

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 • 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.

HPS Series.

Features: Up to 2 million life cycle rating • IP67 sealing • Wide selection of pressure ports and electrical terminations • Configurable • High proof and burst pressure ratings

Benefits: Up to $\pm 2\%$ switching point accuracy provides efficient operation of equipment. 5 mA to 5 A switching capability allows for use in a wide range of applications, from heavy loads to those connected to an electronic control unit Hysteresis option. Applications include heavy-duty construction/agricultural/material-handling machinery, CNC machines, compressors/boilers, fracking equipment, mud pumps, presses and punches, pressure washers, trash compactors, and any industrial machinery that uses high pressure hydraulic fluids.

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

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

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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.

HPS Series high-pressure switches' IP67 environmental sealing and high proof pressure and burst pressure ratings allow for use in a variety of rugged applications.



Pressure Switches

Series 1000

5000 Series

Type	hydraulic brake pressure switch	direct action blade contact
Set point range	20 psi \pm 10 psi [1,37 bar \pm 0,69 bar]	factory set: 0.5 psi to 150 psi
Contacts	silver-plated copper contacts	composite-gold plate
Operating pressure	2400 psi	150 psi for 0.5 psi to 24 psi 250 psi for 25 psi to 150 psi
Proof pressure	2400 psi	500 psi
Burst pressure	4800 psi	750 psi for 0.5 psi to 24 psi 1250 psi for 25 psi to 150 psi
Port	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
Electrical termination	1/4 in blade	#8-32 screws, 1/4 in blade, 280 series metri-pack
Mechanical life	depends on application	800K



Pressure Switches

HPS Series

Type	high pressure premium
Set point range	factory set: 150 psi to 4500 psi [10.34 bar to 310.26 bar]
Contacts	gold-plated
Operating pressure	5000 psi [345 bar]
Proof pressure	10000 psi [689 bar]
Burst pressure	20000 psi [1379 bar]
Connector	M14 x 1.5, 9/16-18 UNF; 3/4-16 UNF, 1/2-20 UNF
Electrical termination	spade terminals, screw terminals, cable, Deutsch DT04-3P, AMP Superseal 1.5, Cable with Deutsch DT04-3P, Cable with Deutsch DT04-2P, Cable with AMP Superseal 1.5, Cable with Packard Metripak 150, Cable with DIN 4365D-C, Cable with M12 x 1, 150 mm cable with Packard weatherpack male terminal
Mechanical life	2M

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
Type	direct action blade contact	snap-action switch
Set point range	0.018 psi to 1.8 psi	0.036 psi to 40.0 psi
Contacts	gold inlay	silver
Operating pressure	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
Proof pressure	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
Burst pressure	30 psi	60 psi for 0.036 psi to 2.71 psi 150 psi for 3.0 psi to 40.0 psi
Port	5 mm smooth perpendicular; 5 mm barbed radial	5 mm smooth perpendicular; 5 mm barbed radial
Electrical termination	4,8 mm x 0,5 mm blades	6,3 mm x 0,8 mm blades
Mechanical life	up to 20M cycles, depending on load	up to 5M cycles, depending on load

Vacuum Switches



5000 Series

Type	direct action blade contact
Set point range	factory set: 1.1 in-Hg to 22 in-Hg
Vacuum	1.1 in-Hg to 22 in-Hg
Contacts	composite-gold plate
Operating pressure	30 in-Hg max.
Burst pressure	150 psi
Port	1/8-27 NPT male thread standard (others, including metric, available)
Electrical termination	#8-32 screws, 1/4 in blade, 280 series metri-pack
Mechanical life	800K

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 sensing.honeywell.com or call +1-815-235-6847 or 1-800-537-6945; email inquiries to 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

Honeywell

1985 Douglas Drive North
Golden Valley, MN 55422 USA

sensing.honeywell.com

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