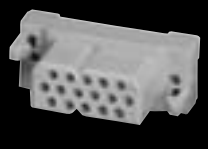
DRAGONFLY®

Interconnection Systems

High Density Signal and Power Connectors

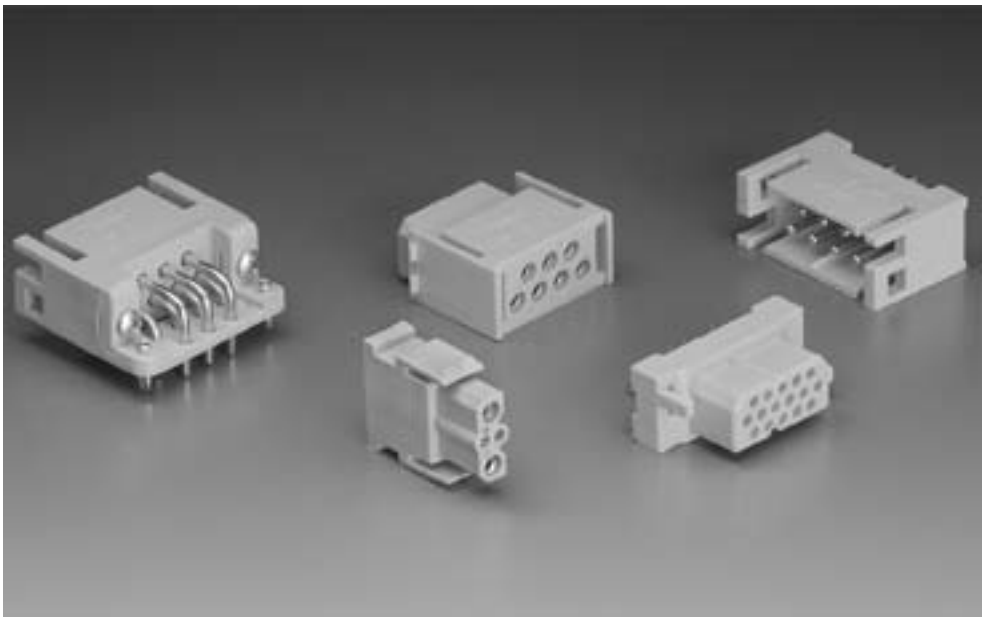
Positronic Industries

www.connectpositronic.com



Dragonfly

High Density Signal/ Power Interconnection Systems



Unless otherwise specified, dimensional tolerances are:

1) Male contact mating diameters : ±0.03 [0.001]
2) Contact termination diameters : ±0.08 [0.003]
3) All other diameters : ±0.13 [0.005]
4) All other dimensions : ±0.38 [0.015]

Dimensions are in millimeters [inches]. All dimensions are subject to change.

CATALOG NUMBER: A-002 rev. A1

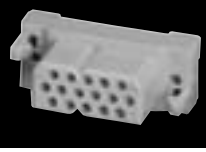
Products described within this catalog may be protected by one or more of the following U.S. patents:

#4,721,472 #4,900,261 #5,255,580 #5,329,697 #6,260,268

Patented in Canada, 1992 Other Patents pending.

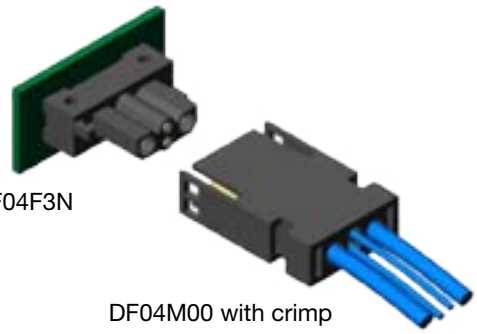
Unless otherwise stated, Positronic code and part number are marked on each connector. The contents of the code are subjected to the discretion of Positronic and it is for internal use only. Marking may be done on either side or both sides of the connector.

Positronic believes the data contained herein to be reliable. Since the technical information is given free of charge, the user employs such information at his own discretion and risk. Positronic assumes no responsibility for results obtained or damages incurred from use of such information in whole or in part.



Typical Connection Systems

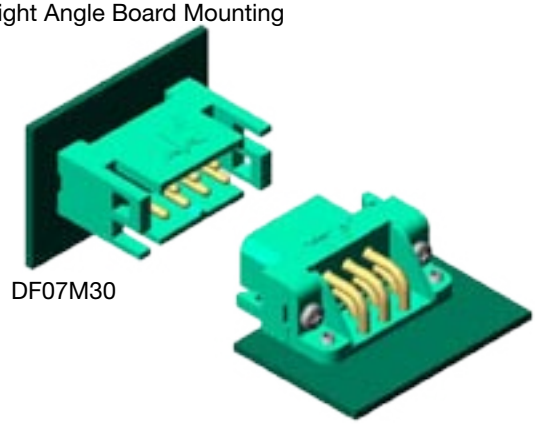
System 1
Straight Board Mounting to Cable



DF04F3N

DF04M00 with crimp contacts installed.

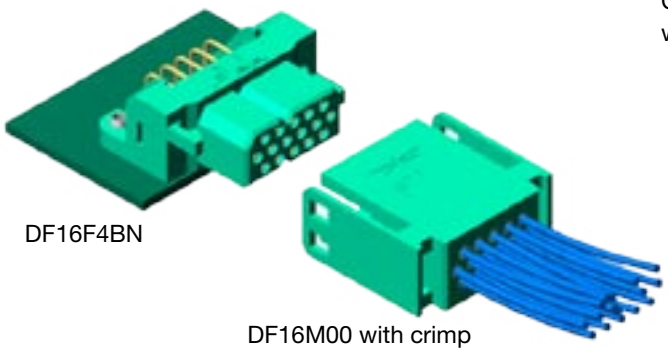
System 2
Straight Board Mounting to Right Angle Board Mounting



DF07M30

DF07F4BN

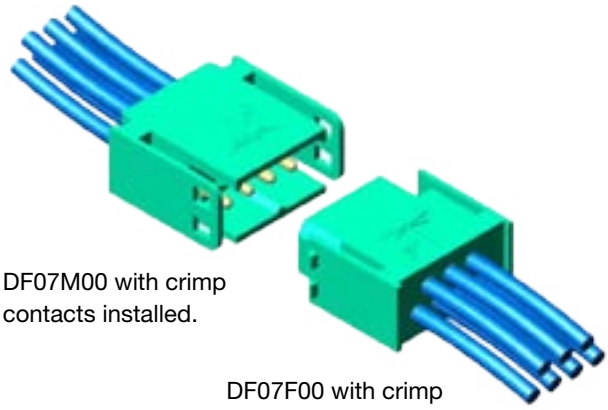
System 3
Right Angle Board Mounting to Cable



DF16F4BN

DF16M00 with crimp contacts installed.

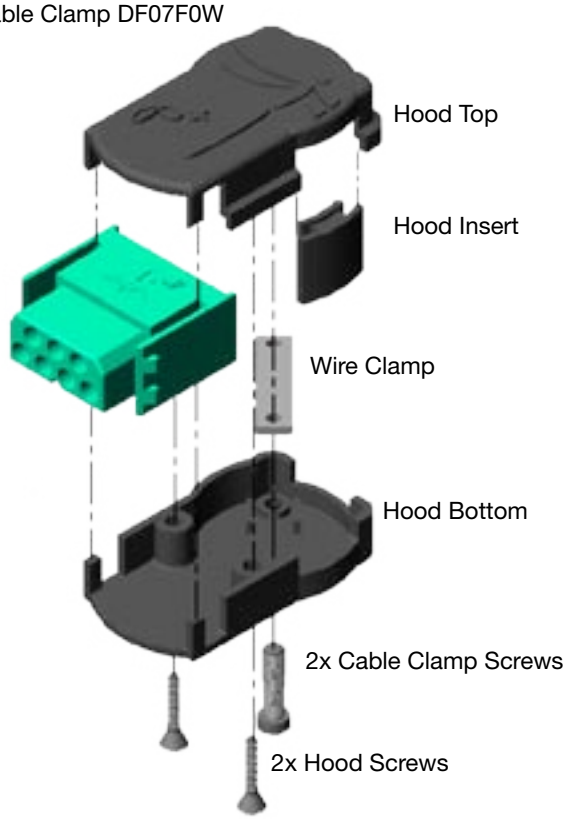
System 4
Cable to Cable



DF07M00 with crimp contacts installed.

DF07F00 with crimp contacts installed.

System 5
Cable Connector and Hood with Cable Clamp DF07F0W



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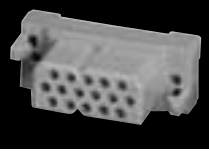
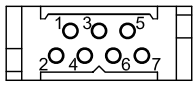
Connector Versions and Technical Characteristics

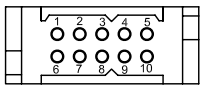


Connector Versions

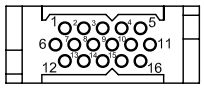
Version 04
Mixed Density Contact Connector
Two (2) Size 16 Power Contacts and Two (2) Size 22 Signal Contacts
Specify Code 04 in Step 2



Version 07
Power Contact Connector
Seven (7) Size 16 Power Contacts
Specify Code 07 in Step 2



Version 10
Signal/ Power Contact Connector
Ten (10) Size 20 Signal/ Power Contacts
Specify Code 10 in Step 2



Version 16
High Density Signal Contact Connector
Sixteen (16) Size 22 Signal Contacts
Specify Code 16 in Step 2

Technical Characteristics

Materials and Finishes:

Insulator: Glass-filled nylon, UL 94V-0, green for versions 07, 10 and 16. Black color for version 04.

Contacts: Precision machined copper alloy with gold over nickel plate.

Push-on fasteners: Copper alloy with tin plate.

Screws: Steel with zinc plate and chromate seal.

Electrical Characteristics:

Contact Current Rating:
Size 16 Contacts: 20.0 amperes, continuous.
Size 20 Contacts: 7.5 amperes, nominal.
12.0 amperes, continuous with AWG 18 wires.
Size 22 Contacts: 3.0 amperes, nominal.

Initial Contact Resistance
Max (per IEC 512-2, Test 2b) :
Size 16 Contacts: 0.003 ohms
Size 20 Contacts: 0.005 ohms.
Size 22 Contacts: 0.005 ohms.

Insulator Resistance:
5 G ohms (per IEC 512-2, Test 3a).

Voltage Proof:
Size 16 Contacts: 1500 V r.m.s.
Size 20 Contacts: 1000 V r.m.s.
Size 22 Contacts: 1000 V r.m.s.

Working Voltage:
Size 16 Contacts: 500 V r.m.s.
Size 20 Contacts: 333 V r.m.s.
Size 22 Contacts: 333 V r.m.s.

Climatic Characteristic:

Working temperature: -55°C to +125°C.

Mechanical Characteristics:

Connection Systems: Connector provides cable to cable, cable to printed board and printed board to printed board mating systems.

Locking Systems: Insulators provide locking between cable to cable and cable to printed board applications.

Polarization: Provided in insulator design.

Removable Contacts: Install contact from rear of insulator, release with extraction tool from front of insulator. Female contacts feature “closed entry” 1,000 cycle design. (Size 16 contact tested to 10,000 cycles. See page 3.) “Open entry” 500 cycle design also available.

Fixed Contacts: Size 16 female contact features “closed entry” 1,000 cycles design for both straight and right angle (90°) PCB mount. Size 22 female contact features “open entry” design. “Closed entry” available on request. Size 20 female contact features both “closed entry” and “open entry” design options. See ordering informations.

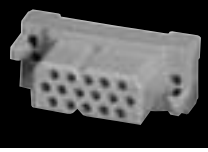
Removable Contact Retention in Insulator
Size 16 Contacts: 45 N [10 lbs.] Min.
Size 20 Contacts: 27 N [6 lbs.] Min.
Size 22 Contacts: 27 N [6 lbs.] Min.

Fixed Contact Retention in Insulator
Size 16 Contacts: 45 N [10 lbs.] Min.
Size 20 Contacts: 27 N [6 lbs.] Min.
Size 22 Contacts: 27 N [6 lbs.] Min.

Sequential Mating: Consult factory for details.

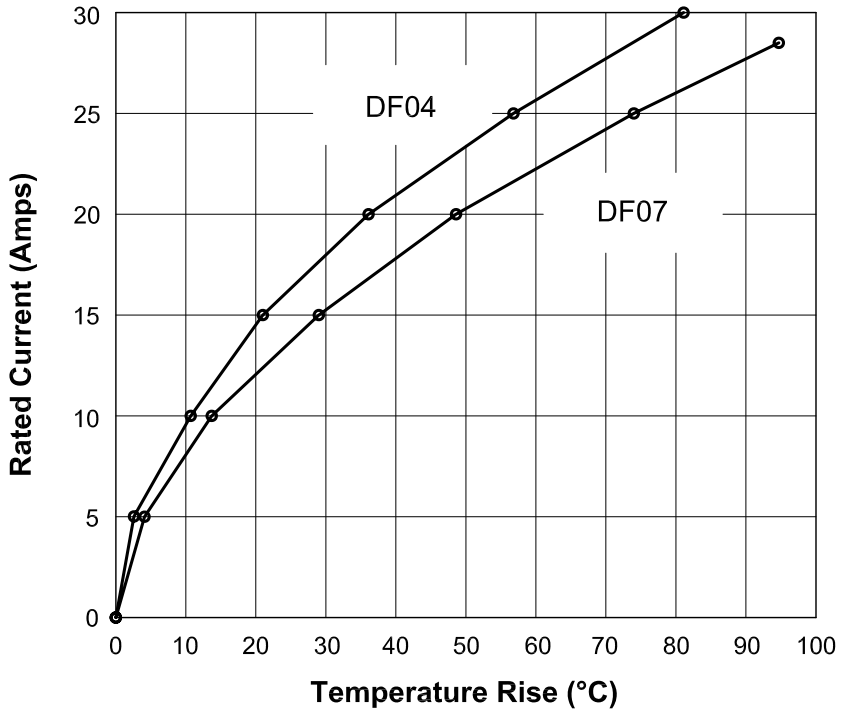
Recognized: UL File E49351 available for versions 04, 07 and 16. Version 10 and Hood certification work in progress.

Temperature Rise Curve and Contact Performance



Temperature Rise Curve

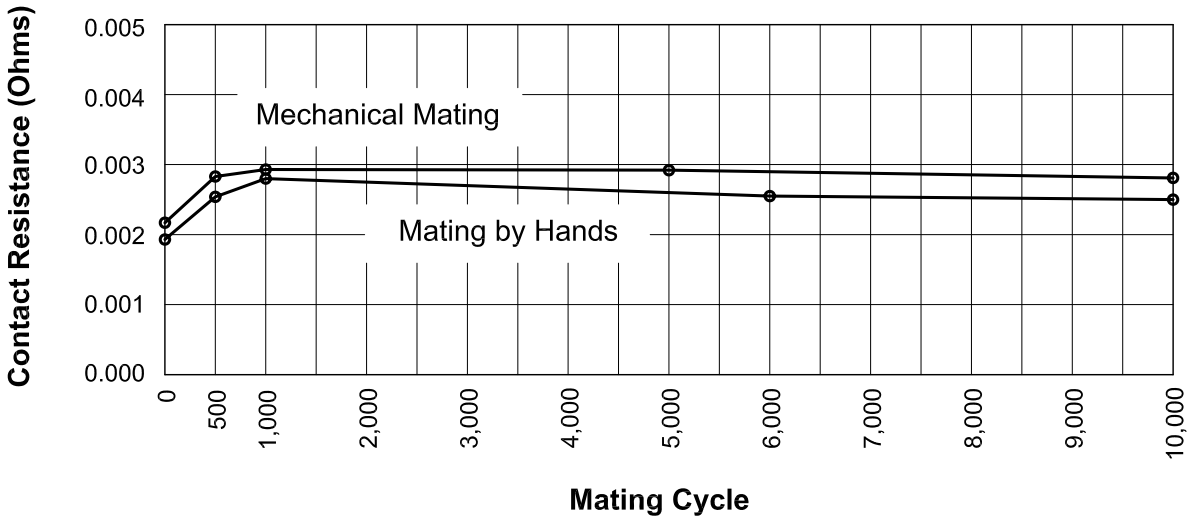
Tested per IEC 512-3, Test 5a



Above curves developed separately using (a) DF04 connectors and AWG 12 wires, and (b) DF07 connectors and AWG 12 wires. All power contacts under load.

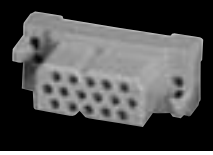
10,000 Cycles Contact Performance

Contact resistance tested per IEC 512-2, Test 2b



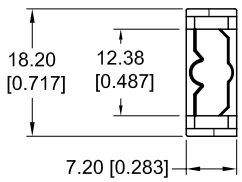
Above curves developed using DF07 connectors fully populated with size 16 contacts. This information is supplied for reference. Contact wear and change in contact resistance may vary from one application to another. Contact technical sales to discuss details.

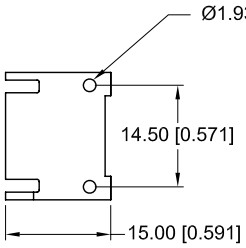
Dragonfly Version 04
Straight and Right Angle (90°)
PCB Mount Connectors



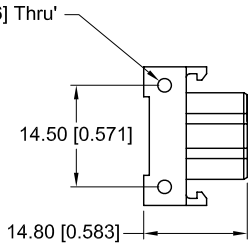
Outline Dimensions

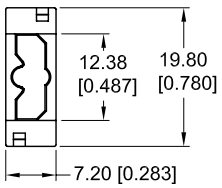
Male





Female





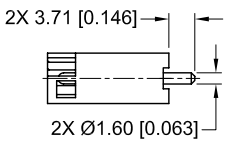
Contact Termination Dimensions

See Step 4 of Ordering Information

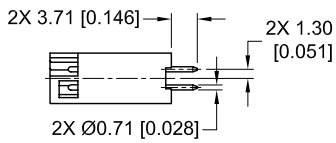
Straight PCB Mount

Specify Code 3 in Step 4

Male

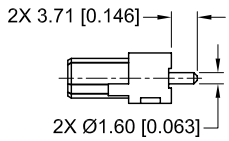


Power contacts

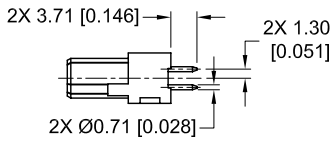


Signal contacts

Female



Power contacts

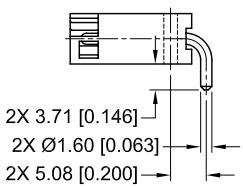


Signal contacts

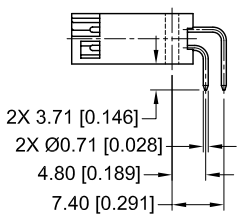
Right Angle (90°) PCB Mount

Specify Code 4 in Step 4

Male

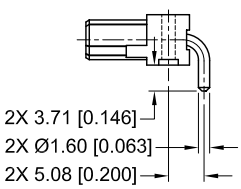


Power contacts

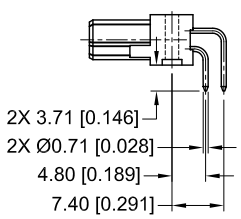


Signal contacts

Female



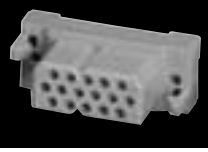
Power contacts



Signal contacts

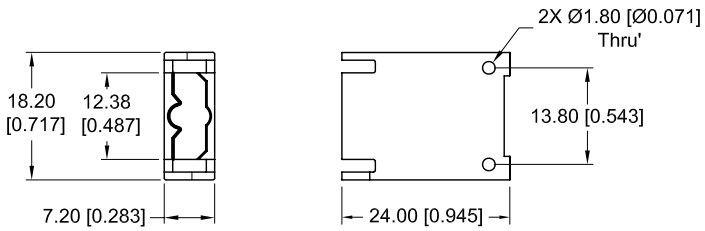
Not supplied with alignment bar

Dragonfly Version 04
Right Angle (90°) PCB Mount
(Longer Insulator Version) and
Removable Contact Cable Connectors



Outline Dimensions

Male only

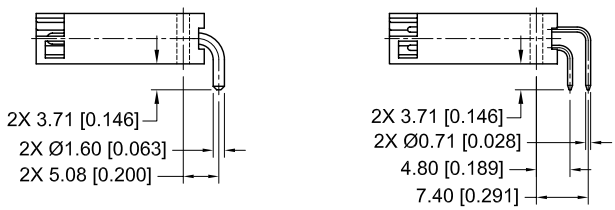


Contact Termination Dimensions

See Step 4 of Ordering Information

Right Angle (90°) PCB Mount

Specify Code 42 in Step 4



Power contacts

Signal contacts

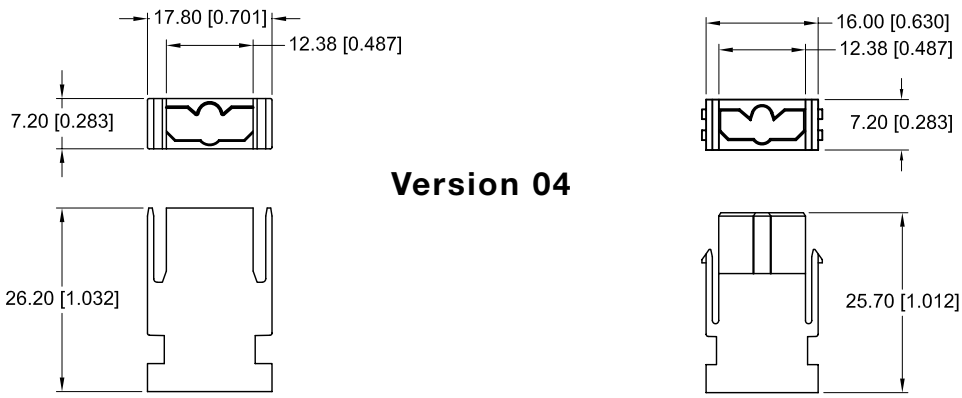
Removable Contact Cable Connectors

Specify Code 0 in Step 4 of Ordering Information

Outline Dimensions

Male

Female



Version 04

Removable contacts should be allowed to float after terminated and installed in connector body.
This enables superior mating performance. Consult factory if alignment insert for male contacts is desired.

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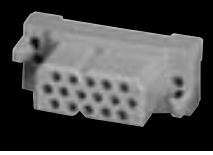
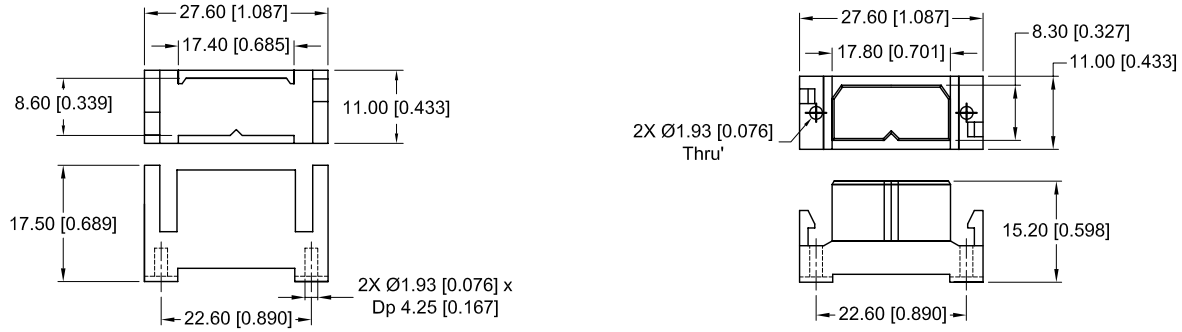
Dragonfly Version 07
PCB Mount Connectors and
Removable Contact Cable Connectors



Outline Dimensions

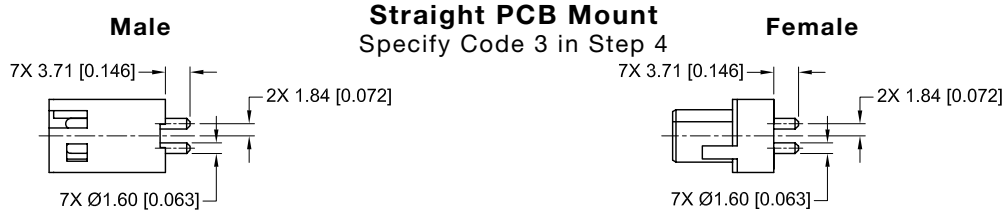


Contact Termination Dimensions

See Step 4 of Ordering Information

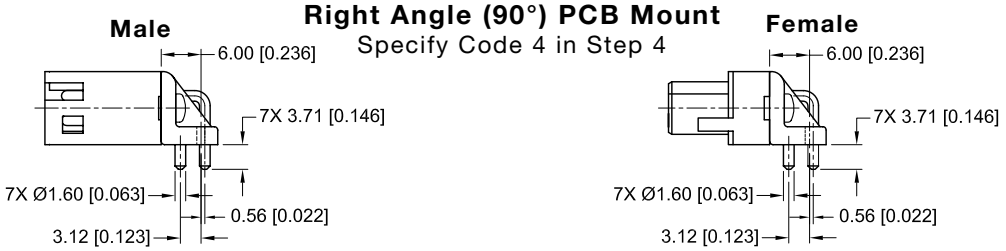
Straight PCB Mount

Specify Code 3 in Step 4



Right Angle (90°) PCB Mount

Specify Code 4 in Step 4



Integrated alignment bar and angle bracket, shown for reference only.
(Specify code B in Step 5)

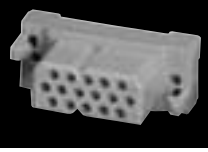
Removable Contact Cable Connectors

Specify Code 0 in Step 4 of Ordering Information

Outline Dimensions

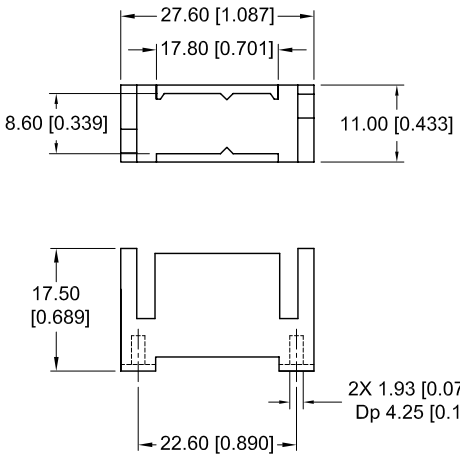
Removable contacts should be allowed to float after terminated and installed in connector body.
This enables superior mating performance. Consult factory if alignment insert for male contacts is desired.

Dragonfly Versions 10 and 16
Connector Dimensions

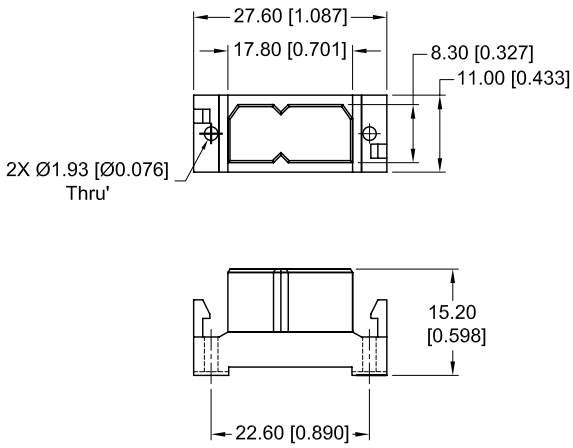


Outline Dimensions

Male



Female



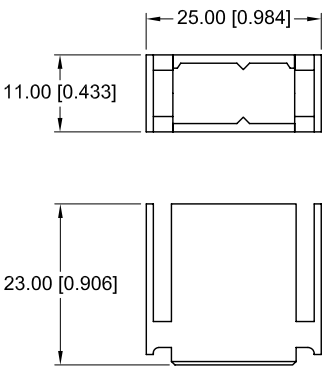
Dimensions typical for both versions 10 and 16

Removable Contact Cable Connectors

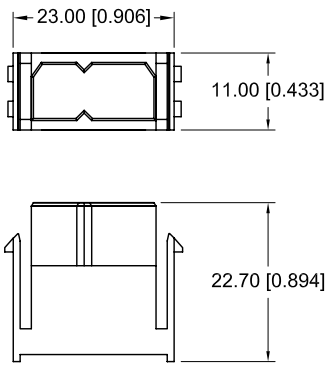
Specify Code 0 in Step 4 of Ordering Information

Outline Dimensions

Male



Female



Version 10 and 16

Dimensions typical for both versions 10 and 16

Removable contacts should be allowed to float after terminated and installed in connector body.
This enables superior mating performance. Consult factory if alignment insert for male contacts is desired.

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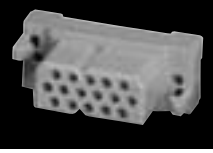
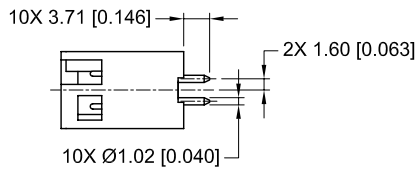
Dragonfly Versions 10 and 16
Contact Termination Dimensions



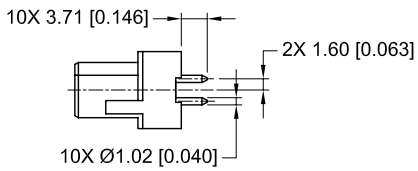
Version 10

Straight PCB Mount
Specify Code 3 in Step 4

Male

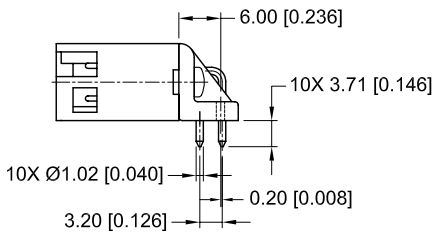


Female

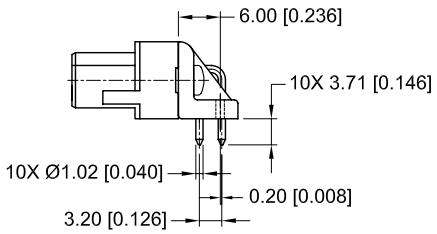


Right Angle (90°) PCB Mount
Specify Code 4 in Step 4

Male



Female

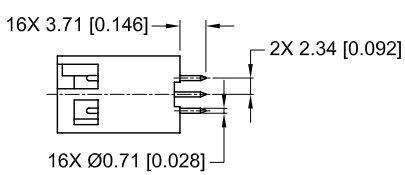


Integrated alignment bar and angle bracket shown for reference only.
(Specify code B in Step 5)

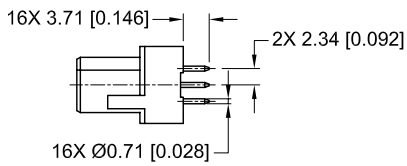
Version 16

Straight PCB Mount
Specify Code 3 in Step 4

Male

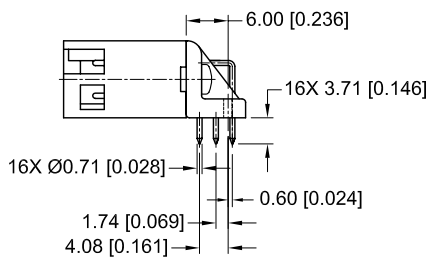


Female

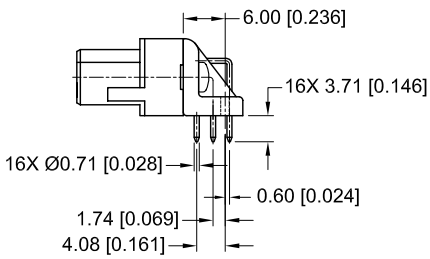


Right Angle (90°) PCB Mount
Specify Code 4 in Step 4

Male

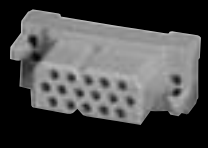


Female



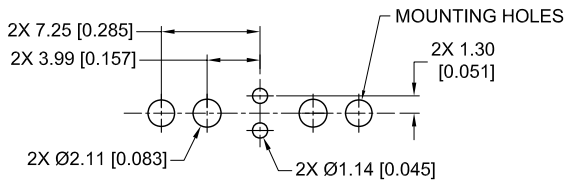
Integrated alignment bar and angle bracket shown for reference only.
(Specify code B in Step 5)

Contact Hole Patterns for PCB Mount

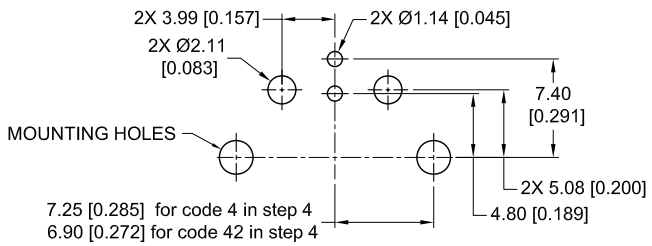


Version 04 PCB Mount

Contact Hole Pattern for Straight PCB Mount



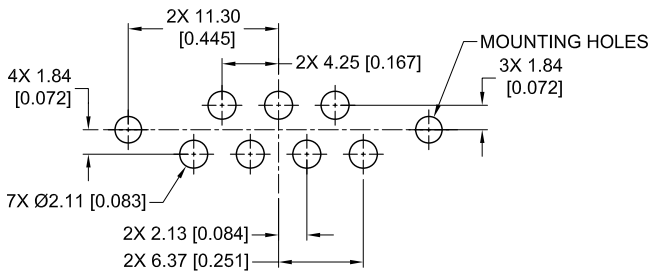
Contact Hole Pattern for Right Angle (90°) PCB Mount



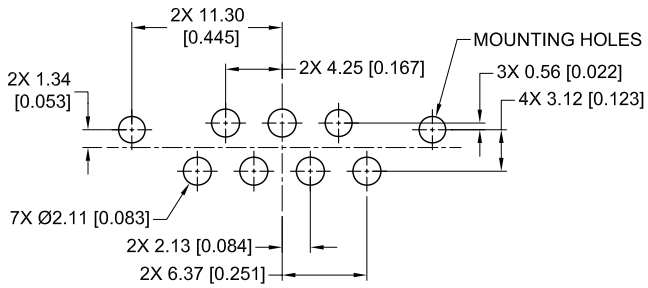
For both male and female connectors.

Version 07 PCB Mount

Contact Hole Pattern for Straight PCB Mount



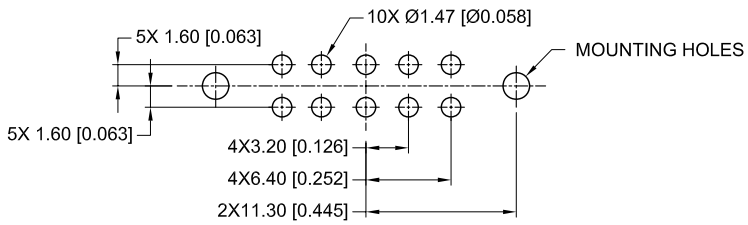
Contact Hole Pattern for Right Angle (90°) PCB Mount



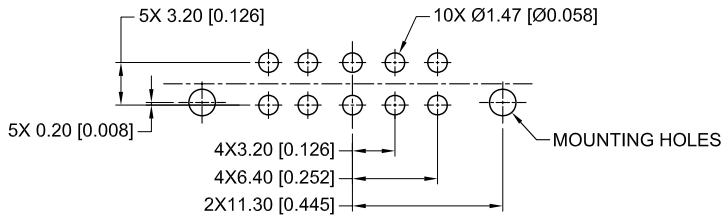
For both male and female connectors.

Version 10 PCB Mount

Contact Hole Patterns for Straight PCB Mount



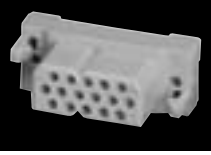
Contact Hole Patterns Right Angle (90°) PCB Mount



For both male and female connectors.

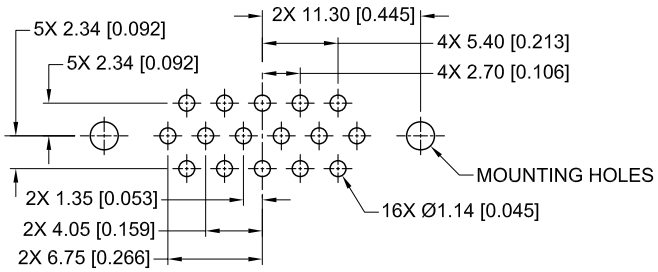
Suggested Ø2.00±0.08 [0.079±0.003] holes for mounting connector with push-on fasteners.
Suggested Ø2.54 [0.100] holes for mounting connector with screws.

Contact Hole Patterns for PCB Mount and Panel Mount Option

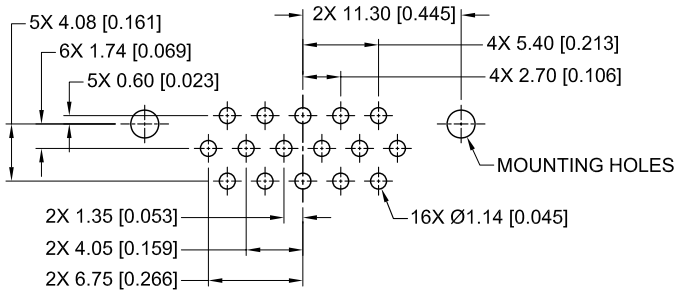


Contact Hole Patterns for Version 16 PCB Mount

Contact Hole Pattern for Straight PCB Mount



Contact Hole Pattern for Right Angle (90°) PCB Mount



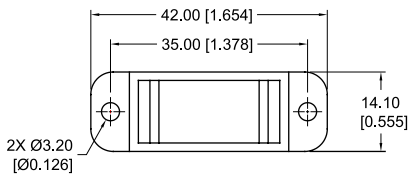
For both male and female connectors.

Suggested Ø2.00±0.08 [0.079±0.003] holes for mounting connector with push-on fasteners.
Suggested Ø2.54 [0.100] holes for mounting connector with screws.

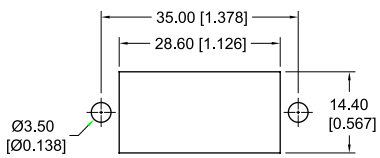
Panel Mount Option

For Male Crimp Connectors of Versions 07, 10 and 16 only
(Specify Code P in Step 5)

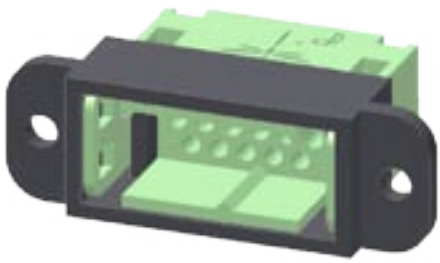
Outline Dimensions



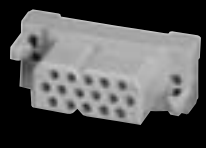
Panel Cutout



Typical Part Number: DF16M0P



Flange supplied factory installed to connector

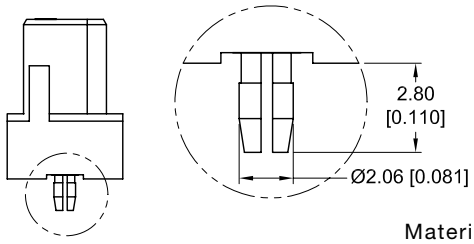


Push-on Fasteners

Available on all connectors except Version 04 code 42 contacts

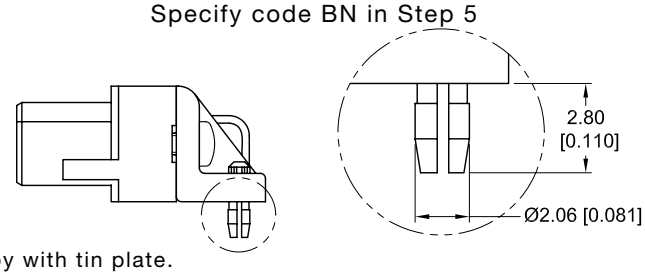
Straight PCB mount version

Specify code N in Step 5



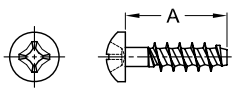
Right Angle (90°) PCB mount version

Specify code BN in Step 5



Material: Copper alloy with tin plate.

Mounting Screws Ordering Information



Connector Variant	Screw Part Number	Screw Length "A"	Recommended PCB Thickness
DF04*3/93*	4546-7-1-16	6.35 [0.250]	2.20 [0.087] to 3.50 [0.138]
	4546-7-2-16	7.93 [0.312]	3.60 [0.142] to 4.50 [0.177]
DF04*4/42*	4546-32-1-16	8.00 [0.315]	1.40 [0.055] to 4.00 [0.157]
	4546-32-2-16	10.00 [0.393]	3.00 [0.118] to 6.00 [0.236]
DF07*3/93* DF10*3/98* DF16*3/98*	4546-7-1-16	6.35 [0.250]	1.40 [0.055] to 3.00 [0.118]
	4546-7-2-16	7.93 [0.312]	3.00 [0.118] to 4.00 [0.157]
DF07/10/16*4*	4546-7-0-16	4.78 [0.188]	2.00 [0.079] maximum

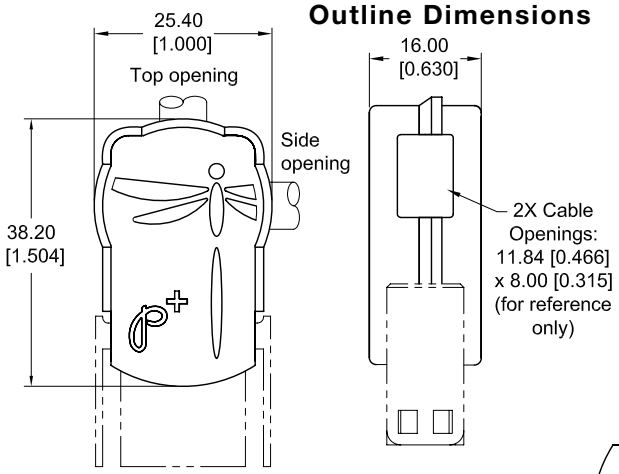
Compliant Press-Fit Terminations PCB Straight Mount Connector Installation Tools Ordering Information

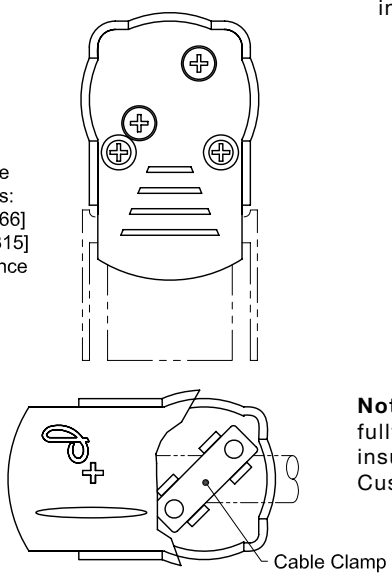
Catalog Part Number	Seating Tool Part Number	Support Tool Part Number
DF04F930	9513-309-21	9513-404-4
DF04M930	9513-309-22	
DF07F930	9513-309-25	9513-404-5
DF07M930	9513-309-24	
DF10F980	9513-309-26	9513-404-6
DF10M980	9513-309-27	
DF16F980	9513-309-20	9513-404-3
DF16M980	9513-309-23	

Hood - Top and Side Opening

For Versions 07, 10 and 16 only. Specify code W in Step 5

Outline Dimensions

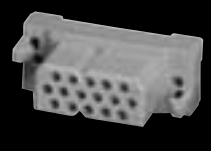




Hood comes supplied with extra insert for unused opening.

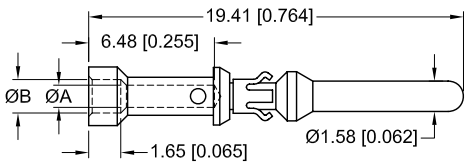
Note: Hood may not accommodate fully populated connector using thick insulation AWG 12, 14 and 16 wires. Customer review recommended.

Materials and Finishes:
Hood Top and Bottom, Insert: Polypropylene, UL 94V-0, black.
Cable Clamp: Steel with nickel plate.
Hood and Cable Clamp Screws: Steel with black oxide or Steel with zinc plate and chromate seal.

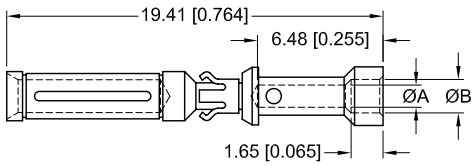


Size 16 contact
Rated 20.0 amperes ("Closed entry" 1,000 cycles minimum)

Male Contact



Female Contact (Closed entry)

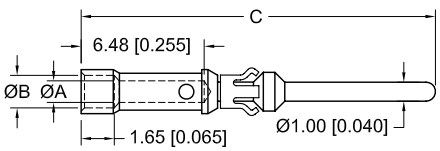


Male Contact	Female Contact	Wire Size AWG [mm²]	ØA	ØB
MC112N	FC112N2	12 [4.0]	2.49 [0.098]	N/A
MC114N	FC114N2	14-16 [2.5-1.5]	2.06 [0.081]	2.67 [0.105]
MC116N	FC116N2	16-18 [1.5-1.0]	1.70 [0.067]	2.36 [0.093]
MC120N	FC120N2	20-22-24 [0.5-0.3-0.25]	1.14 [0.045]	1.73 [0.068]

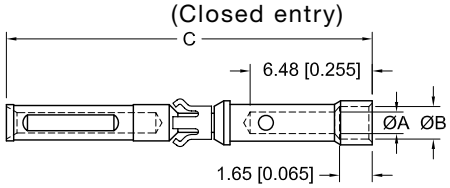
Note: Size 16 contacts tested to 10,000 cycles performance as shown in graph on page 3. This does not insure similar performance under different conditions. Wear in mating area of contacts does occur. Customer review recommended.

Size 20 contact
Rated up to 12.0 amperes ("Closed entry" 1,000 cycles minimum)

Male Contact
MC718N / MC720N



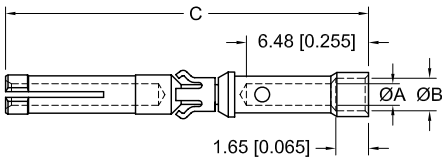
Female Contact
FC718N2 / FC720N2
(Closed entry)



Contact Part Number	Wire Size AWG [mm²]	ØA	ØB	C
MC718N	18 [1.0]	1.40 [0.055]	N/A	18.80 [0.740]
FC718N2		1.40 [0.055]		18.24 [0.718]
FC718N7		1.37 [0.054]		18.80 [0.740]
*MC720N	20-22-24 [0.5-0.3-0.25]	1.14 [0.045]	1.73 [0.068]	18.80 [0.740]
*FC720N2				19.41 [0.764]
*FC720N7				18.80 [0.740]

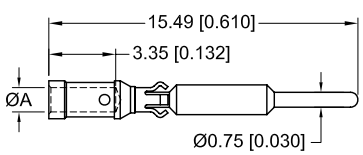
* Contact rated 7.5 amperes

Female Contact
FC718N7 / FC720N7
(Open entry, 500 cycles)

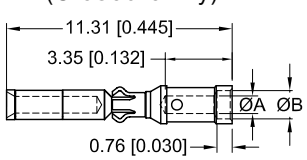


Size 22 contact
Rated 3.0 amperes ("Closed entry" 1,000 cycles minimum)

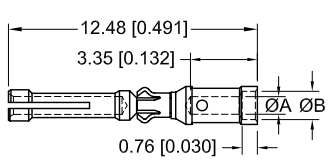
MC422N



FC422N2
(Closed entry)



FC422N7
(Open entry, 500 cycles)

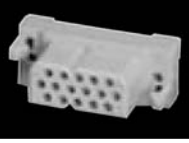


Male Contact	Female Contact	Wire Size AWG [mm²]	ØA	ØB
MC422N	FC422N2	22 [0.3]	0.89 [0.035]	1.42 [0.056]
	FC422N7			

Please use correct wire size and it should be smaller than ØA of the contact.
Consult factory for other contact sizes, materials and termination styles.

DRAGONFLY

COMPLIANT PRESS-FIT CONNECTORS
FOR CONNECTOR VERSIONS 04, 07, 10 AND 16

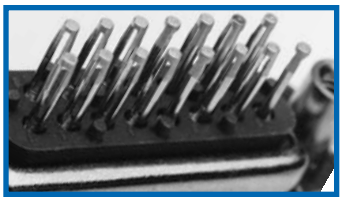


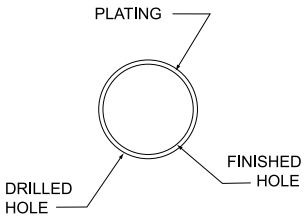
SUGGESTED PRINTED BOARD HOLE SIZES COMPLIANT PRESS-FIT CONNECTORS

Traditionally, tin-lead has been a popular plating for PBC holes. However, many PCB hole platings must now be RoHS Compliant. Positronic is pleased to offer **PCB HOLE SIZE FOR RoHS** PCB plating as shown below.

BI-SPRING COMPLIANT PRESS-FIT CONTACT HOLE				
BOARD TYPE	**CONTACT SIZE**	**DRILL HOLE SIZE**	**RECOMMENDED PLATING**	**FINISHED HOLE SIZES**
TIN-LEAD SOLDER PCB	**16**	ø1.750±0.025 [ø0.0689±0.0010]	15µ [0.0006] minimum solder over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
RoHS PCB PLATING OPTIONS				
COPPER PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
IMMERSION TIN PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.85±0.15µ [0.000033±0.000006] immersion tin over 25µ [0.0010]min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
IMMERSION SILVER PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.34±0.17µ [0.000013±0.000007] immersion silver over 25µ [0.0010] min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]
ELECTROLESS NICKEL/ IMMERSION GOLD PCB	**16**	ø1.73±0.05 [ø0.068±0.002]	0.05µ [0.000002] min. immersion gold over [4.5±1.5µ [0.000177±0.000059] electroless nickel per IPC-4552 over 25µ [0.0010]min. copper	ø1.600+0.090-0.060 [ø0.0630+0.0035-0.0024]

"Bi-Spring" Termination





PRESS-FIT CONTACT HOLE

Note: For PCB plating compositions not shown, consult Technical Sales.

OMEGA COMPLIANT PRESS-FIT CONTACT HOLE				
BOARD TYPE	**CONTACT SIZE**	**DRILL HOLE SIZE**	**RECOMMENDED PLATING**	**FINISHED HOLE SIZES**
TIN-LEAD SOLDER PCB	**20 22**	ø1.150±0.025 [ø0.0453±0.0010]	15µ [0.0006] minimum solder over 25µ [0.0010] min. copper	ø1.000+0.090-0.060 [ø0.0394+0.0035-0.0024]
RoHS PCB PLATING OPTIONS				
COPPER PCB	**20 22**	ø1.19±0.05 [ø0.047±0.002]	25µ [0.0010] min. copper	ø1.09±0.05 [ø0.043±0.002]
IMMERSION TIN PCB	**20 22**	ø1.19±0.05 [ø0.047±0.002]	0.85±0.15µ [0.000033±0.000006] immersion tin over 25µ [0.0010]min. copper	ø1.09±0.05 [ø0.043±0.002]
IMMERSION SILVER PCB	**20 22**	ø1.19±0.05 [ø0.047±0.002]	0.34±0.17µ [0.000013±0.000007] immersion silver over 25µ [0.0010]min. copper	ø1.09±0.05 [ø0.043±0.002]
ELECTROLESS NICKEL/ IMMERSION GOLD PCB	**20 22**	ø1.19±0.05 [ø0.047±0.002]	0.05µ [0.000002] min. immersion gold over 4.5±1.5µ [0.000177±0.000059] electroless nickel per IPC-4552 over 25µ [0.0010] min. copper	ø1.09±0.05 [ø0.043±0.002]

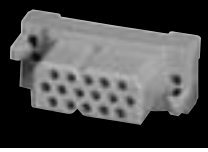
"Omega" Termination

Note:
DF04 - uses size 16 bi-spring press-fit and size 22 omega press-fit contacts.
DF07 - uses size 16 bi-spring press-fit contacts.
DF10 - uses size 20 omega press-fit contacts.
DF16 - uses size 22 omega press-fit contacts.

DRAGONFLY

Connector Ordering Information

Specify complete connector by following step 1 to 5



Step	1	2	3	4	5	6		7
Example	DF	07	M	3	N	/AA	-	XXX

STEP 1 : Basic Series
DF : Dragonfly Series

STEP 2 : Connector Versions
04 : Mixed Density Contact Connector
Two (2) Size 16 Power Contacts and
Two (2) Size 22 Signal Contacts
07 : Power Contact Connector
Seven (7) Size 16 Power Contacts
10 : Signal/ Power Contact Connector
Ten (10) Size 20 Signal/ Power Contacts
16 : High Density Signal Contact Connector
Sixteen (16) Size 22 Signal Contacts

STEP 3 : Connector Gender
M : Male
F : Female

STEP 4: Type of Contact
0 : Removable contact. (Contacts ordered separately).
*3 : Solder, straight PCB mount.
31 : Solder, open-entry, straight PCB mount.
(For female connectors of version 10 only.)
*4 : Solder, right angle (90°) PCB mount.
41 : Solder, open-entry, right angle PCB mount.
(For female connectors of version 10 only.)
42 : Solder, right angle (90°) PCB mount.
(For version 04 male only. Supplied with Longer Insulator.)
93 : Press-Fit, Compliant Termination straight PCB mount.
(For versions 04 and 07 only.)
98 : Press-Fit, Compliant Termination straight PCB mount.
(For versions 10 and 16 only.)

*Standard female contact is closed-entry for Versions 07 and 10.
*Standard female contact is open-entry for Version 16.

STEP 5 : Mounting Style
0 : No hardware.
For mounting connector with self-tapping screws.
(Order screws separately.)
N : Push-on Fasteners.
B : Plastic 90° Mounting Bracket.
For versions 07, 10 and 16 only.
BN : Plastic 90° Mounting Bracket with Push-on Fasteners.
For versions 07, 10 and 16 only.
W : Hood. For versions 07, 10 and 16 only.
P : Panel Mount Adaptor for male crimp connectors of versions 07, 10 and 16 only.

Note: Consult factory for details of Compliant Press-Fit Termination Straight PCB Mount Connectors.

STEP 6: Environmental Compliance Options
/AA : Compliant per EU Directive 2002/95/EC (RoHS)
Note: If compliance to environmental legislation is not required, this step will not be used.
Example: DF16F30

STEP 7 : Special Options
Consult factory for customization of connectors.
Example: Selective loading, sequential mating, etc.

Recommended Tools for Crimp Contacts

Contact Extraction Tool

Contact Insertion Tool

Cycle-Controlled Step Adjustable Hand Crimp Tool

Contact Size	Contact Extraction Tool	Contact Insertion Tool	Hand Crimp Tool	Semi-Automatic Crimp Machine
Size 16	9081-0	9099-0	9501-0 with 9502- 1 positioner	9550-0
Size 20	9081-2	9099-4	9507-0 with 9502-21 positioner (Male) 9507-0 with 9502-22 positioner (Female)	9550-1
Size 22	9081-3	9099-1	9507-0 with 9502-12 positioner (Male) 9525-1 with 9502-13 positioner (FC422N2) 9525-1 with 9502-23 positioner (FC422N7)	

Consult factory for details on semi-automatic crimp machine. Above tools were shown for reference only.

Positronic Industries, Inc
www.connectpositronic.com
www.positronicasia.com

Positronic Products

Power

Contact Sizes: 0, 8, 12, 16, 20 and 22
Current Ratings: To 100 amperes
Terminations: Crimp, wire solder, straight solder, right angle solder, straight press-fit and right angle press-fit
Configurations: Multiple variants in a variety of package sizes
Compliance: PICMG 2.11, PICMG 3.0, VITA 41

FEATURES: Hot swap capability • AC/DC operation in a single connector • Signal contacts for hardware management • Blind mating • Sequential mating • Large surface area contact mating system • Wide variety of accessories • Customer specified contact arrangements

D-Subminiature

Contact Sizes: 8, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Crimp, wire solder, straight solder, right angle solder and straight press-fit
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-24308, Goddard Space Flight 311P, SAE AS 39029, IP65, IP67

FEATURES: Three performance levels available: professional quality, military quality and space-flight quality provide multiple performance-to-cost choices • Options include thermocouple contacts, environmentally sealed and dual port package including mixed density • Broad selection of accessories

Rectangular

Contact Sizes: 16, 20 and 22
Current Ratings: To 13 amperes
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants in both standard and high densities
Qualifications: MIL-DTL-28748, SAE AS 39029, CCITT V.35

FEATURES: Two performance levels available: industrial quality and military quality provide two performance to cost choices • Large surface area contact mating system • A wide variety of accessories • Broad selection of contact variants and package sizes

Circular

Contact Sizes: 12, 16, 20 and 22
Current Ratings: To 25 amperes nominal
Terminations: Crimp, wire solder, straight solder and right angle solder
Configurations: Multiple variants
Qualifications: Environmental protection to IP67

FEATURES: Non-corrodible / lightweight composite construction • EMI/RFI shielded versions • Thermocouple contacts • Environmentally sealed versions • Rear insertion/ front release of removable contacts • Two level sequential mating • Overmolding available on full assemblies

Cable

All Positronic connector products can be supplied as part of cable assemblies whose technical characteristics would reflect those of the connectors being used within the assembly.

FEATURES: Shorten the supply chain and reduce additional costs and delays by “cablizing” • Overmolding available • Shielded and environmentally sealed versions available • Power cables and access boxes which meet the SAE J2496 specification

Hermetic

Contact Sizes: 8, 12, 16, 20 and 22
Current Ratings: To 40 amperes nominal
Terminations: Feedthrough is standard; flying leads and board mount available upon request
Configurations: See D-Subminiature and Circular Configurations above
Qualifications: Space-D32

FEATURES: Intended for use as an electrical feedthrough in high vacuum applications • Leakage rate: 5 x 10-9 mbar.l/s @ vacuum 1.5 x 10-5 atm • Signal, power, coax and high voltage versions available • Connectors can be mounted on flange assembly per customer specification

For more information, visit www.connectpositronic.com or call your nearest Positronic sales office as given on the back of this catalog.

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