BEAM FUSION

(Harsh environment)

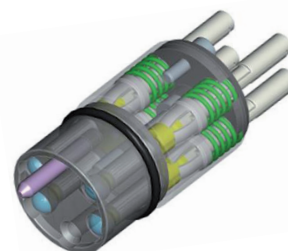
### MULTIMODE



X-BEAM OLB and OLC



ZEUS D50 HE Fusion Field Termination Kit



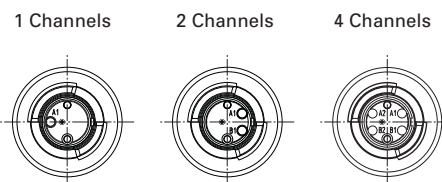
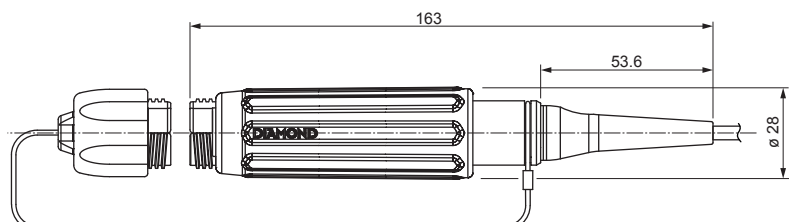
X-BEAM 4 channels insert

## CONNECTOR TYPES AND DIMENSIONS

X-BEAM FUSION OLC (Optical Lenses Connector), 1 to 4 channels

Available types: **X-BEAM FUSION OLC 2 x**  
**X-BEAM FUSION OLC 4 x**

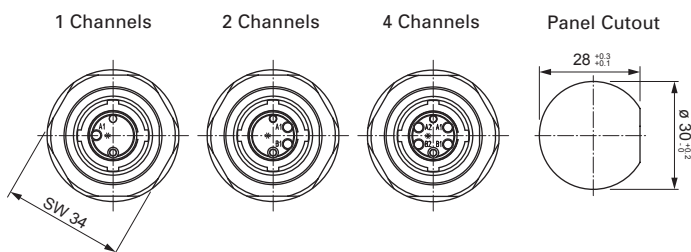
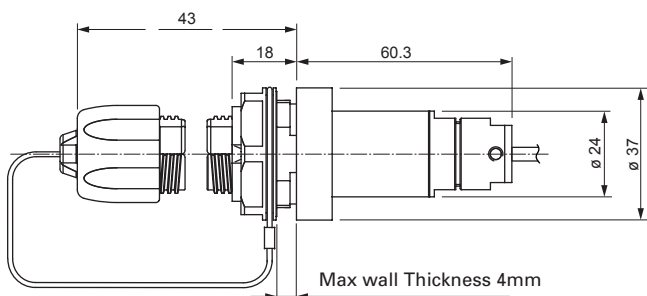
Housing material: Metal/plastic (Black)



X-BEAM FUSION OLB (Optical Lenses Bulkhead), 1 to 4 channels

Available types: **X-BEAM FUSION OLB 2 x**  
**X-BEAM FUSION OLB 4 x**

Housing material: Metal (Black)



**NOTE** Other configuration available upon request.

## ORDER INFORMATION

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.