

# Amphenol® PT-CE, SP-CE

## bayonet coupling, crimp termination

wall mounting  
receptacle



cable  
connecting  
receptacle\*



box mounting  
receptacle



straight plug



jam nut  
receptacle



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 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-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.

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 a straight or 90 degree plug.

PT-CE, SP-CE

Contact Specifications				
Contact Size	Test Current	Maximum Millivolt Drop†	Crimp Well Diameter	Minimum Well Depth
20	7.5	55	.045 <sup>+.002</sup> <sub>-.001</sub>	.359
16	13.0	49	.063 <sup>+.004</sup> <sub>-.001</sub>	.234

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

† Silver plated wire per MIL-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.

“CE”  
open wire seal



“CE” (SR)  
strain relief



“CP”  
potting boot

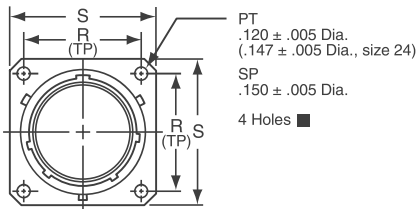


BAYONET COUPLING  
WITH CRIMP CONTACTS  
PT-CE, SP-CE

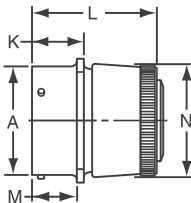
# PT00 CE

# SP00 CE

## wall mounting receptacle

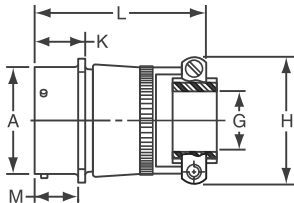


“CE” Open Wire Seal



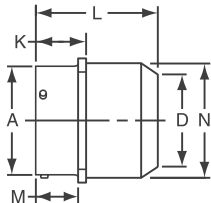
PT00CE-XX-XXX  
SP00CE-XX-XXX

TERMINATION ASSEMBLIES  
“CE” (SR) Strain Relief



PT00CE-XX-XXX (SR)  
SP00CE-XX-XXX (SR)

“CP” Potting Boot



PT00CP-XX-XXX  
SP00CP-XX-XXX

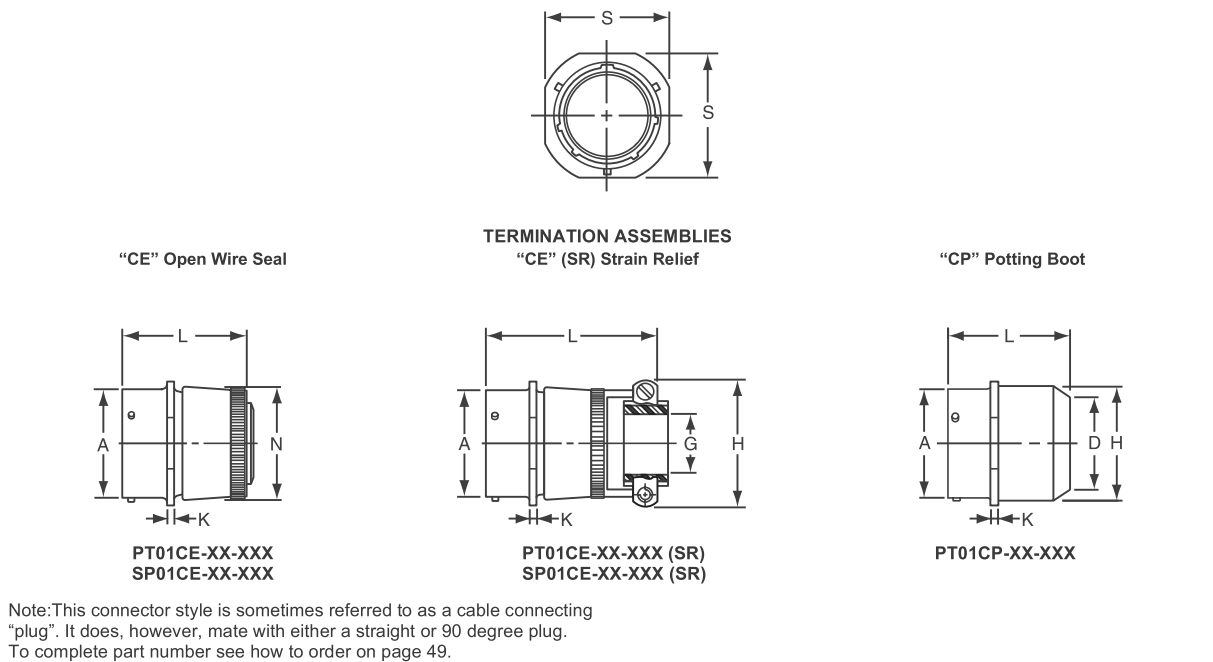
To complete part number see how to order on page 49.  
■ (MMC) located within .005 Dia. of (TP)

Shell Size	Receptacle Front View				Receptacle Side View												
	R (TP)		S ±.016		A Dia. +.001 −.005	K +.025 −.010		M +.010 −.000		Class “CE”		Class “CE” (SR)			Class “CP”		
										L Max.	N Dia. Max.	G Dia.	H Max.	L Max.	D Dia.	L Max.	N Dia. Max.
	PT	SP	PT	SP		PT	SP										
6	.469	.641	.688	.953	.348	.493	.524	.431	.462	1.468	.440	—	—	—	—	—	—
8	.594	.734	.812	1.047	.473	.493	.524	.431	.462	1.468	.560	.125	.797	2.031	.327	1.683	.608
10	.719	.812	.938	1.125	.590	.493	.524	.431	.462	1.468	.685	.188	.859	2.031	.444	1.683	.734
12	.812	.938	1.031	1.250	.750	.493	.524	.431	.462	1.468	.813	.312	.984	2.031	.558	1.683	.858
14	.906	1.031	1.125	1.344	.875	.493	.524	.431	.462	1.468	.930	.375	1.109	2.031	.683	1.683	.984
16	.969	1.125	1.219	1.438	1.000	.493	.524	.431	.462	1.468	1.057	.500	1.172	2.156	.808	1.683	1.110
18	1.062	1.203	1.312	1.516	1.125	.493	.524	.431	.462	1.468	1.175	.625	1.422	2.156	.909	1.683	1.234
20	1.156	1.297	1.438	1.672	1.250	.650	.650	.556	.556	1.562	1.301	.625	1.422	2.266	1.034	1.750	1.360
22	1.250	1.375	1.562	1.750	1.375	.650	.650	.556	.556	1.562	1.428	.750	1.609	2.266	1.159	1.750	1.484
24	1.375	1.500	1.688	1.875	1.500	.683	.683	.589	.589	1.625	1.555	.800	1.703	2.328	1.284	1.782	1.610

All dimensions for reference only.

# PT01 CE

## cable connecting receptacle



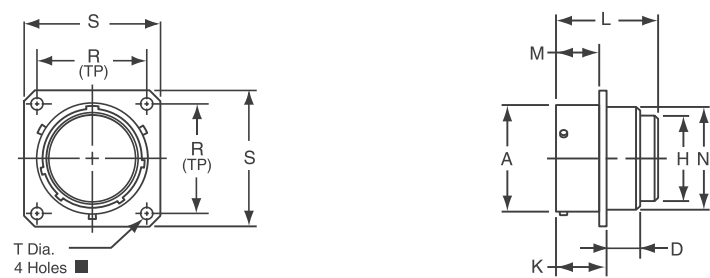
Shell Size	Receptacle Front View	Receptacle Side View									
	S ±.016	A Dia. +.001 −.005	K ±.016	Class "CE"		Class "CE" (SR)			Class "CP"		
				L Max.	N Dia.	G Dia.	H Dia.	L Max.	D Dia. Min.	L Max.	N Dia. Max.
6	.688	.348	.094	1.468	.440	—	—	—	—	—	—
8	.812	.473	.094	1.468	.560	.125	.797	1.982	.327	1.702	.608
10	.938	.590	.094	1.468	.685	.188	.859	1.982	.444	1.702	.734
12	1.031	.750	.094	1.468	.813	.312	.984	1.982	.558	1.702	.858
14	1.125	.875	.094	1.468	.930	.375	1.109	1.982	.683	1.702	.984
16	1.219	1.000	.094	1.468	1.057	.500	1.172	2.114	.808	1.702	1.110
18	1.312	1.125	.094	1.468	1.175	.625	1.422	2.114	.909	1.702	1.234
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
24	1.688	1.500	.115	1.625	1.555	.800	1.703	2.219	1.284	1.827	1.610

All dimensions for reference only.

# PT02 CE

# SP02 CE

## box mounting receptacle



PT02CE-XX-XXX  
 SP02CE-XX-XXX  
 PT02CP-XX-XXX  
 SP02CP-XX-XXX

To complete part number see how to order on page 49.  
 ■ (MMC) located within .005 of (TP)

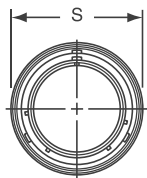
Shell Size	Receptacle Front View						Receptacle Side View									
	R		S ±.016		T Dia. ±.005		A Dia +.001 −.005	D		H Dia. Max.	K +.025 −.010		L Max.	M +.010 −.000		N Dia. Max.
	PT	SP	PT	SP	PT	SP		PT	SP		PT	SP		PT	SP	
8	.594	.734	.812	1.047	.120	.150	.473	.344	.312	.317	.493	.524	1.250	.431	.462	.449
10	.719	.812	.938	1.125	.120	.150	.590	.344	.312	.441	.493	.524	1.250	.431	.462	.573
12	.812	.938	1.031	1.250	.120	.150	.750	.344	.312	.566	.493	.524	1.250	.431	.462	.699
14	.906	1.031	1.125	1.344	.120	.150	.875	.344	.312	.683	.493	.524	1.250	.431	.462	.823
16	.969	1.125	1.219	1.438	.120	.150	1.000	.344	.312	.808	.493	.524	1.250	.431	.462	.949
18	1.062	1.203	1.312	1.516	.120	.150	1.125	.344	.312	.899	.493	.524	1.250	.431	.462	1.073
20	1.156	1.297	1.438	1.672	.120	.150	1.250	.406	.406	1.034	.650	.650	1.312	.556	.556	1.199
22	1.250	1.375	1.562	1.750	.120	.150	1.375	.406	.406	1.155	.650	.650	1.312	.556	.556	1.323
24	1.375	1.500	1.688	1.875	.147	.150	1.500	.436	.436	1.279	.683	.683	1.312	.589	.589	1.449

All dimensions for reference only.

# PT06 CE

# SP06 CE

## straight plug



“CE” Open Wire Seal

PT06CE-XX-XXX  
SP06CE-XX-XXX

TERMINATION ASSEMBLIES  
“CE” (SR) Strain Relief

PT06CE-XX-XXX (SR)  
SP06CE-XX-XXX (SR)

“CP” Potting Boot

PT06CP-XX-XXX  
SP06CP-XX-XXX

To complete part number see how to order on page 49.

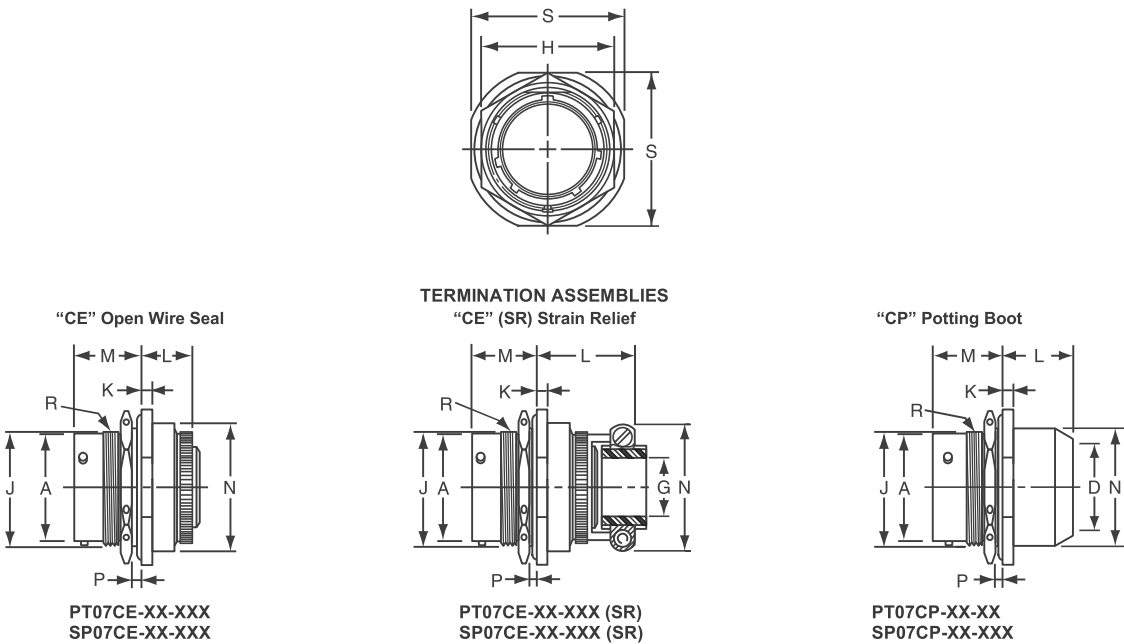
Shell Size	Plug Front View	Plug Side View									
	S Dia. Max.	Z +.035 −.040	Z' +.035 −.040	Class “CE”		Class “CE” (SR)			Class “CP”		
				L Max.	N Dia.	G Dia.	H Max.	L Max.	D Dia.	L Max.	N Dia. Max.
6	.609	.772	.631	1.457	.440	—	—	—	—	—	—
8	.734	.772	.631	1.457	.560	.125	.797	2.019	.327	1.707	.608
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

All dimensions for reference only.

# PT07 CE

# SP07 CE

## jam nut receptacle



To complete part number see how to order on page 49.  
All lockwire holes are .044 Dia. Min.

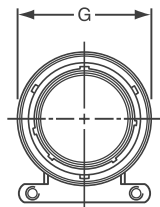
Shell Size	Receptacle Front View		Receptacle Side View													
	H Hex. +.017 −.016	S ±.016	A Dia. +.001 −.005	J Flat +.000 −.010	K ±.016	M ±.005	Panel Thickness		Class “CE”		Class “CE” (SR)			Class “CP”		
							Min.	Max.	L Max.	N Max.	G Dia.	L Max.	N Max.	D Dia. Min.	L Max.	N Dia. Max.
8	.750	.938	.473	.530	.125	.696	.062	.125	.827	.730	.125	1.297	.797	.327	.875	.608
10	.875	1.062	.590	.655	.125	.696	.062	.125	.827	.855	.188	1.297	.859	.444	.875	.734
12	1.062	1.250	.750	.818	.125	.696	.062	.125	.827	.980	.312	1.297	.984	.558	.875	.858
14	1.188	1.375	.875	.942	.125	.696	.062	.125	.827	1.105	.375	1.297	1.109	.683	.875	.984
16	1.312	1.500	1.000	1.066	.125	.696	.062	.125	.827	1.230	.500	1.422	1.172	.808	.875	1.110
18	1.438	1.625	1.125	1.191	.125	.696	.062	.125	.827	1.355	.625	1.422	1.422	.909	.875	1.234
20	1.562	1.812	1.250	1.316	.156	.884	.062	.250	.733	1.511	.625	1.328	1.422	1.034	.969	1.360
22	1.688	1.938	1.375	1.441	.156	.884	.062	.250	.733	1.636	.750	1.328	1.609	1.159	.969	1.484
24	1.812	2.062	1.500	1.566	.156	.917	.062	.250	.762	1.761	.800	1.422	1.703	1.284	.969	1.610

All dimensions for reference only.

# PT08 CE

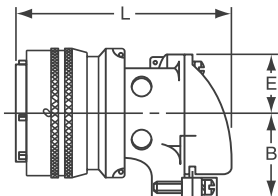
# SP08 CE

## 90 degree plug

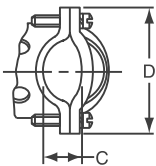


TERMINATION ASSEMBLIES

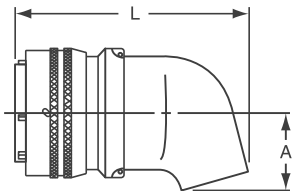
“CE” Open Wire Seal, “CE” (SR) Strain Relief



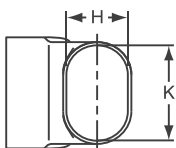
PT08CE-XX-XXX  
SP08CE-XX-XXX  
PT08CE-XX-XXX (SR)  
SP08CE-XX-XXX (SR)



“CP” Potting Boot 75°



PT08CP-XX-XXX  
SP08CP-XX-XXX



To complete part number see how to order on page 49.  
All lockwire holes are .044 Dia. Min.

Shell Size	Plug Front View	Plug Side View								
	G Dia. Max.	Class “CE”, “CE” (SR)					Class “CP”			
		B ±.031	C +.010 −.025	D ±.062	E +.047 −.025	L ±.057	A ±.025	H ±.015	K ±.015	L Max.
8	.796	.655	.169	.941	.339	1.986	.469	.312	.438	1.906
10	.921	.749	.170	1.191	.393	2.080	.547	.438	.562	2.031
12	1.046	.812	.264	1.191	.450	2.165	.625	.516	.688	2.093
14	1.171	.905	.310	1.254	.519	2.313	.734	.625	.781	2.203
16	1.297	1.030	.330	1.316	.583	2.515	.750	.656	.890	2.250
18	1.422	1.015	.444	1.562	.621	2.623	.781	.703	1.000	2.296
20	1.562	1.077	.510	1.625	.683	2.739	.859	.766	1.125	2.343
22	1.672	1.139	.515	1.719	.739	2.785	.906	.812	1.234	2.390
24	1.797	1.265	.656	1.751	.797	3.024	1.169	.918	1.374	2.624

All dimensions for reference only.

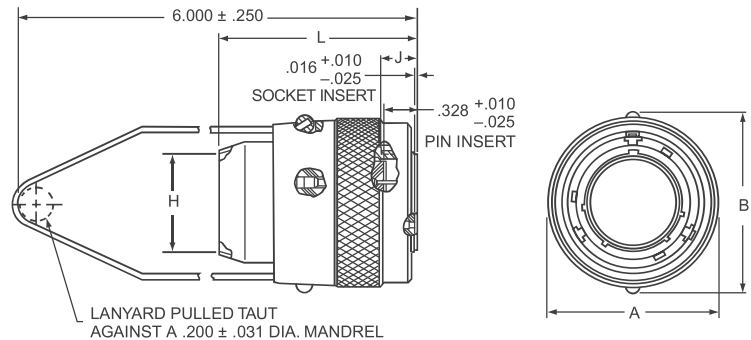


# PT-CE Breakaway

## twist pull plug

The PT-CE miniature breakaway connector has the following design features:

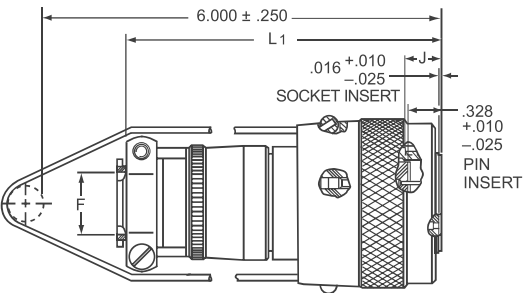
- crimp front release, front removable contacts in “CE” nylon wafer retention system
- 2 styles available: potted termination and environmental style with a strain relief
- instant decoupling of plug and receptacle with an axial pull on the lanyard when they are fully mated
- intermateable with standard receptacles
- operating voltage to 900 VAC (RMS) at sea level
- quick positive bayonet coupling and 5 key/key-way polarization



Breakaway PT-CE with Crimp Contacts,  
Potted Termination  
71-2512XX-( )  
72-2512XX-( )

Part Number*	Part Number*	Shell Size	A Dia. Max.	B Max.	F Dia. $\pm .016$	H Dia. $\pm .016$	J $\pm .010$	L Max.	L <sub>1</sub> Max.
71-251209	71-339508	8	.875	.984	.125	.327	.353	1.937	2.937
71-251210	71-339510	10	1.125	1.125	.188	.444	.353	1.890	2.937
71-251211	71-339512	12	1.281	1.406	.312	.558	.353	1.906	3.000
71-251212	71-339514	14	1.438	1.562	.375	.683	.353	1.953	3.000
71-251213	71-339516	16	1.562	1.688	.500	.808	.353	2.000	3.187
71-251214	71-339518	18	1.718	1.844	.625	.909	.353	2.031	3.375
71-251215	71-339520	20	1.875	2.000	.625	1.034	.415	2.234	3.375
71-251216	71-339522	22	2.031	2.188	.750	1.159	.415	2.328	3.375
71-251217	71-339524	24	2.156	2.312	.800	1.284	.415	2.359	3.625

All dimensions for reference only.  
\* See Finish information below to determine prefix 71 or 72 in part number.  
Drawing above shows standard lanyard length.



Breakaway PT-CE with Crimp Contacts,  
Environmental with Strain Relief  
71-3395XX-( )  
72-3395XX-( )

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

71	-	2512	50	-	32	P
1		2	3		4	5

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 hr. extended salt spray.
2. Connector Type Identification  
2512XX designates PT-CE plug, crimp, potted termination style  
3395XX designates PT-CE plug, crimp, environmental with strain relief style
3. Shell Size  
See part number columns in chart above for 2 digit number at end that correlates to the shell size. Example: ‘50’ correlates to shell size 18.
4. Insert Arrangement Number  
See insert availability for Miniature Breakaway connectors on page 6. The number following the hyphen is the insert arrangement number.
5. 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 Contacts		Socket Contacts	
Amphenol Letter	Equates to MS letter	Amphenol Letter	Equates to MS letter
G	PW	H	SW
I	PX	J	SX
K	PY	L	SY
M	PZ	N	SZ

# 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:

<u>PT</u>	<u>00</u>	<u>CE</u>	<u>-</u>	<u>20</u>	<u>-</u>	<u>41</u>	<u>P</u>	<u>W</u>	<u>(SR)</u>
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 mounting, 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.
8. "(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.