



THE DATASHEET OF GF1M1FASCL





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.

Locking Systems:	Straight and right angle (90°) printed board mount - 0.64 mm [0.025 inch] termination diameter.
Polarization:	Friction.
Mechanical Operations:	Gender positioning of contacts.
Open Entry Contacts:	500 operations per IEC 60512-5.
Closed Entry Contacts:	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

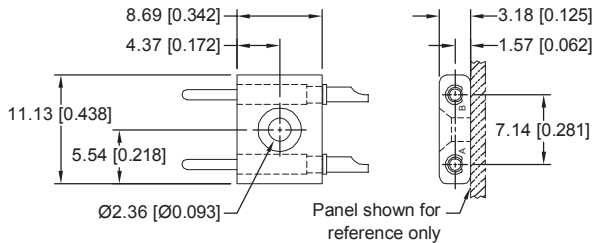
FIXED CONTACT / LOW PROFILE

INSULATOR DIMENSIONS

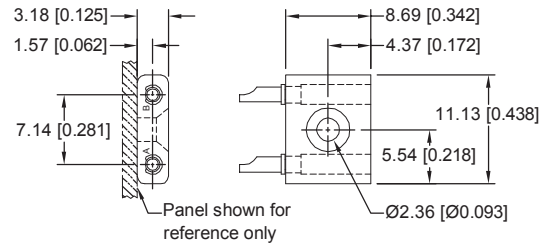
MALE OR FEMALE CONTACTS MAY BE POPULATED IN ANY POSITION

GF 2-POLE

RIGHT PANEL MOUNTED *1

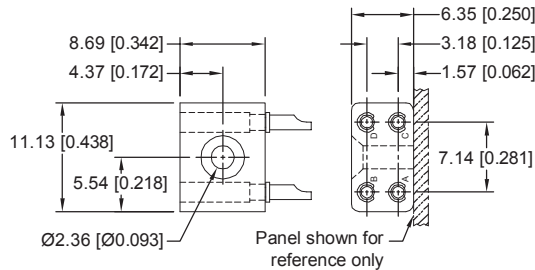


LEFT PANEL MOUNTED *1

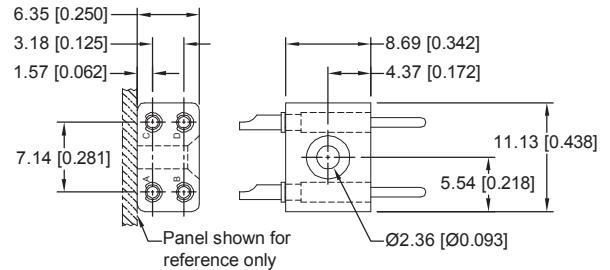


GF 4-POLE

RIGHT PANEL MOUNTED *1



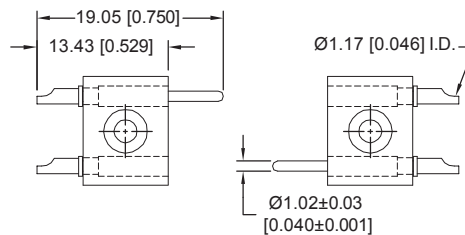
LEFT PANEL MOUNTED *1



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

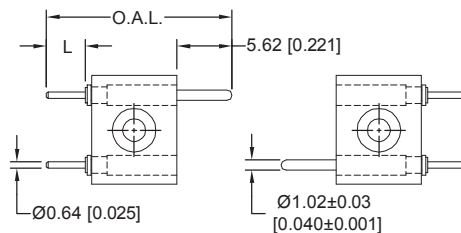
Typical part number:
GF1M1FASCL



Typical part number:
GF1M1FBSCR

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

Typical part number:
GF1M1FADS3L



Typical part number:
GF1M1FBDS3R

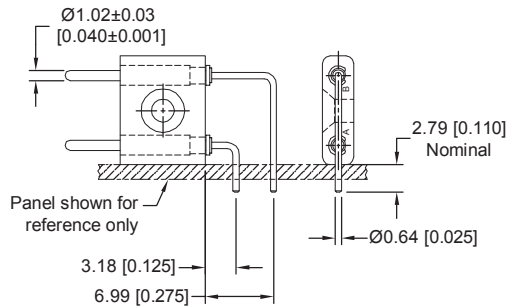
CONTACT CODE	L	O.A.L.
DS3	2.36 [0.093]	17.37 [0.684]
DS4	3.18 [0.125]	18.19 [0.716]
DS5	3.96 [0.156]	18.97 [0.747]
DS6	4.75 [0.187]	19.79 [0.779]

RIGHT ANGLE (90°) PRINTED BOARD MOUNT TERMINATION

AVAILABLE IN VERTICAL OR HORIZONTAL MOUNTS

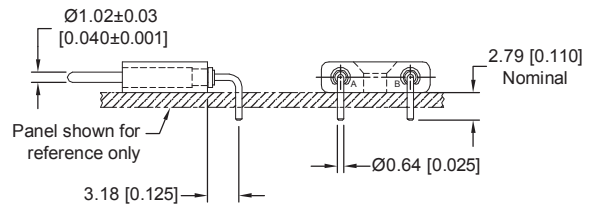
GFPL 2-POLE

VERTICAL PANEL MOUNTED *1



Typical part number: **GFPL2M000RV**

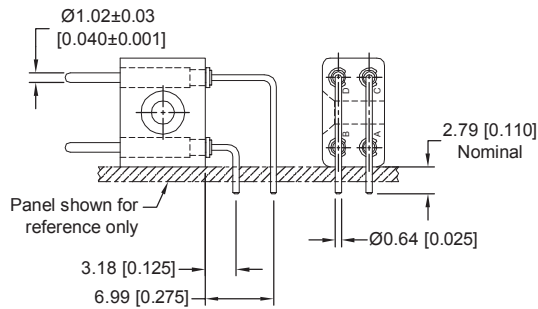
HORIZONTAL PANEL MOUNTED



Typical part number: **GFPL2M000H**

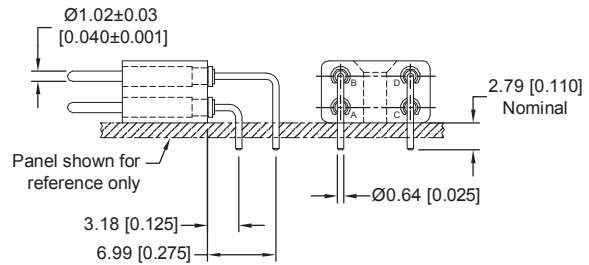
GFPL 4-POLE

VERTICAL PANEL MOUNTED *1



Typical part number: **GFPL2M2FAC0RV**

HORIZONTAL PANEL MOUNTED

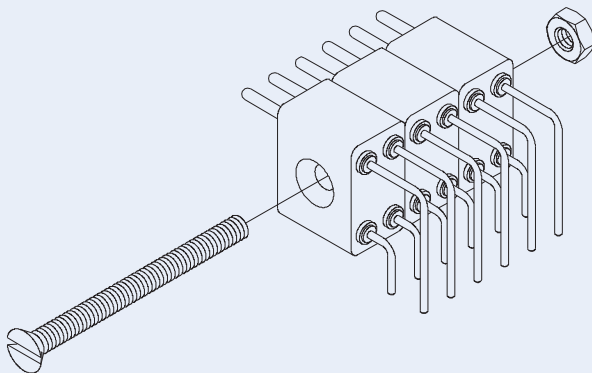


Typical part number: **GFPL2M2FCD0H**

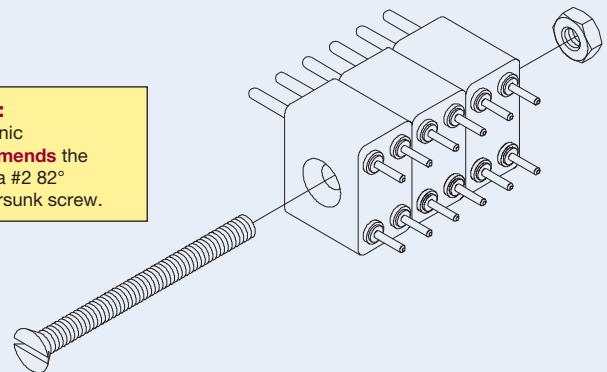
NOTE: *1 When viewing the connector from the rear with the "A" contact position down, the panel on the left dictates "L" code while the panel on the right dictates "R" code. See ordering information page "Step 5".

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:

GF4M00DS3R No specification needed.
GF1M1FA SCL Specifies "A" position of the female contact.
GF2M2FC D 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:

GFPL4M00RV No specification needed.
GFPL3M1FA0H Specifies "A" position of the female contact.
GFPL2M2FC D0LV 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.

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GFPL SERIES

Mouser Electronics

Authorized Distributor


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[GF3F1MCSCRCR](#) [GFPL1M1FA0H](#) [GF2F00SCRCE](#) [GF3M1FBSCCL/AA](#) [GF2M2FABSCRCR](#) [GF2M2FCDSCLCR](#)
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[GF2M2FACSCRCRCR-15](#) [GF2M2FCDSCL](#) [GFPL1M1FB0H](#) [GF2M2FBDSCLCRCE-15](#) [GF3F1MDSRCRCR](#)
[GF3M1FASCLCRCE](#) [GF2M2FABSCL/AA](#) [GF3F1MADS4R](#) [GF4M00SCL-14](#) [GF2M2FBDSCLCRCE](#) [GF3M1FDSRCRCR](#)
[GF3M1FDSRCRCRCR-14](#) [GF4F00DS3R](#) [GF4M00SCR](#) [GF3M1FDSCLCRCE-14](#) [GF2M2FABDS4R/AA](#) [GF2M2FACSCCLCRCE](#)
[GF2M2FBDSRCRCRCR-15](#) [GF3F1MASCLCRCE](#) [GF3F1MBSCCL](#) [GF2F00SCRCE/AA](#) [GF3F1MCSCRCRCR](#) [GF3M1FADS3R](#)
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