

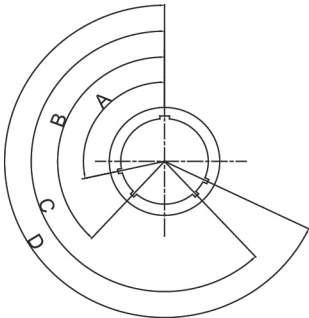
## MIL-DTL-38999 III Series Connector Fiber Optic Inserts

### Brief Introduction

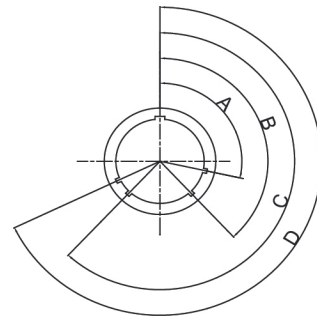


- Quick lock thread with anti-loosening mechanism
- 100% Scoop-proof to ensure no damage to the contacts in a blind mating application
- Excellent performance of shock & vibration resistance
- Good performance of fluid resistance
- Widely used in aerospace, aviation & military system, especially for high impact vibration environment

### MIL-DTL-38999 III Master Keyway/ Keying Positions



Receptacle Mate View



Plug Mate View

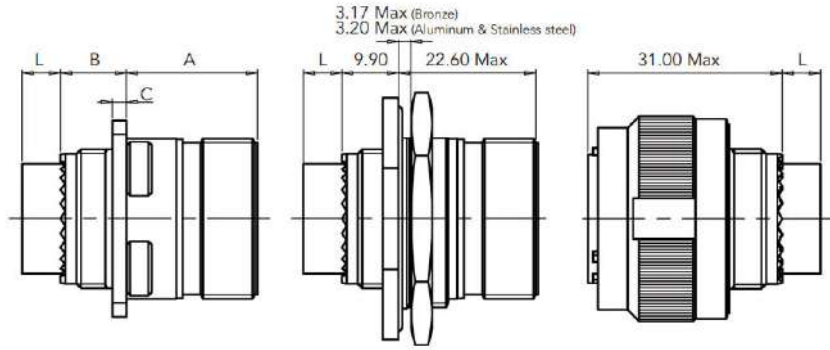
Shell No.	Shell No. Code	Keying						
		Angle	N	A	B	C	D	E
09	A	A0	105	102	80	35	64	91
		B0	140	132	118	140	155	131
		C0	215	248	230	205	234	197
		D0	265	320	312	275	304	240
11,13,15	B,C,D	A0	95	113	90	53	119	51
		B0	141	156	145	156	146	141
		C0	208	182	195	220	176	184
		D0	236	293	252	255	298	242
17,19,21, 23,25	E,F,G, H,J	A0	80	135	49	66	62	79
		B0	142	170	169	140	145	153
		C0	196	200	200	200	180	197
		D0	293	310	244	257	280	272

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MIL-DTL-38999 III Series Connector

## Fiber Optic Inserts

### Dimensions



20 – wall square flange receptacle

24 – jam nut mount receptacle

26 – straight plug

	A		B		C		L	
	Shell size 09 to 19	Shell size 25	Shell size 09 to 19	Shell size 25	Shell size 09 to 19	Shell size 25	Male insulator	Female insulator
Receptacle type 20, 24 Metal	20.90 Max	20.10 Max	12.50 Max	13.00 Max	2.50 Max	3.20 Max	4 Max	6.60 Max
Receptacle type 20 Composite	20.90 Max	20.10 Max	12.50 Max	13.00 Max	3.65 Max	4.35 Max		

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MIL-DTL-38999 III Series Connector

## Fiber Optic Inserts

### Material

- Shell : aluminum alloy, stainless steel, composite
- Finish : olive drab cadmium chemical nickel plating

### Mechanical Performance

- Sinusoidal Vibration : 10–50Hz, speed 254mm/s  
50–140Hz, double –amplitude 1.5mm  
140–2000Hz, acceleration 588m/s<sup>2</sup>
- Random Vibration : high temperature 96(m/s<sup>2</sup>)<sup>2</sup>/ Hz 408 m/s<sup>2</sup>, 100 ~ 1000Hz
- Random Vibration : environment temperature 480(m/s<sup>2</sup>)<sup>2</sup>/ Hz, 100 ~ 300Hz
- Shock : 2940m/s<sup>2</sup> 3ms
- Durability : 500 mating cycles

### Environment Performance

- Temperature Range : olive drab cadmium plating: –65°C ~ +175°C  
chemical nickel plating: –65°C ~ +200°C
- Salt Spray : 500h (W, K) 48h (F, S) 2000h (J, M)
- Humidity Resistance : 24h each cycle, 10 cycles
- Fluid Resistance : hydraulic oil, refrigerating fluid, and other 12 solvents

### Name :

DC38999E/ 20 W B 35 P N

① ② ③ ④ ⑤ ⑥ ⑦

- ① Serial No. : DC38999E
- ② Shell Type : 20 – wall square flange receptacle  
24 – jam nut mount receptacle  
26 – straight plug
- ③ Finish : W – olive drab cadmium plating, –65°C ~ +175°C  
F – chemical nickel plating, –65°C ~ +200°C  
K – stainless steel passivation, –65°C ~ +200°C  
S – stainless steel nickel plating, –65°C ~ +200°C  
J – composite with olive drab cadmium plating –65°C ~ +175°C  
M – composite with chemical nickel plating –65°C ~ +200°C

④ Shell No. : 09 11 13 15 21 23 25  
Shell No. Code : A B C D G H J

⑤ Contact Arrangement

⑥ Contact Style : P – male insert  
S – female insert

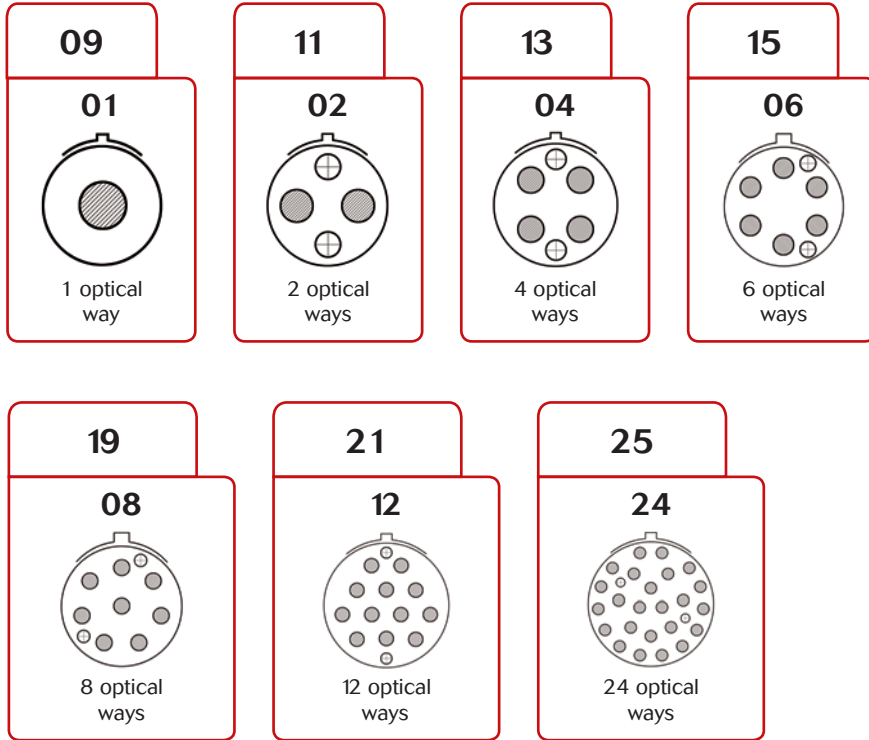
⑦ Master Keyway/ Keying Position : N–normal A, B, C, D, E

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## Fiber Optic Inserts

### Contact Arrangement



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