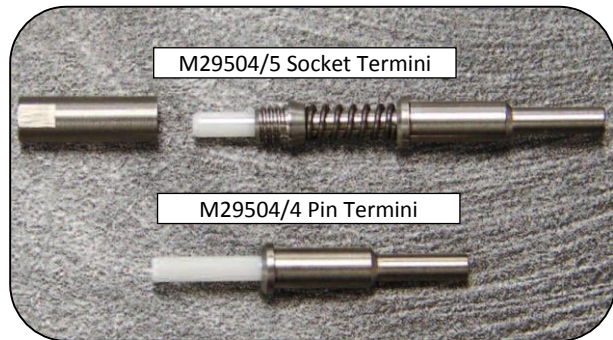


Fibre Optic Termini M29504/4 and /5

Size 16 termini for M38999 connectors

TechOptics

Tech Optics offer high quality M29504 termini, tooling and assemblies designed to provide superior optical and mechanical performance in harsh environments. The termini are designed to fit standard MIL-DTL-38999 Series 3 size 16 cavities this low cost, high precision terminus family is ideal for harsh environment fibre optic interconnections. Available for both singlemode and multimode applications these termini conform to the rigorous conditions of MIL-PRF-29504.



The termini utilise high quality, tight tolerance zirconia ceramic ferrules optimised for low insertion loss, low back reflection and exceptional durability. The pre-domed ferrules can be polished to PC or ultra PC standard for tight optical budget applications.

Socket termini use zirconia split alignment sleeves to ensure precise physical contact and reliable / repeatable connections over multiple matings in harsh environments.

Product Specification

Specification	Measurement / Detail
Back Reflection	Better than -40dB – PC polish Better than -50dB – UPC polish
Insertion Loss	0.45dB typical (62.5/125µm fibre @ 1300nm) MIL spec limit <1.5dB
Operating Temperature	-65°C to +150°C (fibre and cable dependent)
Temperature Life	+150°C for 1000 hours
Vibration	40G random
Mechanical Shock	500G
Mating Durability	500 cycles
Cable Retention Force	25lbs (cable dependent)

Features and Benefits

- Precision, pre-radius fibre optic ferrules
- Press-fit stainless steel design
- Zirconia ferrule alignment sleeve
- Size 16 design, MIL-DTL-38999 compatible
- Low insertion loss and back reflection
- Designed and manufactured to MIL-PRF-29504 std.
- Compatible with all MIL-DTL-38999 Series III Connectors
- Reliable, repeatable and durable interconnect
- Allows for hybrid M38999 connectors with optical / copper termini in the same shell.

Applications

- Avionics (military)
- Commercial Aircraft
- Land Tactical
- Shipboard / Naval
- Harsh Environment
- NAVAIR

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Fibre Optic Termini M29504/4 and /5

Size 16 termini for M38999 connectors



M29504/4 Pin Termini Variants



MIL Specification Reference	Fibre Core / Cladding	Ferrule Bore
M29504/4-4209	9/125µm	126µm
M29504/4-4210	50/125µm	126µm
	62.5/125µm	
M29504/4-4040	50/125µm	127µm
	62.5/125µm	
M29504/4-4043	100/140µm	142µm
M29504/4-4044	100/140µm	144µm
M29504/4-4211	62.5/125/155 µm (polyimide)	156µm
M29504/4-4212	62.5/125/155 µm (polyimide)	157µm
M29504/4-4087	100/140/172 µm (polyimide)	173µm
M29504/4-4213	100/140/172 µm (polyimide)	175µm
M29504/4-4214	200/230µm	236µm
M29504/4-4215	200/280µm	286µm
M29504/4-4216	400/440µm	448µm

M29504/5 Socket Termini Variants



MIL Specification Reference	Fibre Core / Cladding	Ferrule Bore
M29504/5-4238	9/125µm	126µm
M29504/5-4239	50/125µm	126µm
	62.5/125µm	
M29504/5-4046	50/125µm	127µm
	62.5/125µm	
M29504/5-4049	100/140µm	142µm
M29504/5-4050	100/140µm	144µm
M29504/5-4240	62.5/125/155 µm (polyimide)	156µm
M29504/5-4241	62.5/125/155 µm (polyimide)	157µm
M29504/5-4088	100/140/172 µm (polyimide)	173µm
M29504/5-4242	100/140/172 µm (polyimide)	175µm
M29504/5-4243	200/230µm	236µm
M29504/5-4244	200/280µm	286µm
M29504/5-4245	400/440µm	448µm

Tech Optics can provide M29504:-

- Components (termini, connectors, backshells, cables)
- UK manufactured cable assemblies
- Design advice and support
- Termination training
- Termination tooling
- Tool kits
- Test and inspection equipment



For further information and to discuss your application please contact:-

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UNITED KINGDOM

TechOptics

THE FIBRE OPTICS EXPERTS

ISO9001:2015
for the distribution
of fibre optic
products and the
manufacture of
fibre optic
assemblies.



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Specifications subject to change without notice.

M29504 4 and 5 – 2018

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