

HIGH TEMPERATURE SERIES FIVE

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

PDS - 357



High Temperature Series Five 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, space launch vehicles, and other advanced aircraft, these high-heat connectors are built to operate at temperatures up to 572 °F (300 °C) for longer durations, with continuous duty at 500 °F (260 °C) assured. Using proven high-heat materials such as alumina ceramic inserts, high-temperature elastomeric seals, and much more, High Temperature Series Five connectors can beat the heat.

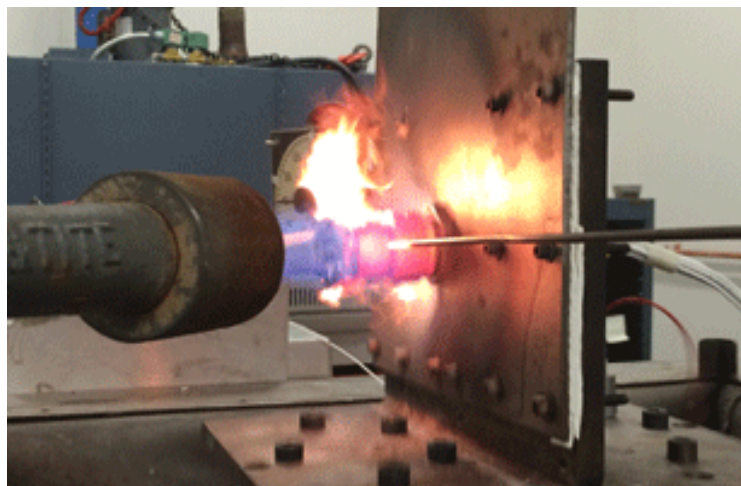
The heat-resistant High Temperature Series Five outperforms standard mil-spec D38999 connectors under similar high-heat circumstances. Temper-Grip socket contacts come standard to ensure a ruggedized connection even during firewall testing at more than 2,000 °F (1,093 °C).

This high-temperature technology is available for other connector series too, such as MIL-DTL-38999 Series III. Customized testing, including firewall testing under vibration, can be performed at Amphenol's advanced test lab in Sidney, NY.

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. High Temperature Series Five is 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-38999 connectors, up to 45 minutes and up to 2,200 °F (1,204 °C)
- Available in stainless steel and titanium shells
- 20% smaller and up to 50% lighter than comparable D38999 connectors
- Improved resistance to cryogenic environments



HOW TO ORDER: HIGH TEMPERATURE SERIES FIVE

S506HK-14-4PN

1. Connector Type	2. Shell Style	3. Service Class	4. Shell Size - Insert Arrg.	5. Contact Type	6. Alternate Positions
S5	06	HK-	14-4	P	N
1. Connector Type S5 Series Five		2. Shell Style* <div> <div>06</div> <div>Straight Plug pg 16</div> </div> <div> <div>00</div> <div>Wall Mount Receptacle pg 18</div> </div> <div> <div>01</div> <div>Line Mounting Receptacle pg 28</div> </div> <div>*Other shell styles available consult Amphenol for more information</div>		6. Alternate Positions <div> <div>N</div> <div>Normal Rotation</div> </div> <div> <div>A</div> <div>A Rotation</div> </div> <div> <div>B</div> <div>B Rotation</div> </div> <div> <div>C</div> <div>C Rotation</div> </div> <div> <div>D</div> <div>D Rotation</div> </div> <div> <div>E</div> <div>E Rotation</div> </div> <div>See pages 15 for more information</div>	
3. 260°C Service Class <div> <div>HK-</div> <div>Passivated Stainless Steel</div> <div></div> </div> <div> <div>HT-</div> <div>Titanium</div> <div></div> </div>		5. Contact Type <div> <div>P</div> <div>Pin (Recommended for receptacles)</div> </div> <div> <div>S</div> <div>TemperGrip Socket (Recommended for plugs)</div> </div>		4. Shell Size/ Insert Arrangement See next page	

*Currently in pre-production as of August 2023, all quotes will be issued with an "XP" prefix under an internal part number indicating that parts are built in our experimental production department. Some components may be strategically sourced by engineering, contact the factory for more details and updates on full production release!

HIGH TEMPERATURE SERIES FIVE

Insert Availability and Identification Chart

Series Five	Total Contacts	Service Rating	Contact Size		
			20	16	12
8-98	3	I	3		
10-2	2	I		2	
10-4	4	I	4		
10-5	5	I	5		
10-98	6	I	6		
10-99	7	I	7		
12-3	3	II		3	
12-4	4	I		4	
12-8	8	I	8		
12-98	10	I	10		
14-4	4	I			4
14-5	5	II		5	
14-15	15	I	14	1	
14-18	18	I	18		
14-19	19	I	19		
14-68	8	I		8	
14-97	12	I	8	4	

HIGH TEMPERATURE SERIES FIVE

Insert Arrangements

Front face of pin inserts illustrated

Shell Size &
Insert Arrg. for:

Series Five

Service Rating

Number of Contacts

Contact Size



	8-98	10-2	10-4	10-5	10-98	10-99	12-3	12-4	12-8
Service Rating	I	I	I	I	I	I	II	I	I
Number of Contacts	3	2	4	5	6	7	3	4	8
Contact Size	20	16	20	20	20	20	16	16	20

Shell Size &
Insert Arrg. for:

Series Five

Service Rating

Number of Contacts

Contact Size



12-98	14-4	14-5	14-15		14-18	14-19	14-68	14-97	
I	I	II	I		I	I	I	I	
10	4	5	14	1	18	19	8	8	4
20	12	16	20	16	20	20	16	20	16

*Note: Contact Amphenol factory for availability

CONTACT LEGEND 12 16 20

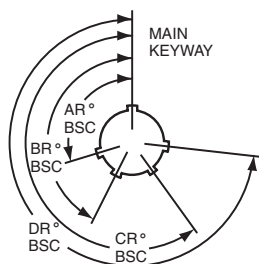
Alternate Positions

KEY/KEYWAY POSITION

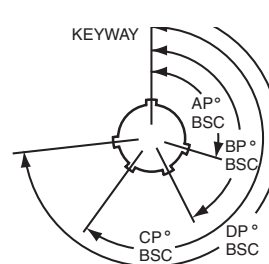
A plug with a given rotation letter will mate with a receptacle with the same rotation letter. The angles for a given connector are the same whether it contains pins or sockets. Master key stays fixed, minor keys rotate. Inserts are not rotated in conjunction with the master key/keyway.

6. ALTERNATE KEYING					
Shell Size	Key & Keyway Arrangement Identification Letter	AR° or AP° BSC	BR° or BP° BSC	CR° or CP° BSC	DR° or DP° BSC
8	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
10 12 14	E	91	131	197	240
	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

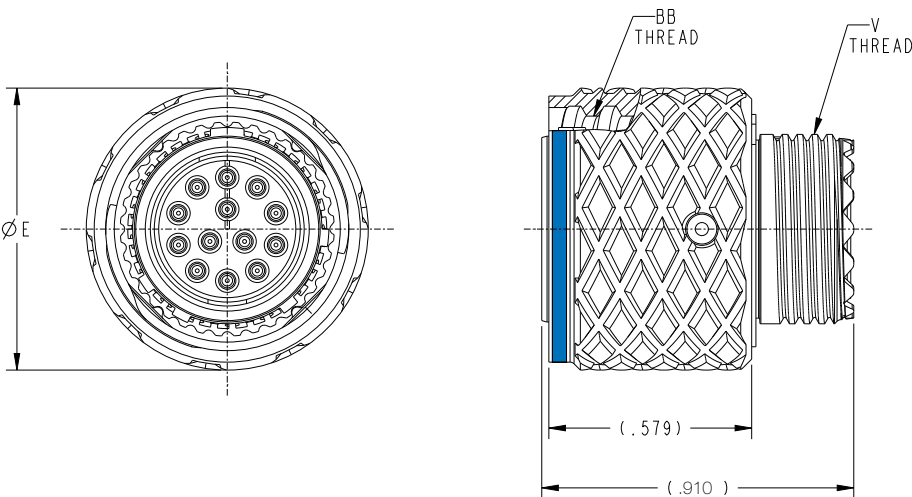
RECEPTACLE (FRONT FACE SHOWN)



PLUG (FRONT FACE SHOWN)



HIGH TEMPERATURE SERIES FIVE PLUG WITH ACCESSORY THREADS S506

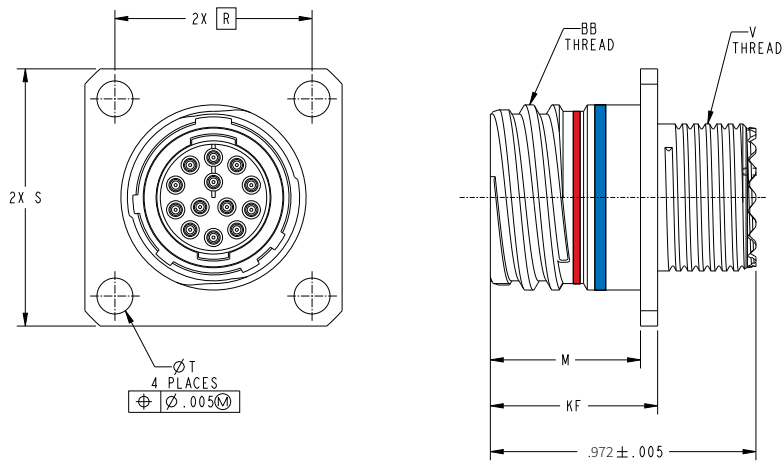


SIZE 8 TO 14

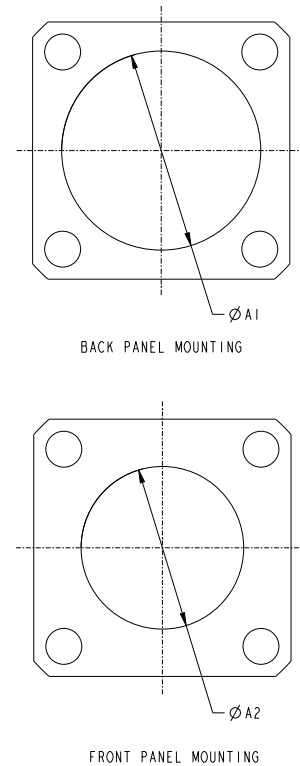
Shell Size	BB Thread	V Thread*	ØE ±.005
8	.5600 - .1P - .2L - DS	.4375 - 28 - UNEF	.682
10	.6800 - .1P - .2L - DS	.5625 - 24 - UNEF	.803
12	.8000 - .1P- .2L - DS	.6875 - 24 - UNEF	.923
14	.9200 - .1P - .2L - DS	.8125 - 20 - UNEF	1.043

*Compatible with all D38999 Series II Accessories

HIGH TEMPERATURE SERIES FIVE WALL MOUNTING RECEPTACLE S500



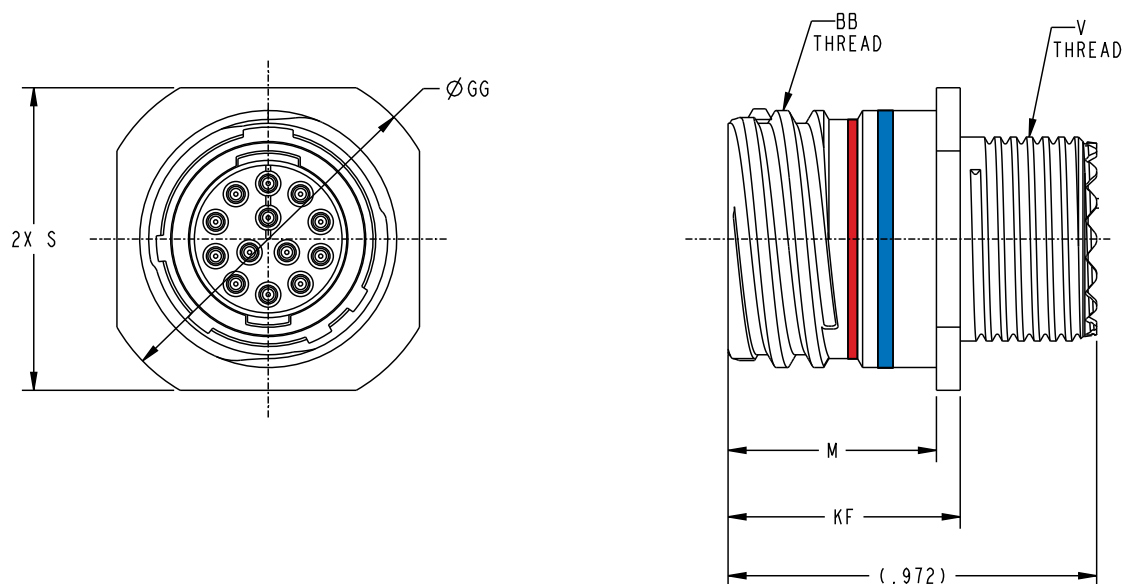
PANEL HOLE DIMENSIONS



Shell Size	BB Thread	V Thread*	(ØA1)	(ØA2)	M ±.003	R	S ±.012	ØT ±.008	KF ±.003
8	.5600 - .1P - .2L - DS	.4375 - 28 - UNEF	.606	.468	.5475	.594	.815	.128	.613
10	.6800 - .1P - .2L - DS	.5625 - 24 - UNEF	.726	.593	.5475	.719	.941	.128	.613
12	.8000 - .1P - .2L - DS	.6875 - 24 - UNEF	.846	.718	.5475	.812	1.034	.128	.613
14	.9200 - .1P - .2L - DS	.8125 - 20 - UNEF	.966	.843	.5475	.906	1.128	.128	.613

*Compatible with all D38999 Series II Accessories

HIGH TEMPERATURE SERIES FIVE LINE MOUNTING RECEPTACLE S501



Shell Size	BB Thread	V Thread*	M ±.003	S ±.012	ØGG ±.010	KF ±.003
8	.5600 - .1P - .2L - DS	.4375 - 28 - UNEF	.5475	.678	.803	.613
10	.6800 - .1P - .2L - DS	.5625 - 24 - UNEF	.5475	.798	.923	.613
12	.8000 - .1P - .2L - DS	.6875 - 24 - UNEF	.5475	.918	1.043	.613
14	.9200 - .1P - .2L - DS	.8125 - 20 - UNEF	.5475	1.038	1.163	.613

*Compatible with all D38999 Series II Accessories