



SuperNine®

Zero Separation Force (ZSF) Blind-Mate Connectors



Application: Glenair Series 253 connectors are designed to meet applicable environmental, electrical and mechanical performance characteristics of D38999 Series III. The technology is well suited for use in commercial blind-mate instrumentation panels, satellite deployment, scientific research and development payloads, as well as interstage, UAV, and munitions release applications.

- Blind-mate, float mount interconnects for non-ITAR commercial as well as military/defense applications
- Optional assisted release (spring force) solutions to overcome pin/socket engagement force
- Panel-mount versions feature self-aligning float-mount technology for repeatable mating and de-mating
- Available in most symmetrical MIL-STD-1560 insert arrangements with contact sizes from #23 to #12
- Selected materials offer low outgassing properties and high resistance to both corrosion and stress corrosion cracking
- Optional outgassing bake-out process available
- Designed to withstand the rigors of launch and flight—including shock, vibration, thermal vacuum, acceleration, and temperature extremes
- Standard accessory threads and teeth per MIL-DTL-38999 accommodate a wide range of backshell accessories

Current Rating	
Size Contact	Amps
23	5
22D	5
20	7.5
16	13
12	23

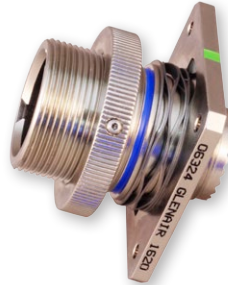
Unmated Test Voltages, AC RMS, 60 Hz				
Altitude (Feet)	Service Rating M	Service Rating N	Service Rating I	Service Rating II
Sea Level	1300	1000	1800	2300
50,000	550	400	600	800
70,000	350	260	400	500
100,000	200	260	200	200



CRITICAL MECHANICAL FEATURES OF BLIND-MATE CONNECTORS WITH ASSISTED RELEASE (ZSF) AND MISALIGNMENT ACCOMMODATION



Roll-off nose: allows for the smooth disconnection of a blind mate connector. Without this feature, connectors can catch or hang during mate and demate.



Misalignment accommodation: Radial, axial, and angular misalignment in blind-mate applications is resolved in the receptacle design with mechanical float mounting and integral wave form springs.



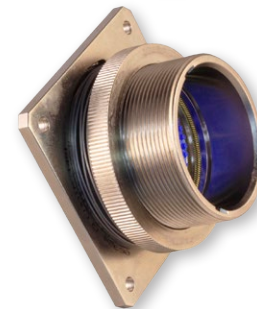
Sealing: Integrated misalignment accommodation makes environmental sealing difficult in blind mate circulars. Glenair SuperNine® blind-mate and assisted release connectors are available with auxiliary exterior seals.



EMI shielding: Glenair blind-mate circulars are available with auxiliary ground springs on receptacles, and ground fingers on plugs (shown), to optimize 360° shell-to-shell continuity.



Assisted separation: Spring-loaded kick-off posts are designed to overcome contact separation force (normal force) with adjustable flange-mounted springs. Separation force may be calibrated IAW application requirements and insert arrangement.



Assisted separation: Adjustment ring on receptacle shells provides reliable and repeatable calibration of assisted separation force. The adjustment ring interfaces directly with the spring-loaded kick-off posts on the plug. A set screw fitting locks the ring in place after adjustments have been made.

PRODUCT SELECTION GUIDE

Available non-ITAR rack-and-panel blind-mate and zero separation force solutions		
Basic Part No.	Description	Mates With
253-014	Float-mount plug with roll-on roll-off nose, environmental crimp contact	253-015
253-015	Float-mount receptacle with optional auxiliary seal and misalignment accommodation, environmental crimp contact	253-014
253-016	Float-mount plug with roll-on roll-off nose and spring-assisted release, environmental crimp contact	253-017
253-017	Float-mount receptacle with spring-assisted release and misalignment accommodation, environmental crimp contact	253-016
253-018	Bulkhead feed-thru with optional threaded plug or jam nut receptacle side IAW MIL-DTL-38999 Series III	253-019
253-019	Blind mate float mount jam nut receptacle with misalignment accommodation	253-018

Also available: consult factory for specifications and how-to-order information		
Basic Part No.	Description	Mates With
253-022	Hermetic, blind mate receptacle	253-015
253-027-07	Blind mate PC tail receptacle with threaded standoff	253-015