



## ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 Through 7

STEP	1	2	3	4	5	6	7	8	9
EXAMPLE	PLB	06	F	3	0	0	A1	/AA	—

### STEP 1 - BASIC SERIES

- PLA - 1 Row
- PLAH - 1 Row High conductivity contacts
- PLB - 2 Row
- PLBH - 2 Row High conductivity contacts
- PLC - 3 Row
- PLCH - 3 Row High conductivity contacts

### STEP 2 - CONNECTOR VARIANTS

- 1 Row - 03, 04, 06, 08
- 2 Row - 06, 08, 12, 16, \*20
- 3 Row - 09, 12, 18, 24, 30

### STEP 3 - CONNECTOR GENDER

- M - Male
- F - Female

### STEP 4 - CONTACT TERMINATION TYPE

- \*0 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53.
- \*1 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53.
- 2 - Solder cup, 18 AWG [1.0mm<sup>2</sup>] max. for panel mount connector, for connection system 8. Not available as PL\*H.
- 3 - Solder, Straight Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 4 and 6.
- 32 - Solder, Straight Printed Board Mount with 0.377 [9.58] tail extension for connection system 3 and systems 1, 4 and 6.
- 4 - Solder, Right Angle (90°) Printed Board Mount with 0.146 [3.71] tail extension for connection systems 1, 2 and 5.
- 42 - Solder, Right Angle (90°) Printed Board Mount with 0.377 [9.58] tail extension for connection system 3 and systems 1,2 and 5.
- 62 - Press-in, compliant termination Right Angle (90°) Printed Board Mount, termination length 0.183 [4.65]. Must select "B3" in step 5.
- 63 - Press-in, compliant termination Right angle (90°) Printed Board Mount, termination length 0.219 [5.56]. Must select "B3" in step 5.
- \*17 - Order contacts separately for cable connectors for connection systems 5, 6, 7, 8 and 9, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
- \*18 - Removable contact, panel mounted connector for connection system 8. Order contacts separately, see pages 47-53. Terminating side of insulator has 0.165 [4.19] ø c'bore for large wire sizes.
- 92 - Straight printed board mount, press-in, length 0.183 [4.65] for 0.093 inch [2.36] thick board.
- 93 - Straight printed board mount, press-in, length 0.218 [5.54] for 0.125 inch [3.18] thick board.

### STEP 5 - MOUNTING STYLE

- 0 - None,
- B - Metal Right Angle (90°) Mounting Bracket.
- BN - Metal Right Angle (90°) Mounting Bracket with Push-on Fastener.
- B3 - Plastic Right Angle (90°) Mounting Bracket with Cross Bar.
- B3N - Plastic Right Angle (90°) Mounting Bracket with Cross Bar and Push-on Fastener.
- N - Push-On Fastener For Straight Printed Board Mount Connectors
- \*ST2 - Self-tapping steel screws 2-28 x 0.250±0.030 [6.35±0.76] length for 0.093 [2.36] thick board.
- \*ST3 - Self-tapping steel screws 2-28 x 0.312±0.030 [7.92±0.76] length for 0.125 [3.18] thick board.
- \*ST4 - Self-tapping steel screws 2-28 x 0.375±0.030 [9.53±0.76] length for 0.175 [4.45] thick board.
- \*SS2 - Self-tapping stainless steel screws 2-28 x 0.250±0.030 [6.35±0.76] length for 0.093 [2.36] thick board.
- \*SS3 - Self-tapping stainless steel screws 2-28 x 0.312±0.030 [7.92±0.76] length for 0.125 [3.18] thick board.
- \*SS4 - Self-tapping stainless steel screws 2-28 x 0.375±0.030 [9.53±0.76] length for 0.175 [4.45] thick board.

### STEP 9 - SPECIAL OPTIONS

Sequential Mating Systems refer to page 25.  
*CONTACT TECHNICAL SALES FOR SPECIAL OPTIONS*

### STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

/AA - RoHS Compliant

**NOTE:** If compliance to environmental legislation is not required, this step will not be used.  
Example: PLB06F300A1

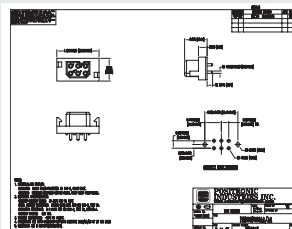
### STEP 7 - CONTACT PLATING FOR PRINTED BOARD CONNECTORS

- 0 - Crimp Contacts ordered separately, see pages 47-53.
- A1 - Gold flash over nickel on mating end and termination end.
- A2 - Gold flash over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coat on termination end. Not available with code 62, 63, 92 or 93 in step 4.
- C1 - 0.000030 inch [0.76µ] gold over nickel on mating end and termination end.
- C2 - 0.000030 inch [0.76µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.
- D1 - 0.000050 inch [1.27µ] gold over nickel on mating end and termination end.
- D2 - 0.000050 inch [1.27µ] gold over nickel on mating end and 0.00020 inch [5.00µ] tin-lead solder coated termination end. Not available with code 62, 63, 92 or 93 in step 4.

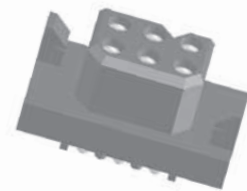
### STEP 6 - HOODS AND PANEL MOUNT

- 0 - None.
- 5 - Top Opening Hood.
- 6 - Panel Mount, quick release.
- 81 - Panel Mount, fixed for 0.040 [1.02] thick panel.
- 82 - Panel Mount, fixed for 0.060 [1.52] thick panel.
- 83 - Panel Mount, fixed for 0.090 [2.29] thick panel.
- 11 - Blind Mating System for 0.040 [1.02] thick panel.
- 12 - Blind Mating System for 0.060 [1.52] thick panel.
- 13 - Blind Mating System for 0.090 [2.29] thick panel.
- 14 - Blind Mating System for 0.120 [3.05] thick panel.

**NOTE:** Once you have made a connector selection, contact Technical Sales if you would like to receive a drawing in DXF, PDF format or a 3-D IGES, STEP, or SOLIDWORKS file.



2-D Drawing



3-D Model

\*1 For high conductivity removable contact connectors, order PLA, PLB, or PLC connectors (in Step 1) and \*C112N(2)S contacts found on pages 49-51.

\*2 PLB20 variant available with code 2, 3, 32, 4, 42, 92, and 93 only in Step 4.

\*3 Mounting screws are available with code 1, 2, 3, 32, 8, 92 and 93. To order mounting screws separately, see page 59 for part numbers.



## REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

### SIZE 20 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

**STANDARD:** Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

#### MECHANICAL CHARACTERISTICS:

**STANDARD:** Insert contact to rear face of insulator, release from front face of insulator. Size 20 contacts, 0.040 inch [1.02 mm] diameter male contacts, closed entry design female contacts.

#### ELECTRICAL CHARACTERISTICS:

**Contact Current Rating:** 7.5 amperes nominal.  
**Initial Contact Resistance:** 0.007 ohms max. per IEC 60512-2, test 2b.

### SIZE 16 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

**STANDARD:** Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

**HIGH CONDUCTIVITY:** Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

#### SHIELDED:

**Dielectric Material:** PCTFE  
**Inner Contacts:** Phosphor bronze, 0.000030 inch [0.76 $\mu$ ] gold over nickel. Other finishes are available, see optional plating finishes for -15.  
**Outer Contacts:** Brass and beryllium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14.

#### MECHANICAL CHARACTERISTICS:

**STANDARD AND HIGH CONDUCTIVITY:** Insert contact to rear face of insulator, release from front face of insulator. Size 16 contacts, 0.0625 inch [1.588 mm] diameter male contacts. Female contact closed entry for highest reliability.

#### SHIELDED:

**Contact Retention In Insulator:** 18 lbs. [80N].  
**Removable Contacts:** Rear insertion, front removable.  
**Insertion Force Per Contact:** 8 oz. [2.2N] per contact maximum  
**Durability:** 100 cycles minimum.  
**Vibration:** 20g from 10 Hz to 500 Hz  
**Shock:** 30g - 11 ms

#### ELECTRICAL CHARACTERISTICS:

**STANDARD:**  
**Contact Current Rating:** See page 9 for detail information.  
**Initial Contact Resistance:** 0.0016 ohms max. per IEC 60512-2, test 2b.

**HIGH CONDUCTIVITY:**  
**Contact Current Rating:** See page 9 for detail information.  
**Initial Contact Resistance:** 0.0007 ohms max. per IEC 60512-2, test 2b.

#### SHIELDED:

**Dielectric Strength At Sea Level:** 600 V rms  
**Initial Contact Resistance:** 0.012 ohms maximum  
**Insulation Resistance:** 5 G ohms  
**Insertion Loss:** 0.2 dB at 500 MHz for 126N contacts  
1.0 dB at 500 MHz for 226N contacts  
**VSWR:** 170 at 0 to 200 MHz  
2.25 at 200 to 500 MHz

### SIZE 12 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

**STANDARD:** Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

**HIGH CONDUCTIVITY:** Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

#### MECHANICAL CHARACTERISTICS:

**STANDARD AND HIGH CONDUCTIVITY:** Insert contact to rear face of insulator, release from front face of insulator. Size 12 contacts, 0.094 inch [2.39 mm] diameter male contacts. Female contact closed entry for highest reliability.

#### ELECTRICAL CHARACTERISTICS:

**STANDARD:**  
**Contact Current Rating:** 40 amperes continuous, derated per IEC 60512-3, test 5b.  
**Initial Contact Resistance:** 0.001 ohms max. per IEC 60512-2, test 2b.  
**HIGH CONDUCTIVITY:**  
**Contact Current Rating:** See page 33 for detail information.  
**Initial Contact Resistance:** 0.0007 ohms max. per IEC 60512-2, test 2b.

### SIZE 8 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

**STANDARD:** Precision machined copper alloy with gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

**HIGH CONDUCTIVITY:** Tellurium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14 and -15.

#### HIGH VOLTAGE:

**Insulator Material:** PTFE teflon  
**Contacts:** Male contacts, brass. Female contacts, phosphor bronze. Male and female contacts, 0.000030 inch [0.76 $\mu$ ] gold over nickel. Other finishes are available, see optional plating finishes for -15.

#### SHIELDED:

**Dielectric Material:** PTFE teflon  
**Inner Contacts:** Phosphor bronze, 0.000030 inch [0.76 $\mu$ ] gold over nickel. Other finishes are available, see optional plating finishes for -15.

**Outer Contacts:** Brass and beryllium copper, gold flash over nickel. Other finishes are available, see optional plating finishes for -14.

... continued on next page

For information regarding CRIMP TOOLS & CRIMPING TOOL TECHNIQUES, see page 54.



## REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

*continued from previous page . . .*

### MECHANICAL CHARACTERISTICS:

#### STANDARD AND

#### HIGH CONDUCTIVITY:

Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts, 0.142 inch [3.61 mm] diameter male contacts, closed entry design female contacts.

#### HIGH VOLTAGE:

Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. Straight and right angle (90°) terminations. 0.041 inch [1.04 mm] minimum hole diameter.

#### Durability:

500 cycles minimum.

#### Vibration:

20g from 10 Hz to 500 Hz.

#### Shock:

30g-11ms.

#### SHIELDED:

Insert contact to rear face of insulator, release from front face of insulator. Size 8 contacts. See page 53 table of cable sizes for contact Termination dimensions.

### ELECTRICAL CHARACTERISTICS:

#### STANDARD:

- Contact Current Rating:** See temperature rise curves on page 40.  
For additional information see page 51-52.
- Initial Contact Resistance:** 0.001 ohms max. per IEC 60512-2, test 2b.

#### HIGH CONDUCTIVITY:

- Contact Current Rating:** See temperature rise curves on page 40.
- Initial Contact Resistance:** 0.0003 ohms max. per IEC 60512-2, test 2b.

#### HIGH VOLTAGE:

- Flash over Voltage:** 3600 V r.m.s.
- Proof Voltage:** 2700 V r.m.s.
- Initial Contact Resistance:** 0.008 ohms maximum.

#### SHIELDED:

- Initial Contact Resistance:** 0.008 ohms maximum.
- Nominal Impedance:** 50 ohms.
- Insertion Loss:** -0.46 dB at 1 GHz  
-1.5 dB at 2 GHz

- VSWR:** 1.15 average at 1 GHz  
1.56 average at 2 GHz
- Above values measured using frequency domain techniques.
- Proof Voltage:** 1000 V r.m.s.

### OPTIONAL PLATING FINISHES

- 14** 0.000030 [0.76  $\mu$ ] gold over nickel by adding "-14" suffix onto part number. *Example: FC720N2-14.*
- 15** 0.000050 inch [1.27 $\mu$ ] gold over nickel by adding "-15". *Example: FC720N2-15.*

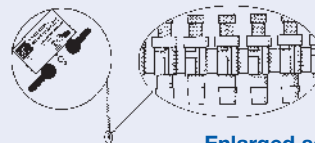
### RoHS OPTIONS:

- /AA** Environmental Compliance Option: RoHS compliant can be achieved by adding "/AA" suffix onto part number. *Examples: FC720N2/AA or for optional plating finishes use FC720N2/AA-14.*

### REELED CONTACTS:

Contacts may be supplied in plastic carriers, packaged in reels holding 2,000 contacts for use with the automatic pneumatic crimp tools, catalog part numbers 9550-0 and 9550-1; packaged in reels holding 1,000 contacts for use with the automatic pneumatic crimp tools, catalog part number 9555-0-2. The same type carrier is used for both male and female contacts.

All male and female crimp contacts can be ordered in reels by adding letter "R" after the contact part number, such as MC6020DR for a male contact and FC6026DR for a female contact.



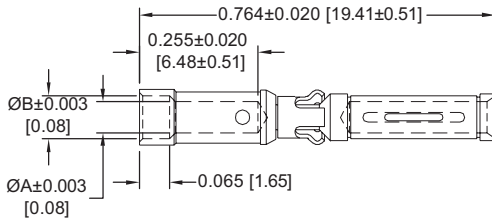
Enlarged section of  
plastic contact carriers

See page 9 for  
current ratings.

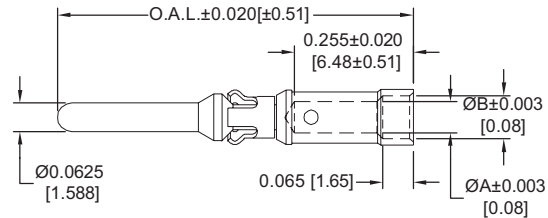
**REMOVABLE CRIMP CONTACT**  
FOR USE WITH PCS SERIES CONNECTORS  
CONTACTS MUST BE ORDERED SEPARATELY  
SIZE 16

Note: Connectors can be kitted  
with all applicable crimp/  
solder contacts, con-  
tact Technical Sales for  
connector part number.

**FEMALE CONTACT**  
"CLOSED ENTRY" DESIGN



**MALE CONTACT**



PART NUMBERS	WIRE SIZE AWG/[mm <sup>2</sup> ]	ØA	ØB
FC112N2	12 [4.0]	0.098 [2.49]	N/A
FC112N2S	12 [4.0]	0.098 [2.49]	N/A
FC114N2	14-16 [2.5-1.5]	0.081 [2.06]	0.105 [2.67]
FC116N2	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]
FC120N2	20-22-24 [0.5-0.3-0.25]	0.045 [1.14]	0.068 [1.73]

"S" in  
part number  
indicates high  
conductivity  
material.  
  
Compatible  
with PL\*H  
PCB mount  
connectors.  
See ordering  
information.

PART NUMBERS	WIRE SIZE AWG/[mm <sup>2</sup> ]	ØA	ØB	OAL
MC112N	12 [4.0]	0.098 [2.49]	N/A	0.764 [19.41]
MC112NS	12 [4.0]	0.098 [2.49]	N/A	0.764 [19.41]
*MC112N-133.0	12 [4.0]	0.098 [2.49]	N/A	0.684 [17.37]
*MC112N-133.1	12 [4.0]	0.098 [2.49]	N/A	0.724 [18.39]
*MC112N-133.2	12 [4.0]	0.098 [2.49]	N/A	0.744 [18.90]
*MC112N-133.3	12 [4.0]	0.098 [2.49]	N/A	0.804 [20.42]
MC114N	14-16 [2.5-1.5]	0.081 [2.06]	0.105 [2.67]	0.764 [19.41]
MC116N	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]	0.764 [19.41]
*MC116N-133.0	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]	0.684 [17.37]
*MC116N-133.1	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]	0.724 [18.39]
*MC116N-133.2	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]	0.744 [18.90]
*MC116N-133.3	16-18 [1.5-1.0]	0.067 [1.70]	0.093 [2.36]	0.804 [20.42]
MC120N	20-22-24 [0.5-0.3-0.25]	0.045 [1.14]	0.068 [1.73]	0.764 [19.41]

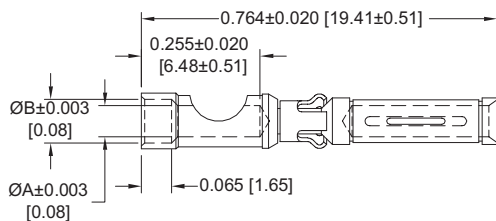
\* indicates Sequential mate contacts,  
see page 25 for more information  
regarding Sequential Mating System.

See page 9 for  
current ratings.

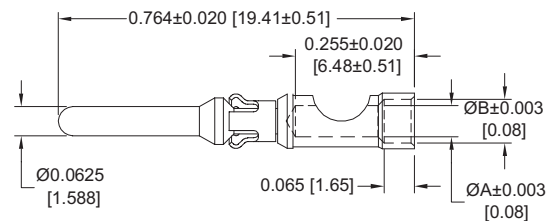
**REMOVABLE SOLDER CUP CONTACT**  
FOR USE WITH PCS SERIES CONNECTORS  
CONTACTS MUST BE ORDERED SEPARATELY  
SIZE 16

Note: Connectors can be kitted  
with all applicable crimp/  
solder contacts, con-  
tact Technical Sales for  
connector part number.

**FEMALE CONTACT**  
"CLOSED ENTRY" DESIGN



**MALE CONTACT**



PART NUMBERS	WIRE SIZE AWG/[mm <sup>2</sup> ]	ØA	ØB
FS112N2	12 [4.0]	0.098 [2.49]	N/A
FS112N2S	12 [4.0]	0.098 [2.49]	N/A
FS114N2	14 [2.5]	0.081 [2.06]	0.105 [2.67]
FS116N2	16 [1.5]	0.067 [1.70]	0.093 [2.36]
FS120N2	20 [0.5]	0.045 [1.14]	0.068 [1.73]

"S" in  
part number  
indicates high  
conductivity  
material.  
  
Compatible  
with PL\*H  
PCB mount  
connectors.  
See ordering  
information.

PART NUMBERS	WIRE SIZE AWG/[mm <sup>2</sup> ]	ØA	ØB
MS112N	12 [4.0]	0.098 [2.49]	N/A
MS112NS	12 [4.0]	0.098 [2.49]	N/A
MS114N	14 [2.5]	0.081 [2.06]	0.105 [2.67]
MS116N	16 [1.5]	0.067 [1.70]	0.093 [2.36]
MS120N	20 [0.5]	0.045 [1.14]	0.068 [1.73]

For information regarding **CRIMP TOOLS & CRIMPING TOOL TECHNIQUES**, see page 54.



Positronic  
connectpositronic.com

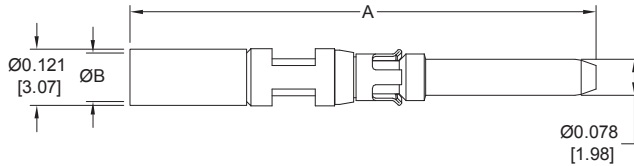
# REMOVABLE SHIELDED AND CRIMP CONTACT SIZE 16 AND SIZE 12

Power  
Connection  
Systems

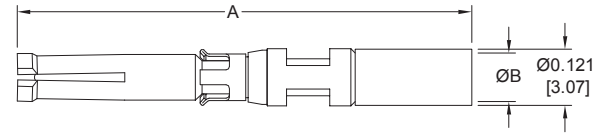
## REMOVABLE CRIMP SHIELDED CONTACT FOR USE WITH PCS SERIES CONNECTORS CONTACTS MUST BE ORDERED SEPARATELY SIZE 16

*Note: Connectors can be kitted with all applicable crimp/solder contacts, contact Technical Sales for connector part number.*

**MALE CONTACT**



**FEMALE CONTACT**



PART NUMBERS	CABLE SIZE	CHARACT. IMPED.	A	ØB
<b>MCS126N</b>	RG 178 B/U	50 ohms	0.993 [25.22]	0.045 [1.14]
	RG 196 B/U	50 ohms		
<b>MCS226N</b>	RG 179 B/U	75 ohms	1.022 [25.96]	0.070 [1.78]
	RG 316 /U	50 ohms		

PART NUMBERS	CABLE SIZE	CHARACT. IMPED.	A	ØB
<b>FCS126N2</b>	RG 178 B/U	50 ohms	0.967 [24.56]	0.045 [1.14]
	RG 196 B/U	50 ohms		
<b>FCS226N2</b>	RG 179 B/U	75 ohms	1.022 [25.96]	0.070 [1.78]
	RG 316 /U	50 ohms		

REMOVABLE CONTACT