

# Amphenol® PT-SE, SP-SE, MS/PT-SE

## Proprietary/MIL-C-26482, Series 1

### bayonet coupling and crimp termination



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.

**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					
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-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

“SE” (SR),  
MS / “F”  
strain relief  
clamp

“SP”,  
MS / “P”  
potting boot

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

# MF00 SE (MS3128)

## wall mounting receptacle



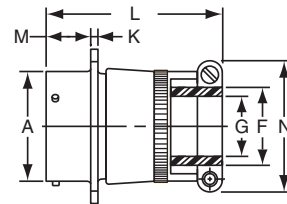
TERMINATION ASSEMBLIES

MS / "E" Open Wire Seal



MF00SE-XX-XXX  
MS3128E-XX-XXX

MS / "F" Strain Relief



MF00SE-XX-XXX (SR)  
MS3128F-XX-XXX

To complete part number see how to order on page 39.  
 ■ (MMC) located within .0025 of (TP)

Shell Size	Receptacle Front View					Receptacle Side View									
	R	R <sup>1</sup>	S Max.	T Dia. ±.005	T <sup>1</sup> Dia. ±.005	A Dia. +.001 - .005	K ±.016	M +.010 - .000	Class MS / "E"		Class MS / "F"				
									L Max.	N Max.	F Min.	G Dia.	L Max.	N Max.	
10	.719	.812	1.141	.120	.150	.590	.062	.462	1.328	.685	.297	.188	1.906	.891	
12	.812	.938	1.266	.120	.150	.750	.062	.462	1.328	.813	.422	.312	1.906	1.016	
14	.906	1.031	1.360	.120	.150	.875	.062	.462	1.328	.930	.547	.375	1.906	1.141	
16	.969	1.125	1.453	.120	.150	1.000	.062	.462	1.328	1.057	.609	.500	2.000	1.203	
18	1.062	1.203	1.532	.120	.150	1.125	.062	.462	1.328	1.175	.734	.625	2.000	1.469	
20	1.156	1.297	1.688	.120	.150	1.250	.094	.556	1.359	1.301	.734	.625	2.172	1.469	
22	1.250	1.375	1.766	.120	.150	1.375	.094	.556	1.359	1.428	.922	.750	2.172	1.656	
24	1.375	1.500	1.891	.147	.150	1.500	.094	.589	1.422	1.533	.984	.800	2.234	1.750	

All dimensions for reference only.

# 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	P	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 - Aluminite® (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 MS3120E20-41PW is shown as follows:

MS	312	0	E	20	-	41	P	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 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.

HOW TO ORDER  
PT-SE, SP-SE, MS/PT-SE