

- High Reliability
- Size 20 fixed contacts, 7.5 amperes
- Low Profile, countersink side mounting holes.
- Connectors can be “stacked” side by side.
- Male and female contacts can be configured within individual connectors to provide polarization and coding (keying) options.
- Terminations include solder cup, straight and right angle (90°) printed board mount.

UL Recognized:

- UL File # E49351

TECHNICAL CHARACTERISTICS

MATERIALS AND FINISHES:

Insulator:	Glass-filled DAP per ASTM-D-5948 Type SDG-F. Gray color is standard.
Fixed Contacts:	Precision machined copper alloy, gold flash over nickel. Other finishes are available upon request.

Straight and right angle (90°) printed board mount - 0.64 mm [0.025 inch] termination diameter. Friction. Gender positioning of contacts.

Locking Systems:

Polarization:

Mechanical Operations:

Open Entry Contacts:

Closed Entry Contacts:

500 operations per IEC 60512-5.
1,000 operations per IEC 60512-5.

MECHANICAL CHARACTERISTICS:

Contacts:	
Size 20 Fixed:	Male contact, 1.02 mm [0.040 inch] mating diameter. Female contact, open entry is standard. “Closed Entry” available on solder cup termination for high reliability applications.
Contact Retention in Connector Insert:	44.5 N [10 lbs.], minimum.
Contact Termination :	Solder cup - 1.17 mm [0.046 inch] hole diameter for 0.5mm ² [20 AWG] wire maximum.

ELECTRICAL CHARACTERISTICS:

Contact Current Rating:	7.5 amperes, maximum.
Initial Contact Resistance:	0.010 ohms, maximum.
Flash over Voltage:	2000 VAC (rms).
Test Voltage:	1200 VAC (rms).
Insulation Resistance:	5 G ohms, minimum.
Clearance and Creepage:	0.97 mm [0.038 inch], minimum.
Working Voltage:	300 VAC (rms).

CLIMATIC CHARACTERISTICS:

Temperature Range:	-55°C to +125°C.
Damp Heat, Steady State:	21 days

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GF / GFPL SERIES

PROFESSIONAL QUALITY UTILITY CONNECTORS

Utility
Connectors

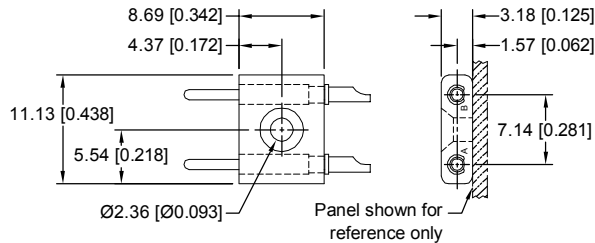
FIXED CONTACT / LOW PROFILE

INSULATOR DIMENSIONS

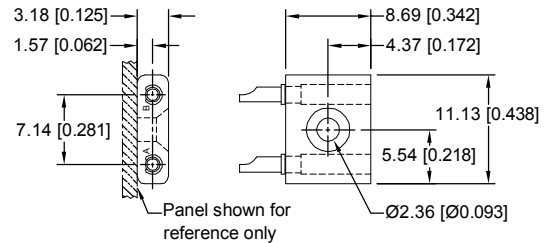
MALE OR FEMALE CONTACTS MAY BE POPULATED IN ANY POSITION

GF 2-POLE

RIGHT PANEL MOUNTED *1

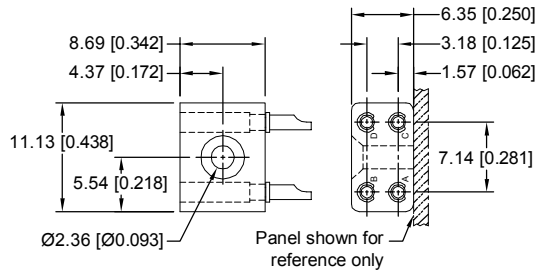


LEFT PANEL MOUNTED *1

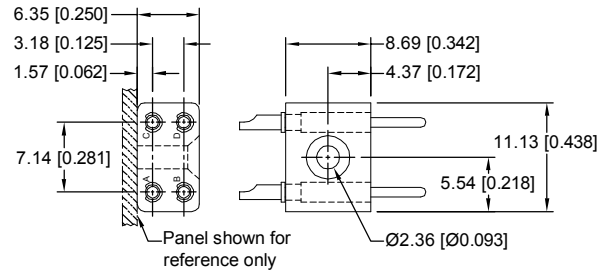


GF 4-POLE

RIGHT PANEL MOUNTED *1



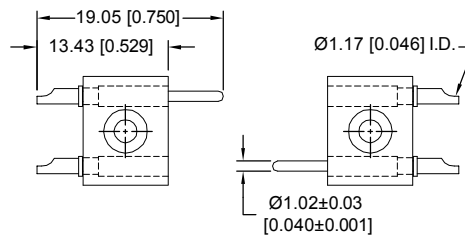
LEFT PANEL MOUNTED *1



NOTE: *1 When viewing the connector from the rear with the "A" contact position down, the panel on the left dictates "L" Code while the panel on the right dictates "R" code. See ordering information page "Step 5".

SOLDER CUP TERMINATION CODE SC

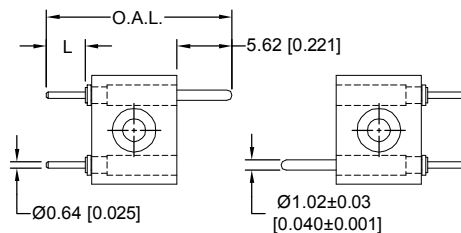
Typical part number:
GF1M1FASCL



Typical part number:
GF1M1FBSCR

STRAIGHT SOLDER PRINTED BOARD MOUNT TERMINATION CODE DS3, DS4, DS5 AND DS6

Typical part number:
GF1M1FADS3L



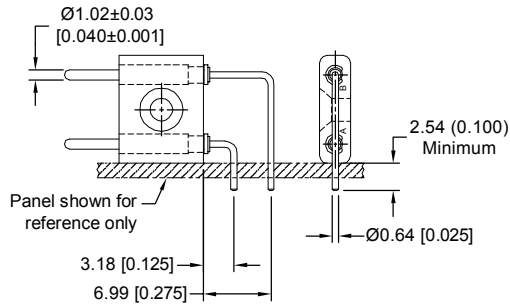
Typical part number:
GF1M1FBDS3R

CONTACT CODE	L	O.A.L.
DS3	2.36 [0.093]	17.37 [0.684]
DS4	3.18 [0.125]	18.19 [0.716]
DS5	3.96 [0.156]	18.97 [0.747]
DS6	4.75 [0.187]	19.79 [0.779]

RIGHT ANGLE (90°) PRINTED BOARD MOUNT TERMINATION
AVAILABLE IN VERTICAL OR HORIZONTAL MOUNTS

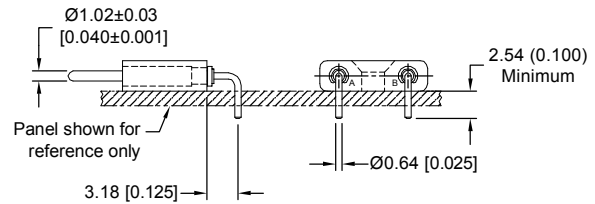
GFPL 2-POLE

VERTICAL PANEL MOUNTED *1



Typical part number: **GFPL2M000RV**

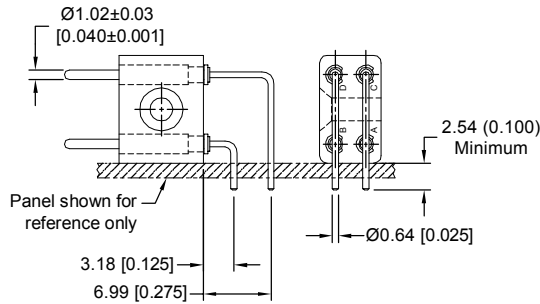
HORIZONTAL PANEL MOUNTED



Typical part number: **GFPL2M000H**

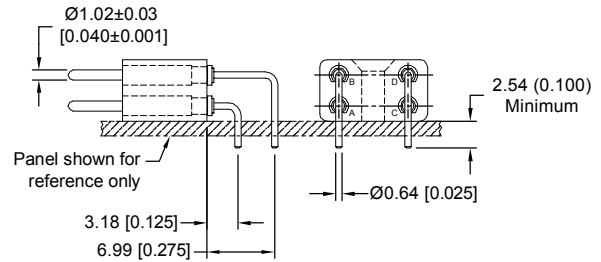
GFPL 4-POLE

VERTICAL PANEL MOUNTED *1



Typical part number: **GFPL2M2FAC0RV**

HORIZONTAL PANEL MOUNTED

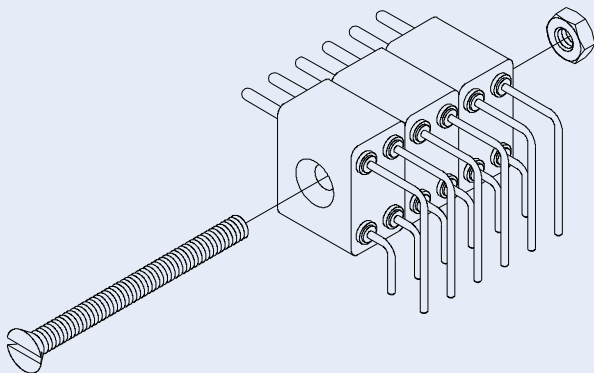


Typical part number: **GFPL2M2FCD0H**

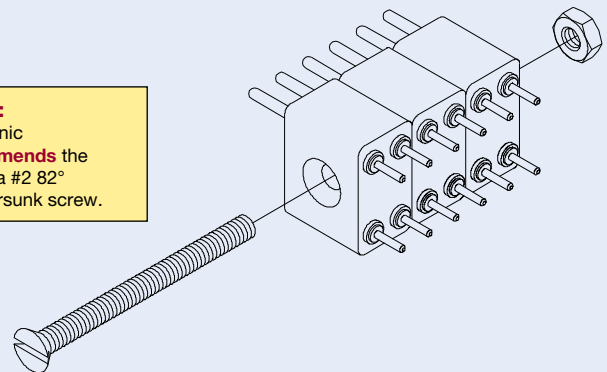
NOTE: *1 When viewing the connector from the rear with the "A" contact position down, the panel on the left dictates "L" code while the panel on the right dictates "R" code. See ordering information page "Step 5".

U N I Q U E F E A T U R E S

GF and GFPL connectors can be "STACKED" in building block fashion to create custom configurations.



NOTE:
Positronic
recommends the
use of a #2 82°
countersunk screw.





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GF / GFPL SERIES

PROFESSIONAL QUALITY UTILITY CONNECTORS

Utility
Connectors

FIXED CONTACT / LOW PROFILE

ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 through 5.

STEP	1	2	3	4	5	-	6
EXAMPLE	GF	3M1F	A	DS5	L		-14

STEP 1 - BASIC SERIES

GF - Solder cup or straight printed board mount termination

STEP 2 - QUANTITY AND GENDER OF CONTACTS

2 POLE INSULATOR

2M0 - 2 Male, No Female.

2F0 - 2 Female, No Male.

1M1F - 1 Male, 1 Female.

4 POLE INSULATOR

4M0 - 4 Male, No Female.

4F0 - 4 Female, No Male.

3M1F - 3 Male, 1 Female.

3F1M - 3 Female, 1 Male.

2M2F - 2 Male, 2 Female.

STEP 3 - POSITION OF POLARIZING CONTACT

0 All contacts same gender
A, B, C, D Specify polarizing position(s) of contact(s) for the second gender specified in Step 2 above.

EXAMPLES:

GF4M0**0**DS3R No specification needed.
GF1M1F**A**SCL Specifies "A" position of the female contact.
GF2M2F**CD**SCL Specifies "C" and "D" positions of the female contact.

STEP 6 - SPECIAL OPTIONS

CE - Closed entry contacts on female solder cup terminations

-14 - 0.000030 [0.76] gold over nickel.

Contact Technical Sales for special options.

STEP 5 - MOUNTING OPTIONS

L - Left panel mount.
R - Right panel mount.

STEP 4 - CONTACT TERMINATION TYPE

SC - Solder cup. For closed entry design, add 'CE' in Step 6.

DS3 - Solder, Straight printed board mount with 2.36 [0.093] tail length.

DS4 - Solder, Straight printed board mount with 3.18 [0.125] tail length.

DS5 - Solder, Straight printed board mount with 3.96 [0.156] tail length.

DS6 - Solder, Straight printed board mount with 4.75 [0.187] tail length.

ORDERING INFORMATION - CODE NUMBERING SYSTEM

Specify Complete Connector By Selecting An Option From Step 1 through 5.

STEP	1	2	3	4	5	-	6
EXAMPLE	GFPL	2M2F	AB	0	H		-14

STEP 1 - BASIC SERIES

GFPL - Right angle (90°) printed board mount termination

STEP 2 - QUANTITY AND GENDER OF CONTACTS

2 POLE INSULATOR

2M0 - 2 Male, No Female.

2F0 - 2 Female, No Male.

1M1F - 1 Male, 1 Female.

4 POLE INSULATOR

4M0 - 4 Male, No Female.

4F0 - 4 Female, No Male.

3M1F - 3 Male, 1 Female.

3F1M - 3 Female, 1 Male.

2M2F - 2 Male, 2 Female.

STEP 3 - POSITION OF POLARIZING CONTACT

0 All contacts same gender
A, B, C, D Specify polarizing position(s) of contact(s) for the second gender specified in Step 2 above.

EXAMPLES:

GFPL4M0**0**RV No specification needed.
GFPL3M1F**A**OH Specifies "A" position of the female contact.
GFPL2M2F**CD**OLV Specifies "C" and "D" positions of the female contact.

STEP 6 - SPECIAL OPTIONS

-14 - 0.000030 [0.76] gold over nickel.

Contact Technical Sales for special options.

STEP 5 - MOUNTING OPTIONS

LV - Left panel vertical mount.
RV - Right panel vertical mount.
H - Horizontal mount.

STEP 4 - CONTACT TERMINATION TYPE

0 - Right angle (90°) printed board mount.

Positronic | Americas

1325 N Eldon Ave
Springfield MO 65803 USA
+1 800 641 4054
info@connectpositronic.com

Positronic | Europe

46 route d'Engachies
F-32020 Auch Cedex 9 France
+33 5 6263 4491
contact@connectpositronic.com

Positronic | Asia

3014A Ubi Rd 1 #07-01
Singapore 408703
+65 6842 1419
singapore@connectpositronic.com

Sales Offices

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GF SERIES

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