

*Air
Logic* Pneumatic Components and Systems



**Pressure Switches
Vacuum Switches**



Introduction to Air Logic

The Air Logic Division of Fred Knapp Engraving Company designs and manufactures a comprehensive line of pneumatic and vacuum control equipment.

Air Logic is a manufacturer of miniature precision snap-acting switches that interface from pressure signals to electrical control circuits and from vacuum signals to electrical systems. The snap-action electrical switch provides a positive and reliable response. The switch operation is based on the actuation of a precision snap-acting switch acting against a diaphragm. The extremely short stroke and small volume permit fast response. Ideal for precise pressure and vacuum sensing.

The switches are single pole, double throw for normally open, normally closed and common terminals which are available from 0.1 to 25 AMP, 15 AMP standard. For low current applications, gold contact and solid state switches are available.

Maximum pressure 100 PSI or maximum vacuum 29.9" Hg. Adjustment ranges 0.5 to 100 PSI or 1 to 28" Hg. Special actuating and releasing pressure are available on request.

The switches include Miniature Switches, Subminiature Switches, Low Differential Switches, Solid State Switches and Pilot Operated Valves.

The Miniature Switch is designed for low pressure or low level vacuum applications.

The Subminiature Switch is designed for high pressure or high level vacuum applications.

The Low Differential Switch is designed for a low difference between the "ON" and "OFF" actuating and releasing set points.

The Solid State Switch is a direct interface with solid state electrical circuits.

The Pilot Operated Valves are designed to be normally open or closed. The Pressure Pilot Valve has an adjustable pressure pilot setpoint with a pressure output.

The Vacuum Pilot Valve has an adjustable vacuum pilot setpoint with a pressure output.

Air Logic has a strong reputation for immediate service, quality and dependability. For special applications and requirements, call Air Logic.

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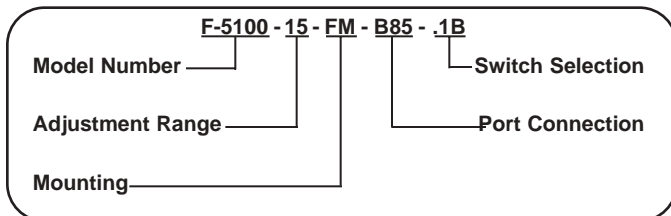
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Switch Selection Guide

Please order by Model Number. After the Model Number has been selected determine the Adjustment Range, Mounting Style, Port Connection and Switch Selection.

The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing. The B80 accessory number does not have to be specified when ordering the switch. An example of the switch selection is show below.

Model Number Selection



Mounting Style

Selection	Accessory Letter	Description
Flush Mount	FM	2 mounting holes for base mounting
Panel Mount	PM	1/8-27 NPT to 1/8-27 NPS
Manifold Mount	MM	2 mounting holes for manifold board supplied with Buna N o-ring
1/8 NPT	PT	1/8-27 male tapered pipe threads with 10-32 female internal threads

Port Connection

10-32 Female Threads	B80	Barb for 1/16" I.D. tubing
	B85	Barb for 1/8" I.D. tubing

Switch Selection

Standard Switches	5A	5 AMP - 125, 250, 277 VAC 1/10 HP, 250 VAC
	15A	15.1 AMP - 1/3 HP, 125 or 250 VAC 1/2 AMP, 125 VDC 1/4 AMP, 250 VDC 5 AMP, 125 VAC "L"
Gold Crosspoint	.1B	0.1 AMP - 125 VAC
Special Switches Available	3A	3 AMP - 125, 250, 277 VAC 1/10 HP, 250 VAC
	10A	10 AMP - 1/4 HP, 125 or 250 VAC 1/2 AMP, 125 VDC 1/4 AMP, 250 VDC 3 AMP, 125 VAC "L"
	25A	25 AMP - 277 VAC 1 HP, 125 VAC 2 HP, 250 VAC
Low Differential Switches	4A	4 AMP - 250 VAC 1/10 HP, 125 VAC 30 VAC
	.1B	01. AMP - 250 VAC
Solid State Switches		Supply Voltage 4.5 - 24 VDC Supply Current 5 m A Output Current 10 m A Sinking
Pressure Piloted 3-Way Valve	N.O.	Normally Open-Senses Pressure/ Turns Output OFF
	N.C.	Normally Closed-Senses Pressure/ Turns Output ON
Vacuum Piloted 3-Way Valve	N.O.	Normally Open-Senses Vacuum/ Turns Output OFF
	N.C.	Normally Closed-Senses Vacuum/ Turns Output ON

F-4100 Series Miniature Pressure Switch



The F-4100 Series Miniature Pressure Switches interface from pressure to electrical control circuits. Ideal for general sensing applications. The switches are available with preset and adjustable pressure settings. The F-4100-50 is preset at 5" H₂O and the F-4100-90 is preset at 15" H₂O. The F-4100-85W is adjustable 8 to 85" H₂O. The F-4100-100 and the F-4100-200 are adjustable 0.5-15 PSI. The switches have three electrical terminals: Normally Open, Normally Closed and Common. 0.1, 5 and 15 AMP switches are available. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

FEATURES

- Snap-Action Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 0.1, 5 or 15 AMP, 125 or 250 Volt AC
 Electrical Switch: UL Approved
 Electrical Connections: .187" quick-connect terminal

MECHANICAL

Operating Speed: 25 milliseconds
 Signal Pressure: See chart below.
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

Flush Mount: mounting hole .149" diameter, use No. 6-32 screw

PORT CONNECTIONS

10-32 female threads. Furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

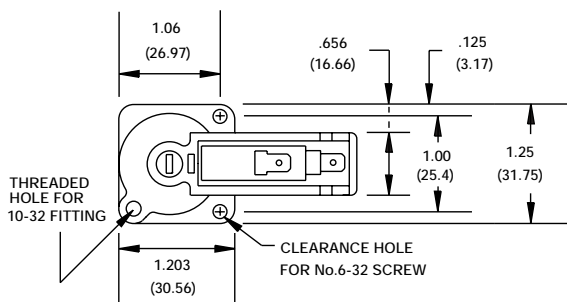
ORDERING INFORMATION (Order by model number, adjustment range and port connection as shown below.)

F-4100 — 200 — B85

Model Number	Adjustment Range	Switch Selection	Pressure Rating	Port Connection	Mounting Style
F-4100	50 -Preset 5.0 ± 1" H ₂ O	5 AMP	10 PSI	B80-Barb for 1/16" I.D. Tubing	FM-Flush Mount Only
	85W -Adjustable 8 to 85" H ₂ O	5 AMP			
	90 -Preset 15.0 ± 1.5" H ₂ O	15 AMP	B85-Barb for 1/8" I.D. Tubing		
	100 -Adjustable 0.5 to 15 PSI	5 AMP	30 PSI	No Accessory number is required for a B-80 Barb	
	200 -Adjustable 0.5 to 15 PSI	15 AMP			
100.1B -Adjustable 0.5 to 15 PSI	0.1 AMP				

DIMENSIONS

() = Metric Dimensions



V-4100 Series Miniature Vacuum Switch



The V-4100 Series Vacuum Switches interface from vacuum to electrical control circuits. Ideal for low level vacuum applications. The switches are available with preset and adjustable vacuum settings. The V-4100-0.7 is preset at .7" Hg or 10" H₂O. The V-4100-1 is preset at 1" Hg, and the V-4100-4 is adjustable from 1.5 to 4" Hg. Maximum 29.9" Hg. The switches have three electrical terminals: Normally Open, Normally Closed and Common. 0.1, and 10 AMP switches are available. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

FEATURES

- Snap-Action Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 0.1, or 10 AMP, 125 or 250 Volt AC
 Electrical Switch: UL Approved
 Electrical Connections: .187" quick-connect terminal

MECHANICAL

Operating Speed: 25 milliseconds
 Signal Pressure: 29.9" Hg maximum
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

Flush Mount: mounting hole .149" diameter, use No. 6-32 screw

PORT CONNECTIONS

10-32 female threads. Furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range and port connection as shown below.)

V-4100 — 4 — B85 — .1B

Model Number	Adjustment Range	Mounting Style	Vacuum Rating	Port Connection	Switch Selection
V-4100	0.7 - Preset 0.7" Hg.	FM-Flush Mount Only	29.9" Hg.	B80-Barb for 1/16" I.D. Tubing	.1B 10A
	1 - Preset 1" Hg.			B85-Barb for 1/8" I.D. Tubing	.1B 10A
	4 - Adjustable 1.5 - 4" Hg.			No Accessory number is required for a B-80 Barb	10A

F-5100 Series Subminiature Pressure Switch



The F-5100 Series Subminiature Pressure Switches interface from pressure to electrical control circuits. Ideal for high pressure and low differential applications. The switch is adjustable 0.5 - 100 PSI with a maximum of 100 PSI supply. The switches have three electrical terminals: Normally Open, Normally Closed and Common. 15 AMP switches are standard. 0.1 to 25 AMP switches are available.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 10-32 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates - a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, port connection and switch selection as shown below.)

F-5100 — 15 — PM — B85 — .1B

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch Selection
F-5100	15-0.5 to 15 PSI	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	.1B-0.1 AMP 3A-3 AMP 5A-5 AMP
	30-0.5 to 30 PSI	PM-Panel Mount 1/8-27 NPS	B85-Barb for 1/8" I.D. Tubing	10A-10 AMP
		MM-Manifold Mount		15A-15 AMP
	60-0.5 to 60 PSI	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb	25A - 25 AMP
100-0.5 to 100 PSI			No Accessory Number required for a 15 AMP	

FEATURES

- Low Cost
- Subminiature Size
- High Pressure Adjustment
- Low Differential
- Snap-Action Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 15 AMP is standard; no accessory number required
 0.1 to 25 AMP switches are available
 Electrical Switch: UL Approved
 Electrical Connections: .187" quick-connect terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 100 PSI maximum
 Adjustment Range: 0.5 to 100 PSI, ± 0.5 tolerance on the initial starting pressure
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

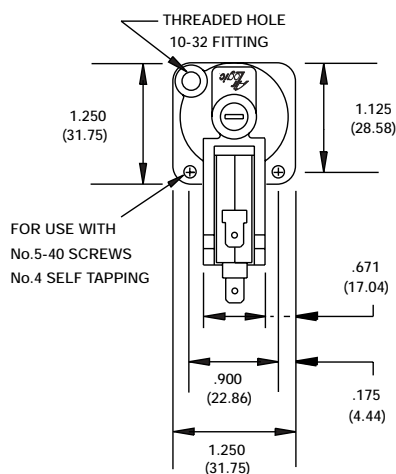
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

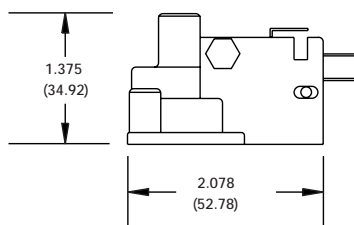
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

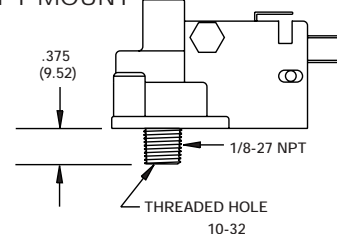
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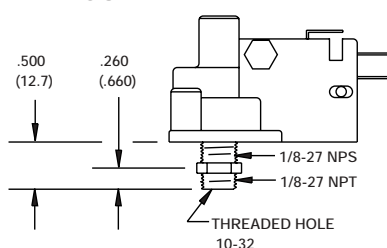
FLUSH MOUNT



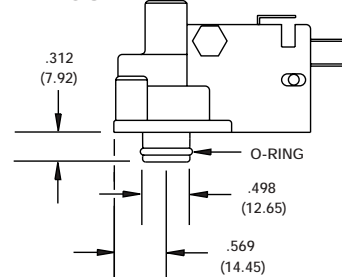
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



V-5100 Series Subminiature Vacuum Switch



The V-5100 Series Vacuum Switches interface from vacuum to electrical control circuits. Ideal for low differential vacuum applications. The switch is adjustable from 1 to 28" Hg with 29.9" Hg maximum.

The switches have three electrical terminals: Normally Open, Normally Closed and Common. 15 AMP switches are standard. 0.1 to 25 AMP switches are available.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates - a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, port connection and switch selection as shown below.)

V-5100 — 10 — PM — B85 — .1B

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch Selection
V-5100	5-1 to 5" Hg	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	.1B -0.1 AMP
		PM-Panel Mount 1/8-27 NPS		3A -3 AMP
	10-2 to 10" Hg	MM-Manifold Mount	B85-Barb for 1/8" I.D. Tubing	5A -5 AMP
		PT-Pipe Thread Mount 1/8-27 NPT		10A -10 AMP
28-3 to 28" Hg	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb	15A -15 AMP	
			25A -25 AMP	
			No Accessory Number required for a 15 AMP	

FEATURES

- Low Cost
- Subminiature Size
- Low Differential
- Snap-Action Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 15 AMP is standard; no accessory number required
 0.1 to 25 AMP switches are available
 Electrical Switch: UL Approved
 Electrical Connections: .187" quick-connect terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 29.9" Hg maximum
 Adjustment Range: 1 to 28" Hg
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

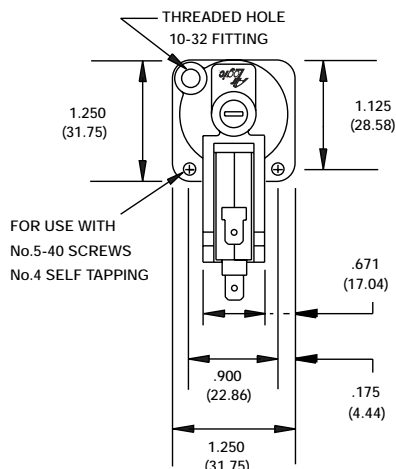
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

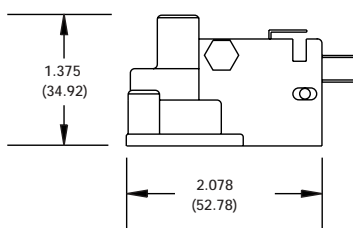
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

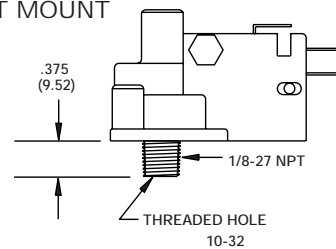
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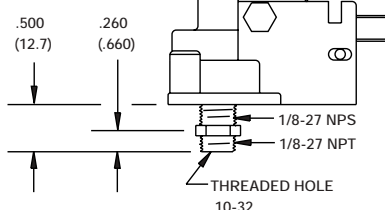
FLUSH MOUNT



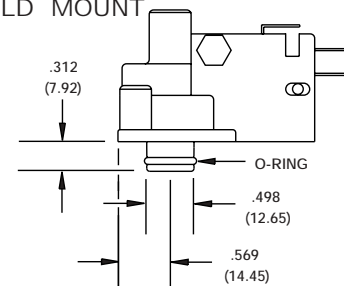
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



F-5300 Series Low Differential Pressure Switch



The F-5300 Series Low Differential Pressure Switches interface from pressure to electric control circuits. Designed for a low difference between "ON" and "OFF" pressure.

The switch is adjustable 0.5 to 100 PSI with 100 PSI maximum supply pressure.

The Switches have three electrical terminals: Normally Open, Normally Closed and Common. 0.1 and 4 AMP switches are available, 4 AMP switch is standard.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates - a Buna N o-ring is supplied; and 1/8 NPT mount which has a 1/8-27 tapered pipe threads. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, port connection and switch selection as shown below.)

F-5300 — 15 — PM — B85 — .1B

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch Selection
F-5300	15-0.5 to 15 PSI	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	.1B-0.1 AMP
	30-0.5 to 30 PSI	PM-Panel Mount 1/8-27 NPS	B85-Barb for 1/8" I.D. Tubing	4A-4 AMP
	60-0.5 to 60 PSI	MM-Manifold Mount		No Accessory Number required for a 4 AMP
	100-0.5 to 100 PSI	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb	

FEATURES

- Low Cost
- Subminiature Size
- High-Pressure Adjustment
- Low Differential
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 4 AMP is standard, no accessory number required
 Electrical Switch: UL Approved
 Electrical Connections: .110" quick-connect terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 100 PSI maximum
 Adjustment Range: 0.5 to 100 PSI, ± 0.5 tolerance on the initial starting pressure
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

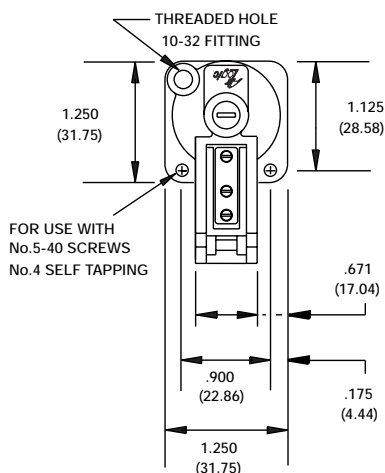
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female female internal threads

PORT CONNECTIONS

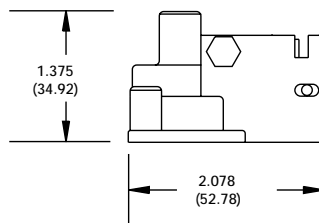
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

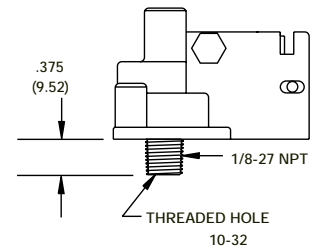
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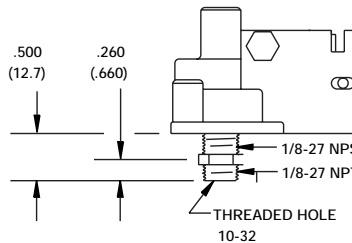
FLUSH MOUNT



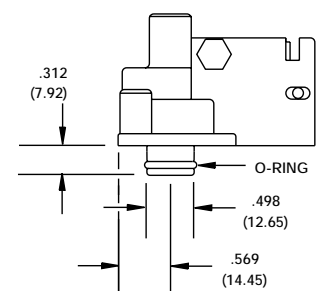
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



V-5300 Series Low Differential Vacuum Switch



The V-5300 Series Vacuum Switches interface from vacuum to electrical control circuits. Designed for a low difference between "ON" and "OFF" vacuum signal.

The switch is adjustable from 1 to 28" Hg with a 29.9" Hg maximum. The switches have three electrical terminals: Normally Open, Normally Closed and Common. 0.1 and 4 AMP switches are available. 4 AMP switch is standard.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 10-32 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates – a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, port connection and switch selection as shown below.)

V-5300 — 5 — PM — B85 — .1B

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch Selection
V-5300	5-1 to 5" Hg	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	.1B-0.1 AMP
	10-2 to 10" Hg	PM-Panel Mount 1/8-27 NPS	B85-Barb for 1/8" I.D. Tubing	4A-4 AMP
		MM-Manifold Mount		No Accessory Number required for a 4 AMP
28-3 to 28" Hg	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb		

FEATURES

- Low Cost
- Subminiature Size
- Low Differential
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Single pole, double throw
 Electrical Rating: 4 AMP is standard, no accessory number required
 0.1 AMP is available
 Electrical Switch: UL Approved
 Electrical Connections: .110" quick-connect terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 29.9" Hg maximum
 Adjustment Range: 1 to 28" Hg
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

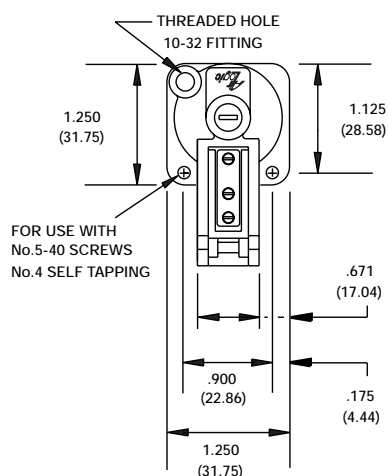
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

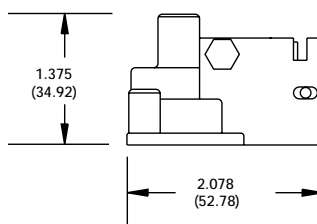
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

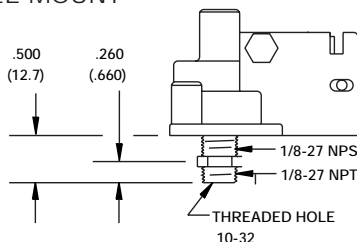
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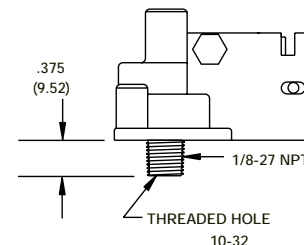
FLUSH MOUNT



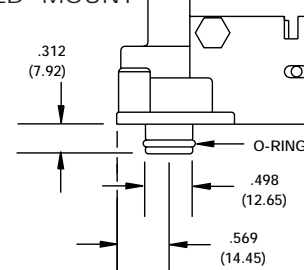
PANEL MOUNT



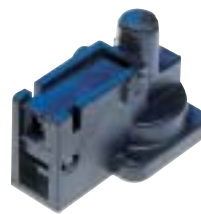
1/8 NPT MOUNT



MANIFOLD MOUNT



F-5500 Series Solid State Pressure Switch



The F-5500 Series Solid State Pressure Switches interface from pressure to electrical control circuits.

The switch is adjustable from 0.5 to 100 PSI with 100 PSI maximum supply. The Solid State Switch combines precision mechanical switch operating convenience with solid state reliability. It uses the Hall sensor. An integrated circuit, actuated by a magnet located in the operating plunger, produces a digital output. There are no contacts. Supply voltage is 4.5-24 VDC. The Solid State Switch is a direct interface with solid state circuits. The digital logic-level output eliminates the need for conditioning circuitry to obtain a square wave output. A terminal housing can be provided for use with AMP 102241-1.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates – a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, and port connection as shown below.)

F-5500 — 15 — PM — B85

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch
F-5500	15-0.5 to 15 PSI	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	4.5 to 24 VDC
	30-0.5 to 30 PSI	PM-Panel Mount 1/8-27 NPS	B85-Barb for 1/8" I.D. Tubing	
	60-0.5 to 60 PSI	MM-Manifold Mount	No Accessory Number required for a B-80 Barb	
	100-0.5 to 100 PSI	PT-Pipe Thread Mount 1/8-27 NPT		

FEATURES

- Low Cost
- Subminiature Size
- High-pressure Adjustment
- Low Differential
- Solid State Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Solid State Hall Sensor
 Electrical Rating: 4.5-24 VDC
 Electrical Switch: UL Approved
 Electrical Connections: AMP 102241-1 terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 100 PSI maximum
 Adjustment Range: 0.5 to 100 PSI, ± 0.5 tolerance on the initial starting pressure
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

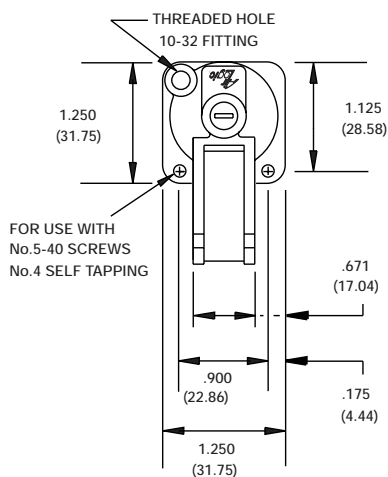
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

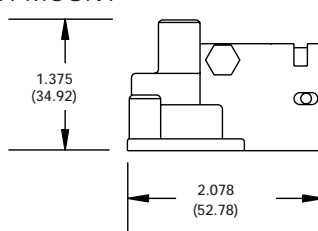
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

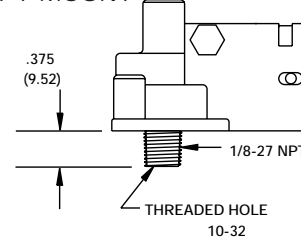
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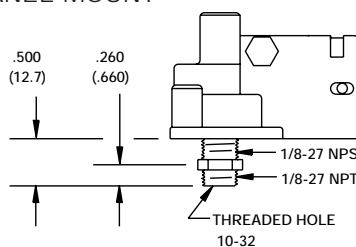
FLUSH MOUNT



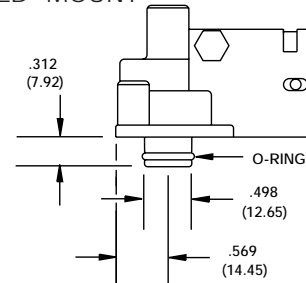
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



V-5500 Series Solid State Vacuum Switch



The V-5500 Series Solid State Vacuum Switches interface from vacuum to electrical control circuits.

The switch is adjustable from 1 to 28" Hg with a maximum 29.9" Hg vacuum supply. The Solid State Switch combines precision mechanical switch operating convenience with solid state reliability. It uses the Hall sensor. An integrated circuit, activated by a magnet located in the operating plunger, produces a digital output. There are no contacts. Supply voltage is 4.5-24 VDC. The Solid State Switch is a direct interface with solid state circuits. The digital logic-level output eliminates the need for conditioning circuitry to obtain a square wave output. A terminal housing can be provided for use with AMP 102241-1 terminals.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates – a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads.

The switches are furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

ORDERING INFORMATION (Order by model number, adjustment range, mounting style, and port connection as shown below.)

V-5500 — 10 — PM — B85

Model Number	Adjustment Range	Mounting Style	Port Connection	Switch Selection
V-5500	5-1 to 5" Hg	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing	4.5-24 VDC
	10-2 to 10" Hg	PM-Panel Mount 1/8-27 NPS	B85-Barb for 1/8" I.D. Tubing	
		MM-Manifold Mount		
28-3 to 28" Hg	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb		

FEATURES

- Low Cost
- Subminiature Size
- Low Differential
- Solid State Switch
- Fast Response

SPECIFICATIONS

ELECTRICAL

Switch Action: Solid State Hall Sensor
 Electrical Rating: 4.5-24 VDC
 Electrical Switch: UL Approved
 Electrical Connections: AMP 110224-1 terminal

MECHANICAL

Operating Speed: Activate or release in 25 milliseconds
 Signal Pressure: 29.9" Hg maximum
 Adjustment Range: 1 to 28" Hg
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

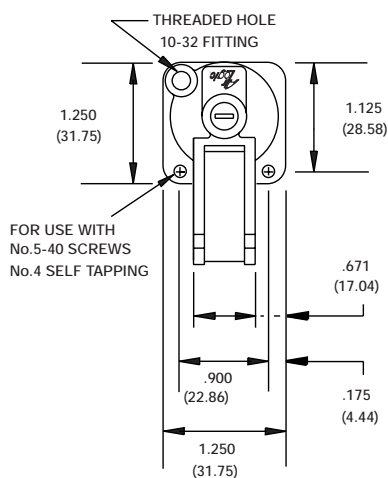
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

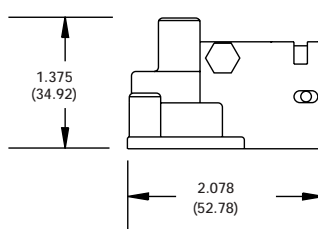
10-32 female threads.
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing.

DIMENSIONS

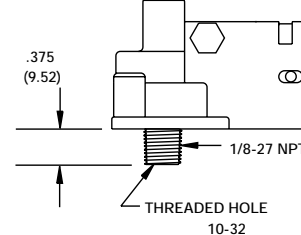
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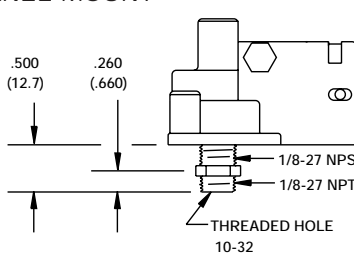
FLUSH MOUNT



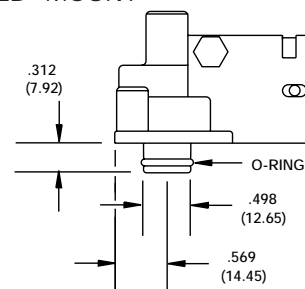
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



F-5700, F-5800 Series Pressure Piloted 3-Way Valve



The F-5700, F-5800 Series Pressure Piloted 3-Way Valve has an adjustable pressure pilot setpoint. The adjustable pressure pilot can be set to sense pressure between .5 to 100 PSI. Maximum supply of 100 PSI. The 3-Way Valve is Normally Open or Normally Closed. The Normally Open valve senses the adjusted pressure setpoint and turns the output off. The Normally Closed valve senses the adjusted pressure setpoint and turns the output on.

Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates - a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The pilot input is furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing. The output has instant push in fittings for 5/32 O.D. tubing.

ORDERING INFORMATION (Order by model number for Normally Open or Closed, Sensing Range, Mounting Style and Pilot Port Connection).

Model Number	Valve Operation	Sensing Range	Mounting Style	Port Connection
F-5700	Normally Open - Senses Pressure/ Turns Output OFF	15 - 0.5 to 15 PSI	FM-Flush Mount	B80-Barb for 1/16" I.D. Tubing
		30 - 0.5 to 30 PSI	PM-Panel Mount 1/8-27 NPS	
		60 - 0.5 to 60 PSI	MM-Manifold Mount	B85-Barb for 1/8" I.D. Tubing
F-5800	Normally Closed Senses Pressure/ Turns Output ON	100 - 0.5 to 100 PSI	PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb

FEATURES

- Subminiature Size
- Low Differential
- Fast Response

SPECIFICATIONS

Mechanical

Operating Speed: Activate or release in 65 milliseconds
 Signal Pressure: 100 PSI maximum
 Pilot Adjustment: 0.5 to 100 PSI, ± 0.5 tolerance on the initial starting pressure
 Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
 Diaphragm: Polyurethane
 Spring: Stainless Steel or Music Wire

MOUNTING

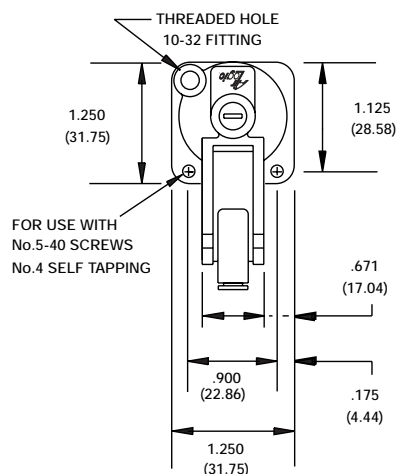
Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
 Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
 Mounting hole size 7/16" diameter. Supplied with mounting nut
 Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
 1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

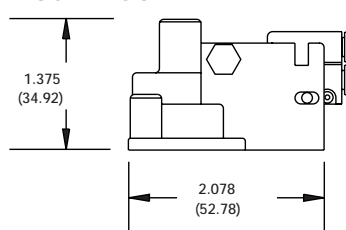
Pilot Input: 10-32 female threads
 1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with 10-32 Barbed Fitting for 1/16" I.D. tubing
 Output: Instant push in fitting for 3/32" I.D. x 5/32" O.D. tubing

DIMENSIONS

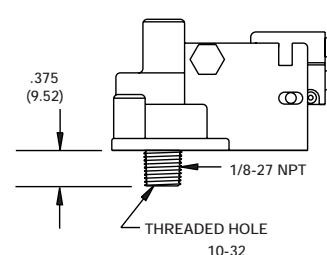
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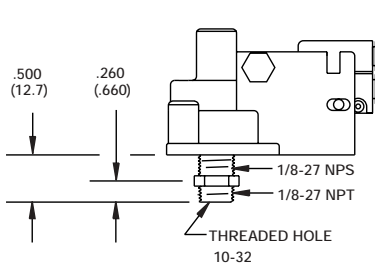
FLUSH MOUNT



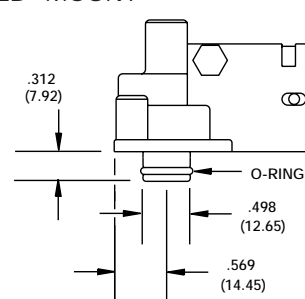
1/8 NPT MOUNT



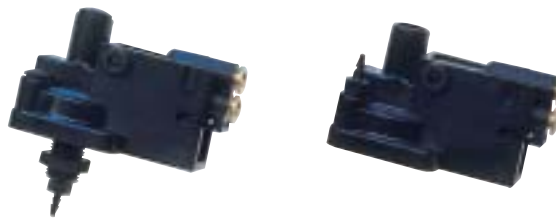
PANEL MOUNT



MANIFOLD MOUNT



V-5700, V-5800 Series Vacuum Piloted 3-Way Valve



The V-5700, V-5800 Series Vacuum Piloted 3-Way Valve has an adjustable vacuum pilot setpoint. The adjustable vacuum pilot can be set to sense vacuum between 1 to 28" Hg. Maximum vacuum of 29.9" Hg. The 3-Way Valve is Normally Open or Normally Closed. The Normally Open valve senses the adjusted vacuum setpoint and turns the output off. The Normally Closed valve senses the adjusted vacuum setpoint and turns the output on.

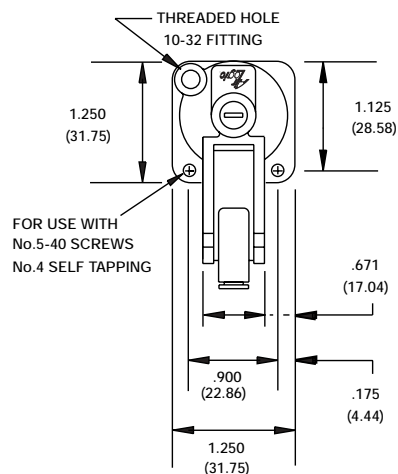
Four mounting styles are available: The standard flush mount; the panel mount has a unique thread that goes from 1/8-27 tapered pipe thread to 1/8-27 straight pipe thread for mounting; the manifold mount is designed to mount directly on pneumatic circuit boards or manifold subplates - a Buna N o-ring is supplied; and 1/8 NPT mount which has 1/8-27 tapered pipe threads. The pilot input is furnished with a B80 Barb, 10-32 Barbed Fitting for 1/16" I.D. tubing. The output has instant push in fittings for 5/32 O.D. tubing.

ORDERING INFORMATION (Order by model number for Normally Open or Closed, Sensing Range, Mounting Style and Pilot Port Connection).

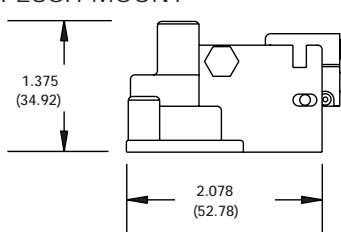
Model Number	Valve Operation	Sensing Range	Mounting Style	Port Connection
V-5700	Normally Open - Senses vacuum/ Turns Output OFF	5-1.0 to 5" Hg 10-2.5 to 10" Hg 28-3.5 to 28" Hg	FM-Flush Mount PM-Panel Mount 1/8-27 NPS MM-Manifold Mount	B80-Barb for 1/16" I.D. Tubing B85-Barb for 1/8" I.D. Tubing
V-5800	Normally Closed Senses vacuum/ Turns Output ON		PT-Pipe Thread Mount 1/8-27 NPT	No Accessory Number required for a B-80 Barb

DIMENSIONS

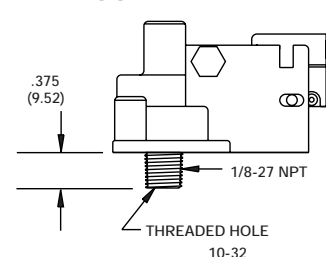
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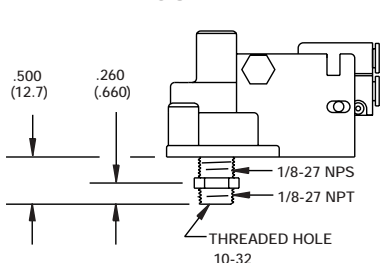
FLUSH MOUNT



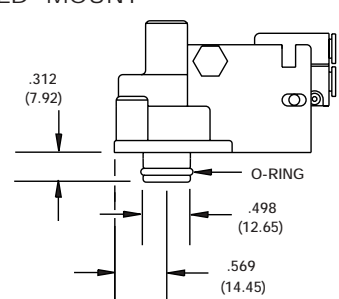
1/8 NPT MOUNT



PANEL MOUNT



MANIFOLD MOUNT



FEATURES

- Subminiature Size
- Low Differential
- Fast Response

SPECIFICATIONS

Mechanical

Operating Speed: Activate or release in 65 milliseconds
Signal Pressure: 100 PSI maximum
Pilot Adjustment: 1 to 28" Hg
Temperature Limits: 40° to 120°F. (4° to 49°C.)

MATERIALS

Housing: Polysulfone
Diaphragm: Polyurethane
Spring: Stainless Steel or Music Wire

MOUNTING

Flush Mount: mounting hole .125" diameter, use No. 4 self-tapping or 5-40 screw
Panel Mount: 1/8-27 NPT to 1/8-27 NPS, 10-32 female internal threads
Mounting hole size 7/16" diameter. Supplied with mounting nut
Manifold Mount: Two mounting holes .125" diameter, use No. 4 self-tapping or 5-40 screw, supplied with Buna N o-ring
1/8 NPT Mount: 1/8-27 male tapered pipe threads with 10-32 female internal threads

PORT CONNECTIONS

Pilot Input: 10-32 female threads
1/8-27 male tapered pipe threads with 10-32 female internal threads furnished with 10-32 Barbed Fitting for 1/16" I.D. tubing.
Output: Instant push in fitting for 3/32" I.D. x 5/32" O.D. tubing

PRODUCT WARRANTY

WARRANTY: All references hereunder to "products" includes all pneumatic and vacuum control equipment, systems and other items which are manufactured and/or distributed by Seller. Seller warrants products manufactured and/or distributed by it to be free from defects in materials and workmanship arising from normal usage of the products, provided such defects appear or are discovered within 1 year after the purchase date of the products and, provided further that Buyer notifies Seller of such defects in writing within 30 days after the appearance or discovery thereof. All transportation charges incurred in connection with this warranty shall be borne by Buyer. If within such period, any such products shall be proven to Seller's satisfaction to be defective, such products shall be replaced or their price refunded, at Seller's option. Seller's obligation for non-performance, defective products, or any damage caused by its products or their use, and Buyer's exclusive remedy therefor, shall be limited to replacement or refund and shall be conditioned upon Seller's receiving written notice, together with a demand for such replacement or refund, within the time period specified herein. This exclusive remedy shall not be deemed to have failed its essential purpose under any circumstances so long as Seller is willing and able to replace defective products or refund the purchase price within the time specified. **SELLER'S PRICES ARE BASED ON THIS POLICY LIMITING ITS, LIABILITY. IF BUYER DESIRES FOR SELLER TO PROVIDE A WARRANTY GREATER THAN THAT WHICH IS STATE ABOVE, THEN SELLER WILL ADJUST UPWARDS THE PRICE FOR THE PRODUCTS DESCRIBED HEREIN OR ON THE FACE SIDE HEREOF TO REFLECT THE ADDITIONAL EXPENSE TO SELLER WHICH SUCH A WARRANTY OBLIGATION WOULD CAUSE.**

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No waiver, alteration or modification of the foregoing shall be valid, unless made in writing and signed by an executive officer of Seller. Seller reserves the right to alter product designs and materials, when conditions warrant, without notice.

WARNING: Do not use these products when pressures or temperatures can exceed their rated operating conditions. See the applicable product specifications.

When using products made from polysulfone, please check material compatibility. Certain chemicals or contaminants can attack polysulfone and cause the product to fail.

Seller's products are not sold for applications in any medical equipment intended for use as a component of any life support system unless a specified written agreement pertaining to such intended use is executed between Seller and Buyer. Such agreement will require the equipment manufacturer either to contract for additional reliability testing of Seller's products and/or a commitment to undertake such testing as a part of its manufacturing process. In addition, Buyer must agree to indemnify and hold harmless Seller from any claims arising out of the use of Seller's products in life support equipment.

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