



# BLACK ZINC NICKEL-PLATED CONNECTORS AND BACKSHELLS

THE ROHS-COMPLIANT ALTERNATIVE TO CADMIUM PLATING

## CADMIUM FREE

- Provides required performance while respecting environmental standards
- Corrosion resistance in harsh environments
- Withstands 1000-hour salt spray for AS85049 backshells; 500 hours for other parts

## HIGH PERFORMANCE

- -65°C to +175°C temperature range
- Approved plating as defined by MIL-DTL-38999L
- Good shell-to-shell continuity for effective shielding

## Cadmium-Free Environmental Resistance

With the tightening environmental regulations seeking to reduce or eliminate the use of cadmium, TE now offers black zinc nickel plating as an alternative to cadmium plating. With great electrical performance and sustainable environmental performance, black zinc nickel finishes give the same high level of corrosion resistance—withstanding 500-hour salt-spray testing for connectors and accessories and 1000 hours for AS85049 backshells—and temperature range as cadmium finishes.

## Cadmium-Compatible Retrofits

Because black zinc nickel and cadmium have similar electrical potentials, parts with different platings can be mated with minimum risk of galvanic corrosion. Zinc nickel-plated parts can thus be easily integrated into existing applications where cadmium-plated connectors are used.

The finish is nonmagnetic and nonreflective.

# BLACK ZINC NICKEL-PLATED CONNECTORS AND BACKSHELLS

The RoHS-Compliant Alternative to Cadmium Plating



## DEUTSCH Connectors

- DTS Series 38999 Connectors
- Contact TE for other families



## Raychem Backshell Adapters

- HexaShield Adapters
- Tinel-Lock Adapters
- Spin Lock Adapters
- AS85049 Bandstraps and Backshells

## APPLICATIONS

- Next-Generation Harsh-Environment Vehicles
- Electric Drive Vehicles
- Aerospace
- Communication Equipment
- Power Generation and Metering Equipment

## SPECIFYING BLACK ZINC NICKEL PLATING

Use TE plating code "Z" in the part description

**Example** (for DTS Series 38999 Connectors)

D38999 20 **Z** J 19 P N

## TE Plating Options for Military/Aerospace Connectors

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

\* 1000 hours for AS85049 backshells

\*\* <5 mΩ for HexaShield backshells

## TE Components . . . TE Technology . . . TE Know-how . . .

AMP | Agastat | CII | Hartman | Kilovac | Microdot | Nanonics | Raychem | Rochester | DEUTSCH

Get your product to market faster with a smarter, better solution.

[te.com/BlackZincNickel](http://te.com/BlackZincNickel)

© 2014 TE Connectivity Ltd. family of companies. All Rights Reserved.

1-1773839-6 ADM/RRD 2.5M 08/2014

DEUTSCH, HexaShield, Raychem, Tinel-Lock, TE Connectivity and the TE connectivity (logo) are trademarks of the TE Connectivity Ltd. family of companies.

Other product or company names mentioned herein may be trademarks of their respective owners.

While TE has made every reasonable effort to ensure the accuracy of the information herein, nothing herein constitutes any guarantee that such information is error-free, or any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. The TE entity issuing this publication reserves the right to make any adjustments to the information contained herein at any time without notice. All implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose are expressly disclaimed. The dimensions herein are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice.

Consult TE for the latest dimensions and design specifications.