

DUALOK HIGH VIBRATION PLUG

Dualok is a MIL-DIL-38999 Series III type plug connector with an enhanced anti-decoupling mechanism designed to perform under severe vibration environments – far exceeding the typical military specification requirements.



HIGH VIBRATION PLUG

The Dualok plug is proven to mitigate the negative effects of high vibration operation by eliminating connector back-off and reducing conditions that can cause fretting corrosion. Dualok is compatible with all D38999 Series III receptacle interfaces and has been qualified to multiple customer specifications.

SUPERIOR ELECTRICAL PERFORMANCE

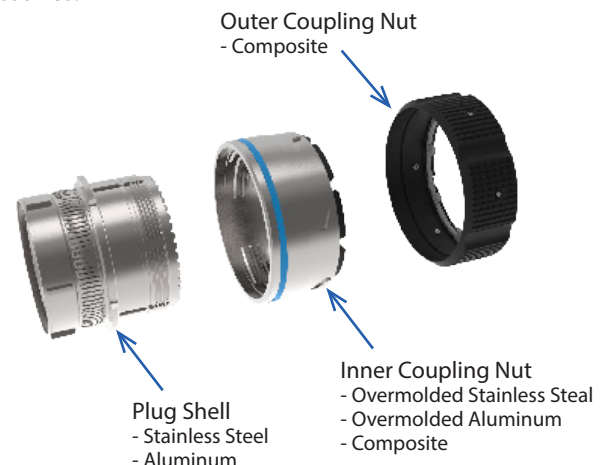
When fully mated, Dualoks' anti-decoupling mechanism eliminates back-off which is common issue among standard D38999 mated pairs. Dualok's superior coupling ensures reliable shell-to-shell bottoming which significantly improves the conductive path through the connector shells, thus improving EMI shielding, lightning strike performance, and contact interface sealing. When compared to D38999 Series III aluminum mated pairs, equivalent Dualok pairs showed shell-to-shell conductivity values 75% better than the mil-spec requirements.

MINIMIZED CONTACT FRETTING:

The pin-socket interface remains tight under mated conditions. Dualok yields more consistent integrity across the contacts and reduces friction-induced oxide formation.

FULLY CUSTOMIZABLE

Designed for the next generation of commercial jets, spacecrafts, or military vehicles. Dualok options include a fully composite coupling nut, tailored to more commercial applications where maximizing weight savings (35%) is a must. For Military Rotocraft, a familiar aluminum connector with a hybrid composite coupling nut can act in as the drop-in replacement that provides weight savings and eliminates backing off under harsh vibration. The hybrid steel/composite design will fill the gap where high temperature, and durability meet. All Dualok configurations accommodate both commercial and mil-spec insert arrangements as well as standard D38999 contacts, and accessories.



HIGH VIBRATION DUALOK

HOW TO ORDER



1.	2.	3.	4.	5.
Connector Type - Shell Style - Service Class	Shell Size - Insert Arrangement	Contact Termination	Alternate Positions	Modifications
TVS56RF-	9-35	P	A	(742)

1. Type, Shell Style, & Class

See chart below, type, shell style and service class combined for easy choice.

2. Shell Size- Insert Arrangement

For available insert arrangements refer to Amphenol's D38999+ Catalog

<https://www.amphenol-aerospace.com/resources/literature/view/38999plus-catalog>

1. Service Class, Aluminum 175°C

TV56DT	Durmalon: Plated alternative to cadmium, corrosion resistant, 500 hrs. extended salt spray, -50dB@10GHz	
TV56DZ	Black Zinc-Nickel: Alternative to cadmium, 500 hrs. salt spray, conductive, -50dB@10GHz	
TV56RW	Olive Drab Cadmium: 500 hrs. salt spray, -65dB@10GHz	
TV56DW	Corrosion Resistant Olive Drab Cadmium: 1,000 hrs. extended salt spray	

1. Service Class, Aluminum 200°C

TVS56RF	Electroless Nickel: 48 hrs. salt spray, -65dB@10GHz	
TVS56DS	AP-93™ Plating Tri-Nickel Alloy: 1,000 hrs. salt spray, intermateable with cadmium	
TVS56DB	Black Electroless Nickel: 100 hrs. salt spray	

1. Service Class, Stainless Steel 200°C

TVS56RK	Corrosion Resistant Stainless Steel: (Firewall) 500 hrs. salt spray resistance, -65dB@10GHz ***	
TVS56RKN	Corrosion Resistant Passivated Stainless Steel: (Non-Firewall), 500 hrs. salt spray resistance, -65dB@10GHz	
TVS56RS	(Non-Hermetic), Nickel plated: Corrosion resistant steel, (Firewall), 500 hrs. salt spray, EMI shielding -65dB @ 10GHz specification min. ***	
TVS56RL	Corrosion Resistant Steel: Nickel Plated, (Non-Firewall) 500 hrs. salt spray, -50dB@10GHz	

3. Contact Termination*

P	Pin
S	Socket

*To order less contacts, place "(LC)" at the end of the part number

4. Alternate Positions

	Blank for normal rotation
A	A rotation
B	B rotation
C	C rotation
D	D rotation
E	E rotation

5. Modifications**

	Blank for standard composite coupling mechanism
740	Hybrid steel-composite coupling mechanism
742	Hybrid aluminum - composite coupling mechanism

**Contact the factory for additional modifications
 ***Firewall connectors default to the hybrid steel-composite coupling mechanism with no need for mod code