



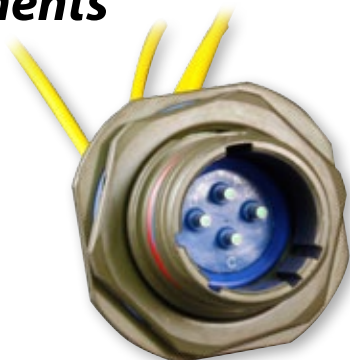
## Glenair Eye-Beam™ Expanded Beam Fiber Optic Connection System



Eye-Beam™ Expanded Beam fiber optic termini  
integrated into ruggedized reverse-bayonet  
power connectors

**Innovative expanded beam  
termini deliver optimal  
performance in harsh  
environments**

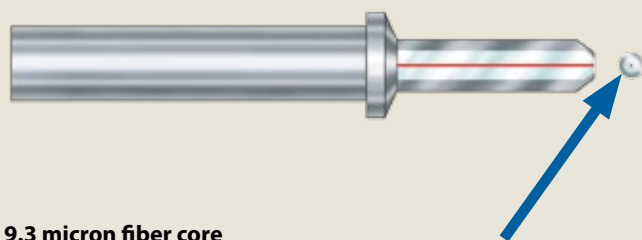
- All the benefits of an expanded beam connection system built into a versatile F/O terminus
- Factory-terminated F/O Eye-Beam™ termini easily integrated into any connector package
- Innovative expanded beam lens terminus expands signal 27X from a standard 9.3 micron fiber core
- Revolutionary design delivers low dB loss (1.5 dB multimode, 2.0 dB singlemode untuned) performance while reducing maintenance, inspection and test costs
- Ultra-high precision ceramic sleeves and custom designed terminus bodies ensure axial alignment



Eye-Beam™ Expanded Beam fiber optic termini can be integrated into virtually any circular or rectangular connector package. Factory terminated lens pin termini and lens socket termini on cable jumpers allow for easy fusion splicing in the field.

### Comparison of standard butt-joint fiber optic terminus to Eye-Beam™ expanded beam fiber optic terminus

#### Butt-Joint Fiber Optic Terminus



9.3 micron fiber core  
Fiber surfaces exposed and susceptible to damage  
Must be cleaned prior to mating

#### Eye-Beam™ Expanded Beam Fiber Optic Terminus



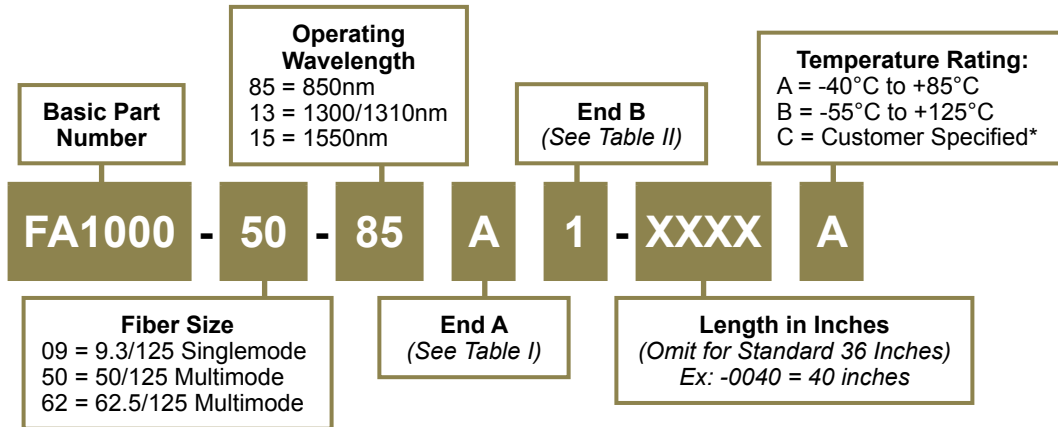
9.3 micron core expanded 27X  
Fiber surfaces protected from contamination  
Lens surface easy to clean

# Glenair Eye-Beam™ Expanded Beam Fiber Optic Connection System



## How To Order factory terminated Eye-Beam™ jumpers

1. Eye-Beam™ system part numbers begin with the FA1000 Basic Part Number
2. Select fiber size (Consult factory for additional options)
3. Select operating wavelength
4. Select jumper cable configuration. Jumpers are supplied standard with 36 inches of fiber cable. Specific lengths available in part number breakdown as shown below.



E

Table I: Eye-Beam™ Termini

| Designator | Description                                  | Connector Series         |
|------------|----------------------------------------------|--------------------------|
| A          | M29504/04 Style Pin (181-070)                | MIL-DTL-38999 Series III |
|            | Mighty Mouse Size 16 Pin (181-070)           | Series 80 Mighty Mouse   |
| B          | M29504/05 Style Socket, Springless (181-077) | MIL-DTL-38999 Series III |
| C          | M29504/14 Style Pin (181-095)                | MIL-PRF-28876            |
| D          | M29504/15 Style Socket (181-096)             | MIL-PRF-28876            |
| F          | Mighty Mouse Size 16 Socket (181-083)        | Series 80 Mighty Mouse   |
| G          | GFR Pin (181-082)                            | Glenair GFR System       |
| H          | GFR Socket (181-081)                         | Glenair GFR System       |
| J          | GFOCA Termini (181-067)                      | GFOCA (hermaphroditic)   |

Table II: Eye-Beam™ Termini and Commercial Connectors

|   |                                              |
|---|----------------------------------------------|
| A | M29504/04 Style Pin (181-070)                |
|   | Mighty Mouse Size 16 Pin (181-070)           |
| B | M29504/05 Style Socket, Springless (181-077) |
| C | M29504/14 Style Pin (181-095)                |
| D | M29504/15 Style Socket (181-096)             |
| F | Mighty Mouse Size 16 Socket (181-083)        |
| G | GFR Pin (181-082)                            |
| H | GFR Socket (181-081)                         |
| J | GFOCA Termini (181-067)                      |
| 1 | LC Connector                                 |
| 2 | LC APC Connector                             |
| 3 | FC Connector                                 |
| 4 | FC APC Connector                             |
| 5 | ST Connector                                 |
| 6 | SC Connector                                 |
| 7 | SMA 905 Connector                            |
| 8 | SMA 906 Connector                            |
| 9 | Customer Specified*                          |

Standard Tolerance for Cable Jumpers

| Length                   | Tolerance |
|--------------------------|-----------|
| 5 in, up to 2 ft         | +1/-0 in  |
| Over 2 ft, up to 10 ft   | +3/-0 in  |
| Over 10 ft, up to 50 ft  | +6/-0 in  |
| Over 50 ft, up to 100 ft | +1/-0 ft  |
| Over 100 ft              | +2/-0 ft  |

### Notes

Optical performance: Insertion loss to be less than 2.0 dB when measured at 1310 nm or 1550 nm wavelength for singlemode, or when measured at 850 nm or 1300 nm for multimode. For customer-specific requirements, Glenair will assign a unique part number for the cable assembly

