Amphenol
Aerospace

AP-93 PLATING - 1000 HOUR ALT-TO-CAD

RoHS COMPLIANT TRI-NICKEL ALLOY, INTERMATEABLE WITH CAD

The first D38999 RoHS compliant 1,000 hour salt spray resistant plating approved by the Defense Logistics Agency (DLA) for the Class AA Qualified Product List (QPL).

Amphenol Aerospace introduces **AP-93** -- a new, durable REACH/RoHS compliant plating for aluminum connectors which outperforms Cadmium and exceeds 1000 hour salt spray requirements. **AP-93** is a conductive finish that meets or exceeds D38999 Cadmium requirements (under the commercial service class designator "DS") making it an excellent choice for harsh environments.

Military, commercial, and industrial markets continue to move away from Cadmium due to known toxic carcinogens. The new **AP-93** plating finish complies with all customer requirements tied to these specifications. Amphenol is also using European Union Directive 2002/95/EC RoHS as a guide to qualification for all military, commercial, and industrial specifications requiring the reduction or elimination of these restricted materials.

AP-93 is intermateable with Cadmium, making it a drop-in replacement for applications where Cadmium has been a preferred choice. Applications include numerous components of land, sea, air, and weapons systems, as well as space systems, as it provides superior barrier protection and excellent lubricity for threaded applications.

AP-93 exceeds Olive-Drab Cadmium plating (Class W) by meeting 1000 hours of dynamic salt spray, 500 mating cycles, and meets the millivolt drop shell-to-shell conductivity of nickel (Class F). **AP-93** also meets a 392° F (200° C) temperature rating, is compatible with other platings, and is available on all D38999-style Series III connectors. For specific applications please contact Amphenol Aerospace.

FEATURES & BENEFITS

- Available on all D38999 Series III style connectors on /20, /24 and /26 shell styles
- Meets 1000 hour salt spray requirement
- REACH/RoHS compliant
- Intermateable with Cadmium -- excellent drop-in replacement for existing connectors.
- 500 mating cycles per D38999
- Meets 392° F (200° C) temperature rating
- Meets D38999 shell-to-shell conductivity requirements
- Available in other Amphenol product lines as a commercial product

Requirements	Nickel	CAD	AP-93
336 Hours SO2 Exposure			*
500 Hours Salt Spray		*	*
1000 Hours Salt Spray			*
REACH/RoHS Compliant	*		*
CAD Intermateable		*	*
Non-Magnetic	*	*	*
Temperature Rating 200° C	*		*
Shell-to-Shell Conductivity < 2.5 millivolt	*	*	*

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AP-93 Plating How to Order: 38999 Series III Style

PART NUMBER KEY

1. Type	2. Shell Style	3. Service Class	4. Shell Size & Insert Arrangement	5. Contact Type	6. Alternate Position	7.1 PCB Termination	7.2 PCB Length	7.3 PCB Acc	7.4 PCB Tinning Option
TVS	07	DS	15-35	P	A	P	45	AD	T1

1. Connector Type 38999 Series III

TVS	Tri-Start, 200°C
TVPS	Panel Mounted, 200°C

*Add P prefix for potted ex: PTV

2. Shell Style

00	Wall Mount Receptacle
02	Box Mount Receptacle
07	Jam Nut Receptacle
01	Line Receptacle
06	Straight Plug
96	Straight Plug with Integral Backshell
Shell Style Double Flange	
40	Wall Mount Double Flange
47	Jam Nut Double Flange
Shell Style Reduced Flange	
97	Reduced Flange Jam Nut
98	Reduced Flange Jam Nut with Standoff
Shell Style Clinch Nuts	
10	Wall Mount (Clinch Nuts)
12	Box Mount (Clinch Nuts)

3. Service Class

DS	AP-93 Tri-Nickel Alloy, Aluminum, 1000 Hr., 200°C, -65dB@10GHz, RoHS®

4. Shell Size - Insert Arrangement

Shell Size & Insert Arrangements are on pages 75-83 of 38999+ Catalog. First number represents Shell Size, second number is the Insert Arrangement.

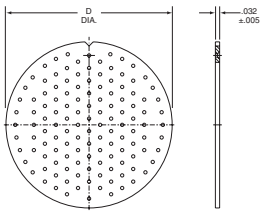
5. Contact Type

P	Pin Contacts
S	Socket Contacts
H	1500 Cycle Pin Contacts
J	1500 Cycle Socket Contacts

6. Alternate Position

A, B, C, D, E omit for normal rotation parts. See page 84 of 38999+ Catalog for complete information

Alignment Disc Data



Shell Size	D Dia. ±.010
9	.234
11	.350
13	.500
15	.725
17	.750
19	.850
21	.953
23	1.147
25	1.250

7.1 PCB TERMINATION

P	Pin
S	Socket

7.2 PCB LENGTH

10	.100"
15	.150"
20	.200"
25	.250"
30	.300"
35	.350"
40	.400"
45	.450"

Note: Nominal (±) .040"

7.3 ACCESSORIES

AD	Alignment Disc
	No Disc

7.4 TINNING OPTIONS

	Standard Gold Plating
T	Tin-Lead Solder
T1	Tin-Silver Solder
T2	SAC 305

Example Configuration: "P15"
PCB Connector with .150 length gold plated contacts

Example Configuration: "S25T"
PCB connector with .250 stickout length, gold plated contacts with tin-lead solder

Example Configuration: "P45ADT1" PCB connector with .450 stickout length, gold plated contacts with tin-silver solder and an alignment disc

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