HD38999 High Density Connectors Introduction





A connector that has the **connections...** \Box

The HD38999 family of connectors was designed to work with existing mil-specified 38999 shells. To the end users familiar with standard 38999 connectors, this family of high density connectors will look, feel, and perform just like the mil-qualified connectors. Utilizing an existing mil-qualified 39029 size 23 contact and mil-qualified shells, the new system will be, in many cases, a drop-in connector. Even though the HD38999 has 30% more contacts, it still performs to minimum electrical requirements of standard 38999 connectors.



Goes from 9 to 187 contacts!

- Aluminum
- Composite
- Stainless Steel Sealed

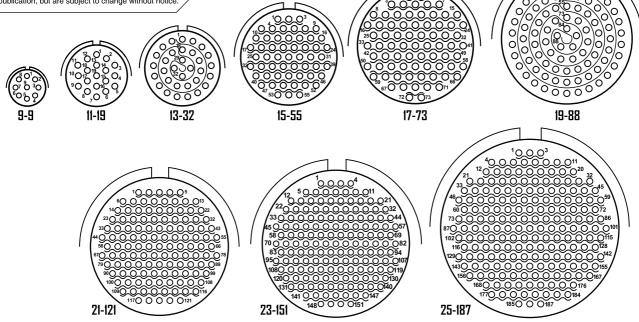


High Density Interconnects



For more information e-mail: hd38999info@amphenol-aao.com Specifications, descriptions and illustrations in this litera-

Specifications, descriptions and illustrations in this liter ture are as accurate as known at the time of publication, but are subject to change without notice.



Shell Sizes (Front of Pin Insert Shown)

Front of Pin Insert Shown.



26482 Matrix 2

83723 III

5015 Crimp Rear Release Matri

ear 26500 atrix

00 Pyle

Printed
Circuit Board

EMI Filter
Transient

Fiber Optics

tigh Speed
Contacts

Options Others



HD38999 High Density Connectors

How to Order

CRIMP CONTACT SIZE SAE AS39029, SIZE 23

Size 23 Pins

Sealing Plugs

WIRE BARREL RANGES/CURRENT CAPABILITY

CRIMP BARREL DIAMETER (Inches) .034-.036

CRIMP BARREL

Depth (Inches).151-.155

38999

26500 Pvle

Trans EM

Optics Fiber (

22 AWG 5.0 AMPS 24 AWG 3.0 AMPS 26 AWG 2.0 AMPS

28 AWG 1.5 AMPS

Note: Wire insulation diameter greater than 0.045 inches is too large for the extraction tool to work properly. Connector damage is possible.

Contact Part Numbers Crimp Tool - Daniels M22520/2-01 Size 23 Sockets 10-597330-735

Positioner - Daniels M22520/2-13 - Pins Daniels M22520/2-16 - Sockets

Insertion/Removal Tool - Glenair 809-088

Temperature Range: -65C to 175C

10-597331-735

10-405996-222 (M27488-22-2)

Insulation Resistance: 5000 megohms min.@ 500 VDC 25C Dielectric Withstanding Voltage: 1000 VBMS @ Sea level

Easy Steps to build a part number... HD38999



Step 1. Select a Connector Type

	-	7.1
		Designates
TV		Tri-Start Series Connector
TVP		Back panel mounted receptacle
(P)		Potted version
		·

Step 2. Select a Shell Style

	Designates
00 Wall mount receptacle	
01	Line receptacle
06	Straight plug
07	Jam nut receptacle

Step 3. Select a Service Class

	Designates
RF	Electroless nickel plated aluminum, optimum EMI shielding effectiveness -65dB @ 10GHz specification min., 48 hour salt spray, 175°C
RW	Corrosion resistant olive drab cadmium plate aluminum, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min.,175°C
RK	Corrosion resistant stainless steel, plus 500 hour salt spray resistance, EMI –45 dB @ 10 GHz specification min., 175°C
DT	Durmalon plated, alternative to Cadmium. Corrosion resistant, 500 hour extended salt spray, EMI -50dB @ 10GHz specification min. without CR ⁶
ZN	Zinc-Nickel Alternative to Cadmium corrosion resistant, 500 hour salt spray, Conductive, -65°C to +175°C

Step 4. Select a Shell Size -

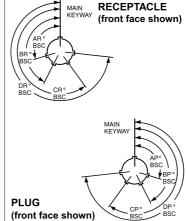
Insert Arrangement

Shell Sizes are MIL-DTL-38999, Series III, plus newer High Density insert arrangements

Shell	Insert	Shell	Insert
Size	Arrangement	Size	Arrangement
9 –	9	19 –	88
11 –	19	21 –	121
13 –	32	23 –	151
15 –	55	25 –	187
17 –	73		

Step 5. Select a Contact Type

	Designates
Р	Pin contacts
S	Socket contacts



Step 6. Select an Alternate Position

A, B, C, D, E, blank for normal

Shell Size	Key & keyway arrangement identification letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
	N*	105	140	215	265
	Α	102	132	248	320
9	В	80	118	230	312
9	С	35	140	205	275
	D	64	155	234	304
	E	91	131	197	240
	N*	95	141	208	236
11,	Α	113	156	182	292
13,	В	90	145	195	252
and	С	53	156	220	255
15	D	119	146	176	298
10	E	51	141	184	242
	N*	80	142	196	293
17	Α	135	170	200	310
and	В	49	169	200	244
	С	66	140	200	257
19	D	62	145	180	280
	E	79	153	197	272
0.4	N*	80	142	196	293
21,	Α	135	170	200	310
23,	В	49	169	200	244
and	С	66	140	200	257
25	D	62	145	180	280
_0	E	79	153	197	272

A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Inserts are not rotated in conjunction with the master key/keyway.

Step 7. Select a PCB Contacts

- 1			
	Pin	Socket	Designates
	P1	S1	PCB tail stickout .100" nominal +/040 inch
	P15	S15	PCB tail stickout .150" nominal +/040 inch
	P2	S2	PCB tail stickout .200" nominal +/040 inch
	P25	S25	PCB tail stickout .250" nominal +/040 inch