Amphenol[®] Miniature Cylindrical Connectors



Amphenol Corporation

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Amphenol

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Proprietary/MIL-C-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 Aerospace Amphenol Industrial Operations 40-60 Delaware Avenue Sidney, New York 13838-1395 Telephone: 607-563-5011 Fax: 607-563-5351 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 www.amphenol-aerospace.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: 2000 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-C-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-C-26482, Series 2. (Military numbers include MS3470 - MS3472, MS3474, - MS3476).

Please refer to page 78 for a brief description of the Amphenol[®]/Matrix[®] MIL-C-26482, Series 2 bayonet coupling connectors with crimp, rear insertable and rear releasable contacts, and ask for catalog 12-071 for detailed information on this series.

Amphenol[®] Miniature Cylindrical Connectors Proprietary/MIL-C-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 gualified to MIL-C-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.

Bayonet Coupling with Solder Contact Termination

Intermateable with all miniature series connectors except threaded

• MS/PT meets MIL-C-26482 Series 1, service classes E, F and P.

Operating temperature is from -55°C to +125°; Operating voltage to 1000 VAC (RMS) at sea level.

• 3 point bayonet coupling and 5 key/keyway mating.

- 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.

MS and proprietary versions

• MS/PT is UL recognized.

Factory installed solder contacts

PT. MS/PT (solder)

PC series.

SP (solder)

• 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

PT Solder wall mount receptad



PT-SE Crimp wall mount receptacle and mated straight plug



PC Threaded Crimp straight plug and wall mount receptacle

	 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-SE, MS/PT-SE (crimp)
	 MS and proprietary versions
le	• 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 except threaded PC series.
	 MS/PT-SE meets MIL-C-26482 Series 1, service classes E, F, P.
B	SP-SE (crimp)
121	 Modification of the PT-SE with wider flange for back panel mounting
W	PT-CE, SP-CE (crimp)
	 Incorporates a special one-piece insert and grommet assembly

et assembly

Threaded Coupling with Solder Contact Termination

PC (solder) Proprietary

• Double stub threaded coupling and single hole polarization. • Factory installed solder contacts

Options

Options

patterns)

- 5 shell styles with 60 insert patterns
- Hermetic receptacles available
- · Pressurized thru bulkhead receptacle style available
- Pre-installed coax solder contacts
- are available.

• 5 shell styles (consult Amphenol for

availability of shell sizes and insert

Threaded Coupling with Crimp Contact Termination

- Two threaded PC styles are offered in some shell sizes. Both have crimp front release and front removable contacts, but they have different retention systems.
- PC-SE (crimp) Proprietary with spring tower retention system Spring tower retention system

PC-CE (crimp) Proprietary - with nylon wafer dielectric system

1

available

Options

Options

• 6 shell styles with 47 insert patterns Breakaway quick disconnect style

• 7 shell styles with 60 insert patterns

· Hermetic seal (glass fusion) recepta-

· Pressurized thru bulkhead recepta-

Breakaway quick disconnect styles

• Pre-installed coax solder contacts

• Printed circuit board contacts are

cle styles available

cle style available

are available

• EMI filter protection styles

- available
- · Coax and thermocouple contacts are available
- except threaded

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 envionrmental moisture sealing. There are three hermetic styles within the PT bayonet series and three hermetic styles within the PC threaded 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-C-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 circuity plugs into a printed circuit board and creates a self-locking terminal pad which eliminates the need for an additional interconnect to the PCB.

Breakaway, Twist Pull Miniatures

Quick disconnect "breakaway" styles are shown in this catalogs. These are available in PT solder style plugs (page 26), PT-SE crimp style plugs (page 38) or PT-CE crimp style plugs (page 48). Quick disconnect of the connector plug from the receptacle is accomplished with axial pull on the lanyard. This instant decoupling and damage free separation is ideal for weapons release and blind or difficult accessibility situations. Separation forces vary per connector series. The plug and receptacle need to be fully mated before disengagement by the lanyard pull.

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

Filter Protection

Overmolded Cable

to the cable jacket providing moisture sealing.

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-C-26482 connectors. For further information see catalog 12-120, Amphenol EMI Filter Transient Protection Connectors. (online at www.amphenol-aerospace.com).



26482 Connector with EMI Filter Protection

Overmold seals and cables can be designed for almost any industrial application. A variety





26482 Connector with Overmolded Cable



26482 Connector with Hermetic 26482 Connector with PC Tail Seal Insert and Coax Contacts Contacts



26482 Connector with Flex



Breakaway Twist Pull 26482



2

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.

			So	lder		1			Crimp			,
CHARACTERISTICS		РТ	MS/PT	SP	PC	MS/ PT-SE	PT-SE	SP-SE	PC-SE	PT-CE	SP-CE	PC-CE
Intermateable†		0	0	0	Х	0	0	0	Х	0	0	Х
Contacts	Solder	٠	•	•	•							
	Crimp RI/FR					•	•	•	•	•	•	•
Contact Retention	Non-Removable	٠	•	•	•							
System	Removable					•	•	•	•	•	•	•
Coupling	Bayonet	٠	•	•		٠	•	•		•	•	
	Threaded				•				•			•
Standard Finishes++	Olive Drab Cadmium (003)	•	•			•	•			•		
	Anodic Coated (005)			•				•			•	
	Bright Cadmium (001)				•				•			•
Temperature Range	Resilient Dielectric (-55°C to +125°C)	•	•	•	•	•	•	•	•	•	•	•
Wide Mounting Flange	р 1			•				•			•	
Hermetic Seal		•	•	•	•							
SHELL STYLE AVAILA	BILITY		1									
Wall Mounting Recept	acle "00"	•	•	•	•	•	**•	•	٠	•	•	
Cable Connecting Rec	eptacle "01" ***	•	•		•	•	•		•	•		•
Box Mounting Recepta	acle "02"	*•	•	•	*•	•	**•	•	•	•	•	
Straight Plug "06"		٠	•	•	•	•	•	•	•	•	•	•
Jam Nut Receptacle "()7"	*•	*•	•	*•	•	•	•	•	•	•	•
Thru-bulkhead Recept	acle "TB"	٠		•								
Solder Mount Recepta	cle "l"	*•	*•		*•	1				1		
90° Plug "08"		•		•	•	1	•	•	•	•	•	

RI/FR = Rear Insertion/Front Releasable

† o intermates with o

X intermates with X

†† 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[®]/Matrix[®] MIL-C-26482, Series 2 bayonet coupling connectors with rear insertable and rear releaseable contacts are covered in another catalog - See pageXX for a brief description and see complete details in catalog 12-071 which is online at www.amphenol-aerospace.com.

Amphenol[®] Miniature Cylindrical insert availability

	Solder Termination Crimp Termination Contact Size													
					Hermetic	MS/PT-SE						Co	bax	
Insert Arrangement	MS/PT	РТ	SP	PC	PT MS-PT PC	PT-SE SP-SE PC-SE	PT-CE SP-CE PC-CE	Total Contacts	20	16	12	12	8	Service Rating
6-1		Х	Х	Х	Х*			1	1					I
8-2	Х	Х	Х	Х	Х		Х	2	2					I
8-3	Х	Х	Х	Х	Х		Х	3	3					I
8-4	Х	Х	Х	Х	Х		Х	4	4					I
8-33		Х	Х	Х	Х	Х		3	3					I
8-98		Х	Х	Х				3	3					I
10-2		Х	Х	Х				2		2				I
10-5		Х	Х	Х	Х*			5	5					I
10-6	Х	Х	Х	Х	Х	Х	Х	6	6					I
10-70		Х	Х	Х				1					1	Coax
10-98	Х	Х	Х	Х	Х*		Х	6	6					I
12-3	Х	Х	Х	Х	Х	Х	Х	3		3				II
12-4		Х	Х	Х	Х*			4		4				I
12-8	Х	Х	Х	Х	Х*	Х	Х	8	8					I
12-10	Х	Х	Х	Х	Х	Х	Х	10	10					I
12-14		Х	Х	Х				14	14					I
12-98		Х	Х	Х				10	10					I
14-2		Х	Х	Х				2				2		II
14-4		S	S	S	Х			4			4			I
14-5	Х	Х	Х	Х	Х	Х	Х	5		5				П
14-8		Х	Х	Х				8	6		2			I
14-12	Х	Х	Х	Х	Х	Х	Х	12	8	4				I
14-15	Х	Х	Х	Х	Х	Х	Х	15	14	1				I
14-18	Х	Х	Х	Х	Х*	Х	Х	18	18					I
14-19	Х	Х	Х	Х	Х	Х	Х	19	19					I
14-22						Х*		5	1		4			I
14-71		Р	Х	Х			(02CE)	4		3			1	I
14-91 HV		S	Х	Х		Х*		3	3					**
14-AA		Х	Х	Х	Х			4			4			I
16-8	Х	Х	Х	Х	Х	Х	Х	8		8				II
16-23	Х	Х	Х	Х		Х	Х	23	22	1				I
16-26	Х	Х	Х	Х	Х	Х	Х	26	26					I
16-70		Х	Х	Х				15	14			1		N/A
16-76†††						X*		14	8		1	5		***
16-99	Х	Х	Х	Х		Х		23	21	2				I
18-5		Х	X	Х		X*		5			5			II
18-8								8			8			I
18-11	Х	Х	Х	Х	Х	Х	Х	11		11				II
18-30	Х	Х	Х	Х	X*	Х	Х	30	29	1				1

*Not available in MS version

Flashover voltage 5,000 VAC (RMS) *1500 VAC (RMS) Sdesignates 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.

		Sole	der Term	ination		Crimp Termination			Contact Size						
Insert					Hermetic PT MS-PT	MS/PT-SE PT-SE SP-SE	PT-CE SP-CE	Total				Co	bax	Service	
Arrangement	MS/PT	PT	SP	PC	PC	PC-SE	PC-CE	Contacts	20	16	12	12	8	Rating	
18-32	Х	Х	Х	X	Х	X	Х	32	32					 	
18-71					-	X*		9		8			1	Coax, II	
18-72		Х	Х	Х				14	10			4		N/A	
18-75		Х	Х	Х				4					4	Coax	
18-76								4				3	1	II	
18-80		Х	Х	Х			Х	8	6				2	Coax, I	
18-91 HV						X*	Х	6	6					**	
20-16	Х	Х	Х	Х	Х	Х	Х	16		16				II	
20-24	Х	Х	Х	Х			Х	24	24					I	
20-25		Х	Х	Х				25	25					I	
20-26		Х	Х	Х				26	20		6			I	
20-27	Х	Х	Х	Х			Х	27	27					I	
20-39	Х	Х	Х	Х	Х	Х	Х	39	37	2				I	
20-41	Х	Х	Х	Х	Х	Х	Х	41	41					I	
20-70								14	10				4	Coax	
20-90 HV		Х	Х	Х				7	7					Hi-Voltage	
22-7		Х	Х	Х		Х*		7					7	Coax	
22-21	Х	Х	Х	Х	Х	Х	Х	21		21				Ш	
22-25						X*		25		25				I	
22-32	Х	Х	Х	Х		Х	Р	32	32					I	
22-34		Х	Х	Х			Х	34	34					I	
22-36		Х	Х	Х			Х	36	36					I	
22-41	Х	Х	Х	Х	Х	Х	Х	41	27	14				I	
22-55	Х	Х	Х	Х	Х	Х	Х	55	55					I	
22-70		Х	Х	Х				19	13				6	I, Coax	
22-71								9	2				7	I, Coax	
22-72		Х	Х	Х				19	12	4			3	N/A	
22-78†††						X*		7					7	Coax	
22-96					1	X*		7	1		7†			11	
24-31		Х	Х	Х	1	1	Х	31		31				1	
24-51					1	X*		51	47			4		1	
24-61	Х	Х	Х	Х	Х	Х	Х	61	61					1	
24-71		Х	Х	Х	<u> </u>			49	45	2			2	N/A	
24-79								6	1				5	Coax	

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

INSERT AVAILABILITY

Amphenol [®] Miniature Breakaway Twist Pull insert availability

Insert Availability - Breakway Twist Pull

	Cri Termi	imp nation	Solder Termination			Co	ntact S	ize
Insert Arrangement	PT-CE	PT-SE	PT	Total Contacts	20	16	12	Service Rating
8-2	Х		Х	2	2			I
8-3	Х		Х	3	3			I
8-4	Х		Х	4	4			I
10-2			Х	2		2		I
10-6	Х	Х	Х	6	6			I
10-98	Х		Х	6	6			
10-99	Х	Х		7	7			
12-3	Х	Х	Х	3		3		
12-4			Х	4		4		I
12-8	Х	Х	Х	8	8			
12-10	Х	Х	Х	10	10			I
12-98			Х	10	10			I
14-2			Х	2			2	
14-5	Х	Х	Х	5		5		II
14-8			Х	8	6		2	
14-12	Х	Х	X	12	8	4		I
14-15	Х	Х	Х	15	14	1		I
14-16			Х	4		2	2	
14-18	Х	Х	Х	18	18			I
14-19	Х	Х	Х	19	19			I
14-91		Х	Х	3	3*			H.V.
16-6			Х	6			6	I
16-8	Х	Х	Х	8		8		
16-23	Х	Х	Х	23	22	1		I
16-26	Х	Х	Х	26	26			
16-99		Х	Х	23	21	2		I
18-5		Х	Х	5			5	
18-11	Х	Х	Х	11		11		II
18-28		Х	Х	28	26	2		I
18-30	Х	Х	Х	30	29	1		
18-32	Х	Х	Х	32	32			
18-91		Х	Х	6	6*			H.V.
20-8			Х	8		8		
20-16	Х	Х	Х	16		16		II
20-24	Х		Х	24	24			I
20-25			Х	25	25			I
20-27	Х		Х	27	27			I
20-39	Х	Х	Х	39	37	2		1
20-41	Х	Х	X	41	41			Ι
22-8			X	8		8		II
22-21	Х	Х	X	21		21		II
22-25		Х		25		25		Ι
22-32	Х	Х	X	32	32			
22-34	Х		X	34	34			Ι
22-36	Х		X	36	36			1
22-41		Х	Х	41	27	14		I
22-55	Х	Х	X	55	55			Ι
22-96		Х		7			7†	II
22-97			Х	16		16		II
22-99			Х	11		11		II
24-31	Х			31		31		I
24-61	Х	Х	Х	61	61			

rvice
atingconnectors, please contact Amphenol Aerospace.
For availability of shielded coax contacts within
Breakaway Miniature connectors contact Amphe-
nol.The Breakaway style pages are: PT (solder)
breakaway plug is on page 26, the PT-SE (crimp)
breakaway plug is on page 38, and the PT-CE
(crimp) breakaway plug is on page 48.

For further information regarding any additional insert patterns available in Breakaway Miniature

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.

		Insert Rota	ition		
Shell	Insert		Deg	rees	
Size	Arrangement	w	Х	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	-	-	-



		Insert Rota	tion		
Shell	Insert		Deg	rees	
Size	Arrangement	w	Х	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

front face of pin inserts illustrated

	\sim						
	(\circ)						
Insert Arrangement	6-1	8-2	8-3	8-4	8-33	8-98	10-2
Service Rating Number of Contacts	1 1	1 2	1 3	1 4	 3	 3	1 2
Contact Size	20	20	20	20	20	20	16
Incort Arrongement	10.5	10.6	10.70	10.08		12.4	12.8
Service Rating	IU-5	I	Coax	IU-98	IZ-5 II	12-4 I	I2-0
Number of Contacts Contact Size	5 20	6 20	1 8 Coax	6 20	3 16	4 16	8 20
						E A B	
Insert Arrangement	12-10	12-14	12-98	14-2	14-4	14-5	14-8
Number of Contacts	10	1 14	10	2	4	5	62
Contact Size	20	20	20	12	12	16	20 12
	GO J OB	KOL AO BO				O ^D O ^A O _B	Â
Insert Arrangement	14-12	14-15	14-18	14-19	14-22	14-71	14-91HV
Service Rating					I	I	Flashover 5,000 VAC (RMS)
Number of Contacts Contact Size	8 4 20 16	14 1 20 16	18 20	19 20	1 4 20 12	3 1 16 8 Coax	3 20

For contact legend see page 61.

front face of pin inserts illustrated



front face of pin inserts illustrated





Conta	act Legend
<u>Symbol</u>	Contact Size
0	20
•	16
\bigcirc	12
۲	HV
۲	12 Coax
(\circ)	8 Coax

Amphenol [®] PT, SP, MS/PT Proprietary/MIL-C-26482, Series 1 bayonet coupling and solder termination



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-C-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.

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 except for the threaded coupling PC Series.

Refer to pages 4-11 for insert arrangement availability.

PT, SP, MS/PT

CONTACT DATA/CONNECTOR RATINGS

		Col	ntact Specifi	cati	ons			
Contact Size	ł	Test Current	Maximun Millivolt Dre	n op†	Solde Dian	r Well neter	S	older Well Depth
20		7.5	55		.046	+.004 000	.1	25 +.031 000
16	16 13 12 23		50		.078 +.005 003			88 +.031 000
12		23.0	42		.116 +.004 002			+.031 88 –.000
			Service Rat	ing				
	R	ecommended	Tes	st Vo	Itage A	C (RMS)	, 60	cps
Service Rating	rvice AC Voltage ting at Sea Leve		Sea 5 Level		0,000 ft.	70,00 ft.	0	110,000 ft.
I 600		600	1,500		500	375		200
11		1,000	2,300		750 500		0 200	

† Silver plated wire per MIL-C-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. Class "W" is not available in the SP Series.

- "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°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
- "J" Same as "W" class except with strain relief
- "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
- "W" Compressing clamp and neoprene gland for moisture proofing multi-conductor jacketed cables. Telescoping sleeves (MS 3420A) can be used to adapt to cables smaller than minimum close-down.
- "H"* Hermetically sealed with compression glass inserts (see pages 22-25)

Style with printed circuit board contacts- see page 20. Breakaway style - see page 26.

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
- "P" Translucent nylon boot for retaining customer-applied potting compounds; held in place by a threaded ring



BAYONET COUPLING WITH SOLDER CONTACTS

PT00 (MS3110) SP00 wall mounting receptacle



PT01 (MS3111) cable connecting receptacle



PT02 (MS3112) SP02 box mounting receptacle



	F	eceptacle	Front Vie	t view Receptacle Side View									
Shell	nell (TP)			S	A +.001	ا +.(–.(K)20)10	L	۱ +.((M 010 000	N Dia.	M	Z ax.
Size	PT	SP	PT	SP	005	PT	SP	Max.	PT	SP	Max.	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

PT06 (MS3116) SP06 straight plug



PT07 (MS3114) SP07 jam nut receptacle



PT08 E SP08 E 90 degree plug



		Class "E", "E" (SR) Class "P"								
Shell Size	G Dia. Max.	B ±.031	C +.010 –.025	D ±.062	E +.047 –.025	L ±.057	A ±.025	Н ±.015	К ±.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

PT Connectors with Printed Circuit Board Contacts

Box Mounting Receptacle (PT02) with PCB Contacts



|≪ L →

|**←**M→| |**←**Z→

.030 ± .001

.030 ± .001

Order by applicable part number in chart below; add insert arrangement number. Refer to insert availability on pages 4-11. ■ (MMC) located within .0025 of (TP)

		Receptacle	Front View	Receptacle Side View						
Shell Size	Part Number* PT02 with PCB Contacts	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 4-11.

			Receptacle Side View					
S	A Dia. +.001	J Flat +.000	K +.011	м	P Panel Thickness		R Thread	Z +.025
±.010	005	010	010	±.010	Min.	Max.	Class 2A	035
.812	.348	.405	.125	.696	.062	.125	.4375-28 UNEF	.376
.938	.473	.530	.125	.696	.062	.125	.5625-24 UNEF	.376
1.062	.590	.655	.125	.696	.062	.125	.6875-24 UNEF	.376
1.250	.750	.818	.125	.696	.062	.125	.8750-20 UNEF	.376
1.375	.875	.942	.125	.696	.062	.125	1.0000-20 UNEF	.376
1.500	1.000	1.066	.125	.696	.062	.125	1.1250-18 UNEF	.376
1.625	1.125	1.191	.125	.696	.062	.125	1.2500-18 UNEF	.376
1.812	1.250	1.316	.156	.884	.062	.250	1.3750-18 UNEF	.367
1.938	1.375	1.441	.156	.884	.062	.250	1.5000-18 UNEF	.367
2.062	1.500	1.566	.156	.917	.062	.250	1.6250-18 UNEF	.334
	.812 .938 1.062 1.250 1.375 1.500 1.625 1.812 1.938 2.062	.812 .348 .938 .473 1.062 .590 1.250 .750 1.375 .875 1.500 1.000 1.625 1.125 1.812 1.250 1.938 1.375 2.062 1.500	.812 .348 .405 .938 .473 .530 1.062 .590 .655 1.250 .750 .818 1.375 .875 .942 1.500 1.000 1.066 1.625 1.125 1.191 1.812 1.250 1.316 1.938 1.375 1.441 2.062 1.500 1.566	.812 .348 .405 .125 .938 .473 .530 .125 1.062 .590 .655 .125 1.250 .750 .818 .125 1.375 .875 .942 .125 1.600 1.000 1.066 .125 1.625 1.125 1.191 .125 1.812 1.250 1.316 .156 1.938 1.375 1.441 .156 2.062 1.500 1.500 1.566 .156	.812 .348 .405 .125 .696 .938 .473 .530 .125 .696 1.062 .590 .655 .125 .696 1.250 .750 .818 .125 .696 1.375 .875 .942 .125 .696 1.500 1.000 1.066 .125 .696 1.625 1.125 1.191 .125 .696 1.812 1.250 1.316 .156 .884 1.938 1.375 1.441 .156 .884 2.062 1.500 1.566 .156 .917	.812 .348 .405 .125 .696 .062 .938 .473 .530 .125 .696 .062 1.062 .590 .655 .125 .696 .062 1.250 .750 .818 .125 .696 .062 1.375 .875 .942 .125 .696 .062 1.500 1.000 1.066 .125 .696 .062 1.625 1.125 1.191 .125 .696 .062 1.625 1.125 1.191 .125 .696 .062 1.812 1.250 1.316 .156 .884 .062 1.938 1.375 1.441 .156 .884 .062 2.062 1.500 1.566 .156 .917 .062	.812 .348 .405 .125 .696 .062 .125 .938 .473 .530 .125 .696 .062 .125 1.062 .590 .655 .125 .696 .062 .125 1.250 .750 .818 .125 .696 .062 .125 1.375 .875 .942 .125 .696 .062 .125 1.500 1.000 1.066 .125 .696 .062 .125 1.625 1.125 1.191 .125 .696 .062 .125 1.625 1.125 1.191 .125 .696 .062 .125 1.812 1.250 1.316 .156 .884 .062 .250 1.938 1.375 1.441 .156 .884 .062 .250 2.062 1.500 1.566 .156 .917 .062 .250	.812 .348 .405 .125 .696 .062 .125 .4375-28 UNEF .938 .473 .530 .125 .696 .062 .125 .5625-24 UNEF 1.062 .590 .655 .125 .696 .062 .125 .6875-24 UNEF 1.250 .750 .818 .125 .696 .062 .125 .8750-20 UNEF 1.375 .875 .942 .125 .696 .062 .125 1.0000-20 UNEF 1.500 1.000 1.066 .125 .696 .062 .125 1.250-18 UNEF 1.625 1.125 1.191 .125 .696 .062 .125 1.250-18 UNEF 1.812 1.250 1.316 .156 .884 .062 .250 1.3750-18 UNEF 1.938 1.375 1.441 .156 .884 .062 .250 1.500-18 UNEF 2.062 1.500 1.566 .917 .062 .250 1.6250-18 UNEF

All dimensions for reference only.

* For RoHS compliance connectors with PCB contacts change "71"- to: "58" designates conductive black zinc cobalt plating "93" designates non-conductive black zinc cobalt plating

PTB SPB thru bulkhead receptacle



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

PT hermetic





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 I

Compression glass inserts, permanently lettered

Helium Leakage: Less than 1.0 X 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°F

Intermateability: Mates with MS3116 and PT06

Refer to pages 4-11 for insert arrangement availability.

PTIH (MS3113H) hermetic solder mounting receptacle



PT02H hermetic box mounting receptacle



PT07H (MS3114H) hermetic jam nut receptacle



PT Breakaway twist pull plug

The PT miniature breakaway connector has the following design features:

- solder contacts, potted termination
- instant decoupling of plug and receptacle with an axial pull on the lanyard when they are fully mated
- intermateable with standard receptacles
- operating voltage to 900 VAC (RMS) at sea level
- same quick positive bayonet coupling and 5 key/ keyway polarization as other PT styles



Breakaway Plug with PT Solder Contacts, **Potted Termination** 71-3048XX-() 72-3048XX-()

Part Number*	Shell Size	A Dia. Max.	B Max.	H ±.016	J ±.010	L Max.
71-304808	8	.875	.984	.327	.353	1.937
71-304810	10	1.125	1.125	.444	.353	1.890
71-304812	12	1.281	1.406	.558	.353	1.906
71-304814	14	1.438	1.562	.683	.353	1.953
71-304816	16	1.562	1.688	.808	.353	2.000
71-304818	18	1.718	1.844	.909	.353	2.031
71-304820	20	1.875	2.000	1.034	.415	2.234
71-304822	22	2.031	2.188	1.159	.415	2.328
71-304824	24	2.156	2.312	1.284	.415	2.359

All dimensions for reference only.

* See Finish information below to determine prefix 71 or 72 in part number. Drawing above shows standard lanyard length.

Order by Amphenol Propriety number as follows (example part number shown):

 $\frac{71}{1} - \frac{3048}{2} - \frac{18}{3} - \frac{32}{4} - \frac{P}{4}$

- 1. Finish

"71" designates corrosion resistant olive drab cadmium plate

"72" designates anodic coated (electrically nonconductive-anodic) finish providing extreme wear and corrosion resistance, 500 hour extended salt spray.

2. Connector Type Identification

3048 designates PT plug, solder, potted termination style

3. Shell Size and Insert Arrangement Number

See insert arrangement availability for Miniature Breakaway connectors on page 6. The numbers in the insert arrangement are hyphenated. The number preceding the hyphen is the shell size. The number following the hyphen is the insert arrangement number.

4. Contact Type/Alternate Insert Rotation

P designates pin, S designates socket for normal positioning of inserts. When an alternate position of the insert is required to prevent cross-mating a different letter (other than P or S) is used. See page 7 for description of alternate positions; then convert to Amphenol proprietary coding by the chart at right to complete the part number.

Pin Co	ontacts	Socket Contacts				
Amphenol Letter	Equates to MS letter	Amphenol Letter	Equates to MS letter			
G	PW	Н	SW			
I	PX	J	SX			
К	PY	L	SY			
М	PZ	N	SZ			

PT, SP, MS/PT how to order

PT. SP

To more easily illustrate ordering procedure, part number PT00A-20-41PW(SR) is shown as follows:

- PT 00 A - 20 - 41 P W (SR)
- 2 3 4 5 6 7 8 1

See code below:

1. Connector Type

- "PT" designates standard olive drab, electrically conductive cadmium plate bayonet lock connector with solder contacts
- "SP" designates electrically non-conductive, hard anodic coated bayonet lock connector with solder contacts and larger flange and mounting holes for back panel mounting
- "PTG" designates plug with grounding fingers
- 2. Shell Style
 - "00" designates wall mounting receptacle
 - designates cable connecting receptacle** "01"
 - designates box mounting receptacle "02"
 - "06" designates straight plug
 - "07" designates jam nut receptacle
 - designates 90 degree plug cable support "08"
 - "B" designates thru bulkhead receptacle (pressurized)
 - "**I**" designates solder mount receptacle (Hermetic only)

3. Service Classes

- "A" designates general duty back shell
- "C" designates pressurized receptacle
- designates environmental resisting open wire seal with grommet and nut "F"
- "J" designates clamp assembly for moisture proofing multi-jacketed cables, with strain relief
- "P" designates assembly with potting boot
- designates clamp assembly for moisture proofing multi-iacketed cables W"
- designates hermetic* without interfacial seal "H"
- "Y" designates hermetic* with interfacial seal
- 4. Shell Size

"20" designates shell size. Shell sizes 6 through 24 available.

- 5. Insert Arrangement Refer to pages 4-11 for insert availability. "20 - 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part number).
- 6. Contacts
 - "P" designates pin contacts
 - "S" designates socket contacts

For ordering connectors with printed circuit board contacts, see pg. 20. 7. Insert Rotation - Refer to page 7.

"W", "X", "Y", "Z" designate that insert is rotated in its shell from "normal position. No letter required for normal (no rotation) position.

8. "SR" designates a strain relief clamp.

Indicate optional finishes as follows:

- (003) olive drab cadmium plate (standard on "PT")
- (005) anodic coating Alumilite[®] (standard on "SP")
- (014) olive drab cadmium plate over nickel
- (023) electroless nickel
- (024) olive drab zinc cobalt plating
- (424) electroless nickel finish with strain relief
- (466) olive drab zinc cobalt plating with strain relief
- (100) Suffix added for flat eyelet pin contacts in hermetic versions OR

- RoHS Compliant finish suffix as follow: (025) non-conductive black zinc cobalt plating
- (027) conductive black zinc cobalt plating
- (470) non-conductive black zinc cobalt plating



(476) conductive black zinc cobalt plating with strain relief

MS/PT MIL-C-26482. Series 1

Part number MS3110E20-41PW is shown as follows: MS 311 0 E 20 - 41 P W 8 1 3 4 5 6 7 2 For Hermetic connectors part number MS3113H20Y41PW is shown as follows: MS 311 3 H 20 Y 41 P W 2 3 7 8 4 5.6 1 See code below: 1. "MS" designates Military Standard 2. Specification Number "311" designates basic family number for MIL-C-26482, Series 1 solder type 3. Shell Style "0" designates wall mounting receptacle "1" designates cable connecting receptacle** "2" designates box mounting receptacle "3" designates solder mount receptacle (hermetic only) "4" designates jam nut receptacle "6" designates straight plug 4. Service Class "E" designates environmental resisting connector "F" designates environmental resisting connectors with strain relief "J" designates clamp assembly for moisture proofing multi-iacketed cables, with strain relief "P" designates potted type with potting boot "H" designates hermetic 5. Shell Size "20" designates shell size. Shell sizes 8 through 24 available. 6. Insert Arrangement - Refer to pages 4-11 for insert availability. "20 - 41" designates arrangement. (The number following the hyphen is the number only that is used in the part number). Hermetic version "20Y41" designates insert arrangement; specify "Y" for flat eyelet pin contacts, or "C" for solder cup pin

contacts

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- 7. Contact Configuration "P" designates pin contacts
- "S" designates socket contacts
- 8. Insert Rotation- Refer to page 7.
- "W", "X", "Y", "Z" designate that insert is rotated in it shell from "normal" position. No letter require fo normal (no rotation) position.

* Hermetic connectors are supplied with tin plated shells.

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

For ordering Miniature Breakaway PT Solder connectors see pg. 26.

HOW TO ORDEF PT, SP, MS/PT π

Amphenol [®] PT-SE, SP-SE, MS/PT-SE Proprietary/MIL-C-26482, Series 1 bayonet coupling and crimp termination



breakaway twist pull plug



Amphenol[®] SE crimp type miniature connectors provide performance and versatility needed for applications demanding high reliability and crimp removable contacts. These crimp contacts are rear insertable/front release and are held in position by an MS approved spring tower retention system.

The MS/PT-SE Series is qualified to MIL-C-26482, Series 1 and has all the outstanding design characteristics and quality of the PT Series.

The SP-SE Series is a modification of the PT-SE, 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-SE and MS/PT-SE. The SP-SE is given a durable non-conductive hard anodic "Alumilite"[®] coating which provides abrasion protection and resistance to corrosion.

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.

Breakaway style plug is available in PT-SE crimp.

The PT-SE, SP-SE and MS/PT-SE Series are intermateable and intermountable with all existing Miniature Cylindrical Series connectors except for the threaded coupling PC Series.

Refer to pages 4-11 for insert arrangement availability.

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

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PT-SE. SP-SE, MS/PT-SE

	Contact Specifications									
Contact Size	Test Current	Maximum Millivolt Drop†	Crimp Well Diameter	Minimum Well Depth						
20	7.5	55	.049 ±.001	.267						
16	13.0	49	.067 ±.001	.236						
12	23.0	42	.100 ±.002	.236						

	Service Rating											
Recommended Test Voltage AC (RMS), 60 cps												
Service Rating	Operating AC Voltage at Sea Level	Sea Level	50,000 ft.	70,000 ft.	110,000 ft.							
I	600	1,500	500	375	200							
	1,000	2,300	750	500	200							

† Silver plated wire per MIL-C-26482

PT-SE and SP-SE Service Classes

- PT-SE and SP-SE connectors are available in the three service classes listed below.
- "SE" Open wire sealing environmental resistant, with a nut and grommet for moisture proofing individual wires
- "SE" (SR)Strain relief clamp environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- "SP" Translucent nylon boot for retaining customer applied potting compounds; held in place by a threaded ring

Breakaway style - see page 38.

MS/PT-SE Service Classes

- MS-SE series connectors are available in the following certified service classes:
- "E" Open wire sealing environmental resisting connectors are supplied with a multi-hole grommet and clamping nut for moisture proofing individual open wires
- "F" Environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- "P" Potting applications these connectors are supplied with a translucent nylon boot for retention of customer applied potting compound

"SE", MS / "E" open wire seal









BAYONET COUPLING WITH CRIMP CONTACTS PT-SE, SP-SE, MS/PT-SE

PT00 SE (MS3120) SP00 SE

wall mounting receptacle



MF00 SE (MS3128) wall mounting receptacle



PT01 SE (MS3121) SP01 SE

cable connecting receptacle



All dimensions for reference only.

	Receptacle Front View					Rec Sic	eptacle le View					
			Class "SE	", MS / "E"		Class '	Class "SE" (SR), MS / "F"			Class "SP", MS / "P"		
Shell Size	S Max.	A Dia. +.001 005	K ±.018	L Max.	N Dia. Max.	G Dia.	L Max.	N Max.	D Dia.	L Max.	N Dia. Max.	
8	.812	.473	.094	1.522	.560	.125	2.422	.828	-	-	-	
10	.955	.590	.094	1.522	.685	.188	2.422	.891	.444	1.656	.734	
12	1.048	.750	.094	1.522	.813	.312	2.422	1.016	.558	1.656	.858	
14	1.142	.875	.094	1.522	.930	.375	2.422	1.141	.683	1.656	.984	
16	1.236	1.000	.094	1.522	1.057	.500	2.537	1.203	.808	1.656	1.110	
18	1.329	1.125	.094	1.522	1.175	.625	2.537	1.469	.909	1.656	1.234	
20	1.455	1.250	.115	1.709	1.301	.625	2.824	1.469	1.034	1.750	1.360	
22	1.579	1.375	.115	1.709	1.428	.750	2.824	1.656	1.159	1.750	1.484	
24	1.709	1.500	.115	1.709	1.555	.800	2.900	1.750	1.284	1.782	1.610	

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PT02 SE (MS3122) SP02 SE

box mounting receptacle



MF02 SE (MS3127) box mounting receptacle


PT06 SE (MS3126) SP06 SE straight plug



	Plug Front View		Plug Side View												
				Class "SE	", MS / "E"	Class '	'SE" (SR), N	IS / "F"	Class "SP", MS / "P"						
Shell Size	S Dia. Max.	Z ±.045	Z ¹ ±.045	L Max.	N Max.	G Dia.	L Max.	N Max.	D Dia.	L Max.	N Dia. Max.				
8*	.734	.640	.579	1.328	.540	.125	2.413	.828	.327	1.750	.578				
10	.859	.640	.579	1.328	.685	.188	2.413	.891	.444	1.750	.734				
12	1.031	.640	.579	1.328	.813	.312	2.413	1.016	.558	1.750	.858				
14	1.156	.640	.579	1.328	.930	.375	2.413	1.141	.683	1.750	.984				
16	1.281	.640	.579	1.328	1.057	.500	2.528	1.203	.808	1.750	1.110				
18	1.391	.640	.579	1.328	1.175	.625	2.528	1.469	.909	1.750	1.234				
20	1.531	.640	.579	1.297	1.301	.625	2.753	1.469	1.034	1.750	1.360				
22	1.656	.640	.579	1.297	1.428	.750	2.753	1.656	1.159	1.750	1.484				
24	1.777	.640	.579	1.359	1.533	.800	2.830	1.750	1.284	1.766	1.610				

* PT-SE, MS-SE and MS-SP only.

PT07 SE (MS3124) SP07 SE

jam nut receptacle



All dimensions for reference only.

1.625

1.688

1.655

1.780

.922

.984

22

24

2.172

2.234

1.656

1.750

1.159

1.284

1.922

1.951

1.484

1.610

.750

.800

PT08 SE SP08 SE 90 degree plug



	Front View	Side View										
			Class	: "SE", "SE	" (SR)	Class "SP"						
Shell Size	G Dia. Max.	В ±.031	C +.010 –.025	D ±.062	E +.047 –.025	L Max.	A ±.025	Н ±.015	K ±.015	L Max.		
10	.921	.749	.170	1.191	.393	2.137	.547	.438	.562	2.031		
12	1.046	.812	.264	1.191	.450	2.222	.625	.516	.688	2.093		
14	1.171	.905	.310	1.254	.519	2.370	.734	.625	.781	2.203		
16	1.297	1.030	.330	1.316	.583	2.572	.750	.656	.890	2.250		
18	1.422	1.015	.444	1.562	.621	2.680	.781	.703	1.000	2.296		
20	1.562	1.077	.510	1.625	.683	2.753	.859	.766	1.125	2.343		
22	1.672	1.139	.515	1.719	.739	2.799	.906	.812	1.234	2.390		
24	1.797	1.250	.656	1.750	.787	3.037	1.181	.918	1.374	2.624		

PT-SE Breakaway twist pull plug



PT-SE, SP-SE, MS/PT-SE how to order

PT-SE, SP-SE

To more easily illustrate ordering procedure, part number PT00SE-20-41PW(SR) is shown as follows:

PT	00	SE -	20 -	41	Р	W	(SR)
1	2	3	4	5	6	7	8

See code below:

1. Connector Type

- "PT" designates standard olive drab, electrically conductive cadmium plated, bayonet lock connector with crimp contacts
- "MF" designates standard olive drab, electrically conductive cadmium plated, bayonet lock connector with dual mounting holes, and crimp contacts
 "SP" designates electrically non-conductive, hard anodic coated,
- bayonet lock connector with larger flange and mounting holes for back panel mounting, and crimp contacts
- "PTG" designates plug with grounding fingers
- 2. Shell Style
 - "00" designates wall mounting receptacle
 - "01" designates cable connecting receptacle*
 - "02" designates box mounting receptacle
- "06" designates straight plug
- "07" designates jam nut receptacle
- "08" designates 90 degree plug
- 3. Service Classes
 - "SE" designates environmental crimp
 - "SP" designates potted type crimp
- Both of the above are Amphenol proprietary versions of the MIL-C-26482, Series 1 crimp contact connector and offer 15 lbs. contact retention for size 20 contacts; 25 lbs. for size 16 contacts.
- 4. Shell Size
- "20" designates shell size. Shell sizes 8 through 24 available.
- 5. Insert Arrangement
- Refer to pages 4-11 for insert availability.
- "20 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part number).
- 6. Contacts
 - "P" designates pin contacts "S" designates socket contacts
- 7. Insert Rotation
- Refer to page 7.
- "W", "X", "Y", "Z" designate that insert is rotated in its shell from "normal" position. No letter required for normal (no rotation) position.
- 8. "SR" designates a strain relief clamp.
- Indicate optional finishes as follows:
- (003) olive drab cadmium plate (standard on "PT")
- (005) anodic coating Alumilite[®] (standard on "SP")
- (014) olive drab cadmium plate over nickel
- (023) electroless nickel
- (024) olive drab zinc cobalt plating
- (424) electroless nickel finish with strain relief
- (466) olive drab zinc cobalt plating with strain relief OR
- RoHS Compliant finish suffix as follow:
- (025) non-conductive black zinc cobalt plating
- (027) conductive black zinc cobalt plating
- (470) non-conductive black zinc cobalt plating with strain relief
- (476) conductive black zinc cobalt with strain relief

MS/PT-SE MIL-C-26482. Series 1

To more easily illustrate ordering procedure, part number

MS31	20E20-4	1PW i	is show	n as fo	llows:			
MS	312	0	Е	20 -	- 41	Р	W	
1	2	3	4	5	6	7	8	

- See code below:
- 1. "MS" designates Military Standard
- 2. Specification Number
 - "312" designates basic family for MIL-C-26482, Series 1 crimp type
- 3. Shell Style
 - "0" designates wall mounting receptacle
 - "1" designates cable connecting receptacle*
 - "2" designates box mounting receptacle
 - "4" designates jam nut receptacle
 - "6" designates straight plug
 - "7" designates box mounting receptacle with dual mounting holes
 "8" designates wall mounting receptacle with dual
 - designates wall mounting receptacle with dual mounting holes
- 4. Service Class
 - "E" designates environmental resisting connector
 - "F" designates environmental resisting connector with strain relief
 - "P" designates potted type with potting boot
- 5. Shell Size
- "20" designates shell size. Shell sizes 8 through 24 available
- 6. Insert Arrangement
- Refer to pages 4-11 for insert availability.
- "20 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part
- number).
- 7. Contacts
- "P" designates pin contacts
- "S" designates socket contacts
- 8. Insert Rotation
- Refer to page 7.
- "W", "X", "Y", "Z" designate that insert is rotated in its shell from the "normal" position. No letter required for normal (no rotation) position.

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

For ordering Miniature Breakaway PT-SE Crimp connectors see pg. 38.



Amphenol[®] PT-CE, SP-CE bayonet coupling, crimp termination



breakaway twist pull

plug



Amphenol[®] CE crimp type miniature connectors provide performance and versatility needed for applications demanding high reliability and crimp removable contacts. These crimp contacts are rear insertable/front release and are held in position by a nylon wafer retention system.

The SP-CE Series is a modification of the PT-CE, 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-CE. The SP-CE is given a durable nonconductive hard anodic "Alumilite"® coating which provides abrasion protection and resistance to corrosion.

Shell components for these versions 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 form 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.

Breakaway style plug is available in PT-CE crimp.

The PT-CE and SP-CE Series are intermateable and intermountable with all existing Miniature Cylindrical Series connectors except for the threaded coupling PC Series.

does, however, mate with a straight or 90 degree plug.

- Refer to pages 4-11 for insert arrangement availability.
- * This connector style is sometimes referred to as a cable connecting "plug." It

PT-CE, SP-CE

		Contact Specif	ications	
Contact Size	Test Current	Maximum Millivolt Drop†	Crimp Well Diameter	Minimum Well Depth
20	7.5	55	.045 +.002 001	.359
16	13.0	49	.063 +.004 001	.234

	Service Rating													
	Recommended	Test Voltage AC (RMS), 60 cps												
Service Rating	AC Voltage at Sea Level	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-C-26482

PT-CE, and SP-CE Service Classes

PT-CE and SP-CE Connectors are available in the three service classes listed below.

- "CE" Open wire sealing environmental resistant, with a nut and grommet for moisture proofing individual wires.
- "CE" (SR)Strain relief clamp environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support.
- "CP" Translucent nylon boot for retaining customer applied potting compounds; held in place by a threaded ring.

Breakaway style - see page 48.







"CP" potting boot

"CE" (SR)

strain relief



BAYONET COUPLING WITH CRIMP CONTACTS PT-CE, SP-CE

PT00 CE SP00 CE wall mounting receptacle



PT01 CE cable connecting receptacle



18 1.312 1.125 1.422 1.702 1.234 .094 1.468 1.175 .625 2.114 .909 20 1.438 1.250 .115 1.562 1.301 .625 1.422 2.207 1.034 1.796 1.360 22 1.562 1.375 .115 1.562 1.428 .750 1.609 2.207 1.159 1.796 1.484 .115 1.625 1.555 1.703 2.219 1.284 1.827 1.610 24 1.688 1.500 .800

PT02 CE SP02 CE box mounting receptacle



PT06 CE SP06 CE straight plug



8	.734	.772	.631	1.457	.560	.125	.797	2.019	.327	1.707	.608
10	.844	.772	.631	1.457	.685	.188	.859	2.019	.444	1.707	.734
12	1.016	.772	.631	1.457	.813	.312	.984	2.019	.558	1.707	.858
14	1.141	.772	.631	1.457	.930	.375	1.109	2.019	.683	1.707	.984
16	1.266	.772	.631	1.457	1.057	.500	1.172	2.144	.808	1.707	1.110
18	1.375	.772	.631	1.457	1.175	.625	1.422	2.144	.909	1.707	1.234
20	1.516	.710	.569	1.487	1.301	.625	1.422	2.175	1.034	1.707	1.360
22	1.641	.710	.569	1.487	1.428	.750	1.609	2.175	1.159	1.707	1.484
24	1.761	.710	.569	1.550	1.555	.800	1.703	2.237	1.284	1.832	1.610

PT07 CE SP07 CE jam nut receptacle



PT08 CE SP08 CE 90 degree plug



1.797 All dimensions for reference only.

1.265

.656

1.751

24

.797

3.024

1.169

.918

1.374

2.624

PT-CE Breakaway twist pull plug



PT-CE, **SP-CE** how to order

PT-CE, SP-CE

To more easily illustrate ordering procedure, part number PT00CE-20-41PW (SR) is shown as follows:

PT	00	CE -	- 20 -	- 41	Р	W	(SR)
1	2	3	4	5	6	7	8

See code below:

- 1. Connector Type
- "PT" designates standard electrically conductive olive drab cadmium plated bayonet lock connector with crimp contacts
- "SP" designates electrically non-conductive, hard anodic coated bayonet lock connector with large flange and mounting holes for back panel mount-
- ing, and crimp contacts.
- 2. Shell Style
 - "00" designates wall mounting receptacle
 - "01" designates cable connecting receptacle*
 - "02" designates box mounting receptacle
 - "06" designates straight plug
 - "07" designates jam nut receptacle "08" designates 90° plug
- 3. Service Class
- "CE" designates environmental crimp
- "CP" designates potted type crimp
- Both of the above are Amphenol[®] proprietary versions of the MIL-C-
- 26482, Series 1 crimp contact connector and offer 7 lbs. contact retention for size 20 contacts; 9 lbs for size 16 contacts.
- 4. Shell Size
- "20" designates shell size. Shell sizes 6 through 24 available.
- 5. Insert Arrangement
- Refer to pages 4-11 for insert availability.
- "20 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part number).
- 6. Contacts
- "P" designates pin contacts.
- "S" designates socket contacts.
- 7. Insert Rotation
- Refer to page 7.
- "W", "X", "Y", "Z" designate that insert is rotated in its shell from the "normal" position. No letter required for normal (no rotation) position.
- "(SR)" designates strain relief clamp. Indicate optional finishes as follows:
- (003) olive drab cadmium plate (standard on "PT")
- (005) anodic coating Alumilite® (standard on "SP")
- (014) olive drab cadmium plate over nickel
- (023) electroless nickel
- (024) olive drab zinc cobalt plating
- (025) non-conductive black zinc cobalt plating
- (027) conductive black zinc cobalt plating
- (424) electroless nickel finish with strain relief
- (466) olive drab zinc cobalt plating with strain relief
- (470) non-conductive black zinc cobalt plating with strain relief
- (476) conductive black zinc cobalt with strain relief

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

For ordering Miniature Breakaway PT-CE Crimp connectors see page 48.

HOW TO ORDER PT-CE, SP-CE

Amphenol [®] PC threaded coupling and solder termination





jam nut receptacle



Amphenol[®] PC Series threaded coupling miniature cylindrical connectors incorporate solder contacts. The PC double stub threaded coupling system cannot be cross threaded, and is mechanically assisted while engaging and disengaging.

Shell components are aluminum. Bright cadmium plating to QQ-P-416 with a clear chromate after-treatment provides a golden colored conductive finish. Single key/keyway polarization represents maximum simplicity in a design proven in millions of AN connectors.

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.

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

The PC is intermateable and intermountable within the PC threaded coupling series.

Refer to pages 4-11 for insert arrangement availability.

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

PC-SE and PC-CE, which are threaded coupling and incorporate crimp contacts, are briefly covered on pages 62 and 63. It is necessary to contact Amphenol for ordering information on these types.

	(Contact Specif	ications	
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

	Service Rating													
	Recommended	oltage AC (RMS), 60 cps												
Service Rating	AC Voltage at Sea Level	Sea Level	50,000 ft.	70,000 ft.	110,000 ft.									
I	600	1,500	500	375	200									
П	1,000	2,300	750	500	200									

† Silver plated wire per MIL-C-26482

PC Service Classes

PC connectors are available in the service classes listed below. Each class except the hermetic seal receptacle has 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°F in accordance with BSC-C1P specification.
- "E" Environment resistant; with nut and grommet for moisture proofing individual wires.
- "E" (SR) Environment 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.
- "W" Compressing clamp and neoprene gland for moisture proofing multi-conductor jacketed cables. Telescoping sleeves (MS 3420A) can be used to adapt to cables smaller than minimum close down.
- "H"* Hermetically sealed with compression glass inserts.

Refer to pages 57-60 for Hermetic Versions within the PC solder series.

"A" general duty

"E" (SR) strain relief

"E" MS / "E" open wire seal











cable seal





IREADED COUPLING

PC00 wall mounting receptacle



		Class "	A" (SR), '	"E" (SR),	"P" (SR)	Clas	s "E"		Class "P	"		Class	s "W"	
Shell Size	C Thread	D Min.	G Dia.	H Max.	L Max.	N Max.	L Max.	N Max.	D Min.	L Max.	N Max.	Closed) Free	L Max.	N Max.
6	-	-	-	-	-	-	1.250	.440	.192	1.406	.484	-	-	-	-
8	6-32	.240	.125	.812	1.922	.550	1.250	.560	.317	1.406	.608	.168	.230	1.680	.547
10	6-32	.302	.188	.875	1.922	.675	1.250	.685	.434	1.406	.734	.205	.312	1.680	.675
12	6-32	.428	.312	1.000	1.922	.803	1.250	.813	.548	1.406	.858	.338	.442	1.823	.812
14	6-32	.552	.375	1.125	1.922	.920	1.250	.930	.673	1.406	.984	.416	.539	2.015	.940
16	6-32	.615	.500	1.188	2.047	1.047	1.250	1.057	.798	1.406	1.110	.550	.616	2.231	1.067
18	8-32	.740	.625	1.438	2.078	1.165	1.250	1.175	.899	1.406	1.234	.600	.672	2.461	1.194
20	8-32	.740	.625	1.438	2.344	1.290	1.434	1.301	1.024	1.562	1.360	.635	.747	2.835	1.322
22	8-32	.928	.750	1.719	2.344	1.418	1.434	1.430	1.149	1.562	1.484	.670	.846	2.999	1.449
															•

PC01 cable connecting receptacle



 10
 6-32
 .302
 .188
 .875
 1.922
 .675
 1.250
 .300
 .140
 1.406
 .734
 .205
 .312
 1.680
 .675

 12
 6-32
 .428
 .312
 1.000
 1.922
 .803
 1.250
 .813
 .548
 1.406
 .734
 .205
 .312
 1.680
 .675

 12
 6-32
 .428
 .312
 1.000
 1.922
 .803
 1.250
 .813
 .548
 1.406
 .388
 .338
 .442
 1.823
 .812

 14
 6-32
 .552
 .375
 1.125
 1.922
 .920
 1.250
 .930
 .673
 1.406
 .984
 .416
 .539
 2.015
 .940

 16
 6-32
 .615
 .500
 1.188
 2.047
 1.047
 1.250
 1.057
 .798
 1.406
 1.10
 .550
 .616
 2.231
 1.067

 18
 8-32
 .740
 .625
 1.438
 2.044
 1.290
 1.434
 1.301
 1.024
 1.562
 1.360
 .635
 .747
 2.835

PC02 box mounting receptacle



PC06 straight plug



	Plug	Front		Plug Side View													
	Vi	ew					-			Side Vie	ew.						
			1										Cla	ISS "A"			
Shell		9		A Thread				Q Thre	ad	7	п			N	V Three	bed	
Size	м	ax.	c	lass 2B		Max.		Class	5 2A	Max.	Min.	Ma	ax.	Max.	Class	s 2A	
6	.6	604	.3	750 DS		.875		.3125-32	2 NEF	.627	.175	5 1.5	34	.462	.3750-32	2 NEF	
8	.7	'29	.5	000 DS		.875		.4375-28	3 UNEF	.627	.297	7 1.5	34	.590	.5000-28	3 UNEF	
10	3.	354	.6	250 DS		.875		.5625-24	4 NEF	.627	.421	1.5	534	.717	.6250-24	4 NEF	
12		979	.7	'500 DS		.875		.6875-24	4 NEF	.627	.546	6 1.5	34	.834	.7500-20) UNEF	
14	1.1	04	.8	750 DS		.875		.8125-20) UNEF	.627	.663	3 1.5	34	.972	.8750-20) UNEF	
16	1.2	229	1.0	0000 DS		.875		.9375-20) UNEF	.627	.787	7 1.5	34	1.088	1.0000-20	UNEF	
18	1.3	354	1.1	250 DS		.875		1.0625-18	8 UNEF	.627	.879	9 1.5	34	1.216	1.1875-18	3 NEF	
20	1.4	78	1.2	2500 DS		1.031		1.1875-18	8 NEF	.783	1.014	1.6	513	1.332	1.1875-18	B NEF	
22	1.6	604	1.3	3750 DS		1.031		1.3125-18	8 NEF	.783	1.135	5 1.6	13	1.460	1.4375-18	B NEF	
i			" (OD)	"F" (OD		(0.0)		<u>Olas</u>	- ""	i	Oleas (D	,,		0	(()		
			(SR),	"E" (SR), °₽°	(58)									ass "w"		
Shell	C	D Min	G	H	L		 •	L	N Max	D Min	L Max	N	Closer		L Max	N Max	
Size	Inreau	win.	Dia.	Widx.	Widx		х.	1 250	140	102	1 406	101	CIOSEC	I FIEE	IVIAX.	Wax.	
8	6-32	240	125	- 812	1 00	6 54	50	1.250	.440	317	1.400	608	168		1 680	- 547	
10	6-32	.240	188	.012	1.90	0 .5.	75	1.250	.300	.317	1.400	.000	205	.230	1.000	.547	
12	6-32	.302	312	1 000	1.30	10.01	13	1.250	.000	5/18	1.406	858	338	.512	1.000	.073	
14	6-32	.420	375	1.000	1.90	0.00	20	1.250	930	673	1.406	984	.000	530	2 015	940	
16	6-32	.615	.500	1.188	2.04	7 1.04	17	1.250	1.057	.798	1.406	1.110	.550	.616	2.010	1.067	
18	8-32	.740	.625	1.438	2.07	8 1.16	35	1.250	1.175		1.406	1.234	.600	.672	2.461	1.194	
20	8-32	.740	.625	1.438	2.25	0 1.29	20	1.434	1.301	1.024	1.562	1.360	.635	.572	2.835	1.322	
22	8-32	.928	.750	1.719	2.25	i0 1.4	18	1.434	1.430	1.149	1.562	1.484	.670	.846	2.999	1.449	
All dime	nsions fo	referen	ice only	1						1		1					

PC07 jam nut receptacle



	Rece	ptacle Fron	t View					Re	Receptacle Side View Class "A", "C"						
Shell	F	H Hex	s	A Thr	A ead	К +.016	;	м	Pa	F anel Th	nickne	S S		R Thread	z
Size	±.010	±.016	±.010	Clas	s2A	010) :	±.010	M	in.	Ma	х.	C	Class 2A	Max.
6	.286	.625	.812	.3750	D DS	.125		.671	.0	62	.12	25	.437	5-28 UNEF	.232
8	.331	.750	.938	.5000	D DS	.125		.671	.0	62	.12	25	.562	5-24 NEF	.232
10	.375	.875	1.062	.6250	D DS	.125		.671	.0	62	.12	25	.687	5-24 NEF	.232
12	.442	1.062	1.250	.7500	D DS	.125		.671	.0	62	.12	25	.875	0-20 UNEF	.232
14	.486	1.188	1.375	.8750	D DS	.125		.671	.0	62	.12	25	1.000	0-20 UNEF	.232
16	.530	1.312	1.500	1.0000	D DS	.125		.671	.0	62	.12	25	1.125	0-18 NEF	.232
18	.573	1.438	1.625	1.1250	D DS	.125		.671	.0	62	.12	25	1.250	0-18 NEF	.232
20	.641	1.562	1.812	1.2500	D DS	.156		.797	.0	62	.25	50	1.375	0-18 NEF	.262
22	.685	1.688	1.938	1.3750	D DS	.156		.797	.0	62	.25	50	1.500	0-18 NEF	.262
.		Class "E"			0	lass "A'	' (SR), '	"E" (SR)							
Shell Size	L Max.	Ma	AX.	C Thread	G Dia	.	н Max.	L Ma	x.	F Mi	n.	Ν	D /lin.	L Max.	N Max.
6	.692	.6	605	-	-		_	-		-	-		.192	.665	.484
8	.692	.7	730	6-32	.12	5	.812	1.09	96	.2	40		.317	.665	.608
10	.692	8	355	6-32	.18	8	.875	1.09	96	.3	02		.434	.665	.734
12	.692	.9	980	6-32	.31	2 1	.000	1.09	96	.4	-28		.548	.665	.858
14	.692	! 1.1	105	6-32	.37	5 1	.125	1.09	96	.5	52		.673	.665	.984
16	.692	. 1.2	230	6-32	.50	0 1	.188	1.22	28	.6	51		.798	.665	1.110
18	.692	2 1.3	355	8-32	.62	5 1	.438	1.22	28	.7	'40		.899	.665	1.234
20	.754	1.5	511	8-32	.62	5 1	.438	1.29	91	.7	'40	1	.024	.790	1.360
22	.754	1.6	636	8-32	.75	0 1	.625	1.29	91	.9	28	1	.149	.790	1.484

PC hermetic

Three shell styles are available in the hermetic PC threaded series:

- PCIH
- PC02H
- PC07H
- PC0/H

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

Shell Size: 6 thru 22. (tin plated)

Contact count: 2 through 65. 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: Fabricated from high nickel alloy and tin plated.

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 X 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°F.

Refer to pages 4-11 for insert arrangement availability.



PCIH hermetic solder mounting receptacle



PC02H hermetic box mounting receptacle



PC07H hermetic jam nut receptacle



PC how to order

PC

To more easily illustrate ordering procedure, part number PC00A-20-41PW (SR) is shown as follows:

PC	00	A	- 20 -	- 41	Р	W	(SR)
1	2	3	4	5	6	7	8

See code below:

- 1. Connector Type
 - "PC" designates bright cadmium plated with clear chromate after treatment, threaded coupling connector with solder contacts
- 2. Shell Style
 - "00" designates wall mounting receptacle
- "01" designates cable connecting receptacle[†]
- "02" designates box mounting receptacle
- "06" designates straight plug
- "07" designates jam nut receptacle
- "I" designates solder-mount receptacle (hermetic only)
- 3. Service Class
- "A" designates general duty back shell
- "C" designates pressurized receptacle
- "E" designates environmental resisting open wire seal with grommet and nut
- "P" designates potted with potting boot
- "W" designates clamp assembly for moisture proofing, multijacketed cables
- "H" designates hermetic* seal (without interfacial seal)
- "Y" designates hermetic* seal (with interfacial seal)
- 4. Shell Size
- "20" designates shell size. Shell sizes 6 through 24 available. 5. Insert Arrangement
- Refer to pages 4-11 for insert availability. "20 – 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part number).
- 6. Contacts
 - "P" designates pin contacts.
 - "S" designates socket contacts.
- 7. Insert Rotation
- Refer to page 7.

"W", "X", "Y", "Z" designate that insert is rotated in its shell from the "normal" position. No letter required for normal (no rotation) position.

- 8. "(SR)" designates strain relief clamp. Indicate optional finishes as follows:
 - (001) bright cadmium (standard on "PC")
 - (003) olive drab cadmium plate
 - (003) onve drab cadmium plate (005) anodic coating - Alumilite[®]
 - (011) chromate treated (Iridite 14-2)
 - (014) olive drab cadmium plate over nickel
 - (023) electroless nickel

* Hermetic connectors are supplied with tin plated shells.

† This connector style is sometimes referred to as a cable connecting "plug". It does, however, mate with either a straight or 90 degree plug. HOW TO ORDER PC SERIES

Amphenol [®] PC-SE, PC-CE threaded coupling and crimp termination



Amphenol[®] PC-SE Series threaded coupling miniature cylindrical connectors incorporate crimp contacts in a spring tower retention system.

Amphenol[®] PC-CE Series threaded coupling miniature cylindrical connectors incorporate crimp contacts in a nylon wafer retention system to maintain contact position.

The PC double stub threaded coupling system cannot be cross threaded, and is mechanically assisted while engaging and disengaging.

Shell components are aluminum. Bright cadmium plating to QQ-P-416 with a clear chromate after-treatment provides a golden colored conductive finish. Single key/keyway polarization represents maximum simplicity in a design proven in millions of AN connectors.

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.

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

The PC-SE and PC-CE are only intermateable and intermountable within the PC threaded coupling series.

Shell style drawing pages are not shown in this catalog for the PC-SE and PC-CE styles. If connector drawings are needed please contact Amphenol for assistance. Shell styles are currently available in these series as follows:

- PC00-SE, wall mounting receptacle
- PC01-SE, cable connecting receptacle
- PC02-SE, box mounting receptacle
- PC06-SE, straight plug
- PC08-SE, 90 degree plug
- PC06-CE straight plug (will mate with PC-SE receptacles and PC solder receptacles)

Please contact Amphenol for complete information, as there may be limitations in shell sizes within the PC-SE and PC-CE series.

Refer to pages 4-11 for insert arrangement availability.

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

PC-SE. PC-CE

Contact Specifications									
Contact Size	Test Current	Maximum Millivolt Drop†	Crimp Well Diameter	Minimum Well Depth					
20	7.5	55	.049 ±.001	.267					
16	13.0	49	.067 ±.001	.236					
12	23.0	42	.100 ±.002	.236					

	Service Rating									
	Recommended	Test Voltage AC (RMS), 60 cps								
Service Rating	Operating AC Voltage at Sea Level	Sea 50,000 70,000 110, Level ft. ft. ft.								
I	600	1,500	500	375	200					
II	1,000	2,300	750	500	200					

† Silver plated wire per MIL-C-26482

PC-SE and PC-CE Service Classes

- PC-SE and PC-CE connectors are available in the three service classes listed below.
- "SE" Open wire sealing environmental resistant, with a nut and grommet for moisture proofing individual wires
- "SE" (SR)Strain relief clamp environmental resistant strain relief clamp and grommet for moisture proofing individual wires; provides added wire bundle support
- "SP" Translucent nylon boot for retaining customer applied potting compounds; held in place by a threaded ring



PC-SE, PC-CE how to order

PC-SE, PC-CE

To more easily illustrate ordering procedure, part number PC-SE00A-20-41PW (SR) is shown as follows:

PC-SE	00	SP	-	20	- 41	Ρ	W	(SR)
1	2	3		4	5	6	7	8

See code below:

- 1. Connector Type
- "PC-SE" designates bright cadmium plated with clear chromate after treatment, threaded coupling connector with crimp contacts, incorporating a spring tower retention system
- "PC-CE" designates bright cadmium plated with clear chromate after treatment, threaded coupkling connector with crimp contacts, incorporating a nylon waftr retention system to maintain contact postion
- Shell Styles PC-SE consult Amphenol for availability.
- "00" designates wall mounting receptacle
- "01" designates cable connecting receptacle[†]
- "02" designates box mounting receptacle
- "06" designates straight plug
- "08" designates 90 degree plug
- 2. Shell Style PC-CE consult Amphenol for availability.
- "06" designates straight plug
- 3. Service Class
 - "SE" designates environmental crimp
- "SP" designates potted type crimp

Both of the above are Amphenol[®] proprietary versions of the MIL-C-26482, Series 1 crimp contact connector and offer 7 lbs. contact retention for size 20 contacts; 9 lbs for size 16 contacts.)

4. Shell Size

"20" designates shell size. Please contact Amphenol for complete information, as there may be limitations in shell sizes with the PC-SE and PC-CE series.

- 5. Insert Arrangement
- Refer to pages 4-11 for insert availability.

"20 - 41" designates insert arrangement. (The number following the hyphen is the number only that is used in the part number).

- 6. Contacts
 - "P" designates pin contacts.
 - "S" designates socket contacts.
- 7. Insert Rotation
- Refer to page 7.

"W", "X", "Y", "Z" designate that insert is rotated in its shell from the "normal" position. No letter required for normal (no rotation) position.

- 8. "(SR)" designates strain relief clamp.
- Indicate optional finishes as follows:
- (001) bright cadmium (standard on "PC")
- (003) olive drab cadmium plate
- (005) anodic coating Alumilite®
- (011) chromate treated (Iridite 14-2)
- (014) olive drab cadmium plate over nickel
- (023) electroless nickel
- † This connector style is sometimes referred to as a cable connecting "plug". It does, however, mate with either a straight or 90 degree plug.

THREADED COUPLING WITH CRIMP CONTACTS PC-SE, PC-CE

PT, SP, PC accessories – sealing plugs, flange gaskets, potting boots



SEALING PLUGS – FOR PT, SP, PC

Contact Size	Amphenol [®] Part Number	MS Number	A Dia. ±.010	B Dia. ±.005	C ±.010	Color Code
12	10-405996-12	MS27488-12	.121	.171	.564	Yellow
16	10-405996-16	MS27488-16	.083	.133	.564	Blue
20	10-405996-20	MS27488-20	.060	.090	.564	Red

How to Order: Order by 10- (Proprietary) or MS part number as shown in chart above.



MOUNTING FLANGE GASKETS – FOR PT, SP, PC

	PT, 10-10	PC)1949	SP 10-150949		PT, S 10-10 10-15	P, PC 01949 50949
Shell Size	R ±.010	S ±.010	R ±.010	S ±.010	F +.016 –.000	T ±.008
6	.469	.688	.641	.953	.375	.024
8	.594	.812	.734	1.047	.500	.024
10	.719	.938	.812	1.125	.625	.024
12	.813	1.031	.938	1.250	.750	.024
14	.906	1.125	1.031	1.344	.875	.024
16	.969	1.219	1.125	1.438	1.000	.024
18	1.063	1.312	1.203	1.516	1.125	.024
20	1.156	1.438	1.297	1.672	1.250	.024
22	1.250	1.563	1.375	1.750	1.375	.024
24	1.375	1.688	1.500	1.875	1.500	.024

How to Order: For PT, PC: 10-101949-XX (complete order number with desired shell size). For SP: 10-150949-XX (complete order number with desired shell size).



75° POTTING BOOTS – FOR PT, SP, PC

Shell	В	D	E	L
Size	Max.	±.015	±.015	Max.
8	.433	.312	.438	.766
10	.493	.438	.562	.830
12	.552	.516	.688	.861
14	.643	.625	.781	.916
16	.658	.656	.890	.936
18	.689	.703	1.000	.959
20	.750	.766	1.125	1.052
22	.794	.812	1.234	1.073
24	1.070	.918	1.374	1.310

How to Order: 10-101988-XX (complete order number with desired shell size).

PT, SP, PC accessories – clamps



CLASS "E" STRAIN RELIEF CLAMP 10-101971-XX

CLASS "E" STRAIN RELIEF CLAMP - FOR PT, SP, PC

Shell Size	B Max.	C Thread Class 2B	D Min.	G Max.	L Max.
8	.550	6-32 NC	.240	.812	.930
10	.675	6-32 NC	.302	.875	.930
12	.803	6-32 NC	.428	1.000	.930
14	.920	6-32 NC	.552	1.125	.930
16	1.047	6-32 NC	.615	1.188	1.062
18	1.165	8-32 NC	.740	1.438	1.062
20	1.291	8-32 NC	.740	1.438	1.093
22	1.418	8-32 NC	.928	1.719	1.093
24	1.533	8-32 NC	.928	1.719	1.093

How to Order: 10-101971-XX X

shell size

Add desired finish suffix[†] Add desired -

"1" designates bright cadmium with clear chromate "3" designates olive drab cadmium

"5" designates Alumilite®

Not for use with jam nut style connectors.





Shell Size	B Max.	C Thread Class 2B	D Min.	G Max.	L +.010 –.020
8	.540	6-32 NC	.240	.812	.843
10	.665	6-32 NC	.302	.875	.843
12	.793	6-32 NC	.428	1.000	.843
14	.910	6-32 NC	.552	1.125	.843
16	1.037	6-32 NC	.614	1.188	.975
18	1.155	8-32 NC	.740	1.438	.975
20	1.281	8-32 NC	.740	1.438	1.007
22	1.408	8-32 NC	.928	1.719	1.007
24	1.533	8-32 NC	.938	1.719	1.007

How to Order: 10-101980-XX X Add desired Add desired finish suffix[†]

shell size

"1" designates bright cadmium with clear chromate

"3" designates olive drab cadmium

"5" designates Alumilite®

Not for use with jam nut style connectors.





Shell	Amphenol®	Α	В	С	V
Size	Part Number	±.031	Max.	Dia. Min.	Thread
10	97-3057-1004	.795	.842	.3125	.6250-24
12	97-3057-1007	.850	.995	.4375	.7500-20
14	97-3057-1008	.920	1.120	.5625	.8750-20
16	97-3057-1010	.920	1.216	.6250	1.0000-20
18/20	97-3057-1012	.927	1.403	.7500	1.1875-18
22/24	97-3057-1016	1.015	1.683	.9375	1.4375-18

How to Order: Order by 97-3057-XXXX number listed above. Standard finish is olive drab zinc alloy. Consult Amphenol, Sidney, NY for alternate finishes.

† Standard accessory finishes are "1" bright cadmium with clear chromate for PC types, "3" olive drab cadmium for PT and MS/PT types, "5" Alumilite[®] for SP types. Electroless nickel plating is also available on some items; consult Amphenol, Sidney, NY

All dimensions for reference only.

ACCESSORIES & TOOLS

PT, SP, MS/PT accessories – protection caps



RECEPTACLE PROTECTION CAPS – FOR PT, SP, MS/PT

Shell Size	B Dia. +.010 000	C Dia. +.010 000	G Dia. Max.	L +.020 –.000	X Std. & MS RA, CA, NA	X MS only RAL/CAL/NAL
6	.328	.454	.577	.563	3.000	5.000
8	.454	.578	.706	.563	3.000	5.000
10	.578	.703	.816	.563	3.000	5.000
12	.703	.891	1.000	.563	3.500	5.000
14	.844	1.016	1.128	.563	3.500	5.000
16	.969	1.141	1.257	.563	3.500	5.000
18	1.094	1.266	1.367	.563	3.500	5.000
20	1.219	1.391	1.496	.563	4.000	5.000
22	1.343	1.516	1.624	.563	4.000	5.000
24	1.453	1.614	1.747	.603	4.000	5.000

How to Order Proprietary Receptacle Caps:

Wall Receptacle Caps: Cable Connecting Receptacle Caps: 10-101961- XX X Jam Nut Receptacle Caps:



Add desired finish suffixt "1" designates bright cadmium with clear chromate "3" designates olive drab cadmium "5" designates Alumilite®

Proprietary caps are supplied with standard bead chains only (as shown in draw-ing at left). For other chain options, an MS version cap should be ordered.

How to Order MS Version Receptacle Caps:



10-101960- XX X

10-101964- XX X

Shell size-

MS versions are supplied with standard anodize finish only. For other finish options a proprietary cap should be ordered.

PLUG PROTECTION CAPS - FOR PT, SP, MS/PT

Shell Size	N Dia. +.001 –.005	L Dia. +.025 –.015	X Std. & MS CA, RA	X MS only CAL/RAL
6	.348	.532	3.000	5.000
8	.473	.532	3.000	5.000
10	.590	.532	3.000	5.000
12	.750	.532	3.500	5.000
14	.875	.532	3.500	5.000
16	1.000	.532	3.500	5.000
18	1.125	.532	3.500	5.000
20	1.250	.594	4.000	5.000
22	1.375	.594	4.000	5.000
24	1.500	.627	4.000	5.000

How to Order Proprietary Plug Caps: 10-101957-XX X

Add desired shell size _



Shell size -

"1" designates bright cadmium with clear chromate

- "3" designates olive drab cadmium
- "5" designates Alumilite®

Proprietary caps are supplied with standard bead chains only (as shown in drawing at left). For other chain options an MS version cap should be ordered.

How to Order MS Version Plug Caps: MS3180- XX -CA for sash chain

```
-CAL for long sash chain
-RA for rope chain
-RAL for long rope chain
```

.140 +.010 -.005 DIA FOR SIZE 24 .125 +.010 -.005 DIA FOR SIZE 6-22 PLUG PROTECTION CAP FOR PT, SP, MS/PT CONNECTORS MS3180-XXX 10-101957-XXX

† Standard accessory finishes are "1" bright cadmium with clear chromate for PC types, "3" olive drab cadmium for PT and MS/PT types, "5" Alumilite® for SP types. Electroless nickel plating is also available on some items; consult Amphenol, Sidney, NY

All dimensions for reference only.

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MS versions are supplied with standard anodize finish only. For other finish options a proprietary cap should be ordered.

PC accessories – protection caps



RECEPTACLE PROTECTION CAPS – FOR PC

Shell Size	A Thread Class 2B	B Dia. +.010 000	C Dia. +.010 000	G Max.	L Max.	X ±.250
6	.3750 DS	.328	.454	.520	.448	3.000
8	.5000 DS	.454	.578	.648	.448	3.000
10	.6250 DS	.578	.703	.776	.448	3.000
12	.7500 DS	.703	.891	.902	.448	3.500
14	.8750 DS	.844	1.016	1.030	.448	3.500
16	1.0000 DS	.969	1.141	1.157	.448	3.500
18	1.1250 DS	1.094	1.266	1.284	.448	3.500
20	1.2500 DS	1.219	1.391	1.412	.448	4.000
22	1.3750 DS	1.343	1.516	1.507	.448	4.000

How to Order Proprietary Receptacle Caps for PC connectors only:

Wall Receptacle Caps:	10-101950-	ΧХ	Х
Cable Connecting Receptacle Caps:	10-101951-	ΧХ	Х
Jam Nut Receptacle Caps:	10-101956-	ΧХ	Х

Add desired shell size -

Caps for PC connectors are supplied only in proprietary versions with standard bead chains only (as shown in drawing at left).



PLUG PROTECTION CAPS – FOR PC

Shell Size	A Thread Class 2A	B +.010 –.000	G Max.	L Max.	X ±.250
6	.3750 DS	.328	.399	.557	3.000
8	.5000 DS	.454	.526	.557	3.000
10	.6250 DS	.578	.643	.557	3.000
12	.7500 DS	.703	.770	.557	3.500
14	.8750 DS	.844	.897	.557	3.500
16	1.0000 DS	.969	1.025	.557	3.500
18	1.250 DS	1.094	1.152	.557	3.500
20	1.2500 DS	1.219	1.279	.557	4.000
22	1.3750 DS	1.343	1.416	.557	4.000

How to Order Proprietary Plug Caps for PC only: 10-101955-XX X Add desired shell size

- Add desired finish suffix[†]
- "1" designates bright cadmium with clear chromate (standard for (PC) "3" designates olive drab cadmium
- "5" designates Alumilite®

Caps for PC connectors are supplied only in proprietary versions with standard bead chains only (as shown in drawing at left).

† Standard accessory finishes are "1" bright cadmium with clear chromate for PC types, "3" olive drab cadmium for PT and MS/PT types, "5" Alumilite[®] for SP types. Electroless nickel plating is also available on some items; consult Amphe-nol, Sidney, NY

PT, SP, PC accessories - dummy receptacles, "O" rings, plastic dust caps



DUMMY RECEPTACLE FOR PT, SP, MS/PT CONNECTORS MS3115-XXX 10-150921-XXX

DUMMY RECEPTACLES - FOR PT, SP, MS/PT

		м	N	Proprietar	y Version	MS Ve	ersion
Shell Size	K ±.010	+.030 000	+.001 005	R ±.005	S ±.010	R ¹ (TP)	S ¹ (TP)
8	.062	.462	.473	.734	1.047	.594	.828
10	.062	.462	.590	.812	1.125	.719	.954
12	.062	.462	.750	.938	1.250	.812	1.047
14	.062	.462	.875	1.031	1.344	.906	1.141
16	.062	.462	1.000	1.125	1.438	.969	1.234
18	.062	.462	1.125	1.203	1.516	1.062	1.328
20	.062	.556	1.250	1.297	1.672	1.156	1.453
22	.062	.556	1.375	1.375	1.750	1.250	1.578
24	.062	.589	1.500	1.500	1.875	1.375	1.703

How to Order Proprietary Dummy Receptacles: 10-150921-XX X

Add desired shell size

Add desired finish suffix[†] —

"1" designates bright cadmium with clear chromate

"3" designates olive drab cadmium "5" designates Alumilite[®]

How to Order MS Version Dummy Receptacles: MS3115-XX X

- Add desired shell size -----Add desired finish suffix[†] —
- -A designates Alumilite® -L designates electroless nickel
- -W designates olive drab cadmium



NEOPRENE "O" RINGS – FOR PC

Shell Size	Amphenol® Part Number	J Dia. ±.010	T Dia. ±.003
6	10-101937-6	.172	.031
8	10-101937-8	.328	.031
10	10-101937-10	.406	.031
12	10-101937-12	.531	.031
14	10-101937-14	.641	.031
16	10-101937-16	.781	.031
18	10-101937-18	.906	.031
20	10-101937-20	.984	.031
22	10-101937-22	1.109	.031

How to order "O" rings: Order by 10- (Proprietary) only as shown in chart above.

PLASTIC DUST CAPS	5
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FOR PT, SP

FOR PC

Shell Size	Plug Plastic Dust Cap	Receptacle Plastic Dust Cap	Shell Size	Plug Plastic Dust Cap	Receptacle Plastic Dust Cap
6	10-70500-8	10-70506-8S	6	10-70576-6	10-70576-8
8	10-70506-12	10-70506-10	8	10-70576-8	10-70500-8
10	10-70500-12	10-70506-12	10	10-70500-8	10-70500-10
12	10-70506-16	10-70506-14	12	10-70500-10	10-70500-12
14	10-70506-18	10-70506-16	14	10-70500-12	10-70500-14
16	10-70506-20	10-70506-18	16	10-70500-14	10-70500-16
18	10-70506-22	10-70506-20	18	10-70576-18	10-70500-18
20	10-70506-24	10-79506-22	20	10-70576-20	10-70500-20
22	10-70524-1	10-70506-24	22	10-70576-22	10-70500-22
24	10-70506-28	10-70524-1			

How to Order Plastic Dust Caps:

To the basic order number add the dust cap size to match connector plug or receptacle shell size, as shown in the tables above. Example: 10-70506-12 would be the correct order number for a plastic dust cap for a PT00 receptacle, shell size 10.

Application Tools "SE", "CE"

The following data includes information pertaining to the application tools for crimping, inserting and removing size 20, 16, and 12 contacts incorporated in Amphenol[®] Miniature Cylindrical Connectors.

All crimping tools included are the "full cycling" type, and when used as specified by the manufacturer, provide reliable crimped wire to contact termination.

Tool frames and turret heads are available from approved tool manufacturers; consult Amphenol, Sidney, NY for listings.

Assembly instructions are available online at www.amphenol-aerospace.com

See the following:

L-786 for SE assembly instructions

L-658 for CE assembly instructions

L-555 for solder type instructions

CRIMPING TOOLS

FOR PT-SE, SP-SE, PC-SE, MS/PT-SE (MIL-C-26482, Series 1) Connectors FOR PT-CE, SP-CE, PC-CE (Proprietary) Connectors

Contact	MS Tool Part Number				
Size	Tool Frame	Turret Head			
20	M22520/1-01	M22520/1-02			
16	M22520/1-01	M22520/1-02			
12	M22520/1-01	M22520/1-02			

Contact	MS Tool Part Number				
Size	Tool Frame	Turret Head			
20	M22520/1-01*	*			
16	M22520/1-01*	*			

* Use Daniels TH254 or equivalent

INSERTION/REMOVAL TOOLS

FOR PT-SE, SP-SE, PC-SE, MS/PT-SE (MIL-C-26482, Series 1) Connectors

		Insertion Tool	Remo	val Tool	
Contact Size	Amphenol [®] Contact Insertion Pliers	Amphenol [®] Contact Insertion Tool	MS Part Number Contact Insertion Tool	Amphenol [®] Contact Removal Tool	MS Part Number Contact Removal Tool
20	11-8107-20	11-7401-20	M81969/17-03	11-7880-20	M81969/19-07
16	11-8107-16	11-7401-16	M81969/17-04	11-7880-16	M81969/19-08
12	-	-	M81969/17-05	-	M81969/19-09

FOR PT-CE, SP-CE, PC-CE (Proprietary) Connectors

	Insertion/R	emoval Tool
Contact Size	Contact Insertion Pliers	Contact Removal Tool Kit
20	11-6782	11-6900
16	11-6781	11-6900

Contacts - Power and Thermocouple Crimp for miniature cylindrical connectors

The following tables provide part number information for crimp contacts used in Amphenol[®] Miniature Cylindrical Connectors. For additional information, consult Amphenol, Sidney, NY.

CRIMP CONTACTS for MIL-C-26482, Series 1 (PT-SE, SP-SE) Connectors

		Pins		Sockets	
Contact Size	Accommodates Wire Size	MS Number	Amphenol [®] Proprietary Number	MS Number	Amphenol [®] Proprietary Number
20	20, 22 & 24 AWG	M39029/31-240	10-314980-20P	M39029/32-259	LP-597820-355
16	16, 18 & 20 AWG	M39029/31-228	10-314980-16P	M39029/32-247	10-257982-16F
12	12 & 14 AWG	M39029/31-235	10-807100-125	M39029/32-254	10-807103-125
20-16	16 AWG		10-330930-20F		10-807155-205
16-20	20 AWG		10-330932-16F		10-330933-16F
12-10	12 AWG		10-330938-12F		10-330939-12F

CRIMP CONTACTS for PT-CE (Proprietary) Connectors

		Pins	Sockets	
Contact Size	Accommodates Wire Size	Amphenol [®] Proprietary Number	Amphenol [®] Proprietary Number	
20	20, 22 & 24 AWG	10-189000-20F	10-597817-351	
20-16	16 AWG	10-195962-20F	10-195963-20F	
16	16, 18 & 20 AWG	10-189004-16F	10-189006-16F	

THERMOCOUPLE CONTACTS for Miniature Connectors

		Pins Proprietary Part Number		Sockets Proprietary Part Number	
Size	Material	CE	SE	CE	SE
	Chromel	10-252900-21P	10-330940-21P	10-252900-21S	10-330940-21S
16 Crimp	Alumel	10-252900-22P	10-330940-22P	10-252900-22S	10-330940-22S
Termination	Iron				
	Constantan				
	Chromel	10-252900-1P	10-330940-1P	10-252900-1S	10-330940-1S
20 Crimp	Alumel	10-252900-2P	10-330940-2P	10-252900-2S	10-330940-2S
Termination	Iron	10-252900-3P	10-330940-3P	10-252900-3S	10-330940-3S
	Constantan	10-252900-4P	10-330940-4P	10-252900-4S	10-330940-4S
	Chromel	10-314910-1P		10-314910-1S	
20 Solder	Alumel	10-314910-2P		10-314910-2S	
Termination ^{††}	Iron	10-314910-3P		10-314910-3S	
	Constantan	10-314910-4P		10-314910-4S	

tt Listed are insertable/removable contacts; however, it is intended that contacts be terminated with solder.

For additional thermocouple contact information, consult Amphenol, Sidney, NY.

See L-776 for thermocouple contact termination instructions. These are online at www.amphenol-aerospace.com

For PCB contacts for miniature connectors, see page 20.
Coaxial Contacts for miniature cylindrical connectors

Amphenol[®] Miniature Connectors can incorporate shielded coax contacts. The Miniature family is built around MIL-C-26482 specifications, with Milapproved and proprietary styles offered. Normal operating voltage for Miniature cylindricals with power only contacts is up to 1,000 VAC (RMS) at sea level.

Miniature Cylindricals offer these features for contact termination flexibility:

- Several insert arrangements that can incorporate:
- Size 8 & 12 Crimp Coax contacts for Crimp type
- Size 8 & 12 Solder Coax contacts for Solder type
- Wide selection of connector shell styles and sizes
- Standard power contact options within the various connector styles include: solder type, crimp front release, crimp rear release
- Coax contacts are designed to the same high performance standards as power contacts. Coax and power contacts may be intermixed with no degradation of connector reliability.
- No mis-mating or cross-plugging with insert rotation and keyway polarization.

GENERAL ORDERING INFORMATION

Amphenol Miniature Cylindricals are normally supplied with a full complement of power contacts, separately packaged. Coax contacts are ordered by part number as referenced in the part number charts on the following pages of this catalog, and are substituted for the power contacts at the time of the cable or equipment assembly. If the application is for coax only, the connector may be ordered *less contacts* and no power contacts will be supplied. Installation instructions for the coax contacts for Miniature Connectors are provided in Amphenol documents as follows: L-633 for solder type; L-613 for SE type; L-660 for CE type.

HOW TO ORDER:

- A. Select the coax contacts designed for the cable being used from the applicable charts in this catalog for each Miniature type (solder, SE or CE).
- B. Select a connector insert from those shown on pages60-63 which will accommodate the quantity and size of coaxial contacts needed plus any power contacts required. Note: Size 8S and 12S contacts are used with connector inserts through shell size 18 only. For larger connector shell sizes, use size 8L contacts.
- C. Determine the Miniature Cylindrical type, shell style, finish, service class and insert rotation required for your application.
- D. Consult Amphenol, Sidney NY with the pertinent cable, contact, insert arrangement and connector style choices for complete connector part number.



Solder Coax Contact for use in Miniature Solder Type Connectors



Pin Crimp Coax Contact for use in Miniature Crimp SE Type Connectors



Socket Crimp Coax Contact for use in Miniature Crimp SE Type Connectors



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Coaxial Contacts for miniature cylindrical connectors, cont.

TYPICAL MINIATURE CRIMP COAX SOCKET CONTACT has crimp socket outer

contact with a solder pin inner contact

Amphenol[®] Coaxial Contacts designed for use in Miniature Cylindrical Connectors offer the same durability advantages and design benefits for reliable interconnection as the Amphenol coax contacts used in high performance D38999 connectors. A variety of military and commercial shielded cables are accommodated within the miniature cylindrical series. Amphenol supplies coax contacts for solder, crimp SE and crimp CE connector styles.

Other features of the coax for miniature cylindricals include:

- Miniature coax design has an outside nut within the assembly for fast, reliable assembly of contact to cable.
- All types feature solder style inner contacts and crimp style outer contacts for reliable cable termination
- Miniature coax crimp type contacts are designed for use in Miniature crimp series connectors
- Miniature coax solder type contacts are designed for use in Miniature solder series connectors. These come pre-installed into the solder connector.

TYPICAL ELECTRICAL PERFORMANCE Size 8 and 12 Coax Contacts

Contact Resistance: Center @ 1 Amp, 170 millivolts max. voltage drop @ 25°C

Outer @ 12 Amps, 150 millivolts max. voltage drop @ 25°C Dielectric Withstanding Voltage:

Size 8: 1,300 VAC Rms @ sea level Size 12: 1,000 VAC Rms @ sea level Size 8 & 12: 250 VAC Rms @ 50,000 ft.

Insulation Resistance 5,000 megohms minimum @ 25°C

 $\frac{Typical \ VSWR \ for \ size \ 8 \ \& \ 12 \ PT-SE \ Types \ II \ \& \ III \ only:}{1.2 \ + \ .12F \ (GHz) \ up \ to \ 10 \ GHz}$

EXPLANATION OF TYPE CLASSIFICATIONS:

PT-SE Type I is moisture seal design with internal O-ring.

PT-SE Type II is 50 ohm impedance matched version. Contacts terminated to other than 50 ohm cables are therefore not matched.

PT-SE Type III is 50 ohm contact, non-serviceable after assembly

Solder and CE Types are non-impedance matched contacts.

CONTACT FINISHES:

Suffix Finish

- 0.00020 min. silver over copper flash 1
- 0.00005 min. gold (Knoop hardness 130-200) over silver 2
- 0.00010 min. gold (Knoop hardness 130-200) over silver 3
- 0.00010 min. gold (Knoop hardness 130-200) over copper 0.00005 min. gold (Knoop hardness 130-200) over nickel 4
- 5 0.00005 min. gold (Knoop hardness 90 max.) over copper Е
- F
- 0.00005 min. gold (Knoop hardness 130-200) over copper 0.00010 min. gold (Knoop hardness 130-200) over copper Н

TYPICAL MINIATURE CRIMP COAX PIN CONTACT has crimp pin outer contact with a solder socket inner contact

for miniature cylindrical connectors, cont. solder (MIL-C-26482 Series 1 type) - application data



NOTE: All contacts of the same size and the same inner and outer contact diameters (G & H) will mate with each other.

		For	use in N	/iniature	SOL Solder	DER CC Type Co	AX CC	ONTAC	TS . SP. MS/PT and	PC Styles		
	Contact D	ort Number			Dimer (See Dra	nsional Data awings abo	a ve)		, ,	Crimp Forrulo Toolo		
Cable	Contact Pa	art Number	Contact		ц	F	l Lengt	L h Ref.		Crimp Ferrule 100is		Retainer Nut
	Pin	Socket	Size	G Dia.	п Dia. ±0.001	Across Flats ±0.004	Pin	Socket	MIL-T-22910/7-1 Tool Use with Die Part Number	MIL-C-22520/5-01 Tool Use with Die Part Number	MIL-C-22520/10-01 Tool Use with Die Part Number	Wrench
RG-58C/U, RG-141A/U, RG-303/U	21-33020-2	21-33019-2	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	M22910/7-15 (<i>B)</i>	M22520/5-05 <i>(B)</i> M22520/5-41 <i>(B)</i>	M22520/10-07 (<i>B</i>)	11-8676-2
RG-59B/U, RG-62A/U,	21-33020-1	21-33019-1	8L	0.040 ± 0.001	0.219	0.280	1.176	1.177	M22910/7-18 (<i>B</i>)	M22520/5-45 (<i>R</i>)		11-8676-3
RG-62B/U, RG-210/U	21-33020-3	21-33019-3	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	W22710/7-10 (<i>D</i>)	WZZ3Z0/3-43 (<i>D</i>)		11-0070-5
RG-142B/U, Times MI51115	21-33020-7*	21-33019-7*	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	M22910/7-16 (<i>B</i>)	M22520/5-43 (<i>B</i>)		11-8676-2
RG-161/U, RG-174A/U, RG-179B/U, RG-187A/U, RG-188A/U, RG-316/U	21-33020-32*	21-33019-32*	12S	0.0300 ± 0.0005	0.140	0.172	1.092	1.093	M22910/7-12 (<i>B</i>)	M22520/5-03 (<i>A</i>) M22520/5-08 <i>(A)</i> M22520/5-35 (<i>B</i>)	M22520/10-05 (<i>A</i>)	11-8676-1
RG-178B/U	21-33020-4	21-33019-4*	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	M22910/7-11 (<i>B</i>)	M22520/5-03 (<i>B)</i> M22520/5-33 (<i>B</i>)	M22520/10-05 (<i>B</i>)	11-8676-2
RG-196A/U	21-33020-31†	21-33061-31*†	12S	0.0300 ± 0.0005	0.140	0.172	1.092	1.093	M22910/7-11 (<i>B</i>)	M22520/5-03 (<i>B)</i> M22520/5-33 (<i>B)</i>	M22520/10-05 (<i>B</i>)	11-8676-1
RG-180B/U, RG-195A/U, Raychem 5022D1312-9	21-33020-5*	21-33019-5*	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	M22910/7-15 (<i>B</i>)	M22520/5-05 (<i>B)</i> M22520/5-41 (<i>B</i>)	M22520/10-07 (<i>B</i>)	11-8676-2
Raychem 5021D1331-9	21-33020-6*	21-33019-6*	8S	0.040 ± 0.001	0.219	0.280	1.114	1.115	M22910/7-15 (<i>B</i>)	M22520/5-05 (<i>B</i>) M22520/5-41 (<i>B</i>)	M22520/10-07 (<i>B</i>)	11-8676-2
Thermatics 2929-29	21-33020-33	21-33061-33	12S	0.0200	0.140	0.172	1.092	1.093	M22910/7-13 (<i>B</i>)	M22520/5-37 (<i>B</i>)		11-8676-1

NOTE: Contacts can be ordered by part numbers given in chart

NOTE: Size 8S and 12S contacts are used with connector inserts through

shell size 18 only. For larger connector shell sizes, use size 8L contacts. CONTACT FINISH: For all contacts in this series feature 0.000050 minimum gold (Knoop hardness 130-200). * Consult Amphenol, Sidney NY for availability

CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure. Commercial equivalents with the same die closure dimension may be used.

† 21-33020-31 and 21-33061-31 only mate with each other

for miniature cylindrical connectors, cont. crimp SE (MIL-C-26482 Series 1 type) - application data

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						5		Ť Į		Ī				ļ		
			SOC	KET					G	(g J Mating Pin dia	F	21N		-	< F →
											NOTE:	All contacts of the	same size and the	e same inne	er and outer	contact
							SE CI	RIMP C	ΟΑΧ	CON	diamete FACTS	ers (G & H) Will ma	ate with each other.			
	-	For u	use in	Minia	ature C	rimp T	ype Co	nnecto	ors: P	T-SE,	SP-SE, MS/F	PT-SE and PC	C-SE Styles	-	-	
					F 1-1-1		Dimer (See Dra	nsional Dat wings abo	a ove)						Installat	ion Tools
	Contact Pa	art Number	Contact	Туре	FINISN ON Moting			_	Long	L the Def		Crimp Ferrule Tool	S	Retainer		
Cable			Size	(See Pg. 23)	Parts	G	H Dia	F Across	Leng	un Rei.	MIL-T-22910/7-1	MIL-C-22520/5-01	MIL-C-22520/10-0	Nut Wrench	Insertion	Removal
	Pin	Socket			(See Pg. 23)	Dia.	±0.001	Flats ±0.004	Pin	Socket	Tool Use with Die Part Number	Tool Use with Die Part Number	Tool Use with Die Part Number		mornon	Keniovai
RG-55B/U,	21-33012-21 21-33012-25	21-33011-21 21-33011-25	8 8		2											
RG-142A/U, RG-142B/U,	21-33038-21 21-33038-25*	21-33037-21 21-33037-25	8 8	 	4	0.0355 ±0.0010	0.218	0.280	1.156	1.144	M22910/7-17 (<i>B</i>)	M22520/5-05 (<i>A</i>) M22520/5-19 (<i>B</i>)	M22520/10-07 (<i>A</i>)	11-8676-2	11-8369-5 11-8660-5	11-7880-8 11-8154-1
KG-223/0	21-33138-21()* 21-33138-25()*	21-33137-21()* 21-33137-25()*	8 8		**											
	21-33012-22 21-33012-26	21-33011-22 21-33011-26	8 8	 	2											
RG-58C/U, RG-141A/U, RG-303/U	21-33038-22* 21-33038-26*	21-33037-22 21-33037-26*	8 8		4	0.0355 ±0.0010	0.218	0.280	1.156	1.144	M22910/7-15 (<i>B</i>)	M22520/5-05 (<i>B</i>) M22520/5-41 (<i>B</i>)	M22520/10-07 (<i>B</i>)	11-8676-2	11-8369-4 11-8660-4	11-7880-8 11-8154-1
	21-33138-22()* 21-33138-26()*	21-33137-22() 21-33137-26()*	8 8		**											
RG-59B/U,	21-33012-36	21-33011-36	8	II	2	0.0255									11-8369-5	11 7000 0
RG-62A/U, RG-62B/U,	21-33038-36*	21-33037-36	8	II	4	0.0355 ±0.0010	0.218	0.280	1.156	1.144	M22910/7-18 (<i>B</i>)	M22520/5-45 (<i>B</i>)		11-8676-3	11-8369-5	11-7880-8 11-8154-1
RG-210/U	21-33138-36()*	21-33137-36()	8	=	**											
RG-140/U,	21-33012-37	21-33011-37	8	"	2 4	0.0355	0 218	0 280	1 156	1.144	M22910/7-17 (<i>B</i>)	M22520/5-05 (<i>A</i>) M22520/5-19 <i>(B)</i>	M22520/10-07 (<i>A</i>)) 11-8676-2	11-8369-5 11-8660-5	11-7880-8
RG-302/U	21-33138-37()*	21-33137-37()*	8		**	±0.0010	0.218	0.200	1.150							11-8154-1
	21-33012-34 21-33012-30	21-33011-34 21-33011-30	8 8		2											
DO 1/1/1	21-33038-34 21-33038-30	21-33037-34 21-33037-30	8 8		4	0.0355 ±0.0010	0.218	0.280	1.156	1.144				11-8676-2		11-7880-8 11-8154-1
RG-161/U, RG-174A/U, RG-179B/U,	21-33138-34()* 21-33138-30()*	21-33137-34()* 21-33137-30()*	8 8		**							M22520/5-03 (<i>A</i>)			11-8369-2	
RG-187A/U, RG-188A/U,	21-33012-1 21-33012-4	21-33011-1 21-33011-4	12 12		2						M22910/7-12 (<i>B)</i>	M22520/5-08 (A) M22520/5-35 (B)	M22520/10-05 (A)		11-8660-2	
RG-316/U	21-33038-1* 21-33038-4	21-33037-1* 21-33037-4*	12 12		4	0.0200 ±0.0005	0.128	0.172	1.092	1.072				11-8676-1		11-7880-12 11-8154-2
	21-33138-1()* 21-33138-4()*	21-33137-1() 21-33137-4()*	12 12		**											
	21-33012-35	21-33011-35	8	Ι	2	0.0055										44 7000 0
	21-33038-35	21-33037-35	8	-	4	0.0355 ±0.0010	0.218	0.280	1.156	1.144				11-8676-2		11-7880-8 11-8154-1
RG-178B/IU	21-33138-35()* 21-33012-3*	21-33137-35()* 21-33011-3*	8 12		**							M22520/5-02 (P)			11_8260_1	
RG-196A/U	21-33012-5 21-33038-3*	21-33011-5 21-33037-3*	12 12		2	0.0200					M22910/7-11 (<i>B</i>)	M22520/5-33 (<i>B</i>)	M22520/10-05 (<i>A</i>)		11-8660-1	11-7880-12
	21-33038-5	21-33037-5*	12	"	4	± 0.0005	0.128	0.172	1.092	1.072				11-8676-1		11-8154-2
	21-33138-5()*	21-33137-5()*	12	ľ	**											

NOTE: Contacts can be ordered by part numbers given in chart

** See finish options for SE crimp Miniature contacts listed on page 70. Replace the parenthesis of the contact part number with the finish suffix number. However, you should consult Amphonel. Sidney NY regarding the availability of all finish choices for each part * Consult Amphenol, Sidney NY for availability

CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure. Commercial equivalents with the same die closure dimension may be used

for miniature cylindrical connectors, cont. crimp SE (MIL-C-26482 Series 1 type) - application data, cont.

		For	use in	Minia	ature C	rimp T	SE CI pe Co	RIMP C	OAX ors: P	CON T-SE,	TACTS SP-SE, MS/I	PT-SE and PC	C-SE Styles			
	Contact Pa	art Number			Finish		Dimer (See Dra	nsional Da awings pg.	ta 25)			Crimp Ferrule Tool	s		Installat	ion Tools
Cable			Contact	Туре	on Mating			F	Leng	L th Ref.				Retainer		
Cable	Pin	Socket	Size	(3ee Pg. 23)	Parts (See Pg. 23)	G Dia.	H Dia. ±0.001	Across Flats ±0.004	Pin	Socket	MIL-T-22910/7-1 Tool Use with Die Part Number	MIL-C-22520/5-01 Tool Use with Die Part Number	MIL-C-22520/10-0 Tool Use with Die Part Number	Wrench	Insertion	Removal
	21-33012-24	21-33011-24	8		2											
RG-180B/U, RG-195A/U	21-33038-24 21-33038-46*	21-33037-24 21-33037-46*	8		4	0.0355 ± 0.0010	0.218	0.280	1.156	1.144	M22520/7-15 (<i>B</i>)	M22520/5-05 (<i>B</i>) M22520/5-41 (<i>B</i>)	M22520/10-07 <i>(B)</i>	11-8676-2	11-8369-4 11-8660-4	11-7880-8 11-8154-1
	21-33138-24()* 21-33138-46()*	21-33137-24()* 21-33137-46()*	8 8		**											
Raychem 9527E1118, RG-180B/U, RG-195A/U	21-33106-40()	21-33105-40()	12	111	**	0.0200 ± 0.0005	0.128		0.899	0.879	Daniels M22520/31-01	GS200 Tool with G Tool with Positione	2P330 or er M22520/31-02		11-8674- 12	11-7880-12 11-8154-2
	21-33012-6* 21-33012-7*	21-33011-6* 21-33011-7*	12 12	 	2											
RG-188 or RG-316 Double Braid	21-33038-6* 21-33038-7*	21-33037-6* 21-33037-7*	12 12		4	0.0200 ± 0.0005	0.128	0.172	1.092	1.072				11-8676-1	11-8369-2 11-8660-2	11-7880-12 11-8154-2
	21-33138-6()* 21-33138-7()*	21-33137-6()* 21-33137-7()*	12 12	 	**						M22910/7-13 (<i>B</i>)	M22520/5-37 (<i>B</i>)				
Thermax	21-33012-44	21-33011-44	8	II	2	0.0255									11 0240 4	11-7880-8
50C-25A-	21-33038-44*	21-33037-44*	8	Ш	4	± 0.0010	0.128	0.280	1.156	1.144				11-8676-2	11-8560-4	11-8154-1
D2-1	21-33138-44()*	21-33137-44()*	8	Ш	**											
DC 105	21-33012-28	21-33011-28	8	Ι	2	0.0255									11 0240 4	11 7000 0
Double Braid	21-33038-28*	21-33037-28*	8	I	4	± 0.0010	0.128	0.280	1.156	1.144	M22910/7-16 (<i>B</i>)	M22520/5-43 (<i>B</i>)		11-8676-2	11-8560-4	11-8154-1
	21-33138-28()*	21-33137-28()*	8	Ι	**											
DC 100/U	21-33012-23 21-33012-27	21-33011-23 21-33011-27	8 8		2											
RG-122/U, Raychem 5022E5111	21-33038-23* 21-33038-27	21-33037-23* 21-33037-27	8 8		4											
	21-33138-23()* 21-33138-27()*	21-33137-23()* 21-33137-27()*	8 8		**	0.0355 ± 0.0010	0.218	0.280	1.156	1.144	M22520/7-15 (<i>B</i>)	M22520/5-05 (<i>B</i>) M22520/5-41 (<i>B</i>)	M22520/10-07 <i>(B)</i>	11-8676-2	11-8369-4 11-8660-4	11-7880-8 11-8154-1
	21-33012-31	21-33011-31	8	Ι	2											
Raychem 9530D5314	21-33038-31	21-33037-31	8	Ι	4											
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	21-33138-31()*	21-33137-31()*	8	Ι	**											
	21-33012-39	21-33011-39	8		2											
Raychem 9527A1317	21-33038-39*	21-33037-39*	8		4	0.0355	0.218	0.280	1.156	1.144	M22910/7-15 (<i>B</i>)	M22520/5-05 (<i>B</i>) M22520/5-41 (<i>B</i>)	M22520/10-07 (B)	11-8676-2	11-8369-4 11-8660-4	11-7880-8 11-8154-1
.02/11/01/	21-33138-39()*	21-33137-39()*	8	Ш	**	_ 0.0010									.1 0000 4	11 01011
	21-33012-40*	21-33011-40	8		2	1		-	1	1		M22520/5-03 (4)				
Raychem	21-33038-40*	21-33037-40*	8		4	0.0355	0.218	0.280	1.156	1.144	M22910/7-12 (<i>B</i>)	M22520/5-08 (A)	M22520/10-05 (A)	11-8676-2	11-8369-2	11-7880-8
1321711310	21-33138-40*	21-33137-40()*	8		**	± 0.0010						M22520/5-35 (B)			11-0000-2	11-0134-1
Westrex	21-33012-43	21-33011-43	12		2			-	1							
199-49-1,	21-33038-43	21-33037-43	12		4	0.0200	0.128	0.172	1.092	1.072	M22910/7-11 (<i>B</i>)	M22520/5-03 (B)	M22520/10-05 (B)	11-8676-1	11-8369-1	11-7880-12
100150110 30850/87T-1	21-33138-43()*	21-33137-43()*	12	1	**	± 0.0005						IVI22520/5-33 (<i>B</i>)			11-8000-1	11-8154-2

NOTE: All contacts of the same size and the same inner and outer contact diameters (G & H) will mate with each other.

NOTE: Contacts can be ordered by part numbers given in chart

* Consult Amphenol, Sidney NY for availability

** See finish options for SE crimp Miniature contacts listed on page 70. Replace the parenthesis of the contact part number with the finish suffix number. However, you should consult Amphenol, Sidney, NY regarding the availability of all finish choices for each part number. CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die closure. Commercial equivalents with the same die closure dimension may be used.

for miniature cylindrical connectors, cont. crimp CE (MIL-C-26482 Series 1 type) - application data



NOTE: All contacts of the same size and the same inner and outer contact diameters (G & H) will mate with each other.

			For u	ise in M	liniatur	CI e Crimp	E CRI Type	MP CO e Conn	AX CONTACTS ectors: PT-CE,	SP-CE and PC-C	E Styles			
	Contact P	art Number			Dime (See Dr.	nsional Da awings ab	ata ove)			Crimp Ferrule Tools			Installati	on Tools
Cable	Contact 1		Contact	G	н	F	Leng	L th Ref.				Retainer Nut	Installati	10013
	Pin	Socket	Size	Dia. ± 0.001	Dia. ±0.001	Across Flats ±0.004	Across Flats ±0.004 Pin	Socket	MIL-T-22910/7-1 Tool Use with Die Part Number	MIL-C-22520/5-01 Tool Use with Die Part Number	MIL-C-22520/10-01 Tool Use with Die Part Number	Wrench	Insertion	Removal
RG-58C/U, RG-141A/U, RG-303/U	21-33024-1	21-33023-1	8	0.040	0.219	0.280	1.239	1.285	M22910/7-15 (<i>B)</i>	M22520/5-01 <i>(B)</i> M22520/5-41 <i>(B)</i>	M22520/10-07 (<i>B</i>)	11-8676-2	11-8369-4 11-8660-4	11-7310
RG-178B/U, RG-196A/U	21-33024-2	21-33023-2	8	0.040	0.219	0.280	1.039	1.085	M22910/7-11 (<i>B</i>)	M22520/5-03 (<i>B</i>) M22520/5-33 (<i>B</i>)	M22520/10-05 (<i>B</i>)	11-8676-2	11-8369-1 11-8660-1	11-7310

NOTE: Contacts can be ordered by part numbers given in chart

* Consult Amphenol, Sidney NY for availability

CONTACT FINISH: for all contacts in this series feature 0.000050 minimum gold (Knoop hardness 130-200).

CRIMPING TOOLS: Italicized letters in parenthesis that follow positioner part numbers indicate applicable die

closure. Commercial equivalents with the same die closure dimension may be used.

Mounting Recommendations for miniature cylindrical connectors

FLANGE MOUNTED CONNECTORS

All flange mounting PC and PT connectors use standard MS mounting dimensions. They cannot be back panel mounted due to coupling clearance. The PTB (thru-bulkhead) type connector must also be back panel mounted on one side. Flange gaskets are available for both series, see page 64.

Shell	і Т)	R P)	D Dia.			
Size	PC & PT	SP	PC & PT	SP		
6	.469	.641	.323	.439		
8	.594	.734	.449	.563		
10	.719	.812	.573	.680		
12	.812	.938	.699	.859		
14	.906	1.031	.823	.984		
16	.969	1.125	.949	1.108		
18	1.062	1.203	1.073	1.233		
20	1.156	1.297	1.199	1.358		
22	1.250	1.375	1.323	1.483		
24	1.375	-	1.449	-		

JAM NUT MOUNTINGS

The jam nut design has become very popular because it allows bench wiring of harness assemblies. The labor saving often offsets the added cost of the jam nut receptacle which is due to the self contained "O" ring and the extra nut. The PC series mounts in a round hole and can be pinned to prevent rotation. The PT series mounts in a "D" mounting hole and does not require pinning.

Shell	R +.010	B +.000	F	F Panel Th	o nickness
Size	000	010	±.010	Min.	Max.
6	.447	.420	.286	.062	.125
8	.572	.542	.331	.062	.125
10	.697	.669	.375	.062	.125
12	.884	.830	.442	.062	.125
14	1.007	.955	.486	.062	.125
16	1.134	1.084	.530	.062	.125
18	1.259	1.208	.573	.062	.125
20	1.384	1.333	.641	.062	.250
22	1.507	1.459	.685	.062	.250
24	1.634	1.575	_	.062	.250

HERMETIC RECEPTACLE MOUNTINGS

This series must be mounted in such a way as to preserve the hermetic seal provided by the glass insert. Mounting data for box and jam nut receptacles is given above. Cut-out required for solder mounting receptacles (N) is given below.

Shell Size	N Max.	
6	.458	
8	.582	
10	.692	
12	.801	
14	.926	
16	1.051	
18	1.176	
20	1.395	
22	1.375	

The finish of each of these hermetic receptacles is fused electro-deposited tin for easy solderability, and protected by a special lacquer for optimum shelf life. The lacquer will not interfere with any soldering operation. Low temperature solder should be used and the addition of a solder fillet at

and the addition of a solder fillet at arrow points on drawing at right is recommended. Care must be taken that the operating temperature of the final assembly does not rise above the melt-





Other Amphenol Miniature Cylindrical Connectors

MIL-C-26482, Series 2

MIL-C-26482, Series 2 connectors are provided with the Amphenol[®]/Matrix[®] family of miniature cylindricals These are bayonet coupling type, and they feature crimp contacts that are rear insertable and rear releasable.

There are six shell styles available and 34 insert arrangements. Military part numbers of the Matrix MIL-C-26482 family include the following:

MS3470 wall mounting receptacle with narrow flange MS3472 wall mounting receptacle with wide flange MS3471 cable connecting receptacle MS3474 jam nut receptacle MS3476 straight plug MS3475 plug with RFI grounding fingers See catalog 12-071 for more information.

Geophysical Miniature Cylindricals

Designed for the Geophysical industry's rugged environments, the Amphenol[®] Geophysical Series connector has custom features that provide reliability in extreme temperature and moisture conditions.

The unique shell design provides stronger shells along with an anodized (nonconductive) finish for greater salt, corrosion and abrasion resistance. Coupling nuts are manufactured with round detent holes and are sold separately for greater customer flexibility. See product data sheet #146.

RJ Field Bayonet MIL-C-26482 Cylindricals

Amphenol PCD division provides MIL-C-26482 bayonet coupling cylindrical connectors with an RJ45 Ethernet interface*. These are designed for use in all levels of harsh environments from industrial to mil-aero applications providing IP67 protection from dust, fluids, vibration, shock and traction. The Amphenol[®] RJ Field allows the use of Ethernet Class D/Cat 5 and Cat 5e connections for 10 BaseT, 100 Base TX, or 1000 BaseT networks. It works with any standard RJ45 cordset with no extra tooling. It also offers reinforced EMI protection.

For more information go online to www.rjfield.com or ask for the Field Series brochure.

* Other Field Series products are available through Amphenol PCD. These include RJF TV within MIL-DTL-38999 Series III threaded coupling connectors, and RJF 544 within ECTA push-pull plastic shell coupling.



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