PRO BEAM EB16 OPTICAL TERMINI

THE DURABILITY AND RUGGEDNESS OF EXPANDED BEAM OPTICS IN A SIZE 16 CONTACT FOR M38999 CONNECTORS

INDUSTRY STANDARDIZATION
- Selected for the ARINC 845 standard

DURABLE
- No wear on fiber optic Interface
- Very vibration resistant
- Highly resistant to dirt and debris

REPEATABLE LOW-LOSS PERFORMANCE
- Low sensitivity to thermal fluctuations and interface contamination
- Consistent overall optical “link budget”
- Stable operation over life of system

EASY TO USE
- Drop-in replacement for M29504/4 and /5 physical contact termini
- Durable non-contacting interface helps ensure ease of use/cleaning
- Simplified cleaning process

VERSATILE
- Fit standard size 16 cavity
- Field terminable

Bring Rugged Optical Performance to Mil-Standard Connectors

Leveraging our industry-accepted PRO BEAM expanded beam technology, TE Connectivity (TE) is launching its newest rugged expanded beam optical termini, the PRO BEAM EB16 termini. The EB16 termini are a size 16 optical contact, fit-form compliant to MIL-DTL-38999 Series III size 16 cavities. These termini are a drop-in replacement for the M29504/4 and /5 physical contact termini used in many ruggedized circular connector systems.

Non-Contacting Interface

The non-contacting interface means less wear and tear overall, especially in high-mating cycle or high-vibration applications.

The termini’s ball lens physically expands and collimates the optical signal into an optical beam well beyond its original size to help provide easier optical alignment, low sensitivity to contamination, and consistent performance over thermal changes. The beam is then refocused back down onto the core of the receiving fiber.

The beam area is expanded 30 times between lenses. The signal will not deteriorate by airborne contamination particles of the same size that affect the performance of the PC connection. The termini’s endface is easily cleaned.

PRO BEAM EB16 OPTICAL TERMINI

The Durability and Ruggedness of Expanded Beam Optics in a Size 16 Contact for M38999 Connectors

APPLICATIONS

- Radar and Sensor Systems
- Rugged Network Applications
- Fixed Wing And Rotary Aircraft
- Unmanned Systems
- Commercial Aviation

STANDARDS

- **Industry Standards**: SAE AS3 AS6250, AS6251 and ARINC 845
- **TE Application Specification**: 108-127013
- **TE Instruction Sheet**: 408-32132
- **TE Qualification Test Report**: 501-32028

MATERIALS

- **Terminus Body and Crimp Sleeve**: Nickel-plated brass
- **Ferrule and Split Sleeve**: Zirconia
- **Ball lens**: Glass, with antireflection coating
- **Spacer**: Stainless steel
- **Spring**: Stainless steel
- **Protective Cap**: Vinyl

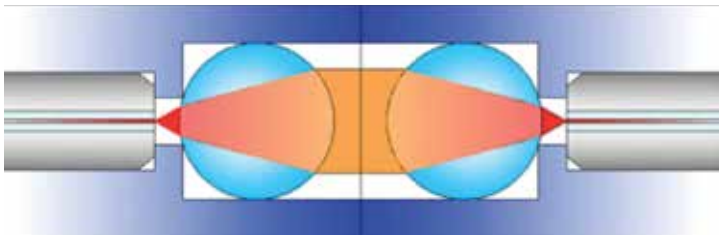
OPTICAL

- **Insertion loss**: 1.5 dB max. @ 850/1300 nm (multimode fiber)

MECHANICAL/ENVIRONMENTAL

- **Durability**: >1000 mating cycles
- **Operating Temperature**: -65°C to +165°C (cable dependent)
- **Sinusoidal Vibration**: TIA/EIA-455-11C, Test Condition IV
- **Random Vibration**: TIA/EIA-455-11C, Test Condition VI-J
- **Mechanical Shock**: TIA/EIA-455-14A, Test Condition C
- **Thermal Cycling**: TIA/EIA-455-3B, Test Condition C-2
- **Thermal Shock**: TIA/EIA-455-71, Schedule C-0 (5 cycles)

Type	Part No.
Pin	2125059-1
Socket	2125046-1



TE Components . . . TE Technology . . . TE Know-how . . .

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Polamco | Raychem | Rochester | DEUTSCH SEACON Phoenix | L.L. Rowe | Phoenix Optix | SEACON

Get your product to market faster with a smarter, better solution.

te.com/EB16

1-1773850-5 ADM/RRD 2.5M 04/2015

North America +1 800 522 6752 • Asia Pacific +86 0 400 820 6015 • France +33 1 34 20 86 86 • Germany +49 6251 133 1999 • United Kingdom +44 800 267 666
Visit te.com for additional country contacts.