Amphenol Aerospace

HIGH TEMPERATURE SERIES III 38999

High-temperature connectors for the hottest environments on Earth and beyond

PDS - 357

SERIES III



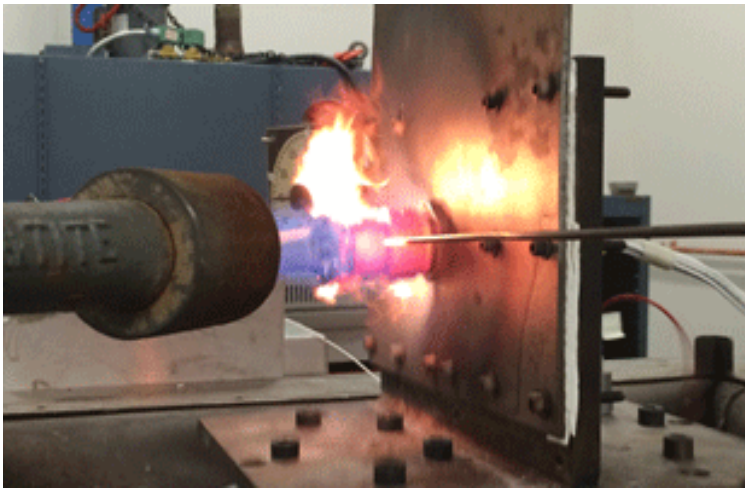
High Temperature Series III connectors are the ideal solution for interconnects and electrical wire assemblies near engines, firewalls, and other high-heat sources. Built for applications with higher temperatures, such as hypersonic weapon systems, small module nuclear reactors, space launch vehicles, and other advanced aircraft, these high-heat connectors are built to operate at temperatures up to 572°F (300°C) for 24 Hours, with continuous duty at 500°F (260°C) assured. Using proven high-heat materials such as alumina ceramic inserts, high-temperature elastomeric seals and more Amphenol High Temperature connectors can beat the heat.

The heat-resistant High Temperature Series connectors outperform standard mil-spec D38999 connectors under similar high-heat circumstances. Temper-Grip socket contacts come standard to ensure a ruggedized connection even during firewall testing at more than 2,000°F (1,093°C). For applications up to 500°F (260°C), Amphenol's glass-filled rigid silicone is a proven insulator alternative to the alumina ceramic inserts, with the same upgrades as the rest of the High Temperature Series.

As today's advanced propulsion systems achieve higher and higher speeds, the demand for connectors that can sustain high-heat environments has never been greater. Amphenol High Temperature connectors are the ultimate solution for high-heat applications that demand durability, reliability, and resistance to extreme heat.

FEATURES AND BENEFITS:

- Withstands exposure at 572 °F (300 °C) for up to 24 hours, 500 °F (260 °C) continuous duty
- Utilizes Temper-Grip socket contacts
- Nickel contacts available with thick gold plating
- One-piece alumina ceramic inserts and high-temperature elastomer seals
- Exceeds firewall performance of MIL-DTL-39999 connectors, up to 45 minutes and up to 2,200 °F (1,204 °C)
- Available in stainless steel and titanium shells



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HOW TO ORDER: HIGH TEMPERATURE CONNECTORS

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PART NUMBER KEY

1. Type	2. Shell Style	3. Service Class	4. Shell Size & Insert Arrangement	5. Contact Type	6. Alternate Position*	7. Modifications
HTV	00	HK-	11-4	P	A	(PWR)

1. Connector Type

HTV	Series III

2. Shell Style

06	Straight Plug
00	Wall Mount Receptacle
01	Line Mount Receptacle
02	Box Mount Receptacle

3. Service Class, Aluminum 175ºC

HK-	Passivated Stainless Steel	
HT-	Titanium	
HS-	Passivated stainless steel with glass-filled silicone-rigid insert - 500°F (260°C)	
HU-	Titanium with glass-filled silicone rigid insert - 500°F (260°C)	

4. Shell Size & Insert Arrangement

See Next Page

5. Contact Type

P	Pin Contacts
S	Socket Contacts

6. Alternate Positions

	Blank for Normal Rotation
A	A Rotation
B	B Rotation
C	C Rotation
D	D Rotation
E	E Rotation

7. Modifications

(PWR)	Replace coax/twinax contacts with power contacts

KEY/KEYWAY POSITION

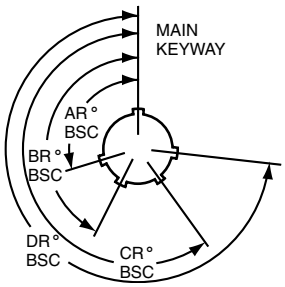
Key/Keyway Position

N	A	B	C	D	E

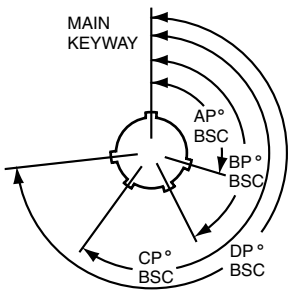
KEY/KEYWAY POSITION

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. Master key stays fixed, minor keys rotate. Inserts are not rotated in conjunction with the master key/keyway.

RECEPTACLE
(front face shown)



PLUG
(front face shown)



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 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 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 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

**Please see 38999 catalogs for 2D drawings and available shell styles.

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HIGH TEMPERATURE CONNECTORS

Insert Availability and Identification Chart

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SERIES III INSERT (TV)

Series III	Total Contacts	Service Rating	Contact Size			
			20	16	12	8
9-94	2	M	2			
9-98	3	I	3			
11-2	2	I		2		
11-4	4	I	4			
11-5	5	I	5			
11-98	6	I	6			
11-99	7	II	7			
13-4	4	I		4		
13-8	8	I	8			
13-98	10	I	10			
15-4	4	I			4	
15-5	5	II		5		
15-15	15	I	14	1		
15-18	18	I	18			
15-19	19	I	19			
15-97	12	I	8	4		
17-6	6	I			6	
17-8	8	II		8		
17-26	26	I	26			
17-52	2	M				2
17-99	23	I	21	2		
19-11	11	II		11		
19-28	28	M	26	2		
19-32	32	I	32			
21-11	11	I			11	
21-16	16	II		16		
21-29	27	I	19	4	4	
21-39	39	I	37	2		
21-41	41	I	41			
21-A48	4	N				4
23-6	6	M				6
23-14	14	I			14	
23-21	21	II		21		
23-53	53	I	53			
23-55	55	I	55			
25-4	56	I	48	8		
25-8	8	M				8
25-19	19	I			19	
25-20	30	N	10	13	4	3
25-24	24	I		12	12	
25-26	25	I	16		5	4
25-29	29	I	29			
25-37	37	I		37		
25-43	43	I	23	20		
25-46	46	I	40	4		2
25-61	61	I	61			
25-90	46	I	40	4		2

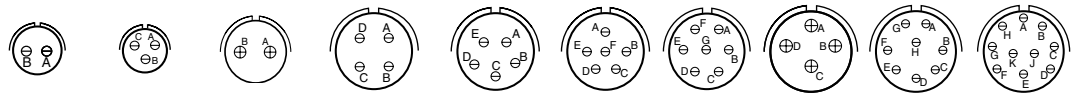
*All insert arrangements with size 8 cavities are supplied with power contacts. (PWR) Mod Code is required.

HIGH TEMPERATURE SERIES III (TV)

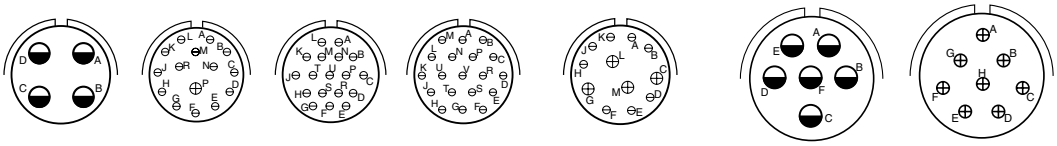
Insert Arrangements

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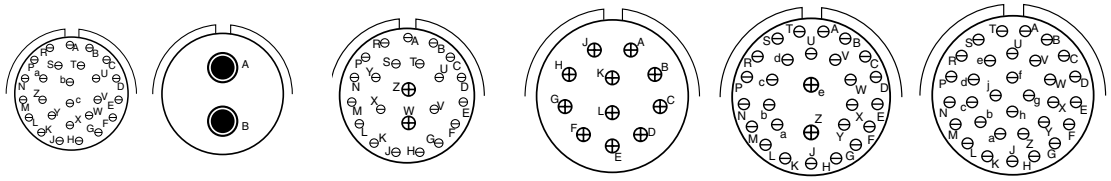
Front face of pin inserts illustrated



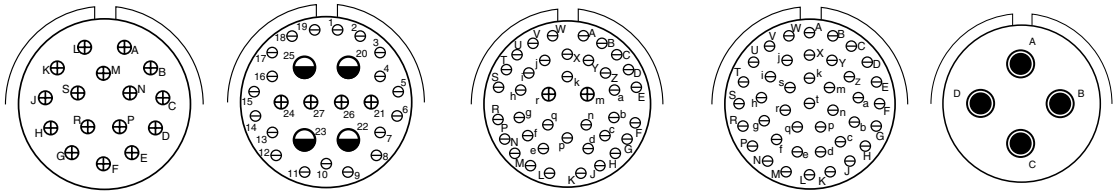
Shell Size & Insert Arrg. for:										
Series III TV	9-94	9-98	11-2	11-4	11-5	11-98	11-99	13-4	13-8	13-98
Service Rating	M	I	I	I	I	I	I	I	I	I
Number of Contacts	2	3	2	4	5	6	7	4	8	10
Contact Size	20	20	16	20	20	20	20	16	20	20



Shell Size & Insert Arrg. for:							
Series III TV	15-4	15-15	15-18	15-19	15-97	17-6	17-8
Service Rating	I	I	I	I	I	I	II
Number of Contacts	4	14 / 1	18	19	8 / 4	6	8
Contact Size	12	20 / 16	20	20	20 / 16	12	16



Shell Size & Insert Arrg. for:						
Series III TV	17-26	17-52	17-99	19-11	19-28	19-32
Service Rating	I	M	I	II	M	1
Number of Contacts	26	2	21 / 2	11	26 / 2	32
Contact Size	20	8	20 / 16	16	20 / 16	20



Shell Size & Insert Arrg. for:					
Series III TV	21-16	21-29	21-39	21-41	21-A48
Service Rating	II	I	1	I	N
Number of Contacts	16	19 / 4 / 4	37 / 2	41	4
Contact Size	16	20 / 16 / 12	20 / 16	20	8



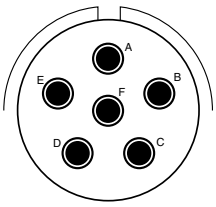
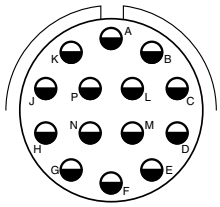
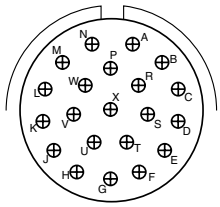
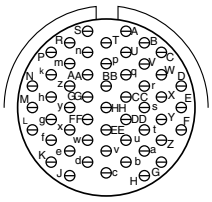
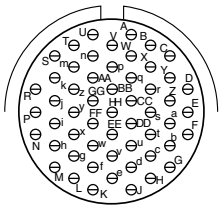
CONTACT LEGEND 8 10 12 16 20

HIGH TEMPERATURE SERIES III (TV)

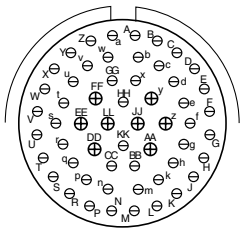
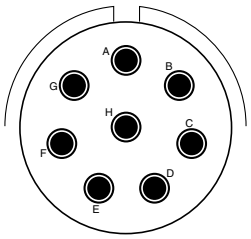
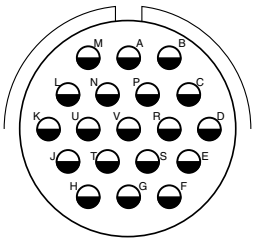
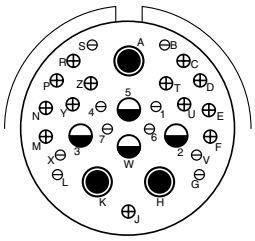
Insert Arrangements

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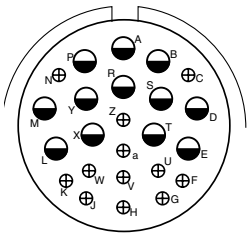
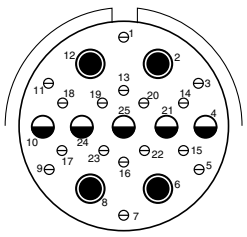
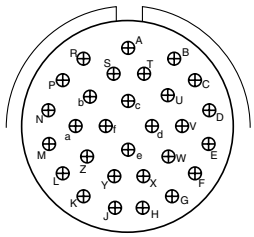
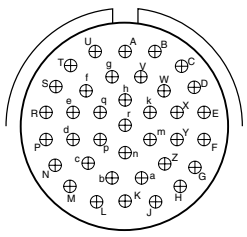
Front face of pin inserts illustrated

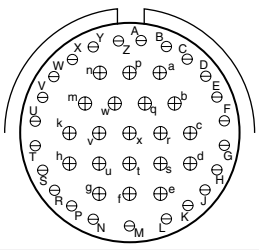
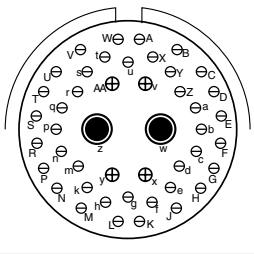
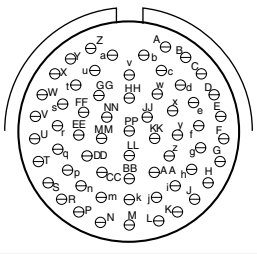
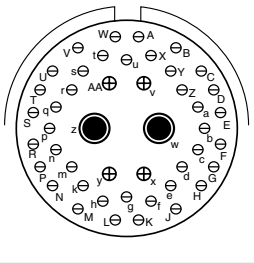
Shell Size & Insert Arrg. for:					
Series III TV	**23-6**	**23-14**	**23-21**	**23-53**	**23-55**
Service Rating	M	I	II	I	I
Number of Contacts	6	14	21	53	55
Contact Size	8	12	16	20	20

Shell Size & Insert Arrg. for:												
Series III TV	**25-4**			**25-8**			**25-19**			***** 25-20**			
Service Rating	I						I			N			
Number of Contacts	48		8	8			19			10	13	4	3
Contact Size	20		16	8			12			20	16	12	8

Shell Size & Insert Arrg. for:												
Series III TV	**25-24**			**25-26**			**25-29**			**25-37**		
Service Rating	I			I			I			I		
Number of Contacts	12		12	16	5	4	29			37		
Contact Size	16		12	20	12	8	16			16		

Shell Size & Insert Arrg. for:												
Series III TV	**25-43**			**25-46**			**25-61**			**25-90**		
Service Rating	I			I			I			I		
Number of Contacts	23		20	40	4	2	61			40	4	2
Contact Size	20		16	20	16	8	20			20	16	8