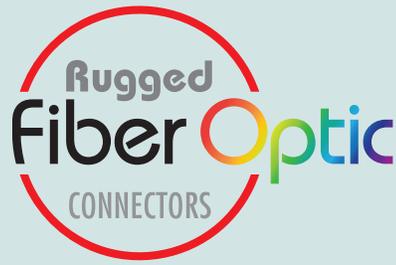


GLENAIR  
SIGNATURE  
FIBER OPTIC  
CONNECTION  
SYSTEMS



SuperNine®  
Tight-Tolerance  
**MIL-DTL-38999 Sr. III**  
Fiber Optic Connection  
System



The high-performance D38999 type fiber optic interconnect system with qualified MIL-PRF-29504 /4 and /5 termini, successfully deployed in hundreds of commercial and military aerospace and other applications — from F-16 upgrade systems to the revolutionary F-35 Joint Strike Fighter.



Terminated and tested point-to-point and multibranch D38999 type fiber optic cable assemblies

- Composite, aluminum and stainless steel shells available
- Qualified size #16 MIL-PRF-29504 /4 and /5 precision ceramic termini
- Singlemode and multimode fiber, from 9/125 to 1000 microns
- Ultra-low insertion loss, <.50dB typical
- From 2 to 37 Termini
- Plug and In-Line, Jam Nut and Square Flange Receptacles
- Patented MIL-DTL-38999 fiber optic test probes and adapters

# SuperNine® TIGHT-TOLERANCE MIL-DTL-38999 Series III Type



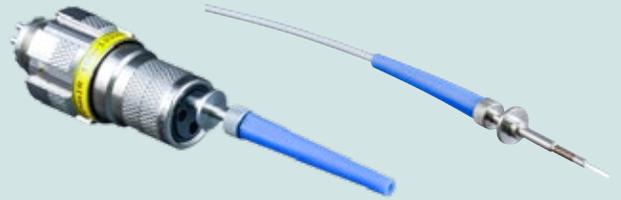
## Advanced fiber optic connection system



MIL-DTL-38999 type fiber optic connection system termination, inspection, test, and cleaning tools are available now from Glenair. We also offer comprehensive F/O training services for assembly and maintenance technicians.



Glenair M29504/04 and /05 QPL terminus are in stock and ready for immediate, same-day shipment



Glenair optical fiber test probes and connector adapters provide accurate and repeatable testing of MIL-DTL-38999 F/O assemblies



Hybrid electrical/optical layouts are available including the MIL-STD-1560 17-8 layout shown above



A complete range of metal and composite backshells and protective covers is available

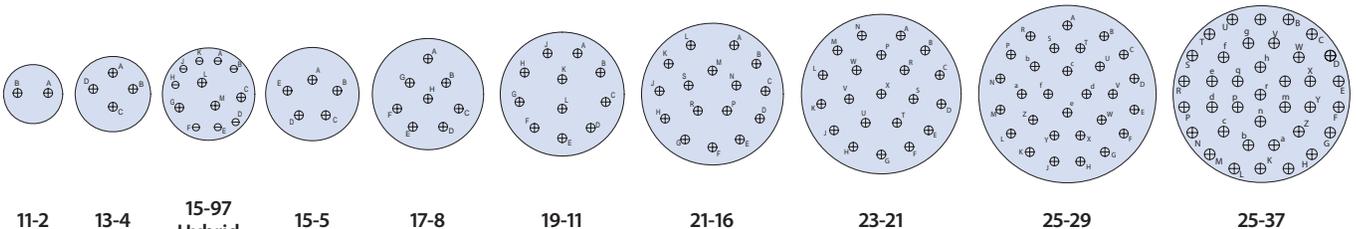


Eye-Beam GLT terminus and jumpers are easily integrated into Glenair MIL-DTL-38999 type connector packaging

MIL-PRF-29504/04 and /05 Fiber Optic Termini Performance Data	
Test Type	Performance Requirement
Operating Temperature	-55°C to +165°C (dependent on epoxy and cable)
Temperature Cycling	-65°C to +175°C
Thermal Shock	-55°C to +150°C, 5 cycles
Temperature Life	+150°C for 1,000 hours
Random Vibration	20-2,000 Hz, 42.2 g's
Shock (Half-sine Pulse)	300 g Peak Load
Mechanical Shock	MIL-S-901, Grade A, Type B, Class I
Mating Durability	500 cycles (cleaning after 100 matings)
Salt Spray	48 hours (Terminus only)
Cable Retention Force	22.0 lbs (dependent on cable construction)

Table I: Material and Finish		
Code	Material	Finish Description
M	Aluminum Alloy	Electroless Nickel
MT		Nickel - PTFE, Grey
NF		Cadmium, Olive Drab
ZNU		Zinc-Nickel, Black
ZR		Zinc-Nickel, Black (RoHS)
XM	Composite	Electroless Nickel
XMT		Nickel - PTFE, Grey
XW		Cadmium, Olive Drab
XZN		Zinc-Nickel, Black
ZL	Stainless Steel	Electro-Deposited Nickel
Z1		Passivate

### INSERT ARRANGEMENTS



Per MIL-STD-1560. Mating face of pin insert shown.

# SuperNine® TIGHT-TOLERANCE MIL-DTL-38999 Series III Type

## How to order Termini and Connectors



### M29504/04 AND /05 TYPE, STYLE 1 PIN AND SOCKET TERMINI FOR MIL-DTL-38999 SERIES III



**181-002-XXX**  
Pin Terminus



**181-001-XXX**  
Socket Terminus



**181-048-16**  
Size 16 Dummy Terminus  
reduces weight and cost versus  
standard termini

Part Number	Fiber Size Core/Cladding/ Coating (Microns)	Ferrule Hole Size	Ref. M29504/04-XXXX	Ref. M29504/05-XXXX
181-00X-125	9/125 (Singlemode)	125.5	M29504/04-4208	M29504/05-4237
181-00X-126S	9/125 (Singlemode)	126.0	M29504/04-4209	M29504/05-4238
181-00X-126	50/125 & 62.5/125	126.0	M29504/04-4210	M29504/05-4239
181-00X-127	50/125 & 62.5/125	127.0	M29504/04-4040	M29504/05-4046
181-00X-142	100/140	142.0	M29504/04-4043	M29504/05-4049
181-00X-144	100/140	144.0	N/A	N/A
181-00X-145	100/140	145.0	M29504/04-4044	M29504/05-4050
181-00X-156	62.5/125/155 (Polyimide)	156.0	M29504/04-4211	M29504/05-4240
181-00X-157	62.5/125/155 (Polyimide)	157.0	M29504/04-4212	M29504/05-4241
181-00X-173	100/140/172 (Polyimide)	173.0	M29504/04-4087	M29504/05-4088
181-00X-175	100/140/172 (Polyimide)	175.0	M29504/04-4213	M29504/05-4242
181-00X-231	200/230	231.0	N/A	N/A
181-00X-236	200/230	236.0	N/A	M29504/05-4243
181-00X-286	200/280	286.0	N/A	M29504/05-4244
181-00X-448	400/440	448.0	N/A	M29504/05-4245
181-00X-533	486/500	533.0	N/A	N/A

### SUPERNINE FIBER OPTIC CONNECTORS



Part Number Development						
Sample Part Number	180-091	XW	06	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Material/Finish	See Material/Finish Table					
Connector Style	06 = Plug Connector					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					



Part Number Development						
Sample Part Number	180-091	XW	05	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Finish	See Material/Finish Table					
Connector Style*	05 = In-Line Receptacle					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					

# SuperNine® TIGHT-TOLERANCE MIL-DTL-38999 Series III Type



## How to order Connectors



Part number development						
Sample Part Number	180-091	XW	08	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Material/Finish	See Material/Finish Table					
Connector Style	08 = Jam Nut Receptacle					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					



Part number development						
Sample Part Number	180-091	XW	H7	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Material/Finish	See Material/Finish Table					
Connector Style	H7 = Wall Mount Receptacle with Round Holes (Std)					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					



Part number development						
Sample Part Number	180-091	XW	S7	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Material/Finish	See Material/Finish Table					
Connector Style	S7 = Wall Mount Receptacle with Slotted Holes					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					



Part number development						
Sample Part Number	180-091	XW	T7	-17-8	P	N
Series / Basic Part No.	D38999 Series III Type					
Material/Finish	See Material/Finish Table					
Connector Style	T7 = Wall Mount Receptacle with Threaded Insert Holes					
MIL-STD-1560 Shell Size/Insert Arr.	11-2, 13-4, 15-97 (combo), 17-8, 19-11, 21-16, 23-21, 25-29, 25-37					
Insert Designation	P = Pin S = Socket					
Alternate Key Position*	A, B, C, D, E, N = Normal; Per MIL-DTL-38999					