

Lightweight Composite Modular Connectors

Drop-in replacements for legacy modular rectangular connectors save weight, space, and assembly time

Today's high-performance commercial aircraft are looking for revolutionary materials and product designs that can reduce weight and improve reliability and performance. The Glenair Series 20 Super-Twin™ lightweight modular connector is a drop-in replacement for legacy cable and panel connectors that no longer meet these performance specifications—especially for ease of assembly, electromagnetic compatibility and size, weight and power optimization.

The Glenair Series 20 Super-Twin[™] can accommodate a broad range of contact sizes and types from #23 to #8 signal, Quadrax, El Ochito®, power, and fiber. Modular inserts offer fast and flexible assembly and repair. Peripheral and grommet seals provide

> outstanding environmental protection. Keyed inserts and shells provide versatile polarization and protection against mis-mating. The innovative clamshell and banding porch design brings modern, state-of-the-art connector capabilities to modular cable and panel

- For reduced size and weight cable and panel applications
- **■** Lightweight composite shell with integral strain relief/banding porch
- Modular inserts support a wide range of contact sizes and types up to #8
- Polarization both shell and inserts
- Center jackscrew with self-locking hardware



SERIES 20 Super-Twin™ **Lightweight Composite Modular Connectors**

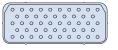


SUPER-TWIN™ SHELLS AND INSERTS ARE ORDERED SEPARATELY

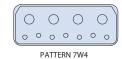
How To Order - Shells								
Sample Part Number	200-013	Р	2	-XM	31	K		
Series 20 Modular Connector	200-013 Plug Shell 200-014 Receptacle Shell							
Plug/Receptacle	P = Plug Shell, R = Receptacle Shell							
Size	Size 2							
Finish	XM = Electroless Nickel XB = No plating, black							
Polarization Code	2 digits: First digit 1 – 4 (factory installed) Second digit 1 – 4 (factory installed) Blank = keys supplied as kit							
MicroBand Option	K = MicroBand supplied. Blank = no MicroBand							

How To Order - Inserts							
Sample Part Number	200-005	P	2	-60	Α		
Series 20 Modular Connector	200-005 Pin Insert 200-006 Socket Insert						
Pin/Socket Insert	P = Pin Insert, S = Socket Insert						
Size	Size 2						
Insert Pattern	60 = 60X #23 contacts						
Polarization	A, B, C, D, E, F, G, H (must match with shell polarization)						





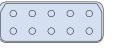
PATTERN 48 DWV@50 000 ft = 800 VAC





PATTERN 21 21 X Size 20 Contact DWV= 1500 VAC





PATTERN 10

Weight Study, Typical **Regional Jet Airframe**

Series 20 SuperTwin™ Mated Pair: 67g Weight/Plane: 7,661g

Legacy rectangular: aluminum Mated Pair: 192g Weight/Plane: 22,103g

Legacy rectangular: composite Mated Pair: 141a Weight/Plane: 16,123g

Summary:

Using Series 20 composite instead of legacy aluminum connector saves 14,442 grams (31.8 lbs) per plane.

Using Series 20 composite instead of legacy composite connector saves **8,482 grams** (18.6 lbs) per plane

Series 20 Super-Twin™ **Performance**

DWV	1500 Vac; 750 VAC (#23 contacts)			
Shell-to-Shell	2.5 mΩ			
Temp Range	-65°C / +125 °C			
Shock*	50 g, half sine, 18x			
Vibration*	Random, 8 hrs/ axis, Type VI, cond. G (27.8 g)			
Altitude Immersion*	12.1 kPa (15000 m / 49000 ft)			
Lightning Indirect Effects	3 kA min			

*Test by similarity, Series 79 Micro-Crimp



Keyed, snap-in-place insert modules are currently available in six tooled layouts, accommodating size #23, #20, #16, #12 and keyed size #8 contacts (for use with Quadrax or El Ochito™ contacts).

