

## Pressure Switches Line Guide



**Better under pressure.** For years, manufacturers and operators of heavy-duty equipment have trusted Honeywell Sensing and Control (S&C) pressure and vacuum switches. They're proven under pressure, in applications constantly under attack from chemical splashes, performance spikes and other harsh environments. These switches sense a change in the pressure or vacuum, opening or closing an electrical circuit when the designated point is reached.

Honeywell S&C offers an impressive line of standard products, but our engineering expertise and understanding afford us the ability to modify existing parts or create an original component just for your specifications. Compact size. Durable construction. Enhanced set point integrity. It's all standard, along with Honeywell S&C flexibility.

### FEATURES

#### PRESSURE SWITCHES

##### 1000 Series.

**Features:** Low set point: actuates at 20 psi • Reduced part count • High burst rating (for high cost-of-failure applications) • Banjo bolt fitting • Sealed to IP65

**Benefits:** Small, low-cost switch actuated by hydraulic fluid or gas. Excels in harsh environments such as extreme weather conditions or particle-filled areas.

Applications include Small vehicle brake light actuation, compact agricultural tractors, utility vehicles, trucks and lift trucks, and small self-propelled vehicles.

##### 5000 Series.

**Features:** Stands up to extended-duty applications • Factory set, capable of field adjustment • Direct acting blade – gold-plated contacts • No dead band • Kapton diaphragm for compatibility with a wide variety of fluids • Various electrical connections and terminations, including a Metri-pack connect that forms a tight seal when connected • Optional rubber boot

**Benefits:** Design benefits include durable construction, compact size, and enhanced set-point integrity. Switch operates with

air, motor oils, transmission oils, jet fuels, and other similar hydrocarbon material. Applications include engine transmission, hydraulics, brakes, power steering, fuel pressure, ABS brakes, cruise control, oxygen concentrators, dental air, embalming equipment, generators/compressors, pool/spa water pressure, and more.

##### Series III.

**Features:** Non-ferrous chamber • Excellent set-point integrity at extreme temperatures • Snap-action switch • Gold-plated contacts • Dead band • Low contact resistance • Wiping action • Fast transfer time • Adjustable differential

**Benefits:** Thoroughly tested for shock and vibration resistance. Particularly valuable in applications where hysteresis, fast transfer time, and low contact resistance are vital. Applications include engine transmission, hydraulics, brakes, power steering, fuel pressure, ABS brakes, cruise control, oxygen concentrators, dental air, embalming equipment, generators/compressors, pool/spa water pressure, and more.

##### Series V.

**Features:** Set points up to 3000 psi • Snap action switch • Gold-plated contacts • Dead band • Water-dunk proof • Excellent set-point integrity at extreme temperatures • Wide fluid compatibility • Excellent response time

**Benefits:** Incorporate where hysteresis, fast response time, and low contact resistance are vital. Applications include engine transmission, hydraulics, brakes, power steering, fuel pressure, ABS brakes, cruise control, oxygen concentrators, dental air, embalming equipment, generators/compressors, pool/spa water pressure, and more.

#### VACUUM SWITCHES

##### 5000 Series.

**Features:** Stands up to extended-duty applications • Factory set • Fluorosilicone rubber diaphragm for compatibility with a wide variety of fluids • Various terminations, including a Metri-pack connect that forms a tight seal when connected

# Pressure Switches Line Guide

## Switch to the leader.

Honeywell S&C's expert model shop, certified lab and engineering staff work with you through the design, prototype, and testing stages. Our rapid prototyping technology allows us to provide you custom samples quickly, while out-of-the-box products deliver all the amenities you demand:

**5000 series** pressure and vacuum switches are factory set, but flexible for field adjustments. Its Kapton diaphragm offers compatibility with a wide variety of fluids. Our Ultra-Duty switches are designed for sudden pressure spikes and high system pressures.

**Series III** custom switches offer a non-ferrous chamber and excellent set-point integrity at extreme temps. Features include low-contact resistance, wiping action, fast transfer time, gold-over-silver contacts, an adjustable differential, and top shock and vibration resistance.

**Series V** high-pressure switches offer excellent set-point integrity at extreme temperatures, wide fluid compatibility, and excellent response time. Like the Series III, these switches are best where hysteresis, fast transfer time, and low contact resistance are vital.



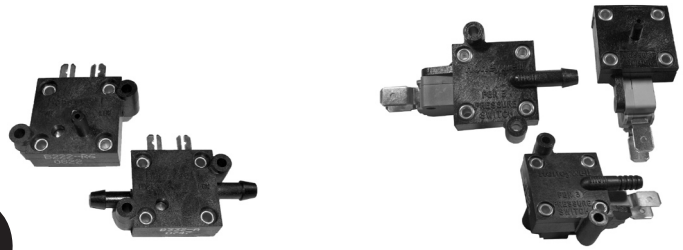
Pressure Switches		
	Series 1000	5000 Series
<b>Type</b>	hydraulic brake pressure switch	direct action blade contact
<b>Set point range</b>	20 psi $\pm$ 10 psi [1,37 bar $\pm$ 0,69 bar]	factory set: 0.5 psi to 150 psi
<b>Contacts</b>	silver-plated copper contacts	composite-gold plate
<b>Operating pressure</b>	2400 psi	150 psi for 0.5 psi to 24 psi 250 psi for 25 psi to 150 psi
<b>Proof pressure</b>	2400 psi	500 psi
<b>Burst pressure</b>	4800 psi	750 psi for 0.5 psi to 24 psi 1250 psi for 25 psi to 150 psi
<b>Connector</b>	M10 x 1.25 banjo fitting (single or double available), M10 x 1, 1/8-27 NPT	1/8-27 NPT male thread; Piston 1/2-20 UNF
<b>Terminals</b>	1/4 in blade	#8-32 screws, 1/4 in blade, 280 series metripack



Pressure Switches		
	Series III	Series V
<b>Type</b>	snap action switch	snap action switch
<b>Set point range</b>	factory set: 1 psi to 70 psi	factory set: 35 psi to 300 psi 100 psi to 3000 psi
<b>Contacts</b>	fine silver-gold plate	fine silver-gold plate
<b>Operating pressure</b>	200 psi	300 psi (diaphragm); 3000 psi (piston)
<b>Proof pressure</b>	350 psi	500 psi (diaphragm); 5000 psi (piston)
<b>Burst pressure</b>	500 psi	2000 psi (diaphragm); 10000 psi (piston)
<b>Connector</b>	1/8-27 SAE short male thread standard (others, including metric, available)	Diaphragm: 1/8-27 PTF SAE standard, Piston: 3/4-16 UNF (others including metric, available)
<b>Terminals</b>	8 in wire leads, 18 ga.	8 in wire leads, 18 ga.

## Highly sensitive.

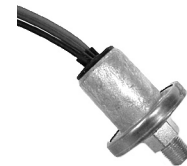
PBN Series pressure switches offer factory-set and field-adjustable versions. The sensitivity to low pressure and compact design make them suitable for a wide range of automation and medical applications.



## Pressure Switch and Sensor

	PBN1 Series	PBN3 Series
<b>Type</b>	direct action blade contact	snap-action switch
<b>Set point range</b>	0.018 psi to 1.8 psi	0.036 psi to 40.0 psi
<b>Contacts</b>	gold inlay	silver
<b>Operating pressure</b>	6 psi for 0.018 psi to 0.108 psi 12 psi for 0.144 psi to 1.8 psi	12 psi for 0.036 psi to 2.71 psi 60 psi for 3.0 psi to 40.0 psi
<b>Proof pressure</b>	8 psi for 0.018 psi to 0.108 psi 15 psi for 0.144 psi to 1.8 psi	15 psi for 0.036 psi to 2.71 psi 100 psi for 3.0 psi to 40.0 psi
<b>Burst pressure</b>	30 psi	60 psi for 0.036 psi to 2.71 psi 150 psi for 3.0 psi to 40.0 psi
<b>Connector</b>	5 mm smooth perpendicular; 5 mm barbed radial	5 mm smooth perpendicular; 5 mm barbed radial
<b>Terminals</b>	4,8 mm x 0,5 mm blades	6,3 mm x 0,8 mm blades

## Vacuum Switches



	5000 Series	Series III
<b>Type</b>	direct action blade contact	snap action switch
<b>Set point range</b>	factory set: 1.1 in-Hg to 22 in-Hg	factory set: 1.1 in-Hg to 22 in-Hg
<b>Vacuum</b>	1.1 in-Hg to 22 in-Hg	2 in-Hg to 22 in-Hg; 15 in-H <sub>2</sub> O to 36 in-H <sub>2</sub> O
<b>Contacts</b>	composite-gold plate	fine silver-gold plate
<b>Operating pressure</b>	30 in-Hg max.	200 psi
<b>Burst pressure</b>	150 psi	500 psi
<b>Connector</b>	1/8-27 NPT male thread standard (others, including metric, available)	1/8-27 PTF SAE short male thread standard (others, including metric, available)
<b>Terminals</b>	#8-32 screws, 1/4 in blade, 280 series metri-pack	8 in wire leads, 18 ga.

**Benefits:** Design benefits include durable construction, compact size, and enhanced set-point integrity. Applications include engine air cleaners, fuel filters, generators/compressors, and more.

### Series III.

**Features:** Non-ferrous chamber

- Excellent set-point integrity at extreme temperatures
- Low contact resistance
- Wiping action
- Fast transfer time
- Adjustable differential

**Benefits:** Thoroughly tested for shock and vibration resistance. Particularly valuable in applications where hysteresis, fast transfer time, and low contact resistance are vital. Applications include engine transmission, hydraulics, brakes, power steering, fuel pressure, ABS brakes, cruise control, oxygen concentrators, dental air, embalming equipment, generators/compressors, pool/spa water pressure, and more.

### PRESSURE SWITCH AND SENSOR PBN1 Series.

**Features:** Sensitive to ultra-low pressures • Gage, vacuum, and differential measurement • Miniature size • Lightweight • Fast response • Rugged housings • High shock and vibration resistant versions available • Adjustable and non-adjustable models • For sale in EMEA only

**Benefits:** High sensitivity and flexible design options make the PBN1 suitable for potential applications such as filter restriction, HVAC, vacuum control, liquid level sensing, pick and place machinery, pump control, and counters.

### PBN3 Series.

**Features:** High current switching capacity • Sensitive to low gage pressures • Miniature size • Lightweight • Fast response • Rugged housings • Adjustable and non-adjustable models • For sale in EMEA only

**Benefits:** Designed to respond to positive air pressure or activated by non-corrosive liquids at low pressures. The PBN3's high switch rating makes the switch suitable for applications such as counting, edge detection, liquid level sensing, traffic counters, motor control, and pressure control in medical equipment.

**Warranty.** Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgement or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items it finds defective. **The foregoing is buyer's sole remedy and is in lieu of all warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.**

While we provide application assistance personally, through our literature and the Honeywell web site, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

For more information about Sensing and Control products, visit [www.honeywell.com/sensing](http://www.honeywell.com/sensing) or call +1-217-753-7752. Email inquiries to [info.sc@honeywell.com](mailto:info.sc@honeywell.com)

#### **WARNING** **PERSONAL INJURY**

- DO NOT USE these products as safety or emergency stop devices or in any other application where failure of the product could result in personal injury.

**Failure to comply with these instructions could result in death or serious injury.**

#### **WARNING** **MISUSE OF DOCUMENTATION**

- The information presented in this catalogue is for reference only. DO NOT USE this document as product installation information.
- Complete installation, operation and maintenance information is provided in the instructions supplied with each product.

**Failure to comply with these instructions could result in death or serious injury.**

Sensing and Control

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