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Amphenol®



PT Series

Miniature Cylindrical Connectors

12-070-17

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Proprietary/MIL-DTL-26482 Series 1 connectors covered in this catalog are widely used in general duty and environmental applications, both industrial and military.

Markets that use this family of connectors include:

- Instrumentation
- Monitoring Equipment
- Machine Tool, Factory Automation
- Communications
- Geophysical
- Industrial Controls and Robotics
- Oil and Petrochemical Industries
- Rail/Mass Transit
- Military/Aerospace

If more information is needed concerning the connectors covered in this publication, or if there are special application needs, please contact:

**Amphenol Corporation
Amphenol Industrial Operations**

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Fax: 520-397-7169

Please go to the Amphenol websites to view, download and save this catalog and most all of Amphenol interconnection product literature.

www.amphenol-industrial.com

Some miniature connector styles are available in RoHS Compliant versions. Please contact Amphenol Industrial Operations for more information.



Amphenol operates Quality Systems that are certified to ISO9001: 2008 by third party registrars.

NOTE:

The connector products in this brochure were formerly known as Bendix® products. These products are now manufactured and sold under the Amphenol® brand name. The name "Amphenol" will replace the name "Bendix" on products and literature in the future.

NOTE:

The Miniature MIL-DTL-26482, Series 2 connectors PTS-DR and MS/PTS-DR (formerly in this catalog) are no longer supplied with these designations. Amphenol now supplies the Amphenol®/Matrix® MIL-DTL-26482, Series 2. (Military numbers include MS3470 - MS3472, MS3474, - MS3476).

Amphenol® Miniature Cylindrical Connectors

Proprietary/MIL-DTL-26482, Series 1

Amphenol® Miniature Cylindrical connectors offer twice the number of contacts in just half the size of a Standard connector. These miniature connectors, are available in several series, each with varying design characteristics and customer options to meet cost considerations and provide maximum design flexibility. There are two styles within the family that are MS approved and qualified to MIL-DTL-26482, Series 1, and in addition there are several proprietary styles.

Common features of all styles:

- All are for general duty applications and environmental sealing is achieved with the grommet and clamp design.
- Operating temperature is from -55°C to $+125^{\circ}\text{C}$; Operating voltage to 1000 VAC (RMS) at sea level.
- Pin and socket contacts are machined from low loss copper alloy and gold plated to eliminate contact corrosion and provide an indefinite shelf life.
- All have resilient inserts which provide high dielectric strength and moisture barrier.
- A variety of shell finishes (including non-cadmium) and a variety of backend accessories are available within the styles.



**PT Solder
jam nut receptacle and
mated straight plug**

Bayonet Coupling with Solder Contact Termination

PT, MS/PT (solder)

- MS and proprietary versions
- Factory installed solder contacts
- 3 point bayonet coupling and 5 key/keyway mating.
- Intermateable with all miniature series connectors.
- MS/PT meets MIL-DTL-26482 Series 1, service classes E, F and P.
- MS/PT is UL recognized.

Options

- 7 shell styles with 60 insert patterns
- Hermetic seal (glass fusion) receptacle styles available
- Pressurized thru bulkhead receptacle style available
- Pre-installed coax solder contacts are available
- Printed circuit board contacts are available



SP (solder)

- SP Series is a modification of the PT with same features except a wider flange for back panel mounting

Bayonet Coupling with Crimp Contact Termination

**PT Solder
wall mount receptacle**

PT-SE, MS/PT-SE (crimp)

- MS and proprietary versions
- Crimp rear insertable/front release contact termination. (closed entry socket insert prevents probe damage).
- 3 point bayonet coupling and 5 key/keyway mating.
- Intermateable with all miniature series connectors.
- MS/PT-SE meets MIL-DTL-26482 Series 1, service classes E, F, P.

Options

- 6 shell styles with 47 insert patterns
- Coax and thermocouple contacts are available



**PT-SE Crimp
wall mount receptacle
and mated straight plug**

SP-SE (crimp)

- Modification of the PT-SE with wider flange for back panel mounting

Amphenol® Miniature Cylindrical design flexibility

The large family of miniature proprietary and MS style connectors provides for many optional features and designs. In addition to the choices of bayonet or threaded shells, solder or crimp termination within the style variations, there are additional options that are shown here.

Hermetics

Hermetically sealed receptacles have fused compression glass sealed inserts which provide environmental moisture sealing. There are three hermetic styles within the PT bayonet series.

Coaxial Contacts

Amphenol Miniature connectors can incorporate shielded coax contacts. Size 8 and 12 crimp coax contacts are available in PT-SE, SP-SE, MS/PT-SE. Factory installed size 8 and 12 solder type coax contacts are available in PT, SP,MS/PT connectors. See coax contact information pages at the end of this catalog.

Printed Circuit Board Tail Contacts

PT bayonet connectors in box mounting receptacle and jam nut receptacle styles are available with printed circuit board contacts. Standard PCB tails for MIL-DTL-26482 connectors have gold plating, .0050 inches over nickel. See page 20 and call Amphenol for further information.

Flex Circuitry

Flex termination assemblies for attaching cylindrical connectors to printed circuit boards are available through the Amphenol division ACT, Advanced Circuit Technology. Flex can be used with miniature 26482 connectors and it can be designed to meet specific length, current carrying capacity and to fit the precise geometric shape of the connector to board package. Flex circuitry plugs into a printed circuit board and creates a self-locking terminal pad which eliminates the need for an additional interconnect to the PCB.

Filter Protection

Amphenol offers the FPT Series which combines the miniature PT series with an EMI filter. Designed to provide EMI protection for sensitive circuits, each circuit is individually filtered within the connector, eliminating the need for costly and bulky exterior network filters. Filter contacts are available in MF, HF, VHF, and UHF ranges and are intermateable and intermountable with MIL-DTL-26482 connectors. For further information see catalog 12-120, Amphenol EMI Filter Transient Protection Connectors.

Overmolded Cable

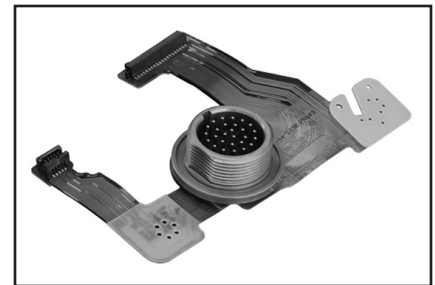
Overmold seals and cables can be designed for almost any industrial application. A variety of materials are available: neoprene, hypalon and others; and a variety of lengths can be designed to meet customer specifications. Overmold seals to the rear of the connector and to the cable jacket providing moisture sealing.



PT Connector with Hermetic Seal Insert and Coax Contacts



PT Connector with PC Tail Contacts



PT Connector with Flex



PT Connector with EMI Filter Protection



PT Connector with Overmolded Cable

Amphenol® Miniature Cylindrical connector selection guide

The accompanying chart is provided to assist the user in selecting the appropriate type of miniature connector to meet the application requirements. Further information can be found in specific sections of this catalog.

CHARACTERISTICS		Solder			Crimp	
		PT	MS/PT	SP	MS/PT-SE	PT-SE
Intermateable†		o	o	o	o	o
Contacts	Solder	•	•	•		
	Crimp RI/FR				•	•
Contact Retention System	Non-Removable	•	•	•		
	Removable				•	•
Coupling	Bayonet	•	•	•	•	•
Standard Finishes††	Olive Drab Cadmium (003)	•	•		•	•
	Anodic Coated (005)			•		
Temperature Range	Resilient Dielectric (-55°C to +125°C)	•	•	•	•	•
Wide Mounting Flange				•		
Hermetic Seal		•	•	•		
SHELL STYLE AVAILABILITY						
Wall Mounting Receptacle "00"		•	•	•	•	**•
Cable Connecting Receptacle "01" ***		•	•		•	•
Box Mounting Receptacle "02"		*•	•	•	•	**•
Straight Plug "06"		•	•	•	•	•
Jam Nut Receptacle "07"		*•	*•	•	•	•
Thru-bulkhead Receptacle "TB"		•		•		
Solder Mount Receptacle "I"		*•	*•			
90° Plug "08"		•		•		•

RI/FR = Rear Insertion/Front Releasable

† o intermates with o

†† Optional finishes available. See "how to order" sections.

* Available in hermetic version

** Dual mounting holes

*** This connector style is sometimes referred to as a cable connecting "plug." It does, however, mate with either a straight or 90 degree plug.

Amphenol® Miniature Cylindrical insert availability

Insert Arrangement	Solder Termination				Crimp Termination		Total Contacts	Contact Size				
	MS/PT	PT	SP	Hermetic PT MS-PT	MS/PT-SE PT-SE SP-SE	20		16	12	Coax		Service Rating
										12	8	
6-1		X	X	X*		1	1					I
8-2	X	X	X	X		2	2					I
8-3	X	X	X	X		3	3					I
8-4	X	X	X	X		4	4					I
8-33	X	X	X	X	X	3	3					I
8-98		X	X			3	3					I
10-2		X	X			2		2				I
10-5		X	X	X*		5	5					I
10-6	X	X	X	X	X	6	6					I
10-70		X	X			1					1	Coax
10-98	X	X	X	X*		6	6					I
12-3	X	X	X	X	X	3		3				II
12-4		X	X	X*		4		4				I
12-8	X	X	X	X*	X	8	8					I
12-10	X	X	X	X	X	10	10					I
12-14		X	X			14	14					I
12-98		X	X			10	10					I
14-2		X	X			2				2		II
14-4		S	S	X		4			4			I
14-5	X	X	X	X	X	5		5				II
14-8		X	X			8	6		2			I
14-12	X	X	X	X	X	12	8	4				I
14-15	X	X	X	X	X	15	14	1				I
14-18	X	X	X	X*	X	18	18					I
14-19	X	X	X	X	X	19	19					I
14-22					X*	5	1		4			I
14-71		P	X			4		3			1	I
14-91 HV		S	X		X*	3	3					**
14-AA		X	X	X		4			4			I
16-8	X	X	X	X	X	8		8				II
16-23	X	X	X		X	23	22	1				I
16-26	X	X	X	X	X	26	26					I
16-70		X	X			15	14			1		N/A
16-76†††					X*	14	8		1	5		***
16-99	X	X	X		X	23	21	2				I
18-5		X	X		X*	5			5			II
18-8						8			8			I
18-11	X	X	X	X	X	11		11				II
18-30	X	X	X	X*	X	30	29	1				I

*Not available in MS version
 **Flashover voltage 5,000 VAC (RMS)
 ***1500 VAC (RMS)
 S designates Socket insert only.

P designates Pin insert only.
 †Size 12 contacts for #10 wire
 ††Not presently tooled
 †††Contacts must be ordered separately

Amphenol® Miniature Cylindrical insert availability, cont.

Insert Arrangement	Solder Termination				Crimp Termination	Total Contacts	Contact Size					Service Rating
	MS/PT	PT	SP	Hermetic PT MS-PT	MS/PT-SE PT-SE SP-SE		20	16	12	Coax		
										12	8	
18-32	X	X	X	X	X	32	32					I
18-71					X*	9		8			1	Coax, II
18-72		X	X			14	10			4		N/A
18-75		X	X			4					4	Coax
18-76						4				3	1	II
18-80		X	X			8	6				2	Coax, I
18-91 HV					X*	6	6					**
20-16	X	X	X	X	X	16		16				II
20-24	X	X	X			24	24					I
20-25		X	X			25	25					I
20-26		X	X			26	20		6			I
20-27	X	X	X			27	27					I
20-39	X	X	X	X	X	39	37	2				I
20-41	X	X	X	X	X	41	41					I
20-70						14	10				4	Coax
20-90 HV		X	X			7	7					Hi-Voltage
22-7		X	X		X*	7					7	Coax
22-21	X	X	X	X	X	21		21				II
22-25					X*	25		25				I
22-32	X	X	X		X	32	32					I
22-34		X	X			34	34					I
22-36		X	X			36	36					I
22-41	X	X	X	X	X	41	27	14				I
22-55	X	X	X	X	X	55	55					I
22-70		X	X			19	13				6	I, Coax
22-71						9	2				7	I, Coax
22-72		X	X			19	12	4			3	N/A
22-78†††					X*	7					7	Coax
22-96					X*	7			7†			II
24-31		X	X			31		31				I
24-51					X*	51	47			4		I
24-61	X	X	X	X	X	61	61					I
24-71		X	X			49	45	2			2	N/A
24-79						6	1				5	Coax

*Not available in MS version
 **Flashover voltage 5,000 VAC (RMS)
 ***1500 VAC (RMS)

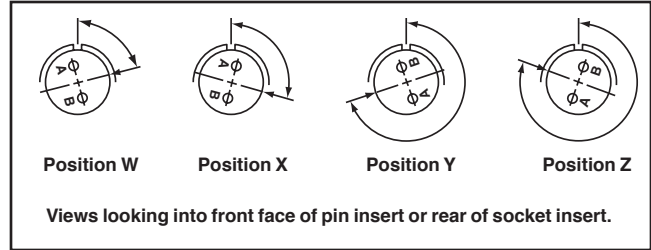
†Size 12 contacts for #10 wire
 ††Not presently tooled
 †††Contacts must be ordered separately

Amphenol® Miniature Cylindrical alternate positioning

Alternate Positioning

To avoid cross-plugging problems in applications requiring the use of more than one miniature cylindrical connector of the same size and arrangement, alternate insert rotations are available as indicated in the accompanying chart.

As shown in the diagram at right, the front face of the pin insert is rotated within the shell in a clockwise direction from the normal shell key. The socket insert would be rotated counterclockwise the same number of degrees in respect to the normal shell key.



Shell Size	Insert Arrangement	Insert Rotation			
		Degrees			
		W	X	Y	Z
6	6-1	–	–	–	–
8	8-2*	58	122	–	–
8	8-3	60	210	–	–
8	8-4*	45	97	184	–
8	8-33*	90	–	–	–
8	8-98	–	–	–	–
10	10-2	45	90	315	–
10	10-5*	45	151	180	270
10	10-6*	90	–	–	–
10	10-70	–	–	–	–
10	10-98*	90	180	240	270
12	12-3*	–	–	180	–
12	12-4*	38	–	–	–
12	12-8	90	112	203	292
12	12-10*	60	155	270	295
12	12-14	–	–	–	–
12	12-98*	61	135	189	340
14	14-2	58	122	–	–
14	14-4*	45	–	–	–
14	14-5*	40	92	184	273
14	14-8	48	162	189	312
14	14-12*	43	90	–	–
14	14-15*	17	110	155	234
14	14-18*	15	90	180	270
14	14-19*	30	165	315	–
14	14-22	45	–	–	–
14	14-71	–	–	–	–
14	14-91HV	–	60	–	–
14	14-AA*	45	–	–	–
16	16-8*	54	152	180	331
16	16-23	158	270	–	–
16	16-26*	60	–	275	338
16	16-70	41	122	216	286
16	16-76	–	–	–	–
16	16-99*	66	156	223	340
18	18-5	55	97	263	315
18	18-8	180	–	–	–

Shell Size	Insert Arrangement	Insert Rotation			
		Degrees			
		W	X	Y	Z
18	18-11*	62	119	241	340
18	18-30*	180	193	285	350
18	18-32*	85	138	222	265
18	18-71	18	108	127	215
18	18-72	53	102	213	293
18	18-75	45	–	–	–
18	18-76	–	–	–	–
18	18-80	45	90	135	160
18	18-91HV	90	180	240	270
20	20-16*	238	318	333	347
20	20-24	70	145	215	290
20	20-25	72	144	216	288
20	20-26	13	107	210	322
20	20-27	72	144	216	288
20	20-39*	63	144	252	333
20	20-41*	45	126	225	–
20	20-70	63	135	222	335
20	20-90	45	135	225	315
22	22-7	19	41	–	–
22	22-21*	16	135	175	349
22	22-25	60	125	211	336
22	22-32	72	145	215	288
22	22-34	62	142	218	298
22	22-36	72	144	216	288
22	22-41	39	135	264	–
22	22-55*	30	142	226	314
22	22-70	30	82	218	312
22	22-71	33	191	236	270
22	22-72	42	200	277	339
22	22-78	19	41	–	–
22	22-96*	19	41	–	–
24	24-31	90	225	255	–
24	24-51	22	171	313	–
24	24-61*	90	180	270	324
24	24-71	39	131	205	281
24	24-79	–	–	–	–

* Available in Hermetic Class

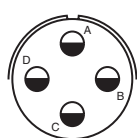
Amphenol® Miniature Cylindrical insert arrangements

front face of pin inserts illustrated

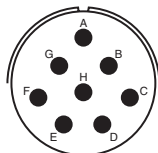
Insert Arrangement	6-1	8-2	8-3	8-4	8-33	8-98	10-2
Service Rating	I	I	I	I	I	I	I
Number of Contacts	1	2	3	4	3	3	2
Contact Size	20	20	20	20	20	20	16
Insert Arrangement	10-5	10-6	10-70	10-98	12-3	12-4	12-8
Service Rating	I	I	Coax	I	II	I	I
Number of Contacts	5	6	1	6	3	4	8
Contact Size	20	20	8 Coax	20	16	16	20
Insert Arrangement	12-10	12-14	12-98	14-2	14-4	14-5	14-8
Service Rating	I	I	I	II	I	II	I
Number of Contacts	10	14	10	2	4	5	6 2
Contact Size	20	20	20	12	12	16	20 12
Insert Arrangement	14-12	14-15	14-18	14-19	14-22	14-71	14-91HV
Service Rating	I	I	I	I	I	I	Flashover
Number of Contacts	8 4	14 1	18	19	1 4	3 1	5,000 VAC (RMS)
Contact Size	20 16	20 16	20	20	20 12	16 8 Coax	3 20

Amphenol® Miniature Cylindrical insert arrangements

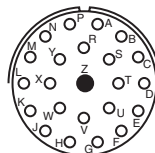
front face of pin inserts illustrated



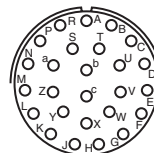
14-AA



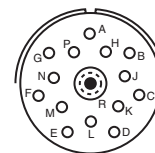
16-8



16-23



16-26



16-70

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

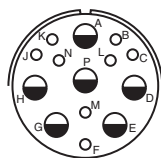
I
4
12

II
8
16

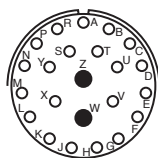
I
22 1
20 16

I
26
20

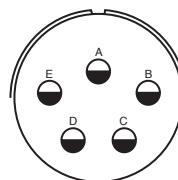
N/A
14 1
20 12 Coax



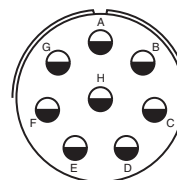
16-76



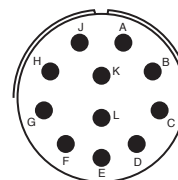
16-99



18-5



18-8



18-11

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

Flashover
1.500 VAC (RMS)
8 1 5
20 12* 2 Coax*

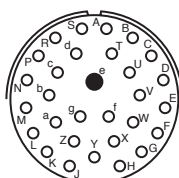
I
21 2
20 16

II
5
12

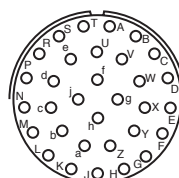
I
8
12

II
11
16

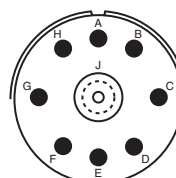
*Contact Positions Optional



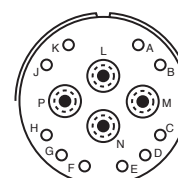
18-30



18-32



18-71



18-72

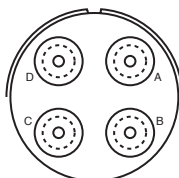
Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I
29 1
20 16

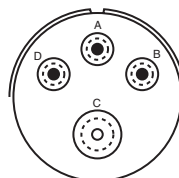
I
32
20

II, Coax
8 1
16 8 Coax

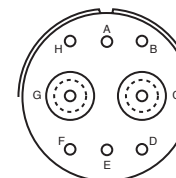
N/A
10 4
20 12 Coax



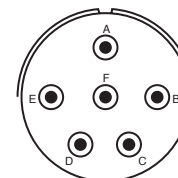
18-75



18-76



18-80



18-91 HV

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

Coax
4
8 Coax

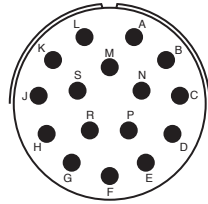
II
3 1
12 Coax 8 Coax

I, Coax
6 2
20 8 Coax

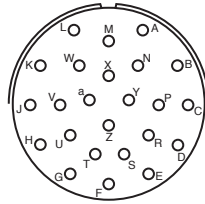
Flashover
5,000 VAC (RMS)
6
20

Amphenol® Miniature Cylindrical insert arrangements

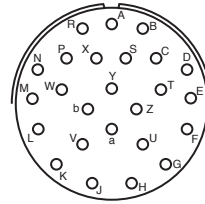
front face of pin inserts illustrated



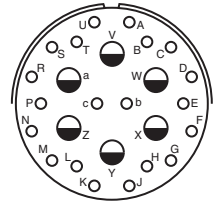
20-16
II
16
16



20-24
I
24
20

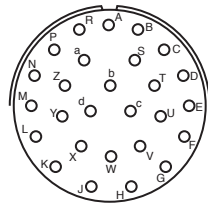


20-25
I
25
20

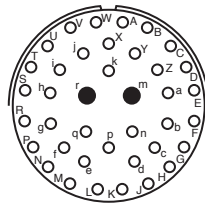


20-26
I
20 6
20 12

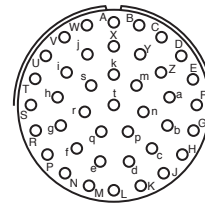
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



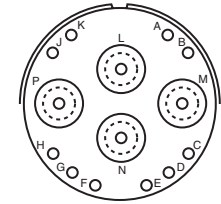
20-27
I
27
20



20-39
I
37 2
20 16

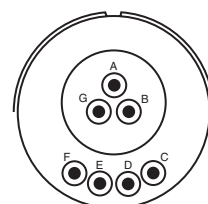


20-41
I
41
20

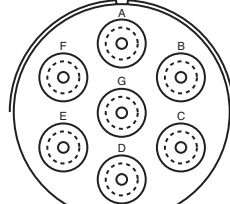


20-70
Coax
10 4
20 8 Coax

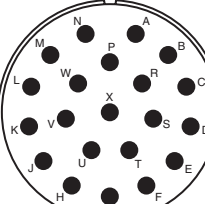
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



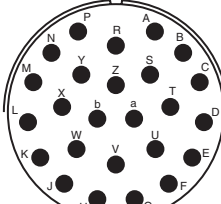
20-90
Hi-Voltage
7
20



22-7
Coax
7
8 Coax

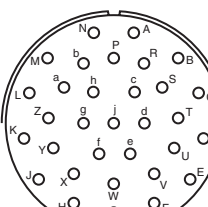


22-21
II
21
16

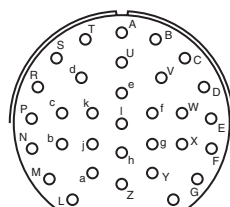


22-25
I
25
16

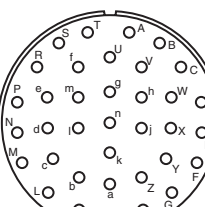
Insert Arrangement
Service Rating
Number of Contacts
Contact Size



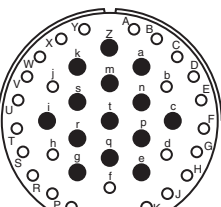
22-32
I
32
20



22-34
I
34
20



22-36
I
36
20

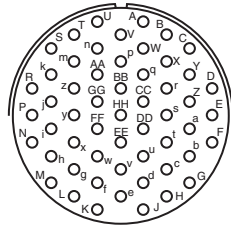


22-41
I
27 14
20 16

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

Amphenol® Miniature Cylindrical insert arrangements

front face of pin inserts illustrated



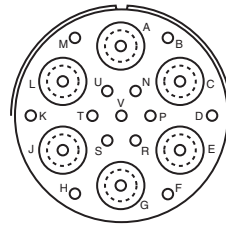
22-55

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I

55

20

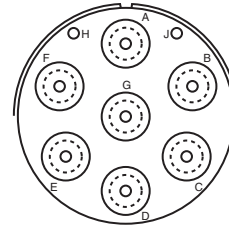


22-70

I, Coax

13 6

20 8 Coax

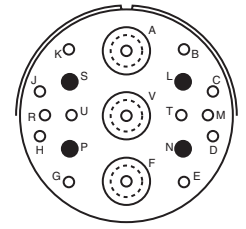


22-71

I, Coax

2 7

20 8 Coax

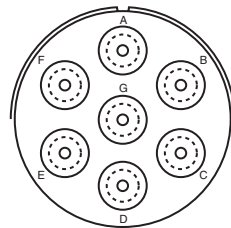


22-72

N/A

12 4 3

20 16 8 Coax



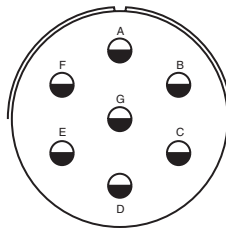
22-78

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

Coax

7

8 Coax



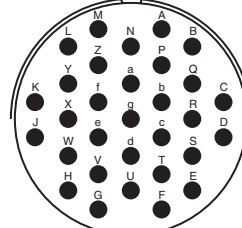
22-96

II

7

12 for

10 wire

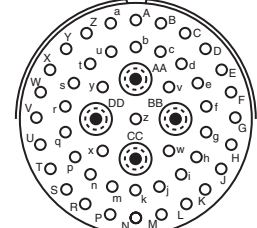


24-31

I

31

16

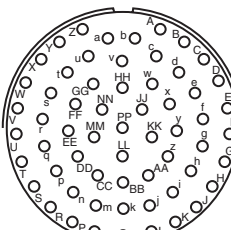


24-51

I

47 4

20 12 Coax



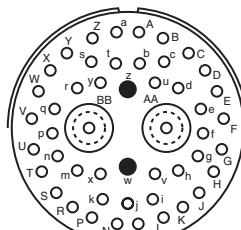
24-61

Insert Arrangement
Service Rating
Number of Contacts
Contact Size

I

61

20

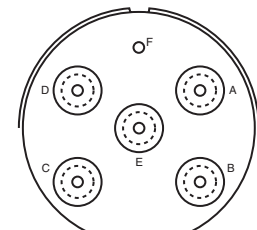


24-71

N/A

45 2 2

20 16 8 Coax



24-79

Coax

1 5

20 8 Coax

Contact Legend

Symbol	Contact Size
○	20
●	16
◐	12
⊙	HV
⊗	12 Coax
⊘	8 Coax

Amphenol® PT, SP, MS/PT

Proprietary/MIL-DTL-26482, Series 1 bayonet coupling and solder termination

wall mounting receptacle



cable connecting receptacle*



box mounting receptacle



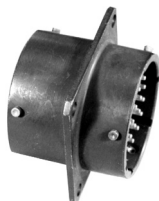
straight plug



jam nut receptacle



thru bulkhead receptacle



Amphenol® solder contact miniature cylindrical connectors meet the most critical application needs. Design versatility combined with high reliability performance makes these series of Miniature Cylindrical Connectors ideal for environmental sealing or pressurized applications.

The MS/PT Series is qualified to MIL-DTL-26482, Series 1 and has all the outstanding design characteristics and quality of the PT Series. The SP Series is a modification of the PT, providing special shells with a wide mounting flange for back panel mounting.

A corrosion resistant electrically conductive finish of cadmium plate with an olive drab chromate after-treatment is used on the PT and MS/PT. The SP is given a durable non-conductive hard anodic "Alumilite"® coating which provides abrasion protection and resistance to corrosion.

NEW 500 hour corrosion resistance, RoHS compliant harsh environment conductive plating. Gray Zinc over an Electroless Nickel (Gray ZnNi) base, with a Light Gun Metal Gray appearance.

Shell components for these series are aluminum. The dependable 5 key/keyway polarization with bayonet lock coupling assures positive mating with no chance of cross plugging. Spring tension provided by a wave washer in the coupling nut ensures maintenance of interfacial seal between mating halves.

Both the insert and main joint gasket are molded from resilient neoprene. This provides excellent moisture sealing at the gasket and superior electrical isolation of the contact in the insert.

Both pins and sockets are machined from a copper alloy and are gold plated. This gold plating eliminates contact corrosion and offers an indefinite shelf life. Socket contacts for these series are a closed entry design. A breakaway style plug is available in the PT solder series. Hermetics receptacles are available in PT and MS/PT solder series. Receptacles with printed circuit board contacts are also available.

PT Solder is UL recognized under file #E115497, Vol. 1, Sec. 5.

The PT, SP and MS/PT Series are intermateable and intermountable with all existing Miniature Cylindrical Series connectors.

Refer to pages 4-10 for insert arrangement availability.

PT, SP, MS/PT

Table 1: CONTACT DATA/CONNECTOR RATINGS

Contact Specifications					
Contact Size	Test Current	Maximum Millivolt Drop†	Solder Well Diameter	Solder Well Depth	
20	7.5	55	.046 +.004 -.000	.125 +.031 -.000	
16	13.0	50	.078 +.005 -.003	.188 +.031 -.000	
12	23.0	42	.116 +.004 -.002	.188 +.031 -.000	
Service Rating					
Service Rating	Recommended Operating AC Voltage at Sea Level	Test Voltage AC (RMS), 60 cps			
		Sea Level	50,000 ft.	70,000 ft.	110,000 ft.
I	600	1,500	500	375	200
II	1,000	2,300	750	500	200

† Silver plated wire per MIL-DTL-26482

*This connector style is sometimes referred to as a cable connecting "plug." It does, however, mate with a straight or 90 degree plug.

PT, SP Service Classes

PT and SP connectors are available in the service classes listed below. Each class, with the exception of hermetic, offers one or more means of terminating or supporting a cable or wire bundle.

- “A” General duty; back shell is threaded for conduit attachment of MS3057 cable clamp
- “A” (SR) General duty, with strain relief clamp for cable or wire bundle support
- “C” Pressurized receptacle; less than 1 cu. in. per hour leakage at 30 psi over a temperature range of -65°F to $+257^{\circ}\text{F}$
- “E” Environmental resistant connectors - supplied with a multi-holed grommet and clamping nut for moisture-proofing individual open wires
- “E” (SR) Environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- “P” Translucent nylon boot for retaining customer-applied potting compounds; held in place by a threaded ring
- “P” (SR) Strain relief clamp suitable for retaining customer applied potting compounds, with provision for wire support
- “PG” Compressing cable gland for moisture proofing jacketed cables.
- “H”* Hermetically sealed with compression glass inserts (see pages 22-25)

Style with printed circuit board contacts- see page 20.

MS/PT Service Classes

The MS/PT Miniature connector is available in the following certified service classes:

- “E” Environmental resistant connectors - supplied with a multi-holed grommet and clamping nut for moisture-proofing individual open wires
- “F” Grommet seal with strain relief clamp
- “J” Compressing clamp and neoprene gland for moisture proofing multi-conductor jacketed cable and strain relief. Telescoping sleeves (MS 3420A) can be used to adapt to cables smaller than minimum close-down.
- “P” Translucent nylon boot for retaining customer-applied potting compounds; held in place by a threaded ring

“A”
general duty



“E” (SR),
MS / “F”
strain relief



“E”,
MS / “E”
open wire seal



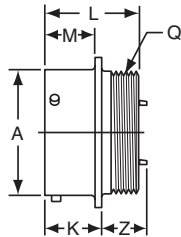
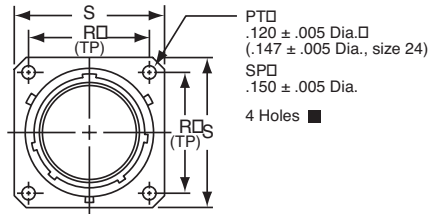
“P”,
MS / “P”
potting boot



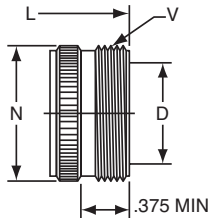
“PG”
cable gland
seal



PT00 (MS3110) SP00 wall mounting receptacle

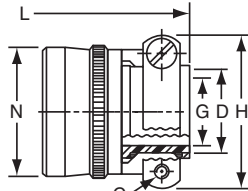


“A” General Duty/
“C” Pressurized



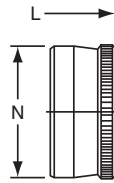
PT00A-XX-XXX
SP00A-XX-XXX
PT00C-XX-XXX

TERMINATION ASSEMBLIES
“A” (SR), “E” (SR), “P” (SR),
MS / “F” Strain Relief



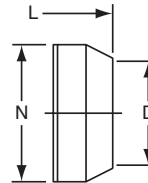
PT00A-XX-XXX (SR)
SP00A-XX-XXX (SR)
PT00E-XX-XXX (SR)
SP00E-XX-XXX (SR)
PT00P-XX-XXX (SR)
SP00P-XX-XXX (SR)
MS3110F-XX-XXX

“E” Open Wire Seal



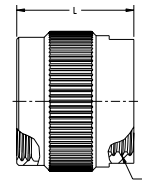
PT00E-XX-XXX
SP00E-XX-XXX
MS3110E-XX-XXX

“P” Potting Boot



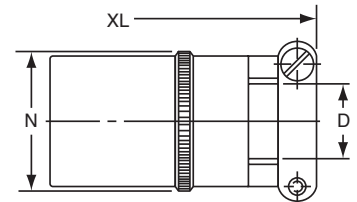
PT00P-XX-XXX
SP00P-XX-XXX
MS3110P-XX-XXX

“PG” Cable Gland Seal



PT00PG-XX-XXX

“J” Cable Seal



MS3110J-XX-XXX

To complete part number see how to order on page 25.

■ (MMC) located within .0025 of (TP)

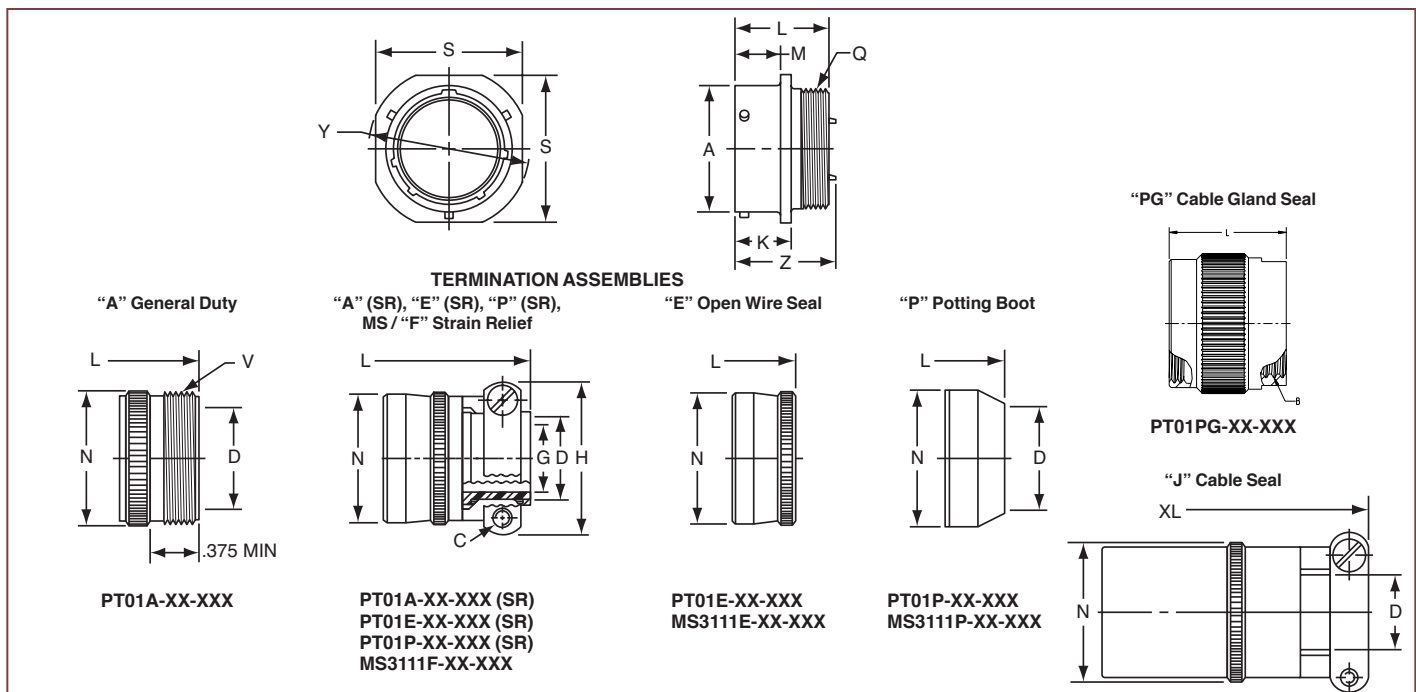
Shell Size	Receptacle Front View				Receptacle Side View								Class “A”, “C”				
	R (TP)		S Max.		A +.001 -.005	K +.020 -.010		L Max.	M +.010 -.000		Q Thread Class 2A	Z Max.		D Min.	L Max.	N Max.	V Thread Class A
	PT	SP	PT	SP		PT	SP		PT	SP		PT	SP				
6	.469	.641	.688	.953	.348	.493	.524	.906	.431	.462	.3125-32 NEF	.468	.438	.175	1.553	.462	.3750-32 NEF
8	.594	.734	.812	1.047	.473	.493	.524	.906	.431	.462	.4375-28 UNEF	.468	.438	.297	1.553	.590	.5000-28 UNEF
10	.719	.812	.938	1.125	.590	.493	.524	.906	.431	.462	.5625-24 NEF	.468	.438	.421	1.553	.717	.6250-24 NEF
12	.812	.938	1.031	1.250	.750	.493	.524	.906	.431	.462	.6875-24 NEF	.468	.438	.546	1.553	.834	.7500-20 UNEF
14	.906	1.031	1.125	1.344	.875	.493	.524	.906	.431	.462	.8125-20 UNEF	.468	.438	.663	1.553	.970	.8750-20 UNEF
16	.969	1.125	1.219	1.438	1.000	.493	.524	.906	.431	.462	.9375-20 UNEF	.468	.438	.787	1.553	1.088	1.0000-20 UNEF
18	1.062	1.203	1.312	1.516	1.125	.493	.524	.906	.431	.462	1.0625-18 NEF	.531	.438	.879	1.553	1.216	1.1875-18 NEF
20	1.156	1.297	1.438	1.672	1.250	.650	.650	1.125	.556	.556	1.1875-18 NEF	.531	.531	1.014	1.703	1.332	1.1875-18 NEF
22	1.250	1.375	1.562	1.750	1.375	.650	.650	1.125	.556	.556	1.3125-18 NEF	.531	.531	1.134	1.703	1.460	1.4375-18 NEF
24	1.375	1.500	1.688	1.875	1.500	.683	.683	1.188	.589	.589	1.4375-18 NEF	.498	.498	1.259	1.765	1.585	1.4375-18 NEF

Shell Size	Class “A” (SR), “E” (SR), “P” (SR), MS / “F”					Class “E”, MS / “E”		Class “P”, MS / “P”			Class “J”		Class “PG”				
	C Thread	D Min.	G Max.	H Max.	L Max.	N Max.	L Max.	N Max.	D Min.	L Max.	N Max.	D		N Max.	XL Max.	B Thread	L Max.
												Closed	Free				
6	-	-	-	-	-	-	1.266	.440	.192	1.438	.484	-	-	-	-	-	-
8	6-32	.240	.125	.812	1.922	.550	1.266	.560	.317	1.438	.608	.168	.230	.547	2.271	M12x1.5-6H	.936
10	6-32	.302	.188	.875	1.922	.675	1.266	.685	.434	1.438	.734	.205	.312	.675	2.271	M16x1.5-6H	.936
12	6-32	.428	.312	1.000	1.922	.803	1.266	.813	.548	1.438	.858	.338	.442	.812	2.411	M16x1.5-6H	.936
14	6-32	.552	.375	1.125	1.922	.920	1.266	.930	.673	1.438	.984	.416	.539	.940	2.599	M18x1.5-6H	.936
16	6-32	.615	.500	1.188	2.047	1.047	1.266	1.057	.798	1.438	1.110	.550	.616	1.067	2.943	M22x1.5-6H	.936
18	8-32	.740	.625	1.438	2.078	1.165	1.266	1.175	.899	1.438	1.234	.600	.672	1.194	3.172	M25x1.5-6H	.936
20	8-32	.740	.625	1.438	2.344	1.290	1.516	1.301	1.024	1.656	1.360	.635	.747	1.322	3.610	M25x1.5-6H	1.180
22	8-32	.928	.750	1.625	2.344	1.418	1.516	1.430	1.149	1.656	1.484	.670	.846	1.449	3.766	M32x1.5-6H	1.180
24	8-32	.990	.800	1.719	2.406	1.543	1.578	1.555	1.274	1.717	1.610	.740	.894	1.576	3.985	M32x1.5-6H	1.180

All dimensions for reference only.

PT01 (MS3111)

cable connecting receptacle



Note: This connector style is sometimes referred to as a cable connecting "plug".
 It does, however, mate with either a straight or 90 degree plug.
 To complete part number see how to order on page 25.

Shell Size	Recept. Front View		Receptacle Side View						Class "A",				
	S ±.020	Y ±.020	A +.001 -.005	K +.020 -.010	L Max.	M +.016 -.000	Q Thread Class 2A	Z Max.	D Min.	L Max.	N Max.	V Thread Class A	
6	.688	.812	.348	.494	.906	.400	.3125-32 NEF	.948	.175	1.553	.462	.3750-32 NEF	
8	.812	.938	.473	.494	.906	.400	.4375-28 UNEF	.948	.297	1.553	.590	.5000-28 UNEF	
10	.938	1.062	.590	.494	.906	.400	.5625-24 NEF	.948	.421	1.553	.717	.6250-24 NEF	
12	1.031	1.156	.750	.494	.906	.400	.6875-24 NEF	.948	.546	1.553	.834	.7500-20 UNEF	
14	1.125	1.250	.875	.494	.906	.400	.8125-20 UNEF	.948	.663	1.553	.970	.8750-20 UNEF	
16	1.219	1.344	1.000	.494	.906	.400	.9375-20 UNEF	.948	.787	1.553	1.088	1.0000-20 UNEF	
18	1.312	1.438	1.125	.494	.906	.400	1.0625-18 NEF	.948	.879	1.553	1.216	1.1875-18 NEF	
20	1.438	1.562	1.250	.650	1.125	.535	1.1875-18 NEF	1.166	1.041	1.703	1.332	1.1875-18 NEF	
22	1.562	1.688	1.375	.650	1.125	.535	1.3125-18 NEF	1.166	1.135	1.703	1.460	1.4375-18 NEF	
24	1.688	1.812	1.500	.683	1.188	.568	1.4375-18 NEF	1.166	1.259	1.765	1.585	1.4375-18 NEF	

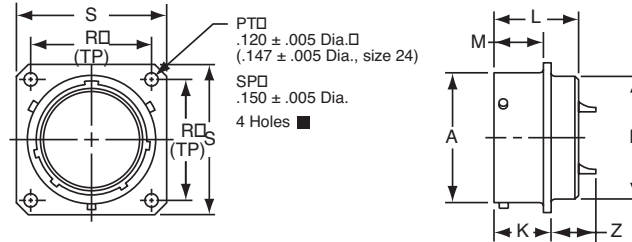
Shell Size	Class "A" (SR), "E" (SR), "P" (SR), MS/"F"						Class "E", MS/"E"		Class "P", MS/"P"			Class "J"				Class "PG"	
	C Thread	D Min.	G Max.	H Max.	L Max.	N Max.	L Max.	N Max.	D Min.	L Max.	N Max.	D		N Max.	XL Max.	B Thread	L Max.
6	-	-	-	-	-	-	1.266	.440	.192	1.438	.484	-	-	-	-	-	-
8	6-32	.240	.125	.812	1.922	.550	1.266	.560	.317	1.438	.608	.168	.230	.547	2.271	M12x1.5-6H	.936
10	6-32	.302	.188	.875	1.922	.675	1.266	.685	.434	1.438	.734	.205	.312	.675	2.271	M16x1.5-6H	.936
12	6-32	.428	.312	1.000	1.922	.803	1.266	.813	.548	1.438	.858	.338	.442	.812	2.411	M16x1.5-6H	.936
14	6-32	.552	.375	1.125	1.922	.920	1.266	.930	.673	1.438	.984	.416	.539	.940	2.599	M18x1.5-6H	.936
16	6-32	.615	.500	1.188	2.047	1.047	1.266	1.057	.798	1.438	1.110	.550	.616	1.067	2.943	M22x1.5-6H	.936
18	8-32	.740	.625	1.438	2.078	1.165	1.266	1.175	.899	1.438	1.234	.600	.672	1.194	3.172	M25x1.5-6H	.936
20	8-32	.740	.625	1.438	2.344	1.290	1.516	1.301	1.024	1.656	1.360	.635	.747	1.322	3.610	M25x1.5-6H	1.180
22	8-32	.928	.750	1.625	2.344	1.418	1.516	1.430	1.149	1.656	1.484	.670	.846	1.449	3.766	M32x1.5-6H	1.180
24	8-32	.990	.800	1.719	2.406	1.543	1.578	1.555	1.274	1.717	1.610	.740	.894	1.576	3.985	M32x1.5-6H	1.180

All dimensions for reference only.

PT02 (MS3112)

SP02

box mounting receptacle



- PT02A-XX-XXX
- SP02A-XX-XXX
- * PT02C-XX-XXX
- * SP02C-XX-XXX
- * PT02E-XX-XXX
- * SP02E-XX-XXX
- MS3112E-XX-XXX
- * PT02P-XX-XXX
- * SP02P-XX-XXX
- MS3112P-XX-XXX

To complete part number see how to order on page 25.

■ (MMC) located within .0025 of (TP)

* The PT02 and SP02 box mounting receptacles are made only to complete a series; no provision is made for accessories or potting on the rear skirt.

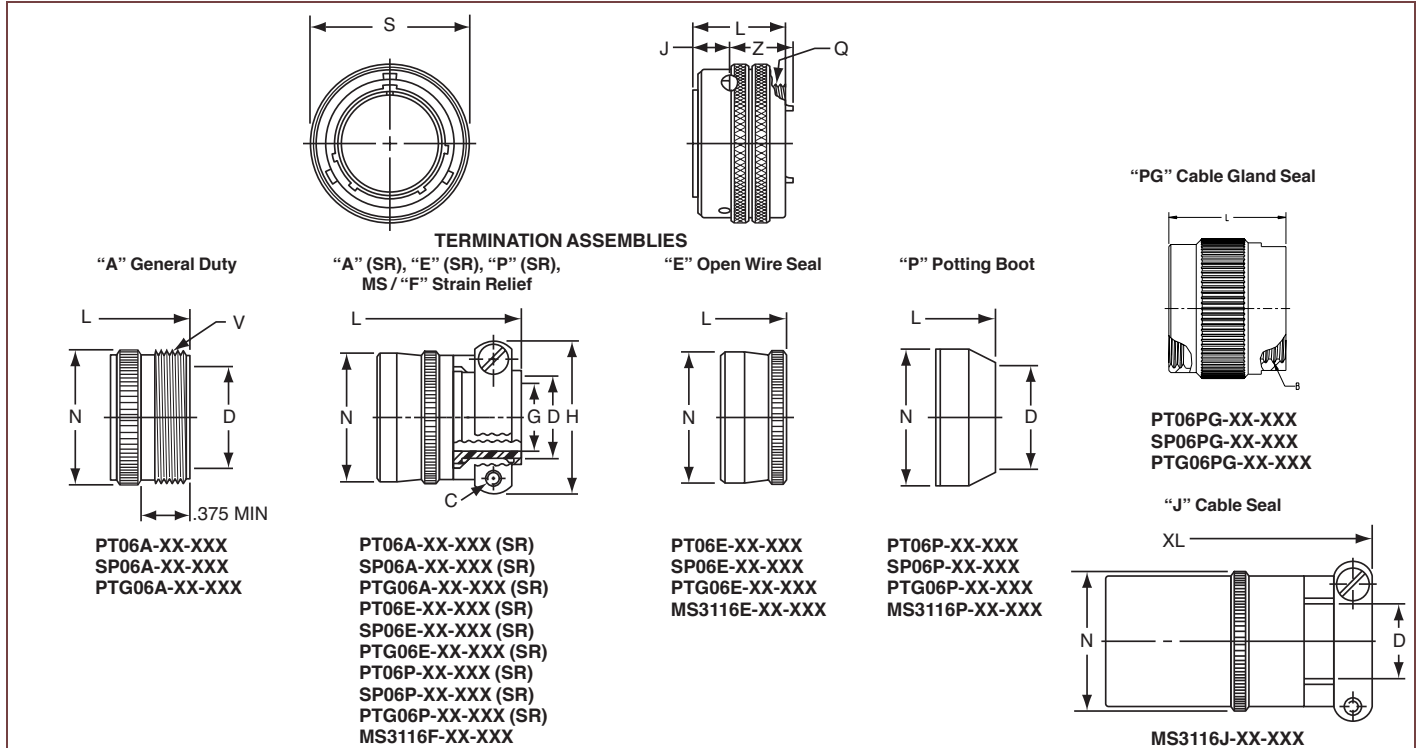
Shell Size	Receptacle Front View				Receptacle Side View								
	R (TP)		S		A +.001 -.005	K +.020 -.010		L Max.	M +.010 -.000		N Dia. Max.	Z Max.	
	PT	SP	PT	SP		PT	SP		PT	SP		PT	SP
6	.469	.641	.688	.953	.348	.493	.524	.825	.431	.462	.323	.465	.438
8	.594	.734	.812	1.047	.473	.493	.524	.825	.431	.462	.449	.465	.438
10	.719	.812	.938	1.125	.590	.493	.524	.825	.431	.462	.573	.465	.438
12	.812	.938	1.031	1.250	.750	.493	.524	.825	.431	.462	.699	.465	.438
14	.906	1.031	1.125	1.344	.875	.493	.524	.825	.431	.462	.823	.465	.438
16	.969	1.125	1.219	1.438	1.000	.493	.524	.825	.431	.462	.949	.465	.438
18	1.062	1.203	1.312	1.516	1.125	.493	.524	.825	.431	.462	1.073	.465	.438
20	1.156	1.297	1.438	1.672	1.250	.650	.650	1.076	.556	.556	1.199	.526	.531
22	1.250	1.375	1.562	1.750	1.375	.650	.650	1.076	.556	.556	1.323	.526	.531
24	1.375	1.500	1.688	1.875	1.500	.683	.683	1.109	.589	.589	1.449	.493	.497

All dimensions for reference only.

PT06 (MS3116)

SP06

straight plug



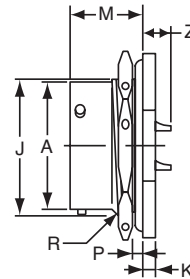
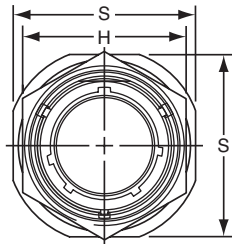
To complete part number see how to order on page 25.

Shell Size	Plug Front View		Plug Side View				Class "A"			
	S Max.		J	L Max.	Q Thread Class 2A	Z Max.	D Min.	L Max.	N Max.	V Thread Class A
6	.625		.353	.906	.3125-32 NEF	.594	.175	1.609	.462	.3750-32 NEF
8	.750		.353	.906	.4375-28 UNEF	.594	.297	1.609	.590	.5000-28 UNEF
10	.859		.353	.906	.5625-24 NEF	.594	.421	1.609	.717	.6250-24 NEF
12	1.013		.353	.906	.6875-24 NEF	.594	.546	1.609	.834	.7500-20 UNEF
14	1.156		.353	.906	.8125-20 UNEF	.594	.663	1.609	.970	.8750-20 UNEF
16	1.281		.353	.906	.9375-20 UNEF	.594	.787	1.609	1.088	1.0000-20 UNEF
18	1.319		.353	.906	1.0625-18 NEF	.594	.879	1.609	1.216	1.1875-18 NEF
20	1.531		.415	1.062	1.1875-18 NEF	.672	1.014	1.656	1.332	1.1875-18 NEF
22	1.656		.415	1.062	1.3125-18 NEF	.672	1.135	1.656	1.460	1.4375-18 NEF
24*	1.776		.415	1.125	1.4375-18 NEF	.672	1.259	1.750	1.587	1.4375-18 NEF

Shell Size	Class "A" (SR), "E" (SR), "P" (SR), MS/"F"							Class "E", MS/"E"			Class "P", MS/"P"			Class "J"		Class "PG"	
	C Thread	D Min.	G Max.	H Max.	L Max.	N Max.	L Max.	N Max.	D Min.	L Max.	N Max.	D		N Max.	XL Max.	B Thread	L Max.
6	-	-	-	-	-	-	1.266	.440	.192	1.438	.484	-	-	-	-	-	-
8	6-32	.240	.125	.812	1.922	.550	1.266	.560	.317	1.438	.608	.168	.230	.547	2.271	M12x1.5-6H	.936
10	6-32	.302	.188	.875	1.922	.675	1.266	.685	.434	1.438	.734	.205	.312	.675	2.271	M16x1.5-6H	.936
12	6-32	.428	.312	1.000	1.922	.803	1.266	.813	.548	1.438	.858	.338	.442	.812	2.411	M16x1.5-6H	.936
14	6-32	.552	.375	1.125	1.922	.920	1.266	.930	.673	1.438	.984	.416	.539	.940	2.599	M18x1.5-6H	.936
16	6-32	.615	.500	1.188	2.047	1.047	1.266	1.057	.798	1.438	1.110	.550	.616	1.067	2.943	M22x1.5-6H	.936
18	8-32	.740	.625	1.438	2.078	1.165	1.266	1.175	.899	1.438	1.234	.600	.672	1.194	3.172	M25x1.5-6H	.936
20	8-32	.740	.625	1.438	2.344	1.290	1.516	1.301	1.024	1.656	1.360	.635	.747	1.322	3.610	M25x1.5-6H	1.180
22	8-32	.928	.750	1.625	2.344	1.418	1.516	1.430	1.149	1.656	1.484	.670	.846	1.449	3.766	M32x1.5-6H	1.180
24	8-32	.990	.800	1.719	2.406	1.543	1.578	1.555	1.274	1.717	1.610	.740	.894	1.576	3.985	M32x1.5-6H	1.180

All dimensions for reference only.

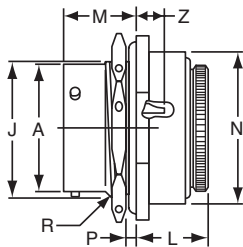
PT07 (MS3114) SP07 jam nut receptacle



"A" General Duty/
"C" Pressurized Receptacle
PT07A-XX-XXX
PT07C-XX-XXX

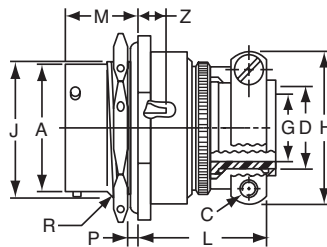
TERMINATION ASSEMBLIES

"E" Open Wire Seal



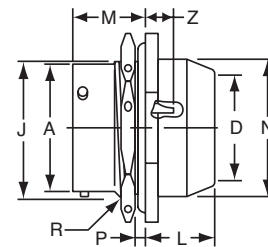
PT07E-XX-XXX
SP07E-XX-XXX
MS3114E-XX-XXX

"A" (SR), "E" (SR), "P" (SR), MS / "F" Strain Relief



PT07A-XX-XXX (SR)
SP07A-XX-XXX (SR)
PT07E-XX-XXX (SR)
MS3114F-XX-XXX

"P" Potting Boot



PT07P-XX-XXX
MS3114P-XX-XXX

To complete part number see how to order on page 25.

Shell Size	Recept. Front View		Receptacle Side View							Class "E", MS / "E"				
	H ±.016	S	A Dia. +.001 -.005	J Flat +.000 -.010	K +.011 -.010	P Panel Thickness		R Thread	Z	L Max.	M	N Max.	Z ±.040	
6	.625	.812	.348	.405	.125	.696	.062	.125	.4375-28	.231	.568	.696	.604	.191
8	.750	.938	.473	.530	.125	.696	.062	.125	.5625-24	.231	.568	.696	.729	.191
10	.875	1.062	.590	.655	.125	.696	.062	.125	.6875-24	.231	.568	.696	.854	.191
12	1.062	1.250	.750	.818	.125	.696	.062	.125	.8750-20	.231	.568	.696	.979	.191
14	1.188	1.375	.875	.942	.125	.696	.062	.125	1.0000-20	.231	.568	.696	1.104	.191
16	1.312	1.500	1.000	1.066	.125	.696	.062	.125	1.1250-18	.231	.568	.696	1.229	.191
18	1.438	1.625	1.125	1.191	.125	.696	.062	.125	1.2500-18	.231	.568	.696	1.354	.191
20	1.562	1.812	1.250	1.316	.156	.884	.062	.250	1.3750-18	.261	.630	.884	1.510	.221
22	1.688	1.938	1.375	1.441	.156	.884	.062	.250	1.5000-18	.261	.630	.884	1.635	.221
24	1.816	2.062	1.500	1.566	.156	.917	.062	.250	1.6250-18	.228	.660	.917	1.760	.188

Shell Size	Class "A" (SR), "P" (SR), MS / "F"						Class "E" (SR)						Class "P", MS / "P"				
	C Thread	D Max.	G	H	L	M	C Thread	D Max.	G	H	L	M	D Max.	L +.010 -.026	M	N	Z
6	-	-	-	-	-	-	-	-	-	-	-	-	.202	.593	.696	.484	.191
8	6-32	.250	.125	.781	1.062	.696	6-32	.250	.125	.775	1.029	.696	.327	.593	.696	.608	.191
10	6-32	.312	.188	.844	1.062	.696	6-32	.312	.188	.837	1.029	.696	.444	.593	.696	.734	.191
12	6-32	.438	.312	.969	1.062	.696	6-32	.438	.312	.963	1.029	.696	.558	.593	.696	.858	.191
14	6-32	.562	.375	1.094	1.062	.696	6-32	.562	.375	1.087	1.029	.696	.683	.593	.696	.984	.191
16	6-32	.625	.500	1.156	1.188	.696	6-32	.625	.500	1.150	1.161	.696	.808	.593	.696	1.110	.191
18	8-32	.750	.625	1.406	1.188	.696	8-32	.750	.625	1.400	1.161	.696	.909	.593	.696	1.234	.191
20	8-32	.750	.625	1.406	1.250	.884	8-32	.750	.625	1.400	1.224	.884	1.034	.718	.884	1.360	.221
22	8-32	.938	.750	1.594	1.250	.884	8-32	.938	.750	1.587	1.224	.884	1.159	.718	.884	1.484	.221
24*	8-32	1.000	.800	1.594	1.250	.917	8-32	1.000	.800	1.681	1.320	.917	1.284	.718	.917	1.610	.188

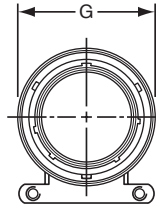
* Size 24 strain relief available in PT only.

All dimensions for reference only.

PT08 E

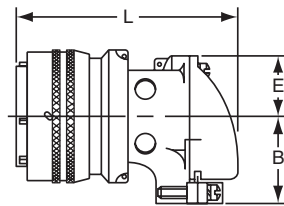
SP08 E

90 degree plug

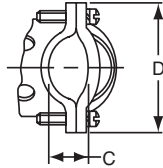


TERMINATION ASSEMBLIES

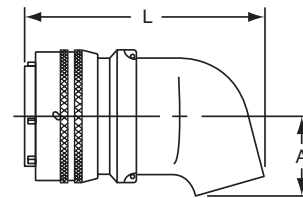
“E” Open Wire Seal, “E” (SR) Strain Relief



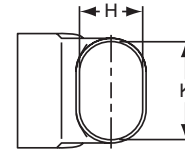
PT08E-XX-XXX
 SP08E-XX-XXX
 PT08E-XX-XXX (SR)
 SP08E-XX-XXX (SR)



“P” Potting Boot 75 degrees



PT08P-XX-XXX
 SP08P-XX-XXX



To complete part number see how to order on page 25.
 All lockwire holes are .044 Dia. Min.

Shell Size	Plug Front View		Plug Side View							
	G Dia. Max.	B ±.031	Class “E”, “E” (SR)				Class “P”			
			C +.010 -0.025	D ±.062	E +.047 -0.025	L ±.057	A ±.025	H ±.015	K ±.015	L Max.
8	.796	.655	.169	.941	.339	1.786	.469	.312	.438	1.656
10	.921	.749	.170	1.191	.393	1.880	.547	.438	.562	1.781
12	1.046	.812	.264	1.191	.450	1.965	.625	.516	.688	1.843
14	1.171	.905	.310	1.254	.519	2.113	.734	.625	.781	1.953
16	1.297	1.030	.330	1.316	.583	2.315	.750	.656	.890	2.000
18	1.422	1.015	.444	1.562	.621	2.423	.781	.703	1.000	2.046
20	1.562	1.077	.510	1.625	.683	2.695	.859	.766	1.125	2.218
22	1.672	1.139	.515	1.719	.739	2.742	.906	.812	1.234	2.265
24	1.797	1.265	.656	1.751	.797	2.980	1.169	.918	1.374	2.624

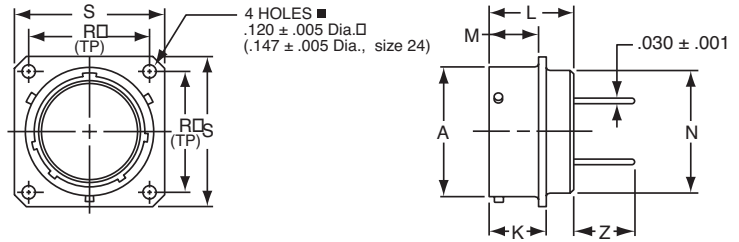
All dimensions for reference only.

PT Connectors with Printed Circuit Board Contacts

Box Mounting Receptacle (PT02) with PCB Contacts

Order by applicable part number in chart below; add insert arrangement number. Refer to insert availability on pages 4-10.

■ (MMC) located within .0025 of (TP)



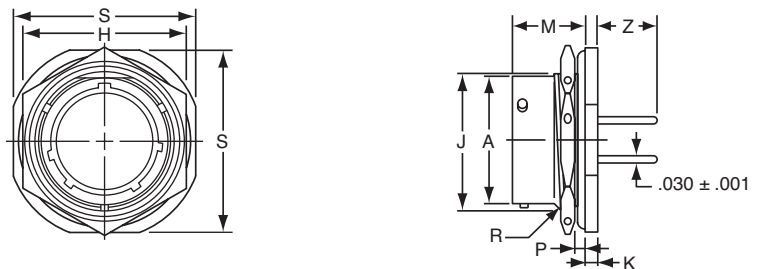
Shell Size	Part Number* PT02 with PCB Contacts	Receptacle Front View		Receptacle Side View					
		R (TP)	S +.011 -.010	A +.001 -.005	K +.021 -.010	L Max.	M +.010 -.000	N Dia. Max.	Z +.040 -.050
6	71-570120-XXX	.469	.688	.348	.493	.825	.431	.323	.380
8	71-570121-XXX	.594	.812	.473	.493	.825	.431	.449	.380
10	71-570122-XXX	.719	.938	.590	.493	.825	.431	.573	.380
12	71-570123-XXX	.812	1.031	.750	.493	.825	.431	.699	.380
14	71-570124-XXX	.906	1.125	.875	.493	.825	.431	.823	.380
16	71-570125-XXX	.969	1.219	1.000	.493	.825	.431	.949	.380
18	71-570126-XXX	1.062	1.312	1.125	.493	.825	.431	1.073	.380
20	71-570127-XXX	1.156	1.438	1.250	.650	1.076	.556	1.199	.286
22	71-570128-XXX	1.250	1.562	1.375	.650	1.076	.556	1.323	.286
24	71-570129-XXX	1.375	1.688	1.500	.683	1.109	.589	1.449	.253

All dimensions for reference only.

Jam Nut Receptacle (PT07) with PCB Contacts

All lockwire holes are .044 Dia. Min.

Order by applicable part number in chart below; add insert arrangement number. Refer to insert availability on pages 4-10.



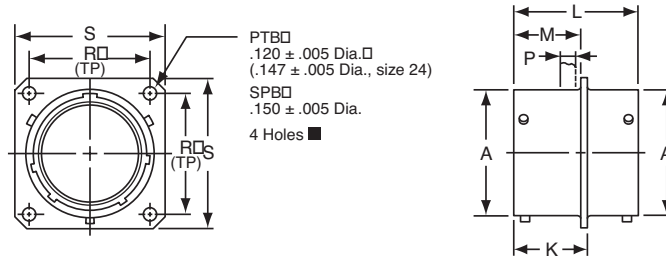
Shell Size	Part Number* PT07 with PCB Contacts	Receptacle Front View		Receptacle Side View							
		H +.017 -.016	S ±.010	A Dia. +.001 -.005	J Flat +.000 -.010	K +.011 -.010	M ±.010	P Panel Thickness		R Thread Class 2A	Z +.025 -.035
								Min.	Max.		
6	71-533720-XXX	.625	.812	.348	.405	.125	.696	.062	.125	.4375-28 UNEF	.376
8	71-533721-XXX	.750	.938	.473	.530	.125	.696	.062	.125	.5625-24 UNEF	.376
10	71-533722-XXX	.875	1.062	.590	.655	.125	.696	.062	.125	.6875-24 UNEF	.376
12	71-533723-XXX	1.062	1.250	.750	.818	.125	.696	.062	.125	.8750-20 UNEF	.376
14	71-533724-XXX	1.188	1.375	.875	.942	.125	.696	.062	.125	1.0000-20 UNEF	.376
16	71-533725-XXX	1.312	1.500	1.000	1.066	.125	.696	.062	.125	1.1250-18 UNEF	.376
18	71-533726-XXX	1.438	1.625	1.125	1.191	.125	.696	.062	.125	1.2500-18 UNEF	.376
20	71-533727-XXX	1.562	1.812	1.250	1.316	.156	.884	.062	.250	1.3750-18 UNEF	.367
22	71-533728-XXX	1.688	1.938	1.375	1.441	.156	.884	.062	.250	1.5000-18 UNEF	.367
24	71-533729-XXX	1.816	2.062	1.500	1.566	.156	.917	.062	.250	1.6250-18 UNEF	.334

All dimensions for reference only.

* For RoHS compliance connectors with PCB contacts change "71" to:
"FL" designates conductive gray zinc nickel plating
"93" designates black zinc cobalt plating

PTB SPB

thru bulkhead receptacle



* PTB-XX-XXX
* SPB-XX-XXX

* To complete part number add desired arrangement number (refer to pages 4 and 5 for insert availability) and add "PS";
Example: PTB-18-32PS. If a rotation is required, use PTB-18-32PS and add W, X, Y or Z. Example: PTB-18-32PSW.
The socket end of the insert always appears at the "P" dimension end of shell.

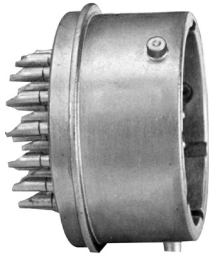
■ (MMC) located within .0025 of (TP)

Shell Size	Receptacle Front View				Receptacle Side View					
	R (TP)		S		A +.001 -.005	K +.016 -.000	L ±.005	M +.010 -.000	P Max.	
	PTB	SPB	PTB	SPB					PTB	SPB
6	.469	.641	.688	.953	.348	.625	1.050	.562	.125	.188
8	.594	.734	.812	1.047	.473	.625	1.050	.562	.125	.188
10	.719	.812	.938	1.125	.590	.625	1.050	.562	.125	.188
12	.812	.938	1.031	1.250	.750	.625	1.050	.562	.125	.188
14	.906	1.031	1.125	1.344	.875	.625	1.050	.562	.125	.188
16	.969	1.125	1.219	1.438	1.000	.625	1.050	.562	.125	.188
18	1.062	1.203	1.312	1.516	1.125	.625	1.050	.562	.125	.188
20	1.156	1.297	1.438	1.672	1.250	.781	1.330	.688	.125	.312
22	1.250	1.375	1.562	1.750	1.375	.781	1.330	.688	.125	.312
24	1.375	1.500	1.688	1.875	1.500	.781	1.330	.688	.125	.312

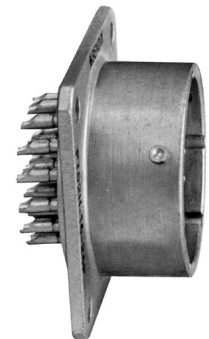
All dimensions for reference only.

PT hermetic

solder
mounting
receptacle



box
mounting
receptacle



jam nut
receptacle



Three shell styles are available in the hermetic PT bayonet series:

- PTIH (MS3113H)
- PT02H
- PT07H (MS3114H)

These hermetic connectors are only available with solder cup or flat eyelet pin contacts in the MS/PT version. Socket contacts are available in some proprietary PT versions. Other design characteristics of the PT hermetic connector series are as follows:

Shell sizes: 8 through 24 (tin plated)

Contact count: 2 through 61. Refer to pages 4 and 5 for insert availability for hermetics.

Current: 5.0 amp each #20 contact
10 amp each #16 contact
17 amp each #12 contact

Contacts are tin plated for PT; gold is optional

Dielectric Withstanding Voltage (sea level):
1500 volts (RMS) 60 cps, Service Rating I
2300 volts (RMS) 60 cps, Service Rating II

Compression glass inserts, permanently lettered

Helium Leakage: Less than 1.0×10^{-6} cc/sec.
at 15 psi differential

Physical Shock: 100 G's

Vibration: Exceeds MIL-E-5272 Procedure II

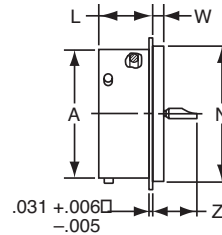
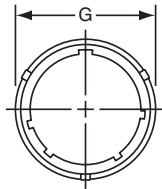
Thermal Shock: No deterioration or failure after 5 cycles
at -55°F to $+257^{\circ}\text{F}$

Intermateability: Mates with MS3116 and PT06

Refer to pages 4-10 for insert arrangement availability.

PTIH (MS3113H)

hermetic solder mounting receptacle



- * PTIH-XX-XXX
- ** PTIY-XX-XXX
- ** MS3113H-XXCXXX
- † PTIH-XX-XXX (100)
- †† PTIY-XX-XXX (100)
- †† MS3113H-XXYXXX

To complete part number see how to order on page 25.

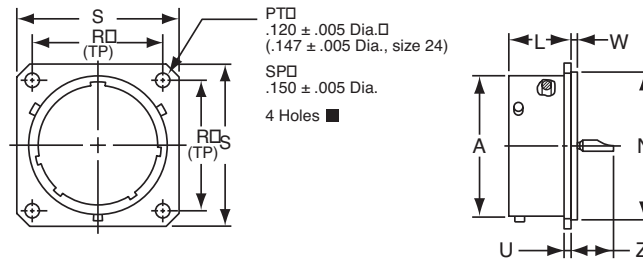
- * Solder cup pin contacts without interfacial seal
- ** Solder cup pin contacts with interfacial seal
- † Flat eyelet pin contacts without interfacial seal
- †† Flat eyelet pin contacts with interfacial seal

Shell Size	Recept. Front View	Receptacle Side View				
	G Dia. Max.	A Dia. +.001 -0.005	L +.025 -0.016	N Dia. +.001 -0.005	W +.011 -0.010	Z Max.
6	.511	.348	.447	.438	.094	.386
8	.636	.473	.447	.562	.094	.386
10	.761	.590	.447	.672	.094	.386
12	.855	.750	.447	.781	.094	.386
14	.980	.875	.447	.906	.094	.386
16	1.105	1.000	.447	1.031	.094	.386
18	1.229	1.125	.447	1.156	.094	.386
20	1.323	1.250	.509	1.250	.094	.386
22	1.449	1.375	.509	1.375	.125	.418
24	1.574	1.500	.542	1.500	.125	.418

All dimensions for reference only.

PT02H

hermetic box mounting receptacle



- * PT02H-XX-XXX
- ** PT02Y-XX-XXX
- † PT02H-XX-XXX (100)
- †† PT02Y-XX-XXX (100)

To complete part number see how to order on page 25.

* Solder cup pin contacts without interfacial seal

** Solder cup pin contacts with interfacial seal

† Flat eyelet pin contacts without interfacial seal

†† Flat eyelet pin contacts with interfacial seal

■ (MMC) located within .0025 of (TP)

Shell Size	Receptacle Front View		Receptacle Side View					
	R (TP)	S ±.016	A Dia. +.001 -0.005	K ±.015	L +.025 -0.015	N Dia. +.001 -0.005	U +.011 -0.010	Z Max.
6	.469	.688	.348	.047	.494	.438	.062	.344
8	.594	.812	.473	.047	.494	.562	.062	.344
10	.719	.938	.590	.047	.494	.672	.062	.344
12	.812	1.031	.750	.047	.494	.781	.062	.344
14	.906	1.125	.875	.047	.494	.906	.062	.344
16	.969	1.219	1.000	.047	.494	1.031	.062	.344
18	1.062	1.312	1.125	.047	.494	1.156	.062	.344
20	1.156	1.438	1.250	.047	.556	1.250	.062	.344
22	1.250	1.562	1.375	.079	.556	1.375	.062	.377
24	1.375	1.688	1.500	.079	.588	1.500	.062	.377

All dimensions for reference only.