M29504/4 & /5 Fiber Optic Termini

About the M29504

Amphenol Fiber Systems International's (AFSI) M29504 /4 & /5 style fiber optic termini, the M29K1000 and M29L1000 series, provide superior optical and mechanical performance. Designed to fit into MIL-DTL-38999 Series III, pin size 16 connectors, this low-cost, high-precision terminus family is ideal for harsh environment fiber optic interconnections. Available for single mode and multimode applications, these termini conform to the rigorous conditions of the MIL-PRF-29504B specification.

The M29K1000 and M29L1000 series termini utilize the highest quality zirconia ceramic ferrules and split alignment sleeves available. AFSI's tight-tolerance ferrules are optimized for low insertion loss, low back reflection and exceptional durability. All ferrules are available in standard and ultra polished end faces for those tight optical budget applications. In addition, epoxy removal and polishing times are minimized by the ferrule's pre-domed design feature.

The M29L1000's zirconia split alignment sleeve design ensures accurate physical contact, fiber-to-fiber alignment and guarantees the highest performing connector of its kind for use in a variety of demanding environmental conditions.

The M29K1000 and M29L1000 series fiber optic termination system offers precise, superior and reliable connections over repeated connector mating cycles and through a wide range of harsh environmental conditions.

Features & Benefits

- Precision fiber optic ceramic ferrules
- Pre-radius ferrule design
- Precision "press fit" stainless steel design
- Accurate ferrule alignment system
- Size 16 design (MIL-DTL-38999 compatible)
- Low insertion loss and back reflection
- Designed and manufactured to MIL-PRF-29504 /4 and /5 specifications

Benefits

- Solid reliable connectivity through a wide range of harsh environmental conditions
- Compatible with all qualified MIL-DTL-38999, Series III connectors
- Fast termination and polish time
- Reliable, repeatable and durable connections
- Easy to clean

Applications

- Avionics
- NAVAIR
- Commercial aircraft
- Harsh environment
- Land tactical applications
- Shipboard

Product Specifications

Specification	Measurement/Detail
Back Reflection	Better than -40dB – PC polish Better than -50dB – enhanced PC polish
Insertion Loss	0.45 typical (measured with 62.5/125mm fiber @1310nm)
Operating Temperature	-65°C to +150°C
Temperature Life	+150°C for 1000 hours
Vibration	40G random
Mechanical Shock	500G
Mating Durability	500 cycles
Cable Retention Force	25lbs (dependent on cable construction)

M29504/4 Fiber Size Table

AFSI Pin Part Number	Fiber Size Core/Cladding	A Diam. (Microns)	Reference Only M29504 /4-XXXX
M29K2000	9/125	126	M29504/4-4209
M29K1001	50/125 & 62.5/125	126	M29504/4-4210
M29K1000	50/125 & 62.5/125	127	M29504/4-4040
M29K3000	100/140	142	M29504/4-4043
M29K3001	100/140	144	M29504/4-4044
M29K5000	62.5/125/155 (Polyimide)	156	M29504/4-4211
M29K5001	62.5/125/155 (Polyimide)	157	M29504/4-4212
M29K6000	100/140/172 (Polyimide)	173	M29504/4-4087
M29K6001	100/140/172 (Polyimide)	175	M29504/4-4213
M29K8000	200/233	236	M29504/4-4214
M29K8050	200/280	286	M29504/4-4215
M29K9000	400/440	448	M29504/4-4216

Consult factory for additional sizes and QPL status.

M29504/5 Fiber Size Table

AFSI Socket Part Number	Fiber Size Core/Cladding	A Diam. (Microns)	Reference Only M29504 /5-XXXX
M29L2000	9/125	126	M29504/5-4238
M29L1001	50/125 & 62.5/125	126	M29504/5-4239
M29L1000	50/125 & 62.5/125	127	M29504/5-4046
M29L3000	100/140	142	M29504/5-4049
M29L3001	100/140	144	M29504/5-4050
M29L5000	62.5/125/155 (Polyimide)	156	M29504/5-4240
M29L5001	62.5/125/155 (Polyimide)	157	M29504/5-4241
M29L6000	100/140/172 (Polyimide)	173	M29504/5-4088
M29L6001	100/140/172 (Polyimide)	175	M29504/5-4242
M29L8000	200/233	236	M29504/5-4243
M29L8050	200/280	286	M29504/5-4244
M29L9000	400/440	448	M29504/5-4245

Consult factory for additional sizes and QPL status.

How to Order

For more information on how to order or obtain a price quote on our M29504 or other products, call toll free (U.S. only) at 800.472.4225, international calls please use 1.214.547.2400 or e-mail info@fibersystems.com.

About Amphenol Fiber Systems International

Amphenol Fiber Systems International (AFSI) designs, manufactures, markets and supports reliable and innovative fiber optic interconnect solutions that withstand the harsh environments of military, oil & gas, mining and broadcast applications. After more than a decade in business, AFSI continues to uphold its position as a global leader in fiber optic interconnect components and systems such as termini, M28876, MIL-ST, TFOCA and the TFOCA-II® connector, which AFSI developed and patented.

AFSI has delivered millions of fiber optic connectors in more than 22 countries. Whenever there is a need for superior, cost-effective fiber optic systems and products that will stand up to demanding operating environments, you can rely on AFSI for engineering know-how, top-quality products and expert technical support.

For more information about AFSI, visit www.fibersystems.com.