

The AFI™ Fiber Optic connector from Packard-Hughes Interconnect (PHI) incorporates many advanced features required to interface Flight Critical Systems. PHI's coupling mechanism offers a rugged positive locking (anti-vibration) feature. In addition, it provides for increased mating cycles. This feature is transparent to the user and complies with MIL-C-38999 Series III. The AFI™ houses high performance fiber optic termini per MIL-T-29504/14&15 (ceramic).

Feature Guidelines

- Installation footprint and all other dimensional characteristics comply with MIL-C-38999 Series III
- Backshell coupling thread complies with MIL-C-38999 Series III
- Available in shell sizes 11, 15, 17, 19, 23, and 25
- Termini conform to MIL-T-29504/14&15
- Interchangeable with MIL-C-38999 Series III but not intermateable
- Dedicated fiber optic connector
- Termini/cabling density equals or better than MIL-C-38999
- No special tools required
- Repeatable alignment of mating fiber
- Improved coupling mechanism to withstand high vibration applications
- Plugs/receptacles support either pin or socket termini arrangement
- Socket insert available with "Detachable Face" providing for quick termini optical face cleaning

Applications

- Commercial aviation
- Avionics
- Military tactical deployment
- Datalink for shipboard and communications

Fiber Optic Connectors

Advanced Flight Interconnect (AFI)™

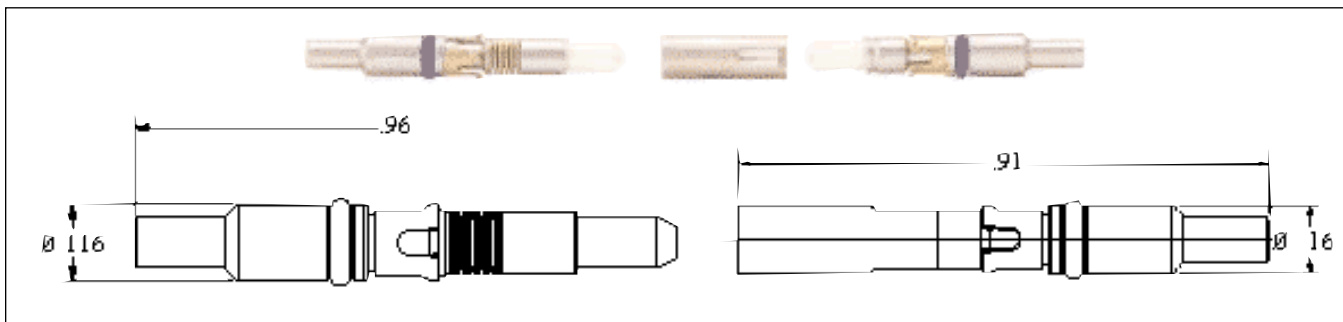


Connector Specifications

Durability	1000 cycles per MIL-STD-1344
Vibration	Per MIL-C-38999 Series III
Thermal Cycling	Per MIL-C-38999 Series III
Fluid Immersion	Per MIL-C-38999 Series III
Humidity	Per MIL-C-38999 Series III
Mechanical Shock	Per MIL-C-38999 Series III
Optional Insertion Loss	.5dB EIA-455-2 *Average loss 62.5 micron core

Advanced Flight Interconnect (AFI)TM

CERAMIC TERMINI

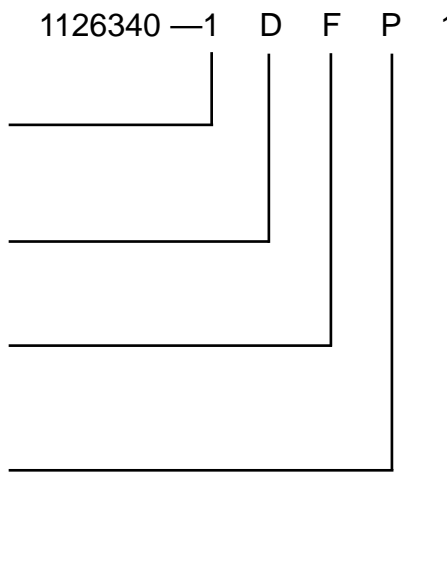


MATERIALS AND FINISHES

Description	Ceramic Termini	
	Materials	Finishes
Terminus Body	Stainless Steel	Passivate
Alignment Sleeve	Ceramic	None
Fiber Guide Bushing	Ceramic	None
Retaining Clip	Beryllium Copper	None
Belleville Springs	Beryllium Copper	None
Alignment Sleeve Cover	Beryllium Copper	Nickel
O-Ring Seal	Fluorosilicone Rubber	None

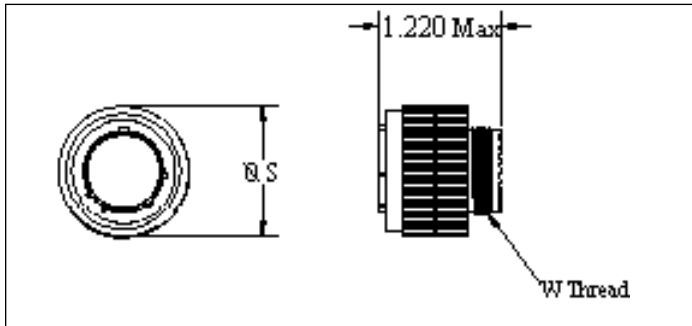
38999 (AFI) PLUG, WALL MOUNT, JAM-NUT RECEPTACLES PART NUMBERS

Type						
1 - Plug						
2 - Receptacle Wall-Mount						
3 - Receptacle Jam-Nut						
Size						
B	D	E	F	G	H	J
11	15	17	19	21	23	25
Class						
C - Aluminum Hard Anodized						
F - Aluminum Electroless Nickel Plated						
T - Stainless Steel Passivated						
Contact						
P - Pin						
S - Socket						
R - Socket, Removeable Face (not available in size B)						
Polarization Positions						
1, 2, 3, 4, 5, 6 (Universal Key)						



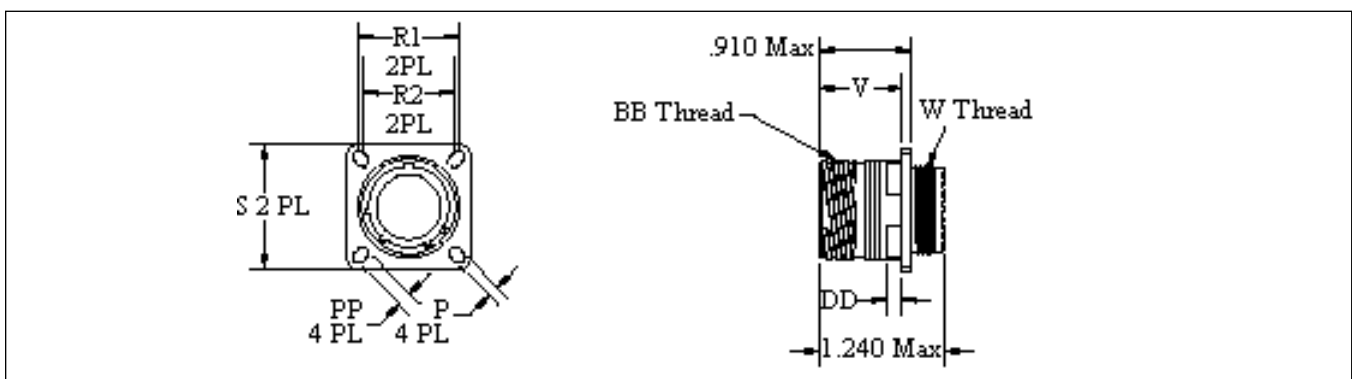
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STRAIGHT PLUG



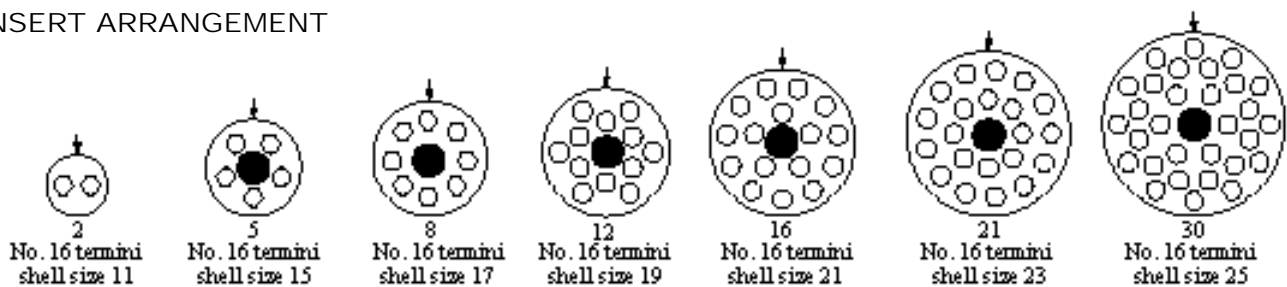
Shell Size	S Max	VV Thread Metric
11	.969	M15X1-6g
15	1.266	M22X1-6g
17	1.391	M25X1-6g
19	1.500	M28X1-6g
21	1.750	M31X1-6g
23	1.875	M34X1-6g
25	1.625	M37X1-6g

WALL MOUNT RECEPTACLE



Shell Size	BB Thread Class 2A 0.1P-0.3L-TS (Plated)	V +.000 -.005	R ₁	R ₂	S MAX	P +.000 -.005	DD MAX Panel Thickness	PP +.008 -.006	VV Thread Metric
11	.7500	.820	.812	.719	1.043	.128	.234	.194	M15X1-6g
15	1.0000	.820	.969	.906	1.232	.128	.234	.173	M22X1-6g
17	1.1875	.820	1.062	.969	1.323	.128	.234	.194	M25X1-6g
19	1.2500	.820	1.156	1.062	1.449	.128	.234	.194	M28X1-6g
21	1.3750	.790	1.250	1.156	1.575	.128	.204	.194	M31X1-6g
23	1.5000	.790	1.500	1.375	1.823	.154	.204	.242	M34X1-6g
25	1.6250	.790	1.500	1.375	1.823	.154	.204	.242	M37X1-6g

INSERT ARRANGEMENT



Packard-Hughes Interconnect

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