



DEUTSCH Nickel PTFE-Plated Connectors

The RoHS-Compliant Alternative to Cadmium Plating

CADMIUM FREE

- Withstands 500-hour salt spray for corrosion resistance in harsh environments
- Lightweight aluminum shell with high performance cadmium-free plating
- Provides required performance while respecting environmental standards

QUALIFIED

- RoHS compliant plating to replace cadmium
- Defense Logistics Agency (DLA) qualified for Nickel PTFE, "T" Class plating finish

HIGH PERFORMANCE

- -65°C to +175°C temperature performance
- 500 mating cycles
- Excellent electrical performance

Cadmium-Free Environmental Resistance

With tightening environmental regulations seeking to reduce or eliminate the use of cadmium, TE Connectivity (TE) now offers nickel PTFE plating as an alternative to cadmium plating. With great electrical performance and sustainable environmental performance, nickel PTFE finishes give the same high level of corrosion resistance—withstanding 500-hour salt-spray testing for connectors and the same temperature range as cadmium finishes. The shell has been redesigned for maximum compatibility with nickel PTFE plating.

Cadmium-Compatible Retrofits

Even though MIL-DTL-38999 does not require plating compatibility testing, TE has performed preliminary testing of Class W (olive drab cadmium) connectors mated to Class T (nickel PTFE) and Class Z (black zinc nickel) connectors, resulting in functional connectors post 500-hour salt spray testing. Every application that uses MIL-DTL-38999 Series III connectors is different, so TE suggests the end users to pursue application specific system level testing to ensure results meet the end user's intended requirements.

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DEUTSCH Connectors

- MIL-DTL-38999 Series III Connectors
- Contact TE for other connector families

APPLICATIONS

- Aerospace
- Next-Generation Harsh Equipment Vehicles
- Electric Drive Vehicles
- Communication Equipment
- Power Generation
- De-icing Applications

SPECIFYING NICKEL PTFE PLATING

Use TE plating code "T" in the part description

Example (for DTS Series 38999 Connectors)

D38999 20 **T** J 19 P N

TE Plating Options for Military/Aerospace Connectors

	Nickel PTFE	Zinc Nickel	Cadmium Olive Drab	Nickel	Zinc Cobalt
Color	Gray	Black	Green	Silver	Green
Included in MIL-DTL-38999L	✓	✓	✓	✓	✗
Compatible with Cadmium-Plated Products	✓	✓	✓	✗	✓
Dynamic Salt Spray Resistance	500 hours	500 hours	500 hours	48 hours	48 hours
Temperature Rating	+175°C	+175°C	+175°C	+175°C	+175°C
Shell-to-Screen Resistance	<2.5 mΩ	<2.5 mΩ	<2.5 mΩ	<2.5 mΩ	<2.5 mΩ
Nonreflective Finish	✓	✓	✓	✗	✓
Nonmagnetic	✓	✓	✓	✓	✓

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Consult TE for the latest dimensions and design specifications.

North America +1 800 522 6752 • Asia Pacific +86 0 400 820 6015 • France +33 1 34 20 86 86 • Germany +49 6251 133 1999 • United Kingdom +44 800 267 666
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