

# DesignFLEX™

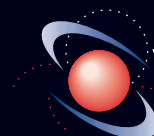
## TECHNICAL SELECTOR GUIDE



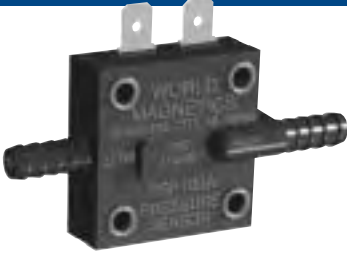



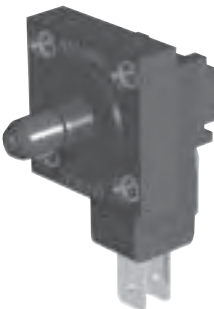
## ULTRA SENSITIVE PRESSURE AND VACUUM SWITCHES

ISO 9001:2000

[www.designflexswitches.com](http://www.designflexswitches.com)



WORLD MAGNETICS  
Quick Response...Reliable Solutions

SERIES	PRESSURE	VACUUM	DIFFERENTIAL	SERIES SET POINT RANGE	ELECTRICAL	SPECIAL FEATURES
<b>PSF100A</b> See Catalog Page 3						
	P	V	D	0.1" H <sub>2</sub> O to 50" H <sub>2</sub> O	30 V, AC/DC Up to 40 mA SPST	Double Make / Double Break Contacts Provide Shock and Vibration Resistance  Dual Gold Inlay Contacts  Military Approved
<b>PSF101</b> See Catalog Pages 4 - 5						
	P	V	D	0.5" H <sub>2</sub> O to 50" H <sub>2</sub> O	30 V, AC/DC Up to 40 mA SPST	Variety of Housing and Port Options  Gold Inlay Contacts
<b>PSF102</b> See Catalog Pages 6 - 7						
	P	V	D	0.1" H <sub>2</sub> O to 30 psi	30 V, AC/DC Up to 40 mA SPST	High Resolution Field Adjustment Mechanism Allows "Fine Tuning" of Set Point  Gold Inlay Contacts
<b>PSF103</b> See Catalog Pages 8 - 9						
	P			2.0" H <sub>2</sub> O to 60 psi	125/250 VAC, Up To 25A SPDT	Hysteresis (Deadband) For Compressor or Refill Motor Control  Variety of Pressure Port Options Field Adjustable
<b>PSF109</b> See Catalog Page 10						
		V		-3.0" H <sub>2</sub> O to -12 psi Vacuum	125/250 VAC, Up To 25A SPDT	Hysteresis (Deadband) For Motor Control  .250" Diameter or 1/8" NPT Port Field Adjustable
<ul style="list-style-type: none"> <li>• All above World Magnetics pressure and vacuum switches are UL-recognized components, file number E41523.</li> <li>• Special materials available: FDA food grade, extreme temperature, NSF approved.</li> <li>• Special approvals available: International and military standards.</li> <li>• See catalog page 11 for additional products and accessories.</li> </ul>						

# DesignFLEX™ ULTRA SENSITIVE PRESSURE SWITCHES

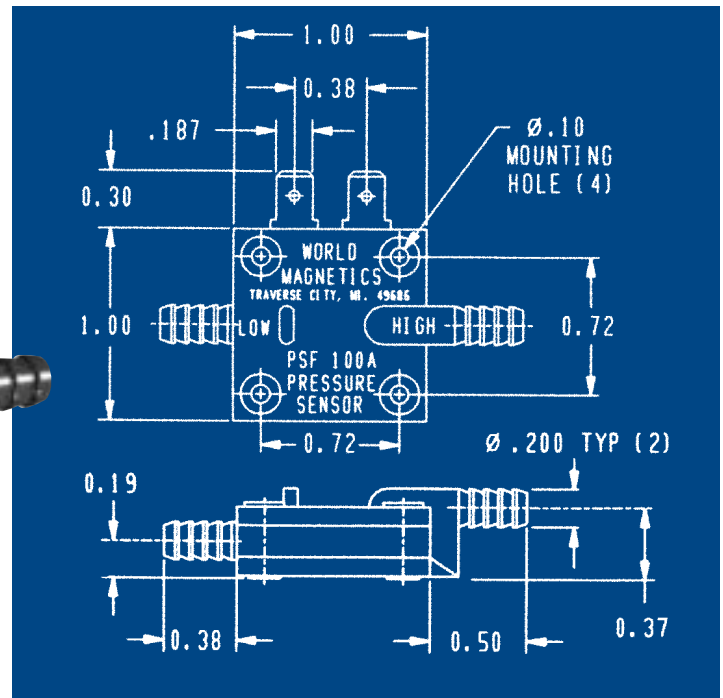
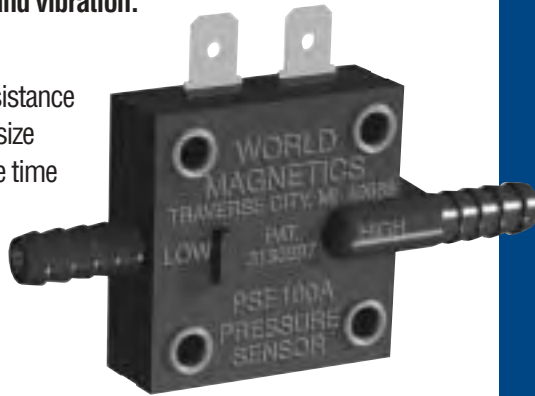
## PSF100A SERIES:

For sensing pressure • vacuum • differential pressure

PSF100A pressure switches utilize a patented double diaphragm/contact configuration to protect against false actuation due to shock and vibration.

### FEATURES

- Shock and vibration resistance
- Lightweight, miniature size
- Extremely fast response time
- Military approved



### STANDARD MODELS

PRESSURE SET POINT			
Part Number	In. H <sub>2</sub> O	mbar	psi
PSF100A-0.5	.1 - .5	.25 - 1.25	.004-.018
PSF100A-1.0	1.0	2.49	.036
PSF100A-1.5	1.5	3.73	.054
PSF100A-2.0	2.0	4.97	.072
PSF100A-3.0	3.0	7.46	.108
PSF100A-4.0	4.0	9.95	.144
PSF100A-6.0	6.0	14.92	.217
PSF100A-8.0	8.0	19.89	.289
PSF100A-10.0	10.0	24.86	.361
PSF100A-12.0	12.0	29.84	.433
PSF100A-15.0	15.0	37.30	.541
PSF100A-20.0	20.0	49.73	.722
PSF100A-30.0	30.0	74.59	1.083
PSF100A-40.0	40.0	99.46	1.444
PSF100A-50.0	50.0	124.32	1.804

NOTE: For TEFLON® diaphragm add "T" to the part number.

### SPECIFICATIONS

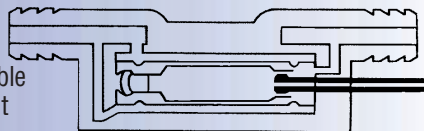
MECHANICAL	
Standard Tolerance	±20% Tighter tolerances available
Switch Type	SPST normally open, double-make/double-break
Switching Medium	Air; compatible fluids on "High" side
Mechanical Life	More than 20 million cycles
Proof Pressure	8 psi for units where set point is 3.0" H <sub>2</sub> O or less 15 psi for units where set point is greater than 3.0" H <sub>2</sub> O 8 psi for units with Teflon diaphragm
Weight	Less than 10 grams
Shock and Vibration	At zero pressure, will not make at 50G's shock Will not make at 10G's, 50 to 2000 Hz vibration
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)

PHYSICAL	
Mounting	Eyeletted for No. 2 screws
Case Material	Polycarbonate standard (other materials available)
Contact Material	Gold inlay
Diaphragm Material	Polyurethane standard (Teflon® optional)
Electrical Connections	Terminals – .187"x.020" tab-type for use with quick disconnects (ref. AMP 2-520182-2 or equivalent)
Pressure Ports	Two .200" diameter barbed ports for use with 1/8" - 3/16" ID tubing

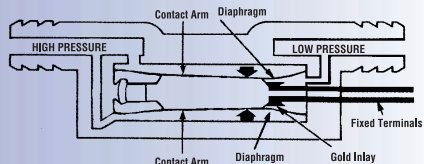
ELECTRICAL	
Current Rating	40mA resistive for life in excess of 20 million cycles
Operating Voltage	AC/DC – 30V or less with resistive load; 120 VAC neon lamp load For higher loads use SRF-100B solid state relay

### HOW THE PSF100A WORKS

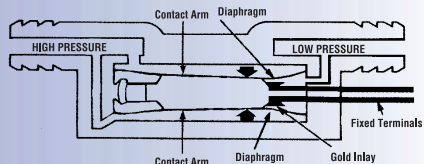
**A. Normal state, no pressure applied:** Both contacts of the double make/double break circuit configuration are open.



**B. No pressure applied, subjected to shock or vibration:** The contact arms move together in parallel. Since at least one contact is always open, the circuit cannot close in error.



**C. Pressure applied:** Both contacts are closed completing the circuit.



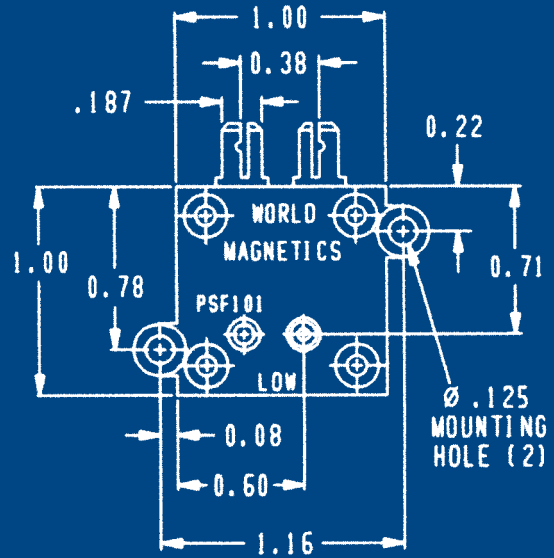
# ULTRA SENSITIVE PRESSURE SWITCHES **DesignFLEX™**

## PSF101 SERIES:

For sensing pressure • vacuum • differential pressure

### FEATURES

- Gold inlay contacts
- Small size, lightweight
- Fast response
- Variety of options for ports and mountings
- PCB terminals available upon request



### SPECIFICATIONS

#### MECHANICAL

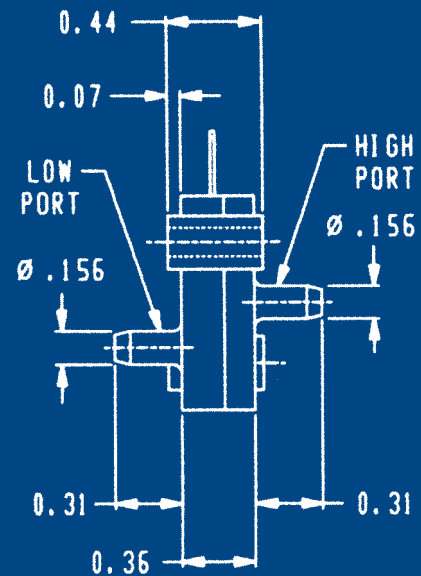
Standard	±20%
Tolerance	Tighter tolerances available
Switch Type	SPST normally open, normally closed consult factory
Switching Medium	Air; compatible fluids on "High" side
Mechanical Life	More than 20 million cycles
Proof Pressure	8 psi for units where set point is 3.0" H <sub>2</sub> O or less 15 psi for units where set point is greater than 3.0" H <sub>2</sub> O
Weight	Less than 10 grams
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)

#### PHYSICAL

Mounting	Use #4 screws thru mounting lugs or #2 screws thru eyelets
Case Material	Polycarbonate standard (other materials available upon request)
Contact Material	Gold inlay
Diaphragm Material	Polyurethane standard (Teflon® optional)
Electrical Connections	Terminals – .187"x.020" tab-type (bifurcated), for use with quick disconnects (ref. AMP 2-520182-2 or equivalent) .020"x.060"
Pressure Ports	Refer to DesignFLEX™ chart for standard options

#### ELECTRICAL

Current Rating	40mA resistive for life in excess of 20 million cycles
Operating Voltage	AC/DC – 30V or less with resistive load; 120 VAC neon lamp load



NOTE: For higher current capabilities, refer to our PSF103 or PSF109 DesignFLEX™ series.

# DesignFLEX™ ULTRA SENSITIVE PRESSURE SWITCHES

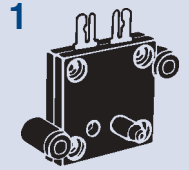
## PSF101 SERIES:

For sensing pressure • vacuum • differential pressure

DESIGNFLEX™ OPTIONS With World Magnetics' exclusive DesignFLEX™ feature, you can choose from these available options to custom-design a pressure switch to suit your needs.

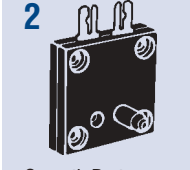
### LOW PORT/HOUSING OPTIONS

**1**



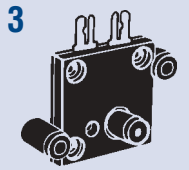
Smooth Port  
.156" Diameter  
for 1/8" ID Tubing  
w/ Mtg. Lugs

**2**



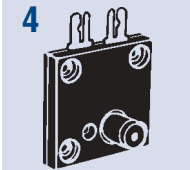
Smooth Port  
.156" Diameter  
for 1/8" ID Tubing  
w/o Mtg. Lugs

**3**



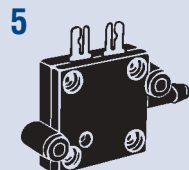
Smooth Port  
.250" Diameter  
for 7/32" ID Tubing  
w/ Mtg. Lugs

**4**



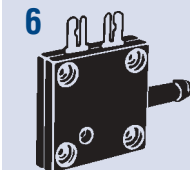
Smooth Port  
.250" Diameter  
for 7/32" ID Tubing  
w/o Mtg. Lugs

**5**



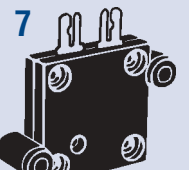
Barbed Port  
for 3/16" ID Tubing  
w/ Mtg. Lugs

**6**



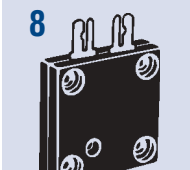
Barbed Port  
for 3/16" ID Tubing  
w/o Mtg. Lugs

**7**



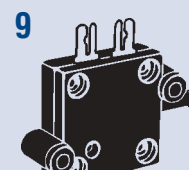
No Port  
(.060" Vent Hole)  
w/ Mtg. Lugs

**8**



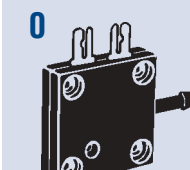
No Port  
(.060" Vent Hole)  
w/o Mtg. Lugs

**9**



Barbed Port  
for 1/8" ID Tubing  
w/ Mtg. Lugs

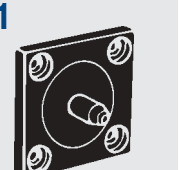
**0**



Barbed Port  
for 1/8" ID Tubing  
w/o Mtg. Lugs


### HIGH PORT/COVER OPTIONS

**1**



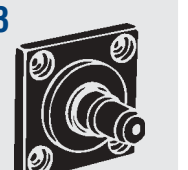
Smooth Port  
.156" Diameter  
for 1/8" ID Tubing

**2**




Smooth Port  
.187" Diameter  
for 5/32" ID Tubing

**3**



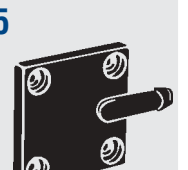
Smooth Port  
.250" Diameter  
for 7/32" ID Tubing

**4**



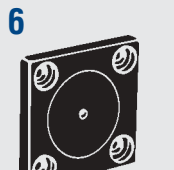
1/8" NPT Port

**5**



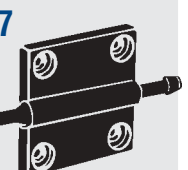
Barbed Port  
for 3/16" ID Tubing

**6**




No Port  
(.060" Vent Hole)

**7**



Flow-Thru  
Barbed Port  
for 1/8" ID Tubing

**8**



Barbed Port  
for 1/8" ID Tubing

### PRESSURE SET POINT OPTIONS

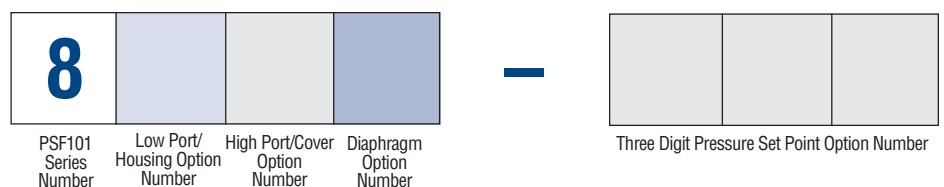
For higher Pressure Set Point, consult factory.

Option No.	In. H <sub>2</sub> O	mbar	psi
<b>005*</b>	.1 - .5	.25 - 1.25	.004 - .018
<b>010</b>	1.0	2.49	.036
<b>015</b>	1.5	3.73	.054
<b>020</b>	2.0	4.97	.072
<b>030</b>	3.0	7.46	.108
<b>040</b>	4.0	9.95	.144
<b>060</b>	6.0	14.92	.217
<b>080</b>	8.0	19.89	.289
<b>100</b>	10.0	24.86	.361
<b>120</b>	12.0	29.84	.433
<b>150</b>	15.0	37.30	.541
<b>200</b>	20.0	49.73	.722
<b>300</b>	30.0	74.59	1.083
<b>400</b>	40.0	99.46	1.444
<b>500</b>	50.0	124.32	1.804

\*Teflon only

### Diaphragm Options

- 1** Polyurethane (standard)
- 2** Teflon (optional)



## Design Guide

Choose one option number from each of the above categories and arrange in the sequence shown here.

**EXAMPLE:** **8111-020** = PSF101 Series ultra sensitive pressure switch with • Low Port/Housing, .156" Diameter, Smooth Port with Mounting Lugs • High Port/Cover, .156" Diameter, Smooth Port • Standard Polyurethane Diaphragm • Pressure Set Point is factory-set at 2" H<sub>2</sub>O



# ULTRA SENSITIVE PRESSURE SWITCHES **DesignFLEX™**

## PSF102 SERIES:

For sensing pressure • vacuum • differential pressure

### FEATURES

- Field adjustable set point –high resolution/high accuracy field adjustment mechanism
- Adjustable set points from 0.1" H<sub>2</sub>O to 30 psi
- Gold inlay contacts
- Variety of options for ports and mounting
- Small size and lightweight
- PCB terminals available



E41523

### SPECIFICATIONS

#### MECHANICAL

Switch Type	SPST normally open
Switching Medium	Air; compatible fluids on "High" side
Mechanical Life	More than 20 million cycles
Proof Pressure	See chart
Weight	Less than 10 grams
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)

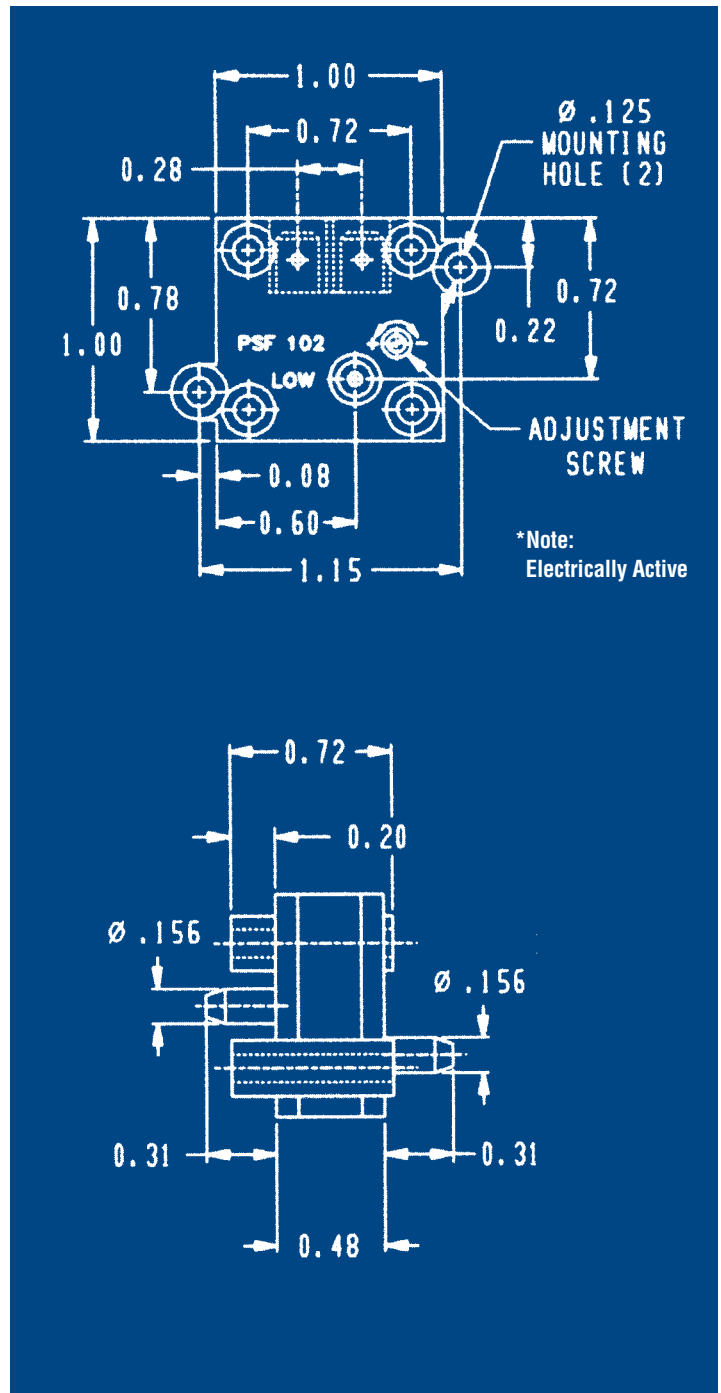
#### PHYSICAL

Mounting	Use #4 screws thru mounting lugs or #2 screws thru eyelets
Case Material	Polycarbonate standard (other materials available upon request)
Contact Points	Gold
Diaphragm Material	Polyurethane standard (Teflon® optional)
Electrical Connections	Terminals – .187" x .020" spade (recessed) for use with quick disconnects uninsulated (ref. AMP Faston, 187 Series) PCB terminals available
Pressure Ports	Refer to DesignFLEX™ chart for standard options

#### ELECTRICAL

Current Rating	40mA resistive for life in excess of 20 million cycles
Operating Voltage	AC/DC – 30V or less with resistive load; 120 VAC neon lamp load

NOTE: For higher current capabilities, refer to our PSF103 or PSF109 DesignFLEX™ series.



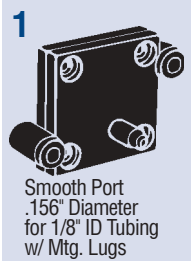
# DesignFLEX™ ULTRA SENSITIVE PRESSURE SWITCHES

## PSF102 SERIES:

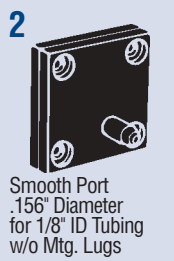
For sensing pressure • vacuum • differential pressure

DESIGNFLEX™ OPTIONS With World Magnetics' exclusive DesignFLEX™ feature, you can choose from these available options to custom design a pressure switch to suit your needs.

### LOW PORT/HOUSING OPTIONS



Smooth Port  
.156" Diameter  
for 1/8" ID Tubing  
w/ Mtg. Lugs



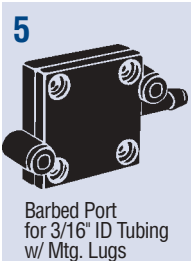
Smooth Port  
.156" Diameter  
for 1/8" ID Tubing  
w/o Mtg. Lugs



No Port  
(.060" Vent Hole)  
w/ Mtg. Lugs



No Port  
(.060" Vent Hole)  
w/o Mtg. Lugs



Barbed Port  
for 3/16" ID Tubing  
w/ Mtg. Lugs



Barbed Port  
for 3/16" ID Tubing  
w/o Mtg. Lugs



Barbed Port  
for 1/8" ID Tubing  
w/ Mtg. Lugs



Barbed Port  
for 1/8" ID Tubing  
w/o Mtg. Lugs

### HIGH PORT/COVER OPTIONS



Smooth Port  
.156" Diameter  
for 1/8" ID Tubing



Smooth Port  
.187" Diameter  
for 5/32" ID Tubing



Smooth Port  
.250" Diameter  
for 7/32" ID Tubing



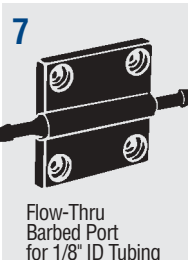
1/8"  
NPT Port



Barbed Port  
for 3/16" ID Tubing



No Port  
(.060" Vent Hole)



Flow-Thru  
Barbed Port  
for 1/8" ID Tubing



Barbed Port  
for 1/8" ID Tubing

### PRESSURE SET POINT OPTIONS

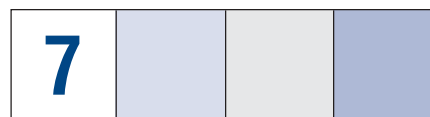
For higher Pressure Set Point, consult factory.

Option No.	In. H <sub>2</sub> O	mbar	psi	Proof Pressure	Tolerance
710	0.1 to 0.5	0.25 to 1.25	.004 to .018	4 psi	±0.1 In. H <sub>2</sub> O
711	0.5 to 2.0	1.25 to 4.98	.018 to .072	8 psi	±0.2 In. H <sub>2</sub> O
712	2.0 to 15.0	4.98 to 37.37	.072 to .541	8 psi	±0.5 In. H <sub>2</sub> O
713	15.0 to 60.0	37.37 to 149.3	.541 to 2.17	15 psi	±10%
723	60.0 to 100.0	149.3 to 248.8	2.17 to 3.60	25 psi	±10%
714	100.0 to 830.0	248.8 to 2068.0	3.60 to 30.0	30 psi	±10%

### Diaphragm Options

- 1 Polyurethane (standard)
- 2 Teflon (optional)

Other mounting and porting options available.



PSF102 Series Number    Low Port/Housing Option Number    High Port/Cover Option Number    Diaphragm Option Number



Three Digit Pressure Set Point Option Number

## Design Guide

Choose one option number from each of the above categories and arrange in the sequence shown here.

EXAMPLE: **7112-710** = PSF102 Series ultra sensitive pressure switch with • Low Port/Housing, .156" Diameter, Smooth Port with Mounting Lugs • High Port/Cover, .156" Diameter, Smooth Port • Teflon Diaphragm • Adjustable Set Point Range: 0.1" to 0.5" H<sub>2</sub>O

# ULTRA SENSITIVE PRESSURE SWITCHES **designFLEX™**

**PSF103 SERIES:**

**Pressure Switch • High Current**

## FEATURES

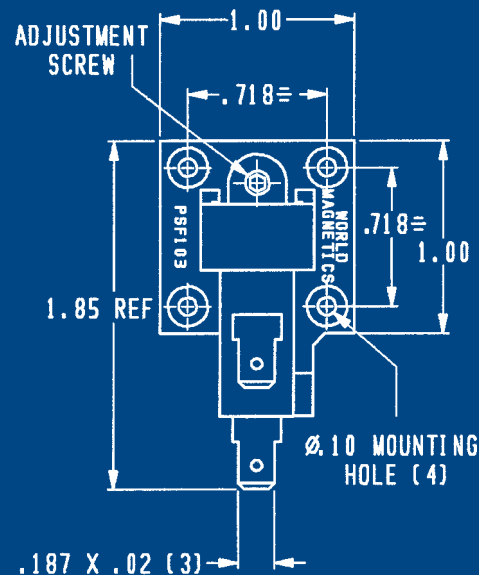
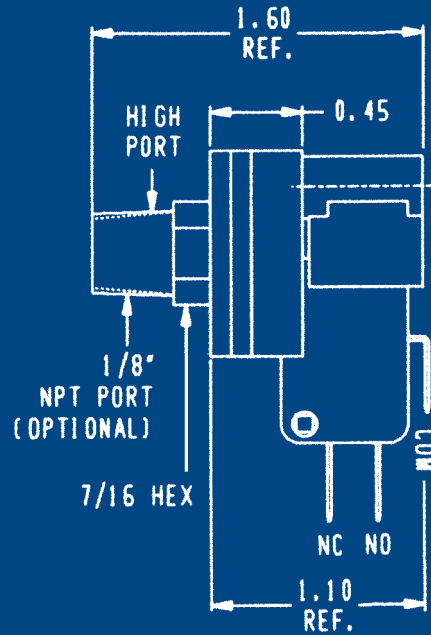
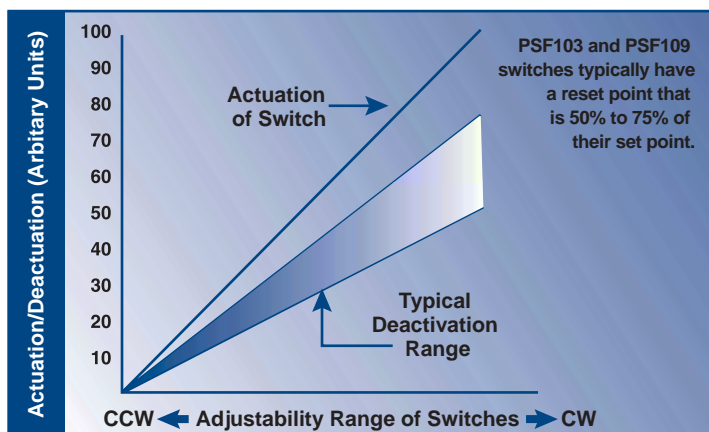
- Hysteresis (deadband) for compressor or refill motor control
- Field adjustable pressure set point, from 2" H<sub>2</sub>O to 60 psi
- Snap action basic switch, up to 25A, 125/250 VAC
- Variety of pressure port options
- Small size and lightweight



## SPECIFICATIONS

MECHANICAL	
Standard Tolerance	±20% Tighter tolerances available
Switch Type	SPDT normally open or normally closed
Switching Medium	Air or compatible fluids
Mechanical Life	More than 10 million cycles
Proof Pressure	See Chart
Weight	Less than 20 grams
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)
PHYSICAL	
Mounting	#4 screws thru mounting lugs or #2 screws thru eyelets
Case Material	Polycarbonate standard
Contact Material	Silver (Gold available on special order)
Diaphragm Material	Polyurethane Standard
Electrical Connections	Terminals – .187" x .020" tab-type for use with quick disconnects (ref. AMP #2-520182-2 or equivalent)

## TYPICAL HYSTERESIS (FOR REFERENCE ONLY)






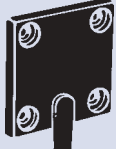
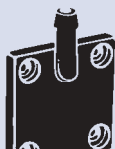
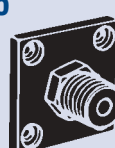

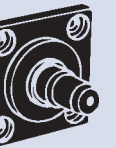







# DesignFLEX™ ULTRA SENSITIVE PRESSURE SWITCHES

## PSF103 SERIES: Pressure Switch • High Current

DESIGNFLEX™ OPTIONS With World Magnetics' exclusive DesignFLEX™ feature, you can choose from these available options to custom design a pressure switch to suit your needs.

### PRESSURE PORT/COVER OPTIONS

<b>01</b>  Smooth Port .156" Diameter for 1/8" ID Tubing w/o Mtg. Lugs	<b>02</b>  Barbed Port for 3/16" ID Tubing Same Side as Terminals w/ Mtg. Lugs	<b>03</b>  Barbed Port for 3/16" ID Tubing Opposite Terminals w/ Mtg. Lugs	<b>04</b>  Barbed Port for 3/16" ID Tubing Same Side as Terminals w/o Mtg. Lugs
<b>05</b>  Barbed Port for 3/16" ID Tubing Opposite Terminals w/o Mtg. Lugs	<b>06</b>  1/8" NPT Port w/o Mtg. Lugs	<b>07</b>  Flow-Thru Barbed Port for 1/8" ID Tubing w/o Mtg. Lugs	<b>08</b>  Smooth Port .250" Diameter for 7/32" ID Tubing w/o Mtg. Lugs
<b>09</b>  Smooth Port .250" Diameter for 7/32" ID Tubing w/ Mtg. Lugs	<b>10</b>  Barbed Port for 1/8" ID Tubing Same Side as Terminals w/ Mtg. Lugs	<b>11</b>  Barbed Port for 1/8" ID Tubing Opposite Terminals w/ Mtg. Lugs	<b>12</b>  Barbed Port for 1/8" ID Tubing Same Side as Terminals w/o Mtg. Lugs
<b>13</b>  Barbed Port for 1/8" ID Tubing Opposite Terminals w/o Mtg. Lugs			

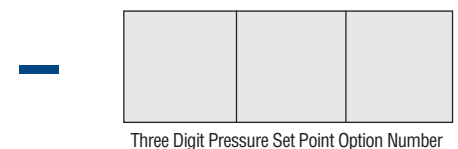
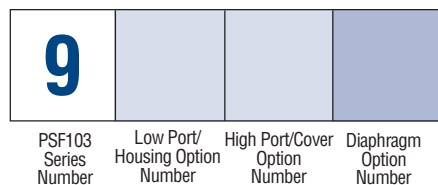
### ADJUSTABLE PRESSURE SET POINT OPTIONS

Option No.	In. H <sub>2</sub> O	mbar	psi	Proof Pressure		Electrical 125/250 VAC
				Polyurethane	Teflon	
<b>020</b>	2 ± 0.5	5	0.1	30 psi	15 psi	3A
<b>902</b>	3 to 10	7.5 to 25	0.11 to 0.4	30 psi	15 psi	3A
<b>903</b>	10 to 28	25 to 69	0.4 to 1.0	30 psi	30 psi	10A
<b>904</b>	28 to 111	69 to 276	1.0 to 4.0	30 psi	30 psi	15A
<b>905</b>	111 to 416	276 to 1034	4.0 to 15.0	100 psi	30 psi	15A
<b>906</b>	416 to 1664	1034 to 4137	15.0 to 60.0*	100 psi	30 psi	15A

\* Teflon Diaphragm 30 psi max

### Diaphragm Options

- 1** Polyurethane (standard)
- 2** Teflon (optional)



### Design Guide

Choose one option number from each of the above categories and arrange in the sequence shown here.

**EXAMPLE:** **9061-902** = PSF103 Series ultra sensitive pressure switch with • Pressure Port Cover, 1/8" NPT PORT without Mounting Lugs • Polyurethane Diaphragm • Adjustable Set Point Range: 3" to 10" H<sub>2</sub>O

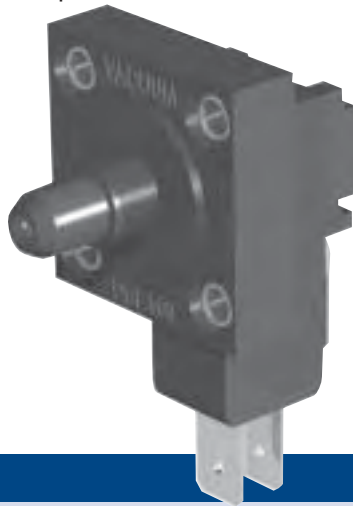
# ULTRA SENSITIVE PRESSURE SWITCHES **DesignFLEX**

## PSF109S SERIES:

Vacuum Switch • High Current

### FEATURES

- Vacuum switch with Hysteresis (deadband) for motor control
- Field adjustable vacuum set point, from 3" H<sub>2</sub>O to 12 psi
- Snap action basic switch, up to 25 A, 125/250 VAC
- .250" diameter or 1/8" NPT vacuum port
- Small size and lightweight



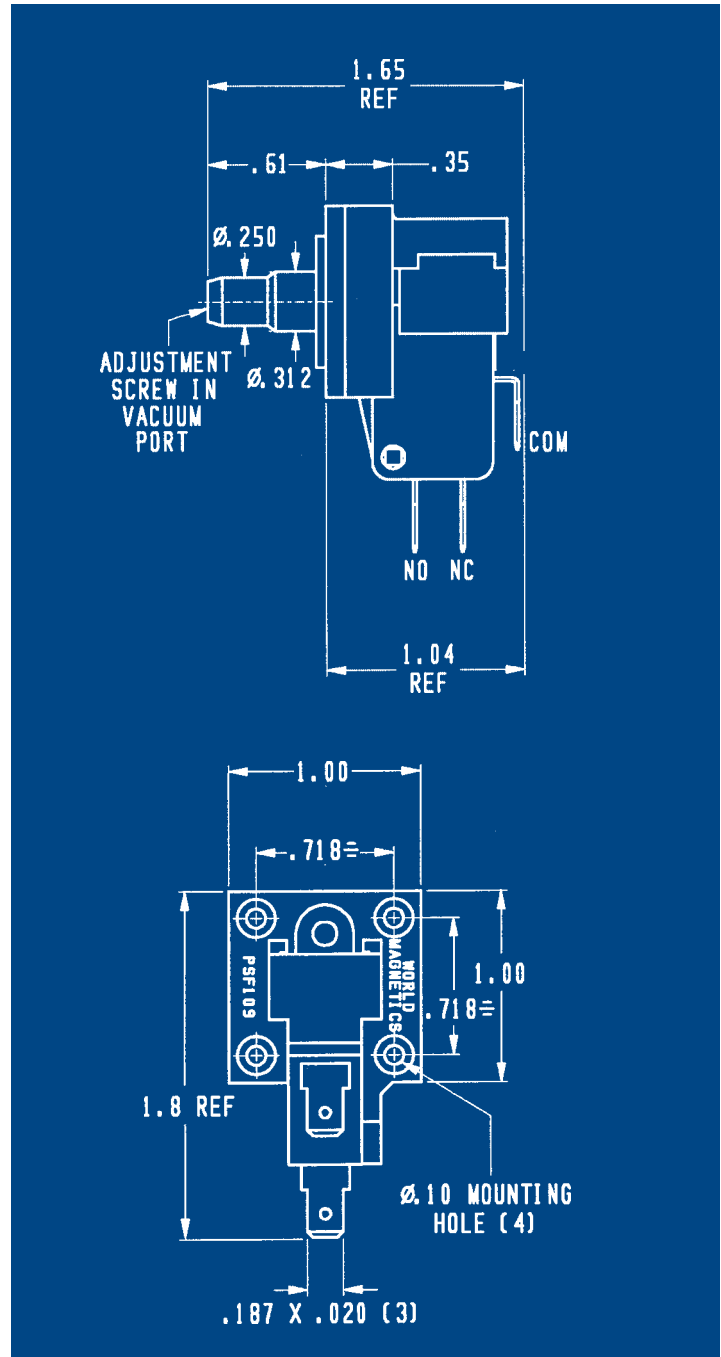
### SPECIFICATIONS

MECHANICAL	
Standard	±20%
Tolerance	Tighter tolerances available
Switch Type	SPDT normally open, or normally closed
Switching Medium	Air or compatible fluids
Mechanical Life	More than 10 million cycles
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)
PHYSICAL	
Mounting	Use #2 screws thru eyelets
Case Material	Polycarbonate standard
Contact Material	Silver (Gold available on special order)
Diaphragm Material	Polyurethane standard (Teflon® optional)
Electrical Connections	Terminals – .187"x.020" tab-type for use with AMP 2- 520182-2 or equivalent
ELECTRICAL	
Contact Rating	See rating chart

For Hysteresis chart see page 8.

### STANDARD MODELS

VACUUM SET POINT AND ELECTRICAL RATING						
Part Number	Description	Port Style	(-) In. H <sub>2</sub> O	(-) mbar	(-) PSI	Electrical Rating
20161	PSF109S-3-8	.250" dia.	3 to 8	8 to 20	0.1 to 0.3	3 A, 125/250 VAC
20901	PSF109S-NPT-3-8	1/8" NPT	3 to 8	8 to 20	0.1 to 0.3	3 A, 125/250 VAC
20112	PSF109S-9-80	.250" dia.	9 to 80	21 to 199	0.3 to 2.9	10 A, 125/250 VAC
20890	PSF109S-NPT-9-80	1/8" NPT	9 to 80	21 to 199	0.3 to 2.9	10 A, 125/250 VAC
20623	PSF109S-81-330	.250" dia.	81 to 330	200 to 822	2.9 to 11.9	15 A, 125/250 VAC
20897	PSF109S-NPT-81-330	1/8" NPT	81 to 330	200 to 822	2.9 to 11.9	15 A, 125/250 VAC

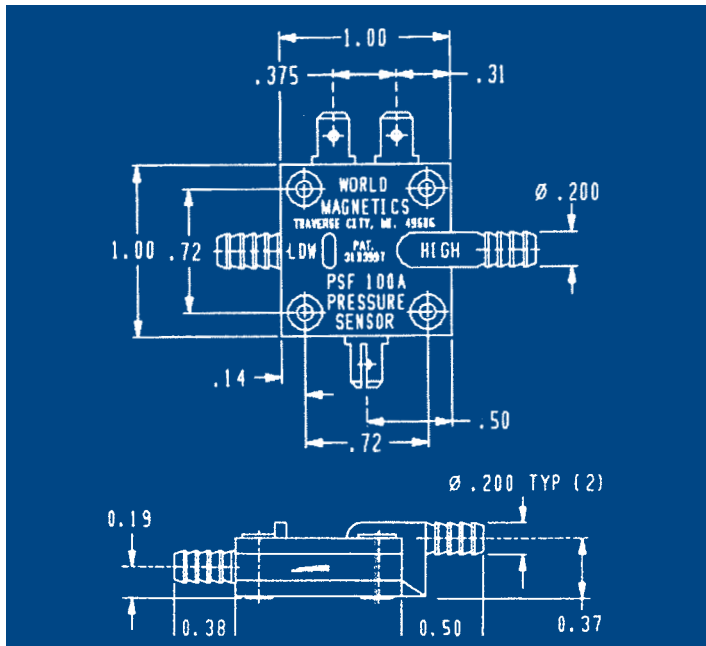


Note: N.C. and N.O. terminals are opposite from those printed on snap switch

# DesignFLEX™ ULTRA SENSITIVE PRESSURE SWITCHES

## PSF200A SERIES:

## Dual Set Point Pressure/Vacuum Switch



The PSF200A model is a dual set point switch that can be used for pressure, vacuum, or differential pressure applications. Choose any two set points from the PSF200A pressure set point chart. The PSF200A model has three terminals: 'A' circuit, 'B' circuit, and 'Common.'



## SPECIFICATIONS

### MECHANICAL

Switch Type	SPST normally open, double-make/double-break
Switching Medium	Air; compatible fluids on "High" side
Mechanical Life	More than 20 million cycles
Proof Pressure	8 psi for units where set point is 3.0" H <sub>2</sub> O or less 15 psi for units where set point is greater than 3.0" H <sub>2</sub> O 8 psi for units with Teflon diaphragm
Weight	Less than 10 grams
Operating Temp.	+40°F to +150°F (standard) -46°F to +205°F (consult factory)

### PHYSICAL

Mounting	Eyeletted for No. 2 screws
Case Material	Polycarbonate standard (other materials available)
Contact Material	Gold inlay
Diaphragm Material	Polyurethane standard (Teflon® optional)
Electrical Connections	Terminals - .187"x0.20" tab-type for use with quick disconnects (ref. AMP 2-520182-2 or equivalent)
Pressure Ports	Two .200" diameter barbed ports, for use with 1/8"-3/16" ID tubing

### ELECTRICAL

Current Rating	40mA resistive for life in excess of 20 million cycles
Operating Voltage	AC/DC - 30V or less with resistive load; 120 VAC neon lamp load. For higher loads use SRF 100B solid state relay

## STANDARD MODELS

Select set point for Contact A and Contact B. See example below. Consult factory for other set points not shown.

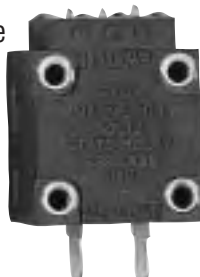
PRESSURE SET POINTS	CONTACT A		CONTACT B
	Part	In. H <sub>2</sub> O	In. H <sub>2</sub> O
PSF200A		0.1 - 0.5	0.1 - 0.5
		1.0	1.0
		1.5	1.5
		3.0	3.0
		4.0	4.0
		6.0	6.0
		8.0	8.0
		10.0	10.0
		12.0	12.0
		15.0	15.0
		20.0	20.0
		30.0	30.0
		40.0	40.0
	50.0	50.0	
PSF200A	1.5	20.0	
Example: (PSF200A 1.5/20.0)			

## ACCESSORIES:

## Relays • Connectors • Mounting Clips

### SRF100B MINIATURE SOLID STATE RELAY

The SRF100B is a solid state relay that can be piggybacked with the PSF100A pressure switch to carry up to 1.0A, 115VAC or VDC. The PSF/SRF pressure switch/relay combination can be configured as either normally open or normally closed.



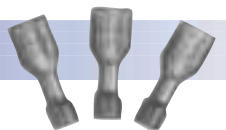
### CONNECTORS

**Part# 70000** Compatible with PSF100A, PSF101, PSF103, & PSF109 Series. Amp Part #2-520182-2 or equivalent.

**Part# 70005** Compatible with PSF102 Series. Part #8-640917-1 or equivalent.

### UNIVERSAL MOUNTING CLIP

**Part# 70012** Special accessories are available, such as this mounting clip that can be used with the PSF100A, PSF101 or PSF102 Series. The universal clip also allows interchangeability with other products. Double sided tape included.





World Magnetics is a leading manufacturer of ultra-sensitive pressure switches that are suitable for use in a variety of applications, ranging from sip-and-puff communication systems for the handicapped to arc fault detection aboard the Trident submarine. From the depths of the ocean to the vacuum of space, World Magnetics provides a long-life, dependable solution to your pressure switch application.

Our switches are miniature in size, lightweight and low in cost relative to competitive pressure sensors that are used to accomplish the same purpose. At rated load, you can expect a fast, repeatable response for millions of cycles!

In total support of your custom requirements, we have modern, in-house manufacturing facilities that include: die-casting, stamping, injection and compression molding, machining and assembly. We manufacture our own tooling, dies, molds and fixtures, so turn-around on your custom design is fast!

Much of our success is the result of our total commitment to our customers. We maintain the highest standards of service excellence and we constantly strive to find new and better ways to lower your cost, improve your productivity and shorten your lead time. For personal application assistance, please call World Magnetics.

## TYPICAL APPLICATIONS

### Filter Restriction 'Change Filter' Indicator

COMMERCIAL/CONSUMER	Air purifiers, water purifiers, HVAC, exhaust
INDUSTRIAL	Drying, heating, cooling equipment, exhaust
LAWN & GARDEN	Air filters
OFF-ROAD VEHICLES	Air filters

### Air Flow – Presence/Absence

HVAC	Positive pressure in duct indicates air flow
FANS	Positive pressure indicates air flow
AIR JET	Presence/absence of material, counter

### Liquid Level Limit Switch

CHEMICAL DISPENSERS	Low level – refill indicator
BEVERAGE DISPENSERS	Low level – refill indicator
APPLIANCE	Water level in dishwashers and washing machines
TANKS	High level – 'Tank Full' indicator

### Pump & Motor Control

COMPRESSORS	Motor ON at low pressure, OFF at high pressure
REFILL	Motor ON at low level, OFF at high level
SUMP & DRAIN	Motor ON when liquid is present
BOAT BILGE	Motor ON when liquid is present

### Pneumatic Actuator

POOL, SPA, HOT TUB	Electrically insulated controls/ pushbuttons
EDGE DETECTION	Auto-reverse the motor in power doors
SPECIAL EQUIPMENT	Sip-and-puff actuators for the handicapped

### High/Low Vacuum Alarm

FLOOR CARE	Loss of vacuum indicates 'Bag Full' condition
PICK-AND-PLACE	High vacuum indicates part has been picked up

### Automotive

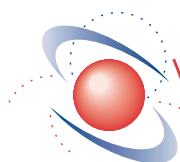
RV'S AND MOTOR HOMES	Control special features using manifold vacuum
----------------------	--

### High/Low Pressure Alarm

MEDICAL	Low pressure alarm in oxygen concentrators High/low alarms in assisted breathing products • High/ low alarms in sleep disorder products
BREATH ANALYZER	Indicates a sufficient breath has been submitted

World Magnetics warrants that its products will be free from defective materials and workmanship for a period of 12 months from the date of delivery to the original purchaser and that its products will conform to specifications and standards published by World Magnetics. Any product found to be defective will be replaced or repaired at the sole option of World Magnetics. Our warranty is limited to the foregoing.

**WORLD MAGNETICS DISCLAIMS ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR INTENDED PURPOSE.**



**WORLD MAGNETICS**  
Quick Response...Reliable Solutions

810 Hastings Street  
Traverse City, Michigan, USA 49686  
phone 231.946.3800 • fax 231.946.0274  
toll free 800-643-3884  
www.designflexswitches.com