

## 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	PCIH	47	F	93	0	0	A1	/AA	

## STEP 1 - BASIC SERIES

PCIH - PCIH Series

## STEP 2 - CONNECTOR VARIANTS

- 38 - 23 size 16 contacts and 15 size 20 contacts
- 38R - 23 size 16 contacts and 15 size 20 contacts inverted termination style, use with contact type "4"
- 47 - 23 size 16 contacts and 24 size 22 contacts
- 47R - 23 size 16 contacts and 24 size 22 contacts inverted termination style, use with contact type "4"
- 49W25 - 25 size 16 contacts and 24 size 22 contacts
- \*149W25R - 25 size 16 contacts and 24 size 22 contacts inverted termination style, use with contact type "4"

## STEP 3 - CONNECTOR GENDER

F - Female  
M - Male

## STEP 4 - CONTACT TERMINATION TYPE

- 3 - Solder, Straight Printed Board Mount with 4.50 [0.177] tail extension for connection systems 1 and 2.
- 4 - Solder, Right Angle (90°) Printed Board Mount with 2.68 [0.106] tail extension for connection systems 1, 2, 3 and 4.
- \*28 - Contacts must be ordered separately for Panel Mount Cable Connectors, connection system 3, see pages 102-103. Female connector only.
- 93 - Press-Fit, Compliant Termination size 16 and size 20 or size 22 Straight Printed Board Mount for use with board thicknesses of 2.29 to 4.45 [0.090 to 0.175]. Connection systems 1 and 2.
- 94 - Press-Fit, Compliant Termination size 16 and size 20 or size 22 Straight Printed Board Mount for use with board thickness of 4.45 minimum [0.175 minimum]. Connection systems 1 and 2.

## STEP 5 - MOUNTING STYLE

0 - Not Applicable

See page 105 for mounting screw options.

## STEP 6 - HOODS

0 - Not applicable

\*1 Female contact variants are readily available. Contact Technical Sales for availability of male contact variants.

\*2 Available for 38 and 47 variants. Contact Technical Sales for availability of 49W25 variant.

## STEP 9 - SPECIAL OPTIONS

FOR LISTING OF SPECIAL OPTIONS,  
SEE SPECIAL OPTIONS APPENDIX  
ON PAGES 107-108.

## STEP 8 - ENVIRONMENTAL COMPLIANCE OPTIONS

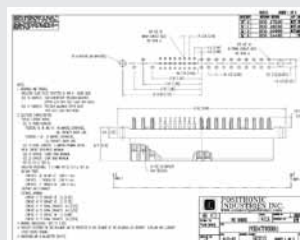
/AA - RoHS Compliant

**NOTE:** If compliance to environmental legislation is not required, this step will not be used.  
Example: PCIH47F9300A1

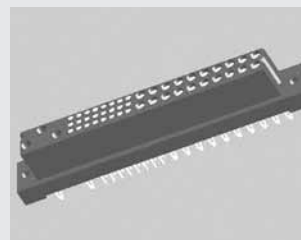
## STEP 7 - CONTACT PLATING FOR PRINTED BOARD TYPE CONNECTORS

- 0 - Crimp contacts ordered separately
- A1 - Gold flash over nickel on mating end and termination end.
- A2 - Gold flash over nickel on mating end and 5.00μ [0.00020 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
- C1 - 0.76μ [0.000030 inch] gold over nickel on mating end and termination end.
- C2 - 0.76μ [0.000030 inch] gold over nickel on mating end and 5.00μ [0.00020 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.
- D1 - 1.27μ [0.000050 inch] gold over nickel on mating end and termination end.
- D2 - 1.27μ [0.000050 inch] gold over nickel on mating end and 5.00μ [0.00020 inch] tin-lead solder coat on termination end. Not available with code 93 or code 94 in step 4.

**NOTE:** If you would like a 2D drawing or 3D model, once you've made your connector selection, please visit [www.connectpositronic.com](http://www.connectpositronic.com). If you can't find your specific part number on our web site, contact Technical Sales to have one created.



2D Drawing



3D Model

## REMOVABLE CONTACT TECHNICAL CHARACTERISTICS

### SIZE 22 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

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

#### MECHANICAL CHARACTERISTICS:

Insert contact to rear face of insulator, release from front face of insulator. Female contact feature "Closed Entry" design for highest reliability.

#### ELECTRICAL CHARACTERISTICS:

**Contact Current Rating:** 3 amperes nominal.  
**Initial Contact Resistance:** 0.005 ohms max. per IEC 60512-2, test 2b.

### SIZE 20 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

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

#### MECHANICAL CHARACTERISTICS:

Insert contact to rear face of insulator, release from front face of insulator. Female contact feature "Closed Entry" design for highest reliability.

#### ELECTRICAL CHARACTERISTICS:

**Contact Current Rating:** 5 amperes nominal.  
**Initial Contact Resistance:** 0.004 ohms max. per IEC 60512-2, test 2b.

### SIZE 16 REMOVABLE CONTACT

#### MATERIALS AND FINISHES:

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

#### MECHANICAL CHARACTERISTICS:

Insert contact to rear face of insulator, release from front face of insulator. Female contact feature "Closed Entry" design for highest reliability.

#### ELECTRICAL CHARACTERISTICS:

**Contact Current Rating:** See Size 16 contact current ratings for individual variants:

PCIH - refer to page 13  
PCIA - refer to page 38  
PCIM - refer to pages 47-48  
PCIB - refer to page 72  
PCIC - refer to page 91

**Initial Contact Resistance:** 0.0007 ohms max. per IEC 60512-2, test 2b.

#### 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:

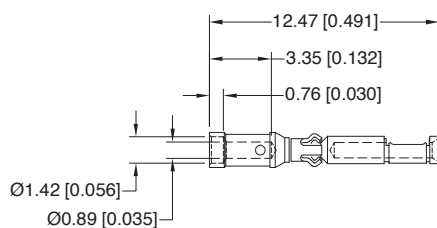
**/AA** Environmental Compliance Option: RoHS compliant can be achieved by adding "/AA" suffix onto part number. *Examples:* FC720N2/AA or for optional finishes use FC720N2/AA-14.

## REMOVABLE CRIMP CONTACT

FOR USE WITH PCIH, PCIA, PCIM, PCIB & PCIC SERIES PANEL MOUNT VERSION  
CONTACTS MUST BE ORDERED SEPARATELY

### SIZE 22

#### FEMALE CONTACT "CLOSED ENTRY" DESIGN



**Part Number: FC422N8**  
Wire size 0.3 mm<sup>2</sup> [22 AWG]



Authentic Positronic®  
**PosiBand®**

These contacts utilize authentic Positronic PosiBand® technology.  
Protected by U.S. Patent 7,115,002

#### What makes Positronic's new PosiBand® contact interface a significant improvement?

- Higher reliability in harsh environments and repeated mating cycles, and durability in blind mate applications
- More stable price over time
- No need to anneal PosiBand contacts eliminating possibility of incorrect annealing causing reliability problems on the mating end of the contact
- PosiBand is protected by US Patent 7,115,002

*For more information on PosiBand contacts, please contact Technical Sales.*

*For information regarding crimp tool and crimping tool techniques, see Application Tools section, pages 104-106.*



Positronic  
connectpositronic.com

## REMOVABLE CONTACTS

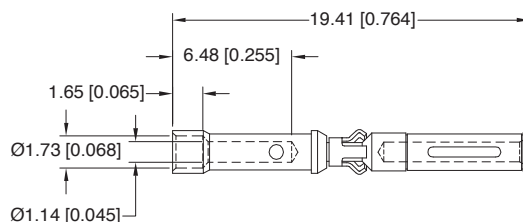
Compact  
Power  
Connectors

### REMOVABLE CRIMP CONTACT

FOR USE WITH PCIH SERIES PANEL MOUNT VERSION  
CONTACTS MUST BE ORDERED SEPARATELY  
SIZE 20

#### FEMALE CONTACT

"CLOSED ENTRY" DESIGN



Part Number: **FC720N2**

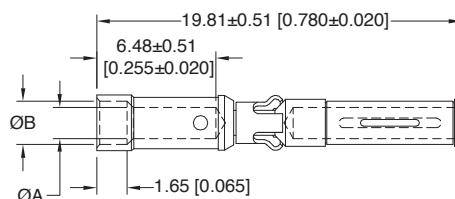
Wire size 0.5-0.3-0.25 mm<sup>2</sup> [20-22-24 AWG]

### REMOVABLE CRIMP CONTACT

FOR USE WITH A.C. PASS-THROUGH AND PANEL MOUNT VERSIONS  
FOR PCIH, PCIA, PCIM, PCIB & PCIC SERIES CONNECTORS  
CONTACTS MUST BE ORDERED SEPARATELY  
SIZE 16

#### FEMALE CONTACT <sup>\*1</sup>

"CLOSED ENTRY" DESIGN, L.S.A.



PART NUMBER	WIRE SIZE mm <sup>2</sup> [AWG]	ØA	ØB
<b>FC112N2S-1565.0</b>	4.0 / [12]	2.49 [0.098]	n/a
To maintain current rating, FC112N2S-1565.0 must be used			
<b>FC114N2-1565.0</b>	2.5-1.5 / [14-16]	2.06 [0.081]	2.67 [0.105]
<b>FC116N2-1565.0</b>	1.5-1.0 / [16-18]	1.70 [0.067]	2.36 [0.093]
<b>FC120N2-1565.0</b>	0.5-0.3-0.25 / [20-22-24]	1.14 [0.045]	1.73 [0.068]

"S" in part number indicates high conductivity material.

These contact options do not feature high conductivity material and are for use with smaller than 12 awg wire. Contact resistance is 0.0016 ohms max. per IEC 60512-2, test 2b.

NOTE: <sup>\*1</sup> Female contacts feature Large Surface Area (L.S.A.) closed entry contact design which provides maximum mating surfaces between male and female contact and reduced contact resistance during operation.

*For information regarding crimp tool and crimping tool techniques, see Application Tools section, pages 104-106.*