

SEAL3D™ Sealed 38999 III Interconnect Solution

INTRODUCTION



Our SEAL3D™ adapter connectors are bulkhead-mount interconnect devices that:

- » Can be designed for most MIL-STD-1560 contact patterns
- » Are configurable to socket/pin, pin/socket, or pin/pin mating faces
- » Feature lighter aluminum shells that are fully sealed to 1×10^{-6} cc/sec helium leak rate
- » Provide fully sealed performance from -55 °C to 150 °C
- » Meet all applicable requirements of MIL-DTL-38999
- » Are up to 50% lighter than stainless steel sealed feed-thru connectors

FEATURE	BENEFIT
Fully sealed to 1×10^{-6} cc/sec helium leak rate	• Meet the requirements of most avionics and bulkhead applications
Bulkhead adapter	• Configure to either wall mount or jam nut shells
Interfaces for M38999	• All socket and pin contacts meet mating and performance of M39029
Size 9–25 shells	• Select from most MIL-STD-1560 contact patterns for standard or high-density contacts
Double-end triple-start threads	• Meets all interface and vibration performance requirements of MIL-DTL-38999

SUGGESTED APPLICATIONS

- » Aerospace & military
 - Avionics
 - In-flight entertainment & connectivity
 - Feed thru in aircraft pressure bulkhead or fuselage
 - Environmentally controlled systems
- » Any weight reduction feed-thru application

PART NUMBER	DESCRIPTION
EXAMPLE	SEE CONFIGURATOR (Back Page)
CS93AAEF08SN	Jam Nut Adapter 17-8 Skt/Pin
CS93AAFF35SN	Jam Nut Adapter 17-35 Skt/Pin

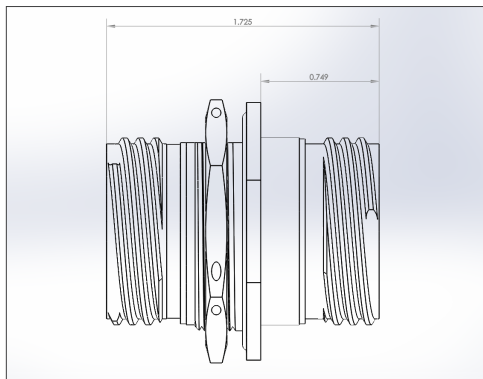
*In-line and jam nut designs available

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SPECIFICATIONS & PERFORMANCE

Test Scope	Per Specification
Environmental	
Operating Temperature Range	-65 °C to 175 °C
Temp Cycling	EIA-364-32, 250 Cycles
Leak Rate	Helium 1x10 ⁻⁶ cc/sec
Fluid Immersion	EIA-364-10
Humidity	EIA-364-31, Method IV, 100 MΩ
Corrosion Resistance	EIA-364-26, Condition B 48 Hours
Vibration - Random	EIA-364-28, Condition VI, 3 Axes
Shock	Half Sine, 300 G, 3 msec
Durability	500 Matings at Max 300/Hour
Electrical	
Insulation Resistance	5000 MΩ at 250 V
Dielectric Withstand Volt	EIA-364-20, 2 mA at Voltage (table)

Contact Density	STD #20	High #22 (-35)
@ Sea Level	1800	1300
@ 70K ft	400	350



ORDERING INFORMATION

Standard Part Number Guide for SEAL3D™

Shell Configuration

= MIL-DTL-38999

Series

1, 2, 3

Shell Style

J Jam Nut Receptacle (Flange Mil Spec Front)
 L Jam Nut Receptacle (Flange Mil Spec Rear)
 W Wall Mount Receptacle (Flange Mil Spec Front)
 Z Wall Mount Receptacle (Flange Mil Spec Rear)
 A Adapter, Jam Nut*
 B Adapter, Wall Mount*

Termination Type

S Solder Termination
 P PC Tail
 C Crimp
 W Wire Wrap
 T Solder Cup with Rear Access Thread
 D Crimp with Rear Access Thread
 A Pin/Socket (or Socket/Pin, Adapter only)
 B Pin/Pin (Adapter only)

Shell Sizes

A = 8/9, B = 10/11, C = 12/13, D = 14/15, E = 16/17
 F = 18/19, G = 20/21, H = 22/23, J = 24/25

Shell Finish

F Electroless Nickel
 W Olive Drab Cadmium over Nickel
 K Passivated Stainless Steel
 S Electro-deposited Nickel Stainless Steel
 T PTFE-Nickel

Contact Arrangement or Number of Contacts

See MIL-STD-1560 (ex. for 17-35, use "35")

Contact Type

P Pin
 S Socket

Polarization

N Normal
 A, B, C, D or E (series 3 only)

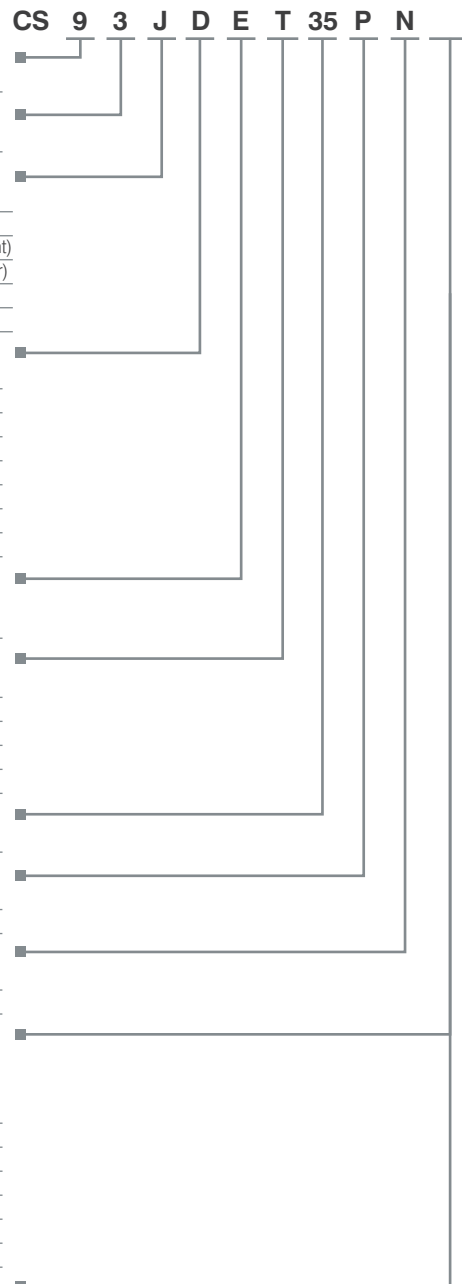
Modifier (and or accessory, blank if neither)

(example: BS = #4-40 clinchnut in flange with strain relief hardware)

B #4-40 Clinch Nut
 C #6-32 Clinch Nut
 D #4-40 Helicoil
 E #6-32 Helicoil
 B #4-40 Thread (SS only)
 C #6-32 Thread (SS only)
 K .500" Jam Nut Bulkhead (STD is .250")

Accessories

S Strain Relief
 P PC Board Standoffs



*Note: All adapters are double receptacle, pin/skt, skt/pin, or pin/pin. Due to pattern symmetry, not all MIL 1560 patterns are available. Contact-type pin or socket denotes the front side of adapter connectors. For all other adapter requirements, contact us for PN assistance.



See our full line of specialty interconnect products at:

CarlisleIT.com/products/connectors-accessories/specialty-interconnect/

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