

# Connector Ordering Information and Automatic Crimp Machine



Specify complete connector by following step 1 through step 6.  
Include step 7 for customized connectors.

STEP	1	2	3	4	5	6	7
<b>EXAMPLE</b>	<b>GFSH</b>	<b>02</b>	<b>F</b>	<b>4</b>	<b>LN</b>	<b>/AA</b>	<b>XXXXX</b>
<p><b>STEP 1: Basic Series</b> GFSH : Goldfish Series</p> <p><b>STEP 2: Connector Versions</b>                      02 : Connector with 21 size 16 power contacts and 12 size 20 signal contacts.                      89 : Connector with 8 size 16 power contacts and 9 size 22 signal contacts.                      109 : Connector with 10 size 16 power contacts and 9 size 22 signal contacts.                      435 : Connector with 9 size 16 power contacts. 4 size 12 power contacts and 12 size 20 signal contacts.                      624 : Connector with 6 size 16 power contacts and 24 size 22 signal contacts.                      928 : Connector with 18 size 16 power contacts and 28 size 22 signal contacts.</p> <p><b>STEP 3: Connector Gender</b>                      F : Female                      M : Male</p> <p><b>STEP 4: Type of Contact</b>                      1 : Removable contact, panel/ float mount/ cable version. (contacts ordered separately).                      3 : Solder, straight PCB mount.                      4 : Solder, right angle (90°) PCB mount.                      37 : Solder, straight PCB mount. (high conductivity size 16 power contacts).                      38 : Solder, straight PCB mount, GFSH435 only, (high conductivity size 12 power contacts).                      47 : Solder, right angle (90°) PCB mount. (high conductivity size 16 power contacts).                      48 : Solder, right angle (90°) PCB mount, GFSH435 only. (high conductivity size 12 power contacts).                      93 : Press-fit compliant terminations.                      94 : Press-fit compliant terminations.</p>							<p><b>STEP 7: Special Options</b>                      Consult factory for customization of Goldfish Power Connectors.                      E.g. selective loading, sequential mating, etc.</p> <p><b>STEP 6: Environmental Compliance options</b>                      /AA : Compliant per EU Directive 2002/95/EC (RoHS)  <b>Note: If no environmental options are required, this step will not be used.</b>                      Examples: GFSH02F4LN</p> <p><b>STEP 5: Mounting Style</b>                      H : No hardware. For mounting connector with self-tapping screws. (Order screws separately.)                      N : Straight PCB mount push-on fasteners.                      B : Right angle (90°) PCB mount through hole angle brackets.                      LN : Right angle (90°) PCB mount board lock angle brackets.                      82 : Panel/ float mount for 1.5 mm thick panel.                      83 : Panel/ float mount for 2.3 mm thick panel.                      E : Turnable male jackscrews.                      T : Fixed female jackscrews.                      TB : Fixed female jackscrews with Right angle (90°) PCB mount through hole angle brackets.                      TLN : Fixed female jackscrews with Right angle (90°) PCB mount board lock angle brackets.                      W : Hood.                      WE : Turnable Male Jackscrew with Hood.</p>

## Automatic Crimp Machine

### Part No. 9550-0

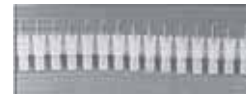
This fast cycling and reliable automatic crimp machine produces a four double-indent crimp, meeting Military Standard and proprietary specifications on wire sizes 12 AWG (4.0mm<sup>2</sup>) through 30 AWG (0.05mm<sup>2</sup>).

The tool is a bench mount pneumatic unit of compact size and weight. Contacts must be ordered separately and are supplied on a reel in quantities of 2000.

To order, specify part number 9550-0. Foot pedal control valve is supplied as a standard accessory.

### CONTACT CARRIERS

Molded thermoplastic carriers in a continuous belt feed contacts to the crimp station of the automatic feed tool. They also locate the contacts in respect to the tool's indenters. The carriers are color coded white and natural for contact identification for both MS and proprietary applications. Part number for contacts supplied in reels ends with a 'R', example, FC114N2R.



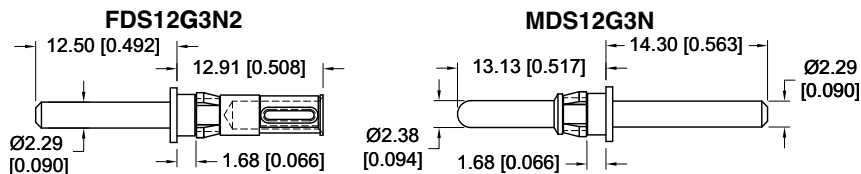
Machine not sold; for rent only.

# Removable, Solder, Straight PCB Mount Contacts



## Removable, Solder, Straight PCB Mount Contacts

### Size 12

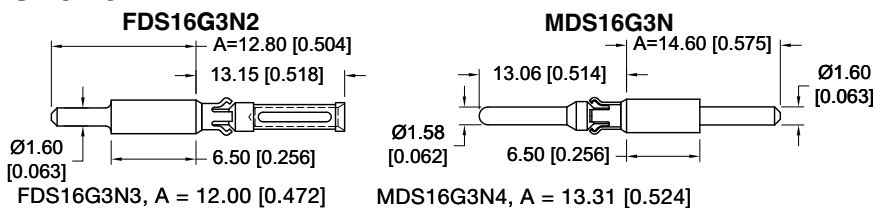


Material and Finishes: Precision machined copper alloy with gold flash over nickel. Other finishes are available.

Now you can easily mix crimp terminations and PCB mount solder terminations within one connector!

For use in crimp version connectors.

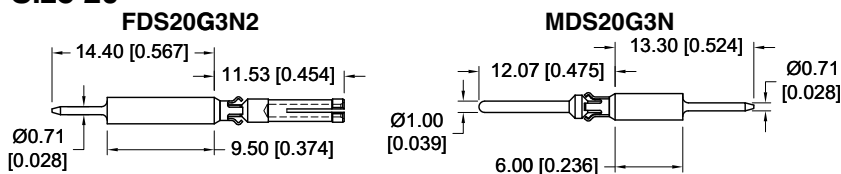
### Size 16



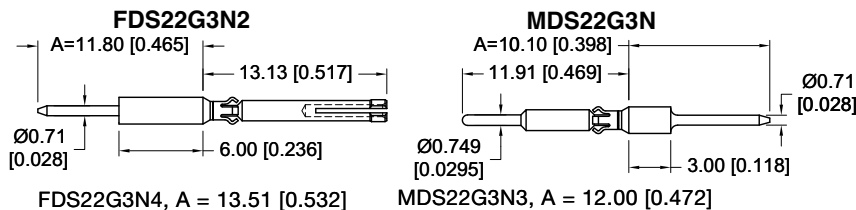
### Contact Ordering Information

Connector Variant	Power Contact	Signal Contact
GFSH02F1H	FDS16G3N2	FDS20G3N2
GFSH02M1H	MDS16G3N	MDS20G3N
GFSH109/624F1H	FDS16G3N3	FDS22G3N2
GFSH109/624M1H	MDS16G3N4	MDS22G3N
GFSH435F1H	FDS16G3N5	FDS20G3N5
	FDS12G3N2	
GFSH435M1H	MDS16G3N	MDS20G3N
	MDS12G3N	
GFSH89F1H	FDS16G3N2	FDS22G3N3
GFSH89M1H	MDS16G3N4	MDS22G3N
GFSH928F1H	FDS16G3N2	FDS22G3N4
GFSH928M1H	MDS16G3N	MDS22G3N3

### Size 20



### Size 22



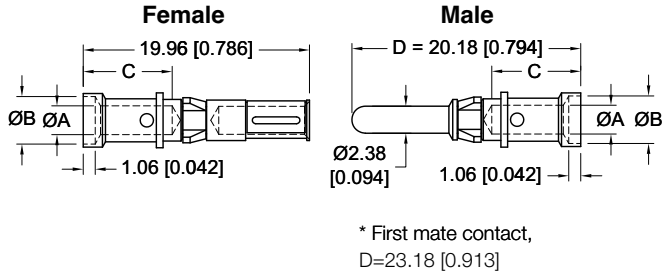
**Reference contact tail length is 4.50 [1.77] beyond insulator.**

Consult factory for other contact sizes.

# Removable Crimp Contacts & Sequential Mating System



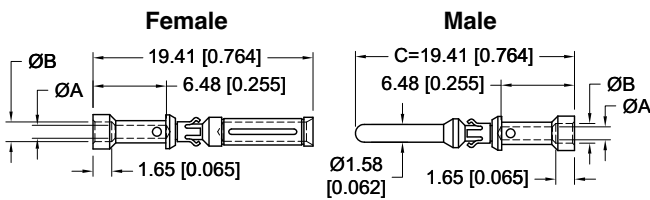
## Size 12



Female Contact	Male Contact	** Wire Size AWG [mm <sup>2</sup> ]	ØA	ØB	C
FC610N2	MC610N	10 [6.0]	3.73 [0.147]	N/A	6.45 [0.254]
	MC610N-228.1*				
FC610N2S	MC610NS				
FC612N2	MC612N	12 [4.0]	2.54 [0.100]	4.19 [0.165]	7.90 [0.311]
	MC612N-228.1*				
FC612N2S	MC612NS				

\*\*\*High conductivity material: High conductive copper alloy.

## Size 16

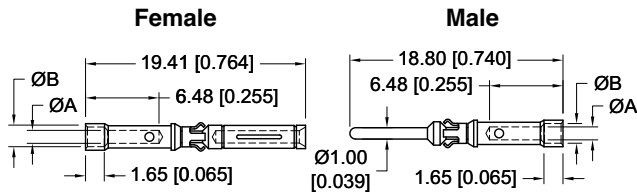


Note: For the first mate contact, it does not apply for GFSH89 version. Consult factory for sequential mating length.

Female Contact	Male Contact	** Wire Size AWG [mm <sup>2</sup> ]	ØA	ØB
FC112N2	MC112N	12 [4.0]	2.49 [0.098]	N/A
	MC112N-133.5*			
FC112N2S	MC112NS			
FC114N2	MC114N	14-16 [2.5-1.5]	2.06 [0.081]	2.64 [0.104]
	MC114N-133.5*			
FC116N2	MC116N	16-18 [1.5-1.0]	1.70 [0.067]	2.36 [0.093]
	MC116N-133.5*			
FC120N2	MC120N	20-22-24 [0.5-0.3-0.25]	1.14 [0.045]	1.73 [0.068]
	MC120N-133.5*			

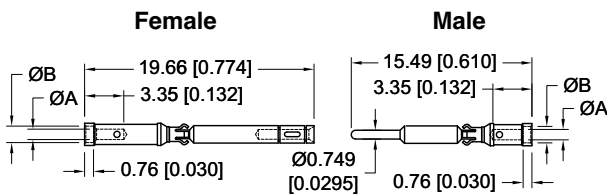
\*\*\*High conductivity material: High conductive copper alloy.

## Size 20



Female Contact	Male Contact	** Wire Size AWG [mm <sup>2</sup> ]	ØA	ØB
FC720N2	MC720N	20-22-24 [0.5-0.3-0.25]	1.14 [0.045]	1.73 [0.068]

## Size 22



Female Contact	Male Contact	** Wire Size AWG [mm <sup>2</sup> ]	ØA	ØB
FC420N6	MC420N	20 [0.5]	1.14 [0.045]	N/A
FC422N6	MC422N	22 [0.3]	0.89 [0.035]	1.63 [0.064]

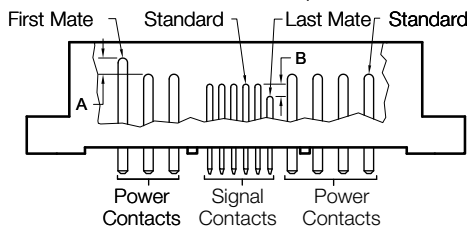
Material and Finishes (standard contact): Precision machined copper alloy with gold flash over nickel. Other finishes available.

\*\* Note: Please use correct wire size and it should be smaller than ØA of the contact.

Consult factory for sequential mating and high conductivity material options.

## Sequential Mating Systems

(Available in both PCB and Crimp Version Connectors)



Length of A = 2.69 [0.106]

Length of B = 2.03 [0.080]

Contact factory for ordering information.

Dimensions valid for Goldfish 02 PCB mount versions only.

Contact factory for other versions.

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