



Series 970 Connectors and Accessories Technical Reference Material and Finish Options

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MATERIAL AND FINISH OPTIONS FOR POWERTRIP CONNECTORS AND ACCESSORIES

Powertrip connector shells are made of aluminum alloy or stainless steel. These shells are plated to improve corrosion resistance and conductivity. Electroless nickel plating is used for instrumentation, avionics and space applications where corrosion protection is not critical. Cadmium plating provides superior corrosion protection, but the United States Department of Defence (DOD) mandated the elimination of cadmium from DOD weapons systems because of toxicity concerns. The European Union has also restricted the use of cadmium on electronics equipment (RoHS). The top choices for cadmium replacement are Nickel-PTFE (MT) and Zinc-Nickel (ZR). In this catalog you will find four standard platings for aluminum shells: *Electroless Nickel*, *Nickel-PTFE*, *Black Zinc-Nickel*, and *Olive-Drab Cadmium*. A fifth option is *Passivated Stainless Steel* for extremely hostile environments. Glenair also offers dozens of optional material and finish options, typically with no minimum orders or lengthy lead times. A selection of these optional finishes is shown in the table below.

STANDARD MATERIAL & FINISH SELECTION GUIDE

Property	Alum/ Nickel	Alum/ Nickel-PTFE	Alum/ Olive Drab Cadmium	Alum/ Black Zinc-Nickel	SST/ Passivate
Glenair Code	ME	MT	NF	ZR	Z1
Corrosion Resistance	Fair	Excellent	Excellent	Excellent	Excellent
Temperature Range	-65°C to +200°C	-65°C to +200°C	-65°C to +175°C	-65°C to +175°C	-65°C to +200°C
Salt Spray Hours	96	1000 ⁽¹⁾	1000 ⁽¹⁾	1000 ⁽¹⁾	2000
Conductivity	Excellent	Excellent	Good	Good	Fair
Relative Cost	\$\$	\$\$\$	\$\$	\$\$\$	\$\$\$\$
RoHS Compliant ⁽²⁾	Yes	Yes	No	Yes	Yes

(1) Dynamic salt spray testing reduces 1000 hours to 500 hours. Dynamic testing includes 500 connector mating cycles.

(2) Does not contain cadmium or hexavalent chromium. Meets EU requirements.

The following table contains optional plating codes not shown in the ordering information. If one of these optional finishes is preferred over the above standard finishes, substitute the appropriate code in the part number.

OPTIONAL MATERIAL AND FINISH CODES

Code	Material	Finish	Finish Specification	Hrs. Salt Spray	Electrical Conductivity	Operating Temp. Range	RoHS Compliance ⁽²⁾
AB	Marine Bronze	Unplated		1000	Conductive	-65 to +200°C	✓
AL	Aluminum	AlumiPlate	MIL-DTL-83488	1000 ⁽¹⁾	Conductive	-65 to +175°C	✓
C	Aluminum	Anodize, Black	AMS-A-8625	48	Non-Conductive	-65 to +175°C	✓
E	Aluminum	Chem Film	MIL-DTL-5541	168	Conductive	-65 to +175°C	
G2	Aluminum	Anodize, Hardcoat	AMS-A-8625	336	Non-Conductive	-65 to +200°C	✓
JF	Aluminum	Cadmium, Gold	SAE-AMS-QQ-P-416	1000 ⁽¹⁾	Conductive	-65 to +175°C	
M	Aluminum	Electroless Nickel	AMS-C-26074	48	Conductive	-65 to +200°C	✓
NC	Aluminum	Zinc-Cobalt, Olive Drab	ASTM B 840	350	Conductive	-65 to +175°C	
P	Stainless Steel	Electrodeposited Nickel	SAE-AMS-QQ-N-290	500	Conductive	-65 to +200°C	✓
Z1	Stainless Steel	Passivate	SAE-AMS-QQ-P-35	1000	Conductive	-65 to +200°C	✓
Z2	Aluminum	Gold	MIL-DTL-45204	48	Conductive	-65 to +200°C	✓
ZL	Stainless Steel	Electrodeposited Nickel	SAE-AMS-QQ-N-290	1000 ⁽¹⁾	Conductive	-65 to +200°C	✓
ZM	Stainless Steel	Electroless Nickel	AMS-C-26074	1000	Conductive	-65 to +200°C	✓
ZMT	Stainless Steel	Nickel-PTFE	SAE AMS 2454	1000 ⁽¹⁾	Conductive	-65 to +200°C	✓
ZN	Aluminum	Zinc-Nickel, Olive Drab	ASTM B841	500	Conductive	-65 to +175°C	
ZNU	Aluminum	Zinc-Nickel, Black	ASTM B841	500	Conductive	-65 to +175°C	
ZU	Stainless Steel	Cadmium, Black	SAE-AMS-QQ-P-416	1000	Conductive	-65 to +175°C	
ZW	Stainless Steel	Cadmium, Olive Drab	SAE-AMS-QQ-P-416	2000	Conductive	-65 to +175°C	

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