



# FIBERFOX Series EBC

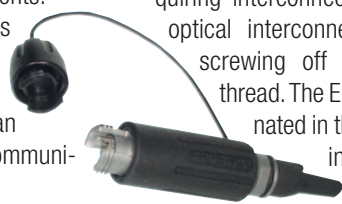
*Harsh environment expanded beam connectors*

► **FIBERFOX** expanded beam connectors work in toughest environments. They are ideal for applications where temperature, dust, mud, water, grease, vibration or even the shock of explosions can interfere with the fiber optic communications.

EBC connectors provides miniaturization in expanded beam technology, making it ideally suited for tactical broadcast applications, industry and mobile computer systems. The hermaphroditic mating allows users to

“daisy chain” cable assemblies without requiring interconnect adapters. A reliable optical interconnection is reached by screwing off a double trapezoidal thread. The EBC series can be terminated in the field, using standard installation techniques. A modular design minimizes costs and ensures quick repair, even in the field.

**FIBERFOX** connectors feature superior design and technology characteristics.



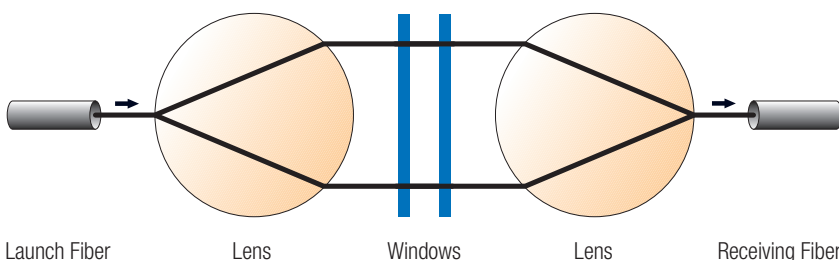
## FEATURES

- miniaturized design
- precision in a rough environment
- quick field termination with standard fiberoptic tools
- hermaphroditic mating, no adapters
- neoprene grip ring
- reliable optical interconnection
- waterproof

## ► EXPANDED BEAM TECHNOLOGY

A patented Expanded Beam technology is the key to **FIBERFOX** superior harsh environment optical performance. Substantially increasing the beam over the original fiber size (approximately 14 times for multimode, 39 times for singlemode) makes Expanded Beam connectors highly re-

sistant to particle contamination and optical misalignment from vibration and shock. The Expanded Beam optical connection can be reliably sustained without physical contact of the fibers, allowing easy-to-clean protective glass window to shield the exposed connectors in field conditions.



## APPLICATIONS

- tactical military and marine
- traffic systems, railways, aerospace
- shows, events, broadcast
- industrial applications
- mobile computer systems
- intercom systems



# FIBERFOX Series EBC

Harsh environment expanded  
beam connectors

## SPECIFICATIONS

- **fiber**  
singlemode: 9/125µm  
multimode: 50/125µm + 62.5/125µm
- **wavelengths**  
singlemode: 1300/1550nm  
multimode: 850/1300nm
- **configuration**  
2 fibers (duplex)  
4 fibers (2x duplex)
- **expanded beam size**  
3mm
- **connector type**  
hermaphroditic
- **recommended cabling**  
free plug: tactical cable <5.5mm OD (FIBERFOX series TD...)  
bulkhead: 4x assembly cable <3mm OD each



## OPTICAL PERFORMANCE

- **optical loss**  
50/125µm: 0.7dB typ.  
9/125µm: 1.0dB typ.
- **return loss**  
9/125µm > 45dB (typ. 48dB)

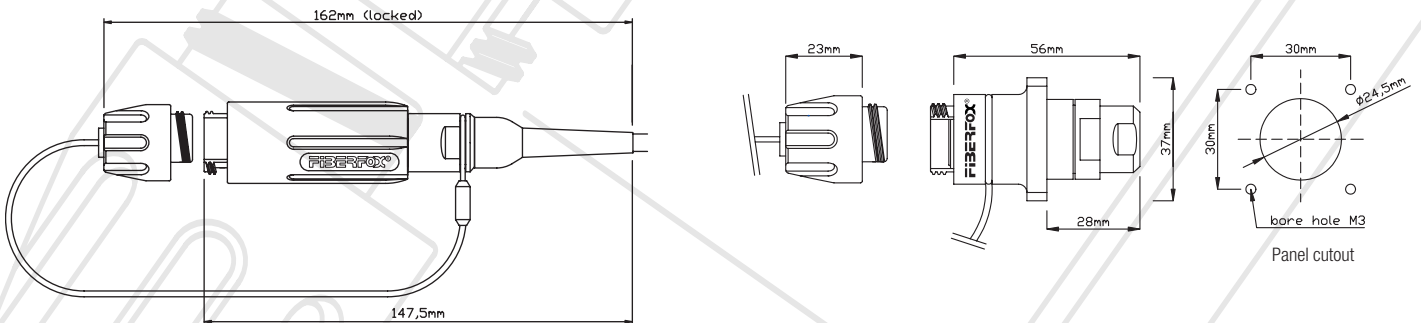
## ENVIRONMENTAL PERFORMANCE

- **operating temperature**  
-40 ... +70°C
- **storage temperature**  
-55 ... +85°C
- **water immersion**  
2 meter depth (IP 68)
- **vibration**  
10 - 500Hz, 0.75 amplitude @ 10g  
acceleration
- **free fall resistance**  
500 falls onto concrete  
from 1.2m height
- **bump resistance**  
4000 bumps @ 40g  
acceleration
- **tensile load**  
1500 N (depends on applied cable)
- **crush resistance**  
5 tons
- **mateability**  
>2500 couplings

## MATERIALS

- **shell**  
high grade lightweight alloy,  
laser marked
- **grip ring**  
neoprene BR568 (flame retardant)

## CONNECTOR DIMENSION



- EBC52-C-MM** FIBERFOX multimode 2 channel plug unterminated aluminium incl. protecting cap
- EBC52-C-SM** FIBERFOX singlemode 2 channel plug unterminated aluminium incl. protecting cap
- EBC52-P-MM** FIBERFOX multimode 2 channel bulkhead unterminated aluminium incl. protecting cap
- EBC52-P-SM** FIBERFOX singlemode 2 channel bulkhead unterminated aluminium incl. protecting cap
- EBC54-C-MM** FIBERFOX multimode 4 channel plug unterminated aluminium incl. protecting cap
- EBC54-C-SM** FIBERFOX singlemode 4 channel plug unterminated aluminium incl. protecting cap
- EBC54-P-MM** FIBERFOX multimode 4 channel bulkhead unterminated aluminium incl. protecting cap
- EBC54-P-SM** FIBERFOX singlemode 4 channel bulkhead unterminated aluminium incl. protecting cap

For cable assembly, part number information and tools please call!

Contact:

www.fiberfox.com

Manufactured under DIN EN ISO 9001

