Amphenol Aerospace

HD38999 High Density

A connector that has the connections...

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.

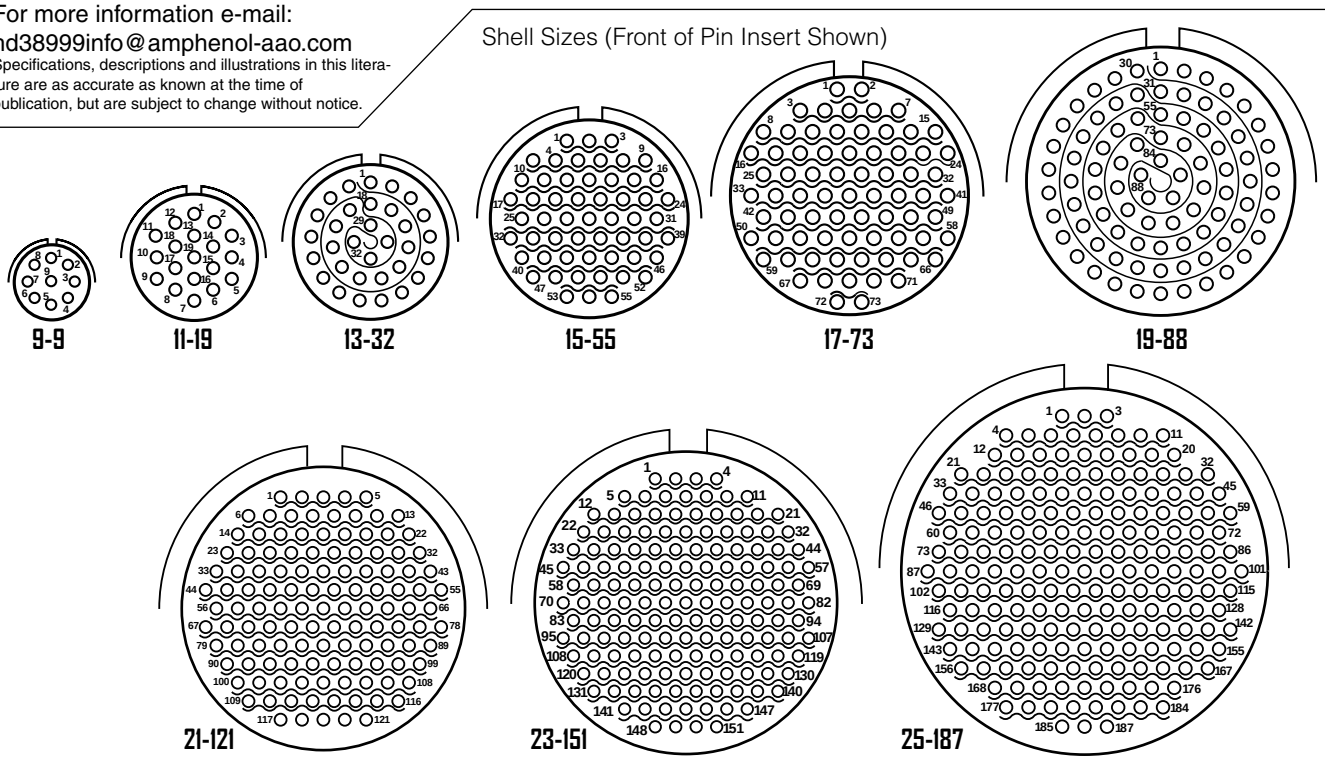
Goes from 9 to 187 contacts!

High Density Interconnects

- Aluminum
- Composite
- Stainless Steel
- Sealed
- Filtered

For more information e-mail:
hd38999info@amphenol-aao.com

Shell Sizes (Front of Pin Insert Shown)



Front of
Pin Insert Shown.

CRIMP CONTACT SIZE	WIRE BARREL RANGES/CURRENT CAPABILITY		CRIMP BARREL DIAMETER	CRIMP BARREL
SAE AS39029, SIZE 23	22 AWG	5.0 AMPS	(Inches) .034-.036	Depth (Inches).151-.155
	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
Size 23 Sockets 10-597330-735
Size 23 Pins 10-597331-735
Sealing Plugs 10-405996-222 (M27488-22-2)

Crimp Tool - Daniels M22520/2-01
Positioner - Daniels M22520/2-13 – Pins
Daniels M22520/2-16 – Sockets
Insertion/Removal Tool - Glenair 809-088

Temperature Range:
-65C to 175C

Insulation Resistance:
5000 megohms min.@ 500 VDC 25C

Dielectric Withstanding Voltage:
1000 VRMS @ Sea level

Easy Steps to build a part number... HD38999

1. Connector Type	2. Shell Styles	3. Service Class	4. Shell Size – Insert arrangement	5. Contact Type	6. Alternate Positions	7. PCB Options
(P)TV	06	RW	23-151	P	B	(P25)

Step 1. Select a Connector Type

	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

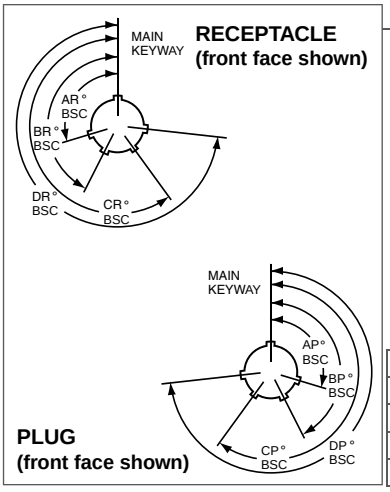
Step 4. Select a Shell Size – Insert Arrangement

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

Shell Size	Insert Arrangement	Shell Size	Insert 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
P	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
9	N*	105	140	215	265
	A	102	132	248	320
	B	80	118	230	312
	C	35	140	205	275
	D	64	155	234	304
	E	91	131	197	240
11, 13, and 15	N*	95	141	208	236
	A	113	156	182	292
	B	90	145	195	252
	C	53	156	220	255
	D	119	146	176	298
	E	51	141	184	242
17 and 19	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	E	79	153	197	272
21, 23, and 25	N*	80	142	196	293
	A	135	170	200	310
	B	49	169	200	244
	C	66	140	200	257
	D	62	145	180	280
	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

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