



# Quick Disconnect Connector Properties Overview



## ABOUT SUPERFLY® MATERIALS AND FINISHES

Four standard material and finish options are available.

- 1 Aluminum shell with **Electroless Nickel** (EN). High reflectivity and poor corrosion resistance make nickel a poor choice for tactical systems, but nickel is preferred for avionics systems, space vehicles, medical equipment and test gear where corrosion is not a primary concern. Nickel is highly conductive and is excellent for EMI-protected systems.
- 2 Aluminum shell with **Black Zinc-Nickel** (Zn-Ni). Although less conductive than other finishes, non-reflective black Zn-Ni is a typical choice for soldier gear and is RoHS compliant. Corrosion resistance is good.
- 3 Aluminum shell with **Electroless Nickel-PTFE** (EN-PTFE). Excellent durability, corrosion resistance and conductivity. Non-reflective EN-PTFE is a primary choice for any harsh environment. Inherently lubricious, resists galling.
- 4 Aluminum shell with **Olive Drab or Cadmium** (OD over Cad). excellent, corrosion resistance and excellent conductivity. Non-reflective OD over Cad is a primary choice for defense and aerospace applications. Inherently lubricious, resists galling.
- 5 Stainless steel shell with **Zinc-Cobalt** (ZN-CO). Excellent durability, corrosion resistance and conductivity. Non-reflective black finish is an excellent choice for any harsh environment.
- 6 Stainless steel, **Passivated** finish. Excellent corrosion resistance, good conductivity. A good choice for high corrosion areas where EMI shielding is not a primary concern. Suitable for most aerospace and tactical gear.
- 7 Stainless steel, **Ni-PTFE** finish. Excellent corrosion resistance and excellent conductivity. A good choice for high corrosion areas where EMI shielding is a primary concern. Highly conductive, non-reflective Ni-PTFE finish is suitable for all aerospace and tactical systems.

Material and Finish Comparison Data

Identification	1	2	3	4	5	6	7
Material and Finish	Aluminum Electroless Nickel	Aluminum Black Zinc-Nickel	Aluminum Electroless Nickel-PTFE	Aluminum Olive Drab over Cadmium	Stainless Steel Black Zinc-Cobalt	Stainless Steel Passivated	Stainless Steel Electroless Nickel-PTFE
Glenair Code	M	ZR	MT	NF	ZC	ZK	ZMT
Corrosion Resistance	Poor	Good	Excellent	Very Good	Excellent	Excellent	Excellent
RoHS Compliance*	Yes	Yes	Yes	No	No	Yes	Yes
Conductivity	Excellent	Good	Excellent	Excellent	Excellent	Good	Excellent
Reflectivity	Reflective	Non-reflective	Non-reflective	Non-reflective	Non-reflective	Reflective	Non-reflective
Cost	\$	\$\$	\$\$	\$\$	\$\$\$\$	\$\$\$\$	\$\$\$\$

\* Meets DoD directives and European regulations for elimination of cadmium and hexavalent chromate.

Product Specifications

Property	5A (#23)	3A (Micro)	1A (Nano)
Current Rating (Size)	5A (#23)	3A (Micro)	1A (Nano)
Wire Size	#22-28 AWG	#24-30 AWG	#28-32 AWG
Dielectric Withstanding Voltage	500Vac	600Vac	250Vac
Contact Resistance	20 milliohms	32 milliohms	80 milliohms
Temperature Range	-55°C to +150°C		
Durability (mating cycles)	2000		
Corrosion (salt fog)	Nickel finish 48 hours, other finishes 500 hours		
Water Immersion, Mated	MIL-STD-810 Method 512, 1 meter, 1 hour		
Ingress Protection	IP 67		
Vibration	37g		
Shock	300g		

Materials and Finishes

Property	Description
Insulator	Thermoplastic, glass-filled
Shell	Aluminum or stainless steel
1A. Contact	Precious metal alloy pin, gold-plated copper alloy socket
3A. and 5A. Contact	Copper alloy, 50 microinches gold over nickel finish
Encapsulant	Epoxy
Wire	<b>Space Grade</b> High strength silver-coated copper alloy, ETFE insulation (M22759/33) or equivalent