

## Honeywell 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.

##### LE Series.

##### LP Series.

**Features:** Life cycle rating up to 2 million (LP Series) or 1 million (LE Series) • IP67 sealing rating • Operating temperature range -40 °C to 120 °C [-40 °F to 248 °F] • Proof pressure 500 psi [34,47 bar] • Burst pressure 750 psi for set points 3.5 psi to 22 psi, 1250 psi for set points > 22 psi • Hysteresis option (LP Series) • Variety of pressure ports and electrical terminations • Pressure switching set point range factory set or field adjustable 3.5 psi to 150 psi [0,24 bar to 10,34 bar] • Switching point accuracy up to ±2 %

**Benefits:** Extends equipment uptime and life, provides resistance to corrosion, reduces service costs, and protects equipment and operators. Configurability simplifies the design-in process, eliminates tooling costs, and reduces manufacturing labor costs. Durability allows for use in many tough applications. Potential applications include agricultural machinery, boilers, CNC machines, compressors, food & beverage equipment, fracking equipment, generators, HVAC/R equipment, heavy duty construction machinery, heavy duty trucks, lawn & garden, marine vessels, material handling machinery, mud pumps, pneumatic equipment, presses and punches, pressure washers, railway, trash compactors, water pumps, and water jet cutting equipment.

##### HE Series.

##### HP Series.

**Features:** Life cycle rating up to 2 million (HP Series) or 1 million (HE Series) • Operating temperature range -40 °C to 120 °C [-40 °F to 248 °F] (HE Series) or -40 °C to 85°C [-40 °F to 185 °F] (HP Series) • Proof pressure 10000 psi [689 bar] • Burst pressure 20000 psi [1379 bar]

• Hysteresis option (HP Series) • Variety of pressure ports and electrical terminations • Pressure switching set point range factory set 150 psi to 4500 psi [10,34 bar to 310,26 bar] • Switching point accuracy up to ±2 %

**Benefits:** Extends equipment uptime and life, provides resistance to corrosion, reduces service costs, and protects equipment and operators. Configurability simplifies the design-in process, eliminates tooling costs, and reduces manufacturing labor costs. Durability allows for use in many tough applications. Potential applications include agricultural machinery, boilers, CNC machines, compressors, food & beverage equipment, fracking equipment, generators, HVAC/R equipment, heavy duty construction machinery, heavy duty trucks, lawn & garden, marine vessels, material handling machinery, mud pumps, pneumatic equipment, presses and punches, pressure washers, railway, trash compactors, water pumps, and water jet cutting equipment.

# Pressure Switches Line Guide



## Pressure Switches

	Series 1000	LP Series	LE Series
<b>Type</b>	hydraulic brake pressure switch	low pressure premium	low pressure economy
<b>Set point range</b>	20 psi ±10 psi [1,37 bar ±0,69 bar]	3.5 psi to 150 psi	3.5 psi to 150 psi
<b>Contacts</b>	silver-plated copper contacts	gold-plated	gold-plated
<b>Operating pressure</b>	2400 psi	250 psi max.	250 psi max.
<b>Proof pressure</b>	2400 psi	500 psi	500 psi
<b>Burst pressure</b>	4800 psi	750 psi for set points 3.5 psi to 22 psi, 1250 psi for set points > 22 psi	750 psi for set points 3.5 psi to 22 psi, 1250 psi for set points > 22 psi
<b>Pressure port</b>	M10 x 1.25 banjo fitting (single or double available), M10 x 1, 1/8-27 NPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, 1/8-27 PTF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT	1/4-18 NPT, 1/8-27 NPT, 1/2-20 UNF, 1/8-27 PTF, M12 x 1.5, M14 x 1.5, 9/16-18 UNF, 3/4-16 UNF, G1/8 BSPP, 7/16-20 UNF, R1/8 BSPT, M10 x 1.0, R1/2 BSPT, G1/4 BSPP, R1/4 BSPT
<b>Electrical termination</b>	1/4 in blade	spade terminals, screw terminals, Deutsch DT04-3P-E005 (3-pin connector), Amp Super Seal 1.5 - 282105-1 (3-pin connector), 10-inch cable, 18 AWG (wire out, no connector), 10-inch cable w/Deutsch DT04-3P-E005 (3-pin connector) (16 AWG)*, 10-inch cable w/ Amp Super Seal 1.5 - 282105-1 (3-pin connector) (18 AWG)*, 10-inch cable w/Metripack 280 Delphi 15300002 (2-pin connector) (18 AWG)*, 10-inch cable w/Din43650-C (3-pin connector) (18 AWG)*, 10-inch cable w/M12x1 (Brad Harrison Micro) - 21032121306 Harting P/N (3-pin connector) (18 AWG)*, 10-inch cable w/Packard Weatherpack Male Terminal - 12020827 (3-pin connector) (18 AWG), MA = 10-inch cable w/Deutsch DT04-2P-E005 (2-pin connector) (18 AWG), 3-inch cable w/Packard 2P tower connector - 12015792 (2-pin connector) (18 AWG), 2.75-inch cable w/Packard 2P shroud connector - 12010973 (2-pin connector) (18 AWG), 4-inch cable w/Packard 2P ahroud connector - 12010973 (2-pin connector) (16 AWG), 5.5-inch cable w/ITT Cannon 2P Sure-Seal circular connector - SS2R-120-1804-000 (s-pin connector) (18 AWG), 8.5-inch cable w/ITT Cannon 3P Sure-Seal circular connector - SS3R-120-8551-001 (3-pin connector) (16 AWG)*, 10-inch cable - vacuum impregnated w/Deutsch DT06-3S-EP06 (3-socket connector) (16 AWG)*, 10-inch cable - vacuum impregnated w/Deutsch DT04-3P-E005 (3-pin connector) (16 AWG)*, 4.5-inch cable w/ blade terminals 6,3 mm x 0,8 mm (16 AWG)*, 6-inch cable w/Amp Super Seal 1.5 - 282104-1 (2-pin connector) (18 AWG)*, 10-inch cable w/Deutsch DT06-2S-CE06 (2-socket connector) (18 AWG), Deutsch DT04-2P-E005 (2-pin Connector)**, 10-inch cable w/Metripack 150 Delphi 12129615 (3-pin connector) (18 AWG)*, 10-inch cable w/ AMP 2,5 mm system series connector 1-967402-1 (18 AWG)*, 4.5-inch cable w/Packard ahroud connector 12015792 (2-pin connector) (18 AWG), 10-inch cable w/Metripack 150 Delphi 12052641 (2-pin connector) (18 AWG), 10-inch cable w/Deutsch plug HD 16-3 96S (3-pin connector) (16 AWG)*	
<b>Mechanical life</b>	depends on application	2 million	1 million

\*These connectors are designed for dual circuit (SPDT) by default. They can be used for single-circuit applications (SPNC/SPNO) by making suitable connections. Refer to wiring diagram.

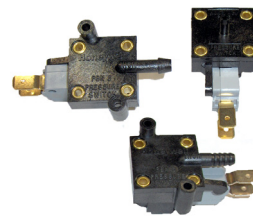
\*\*Option AB is available only for LP and LE Series.



## Pressure Switches

	HP Series	HE Series
<b>Type</b>	high pressure premium	high pressure economy
<b>Set point range</b>	150 psi to 4500 psi	150 psi to 4500 psi
<b>Contacts</b>	silver / gold inlay	silver
<b>Operating pressure</b>	5000 psi max.	5000 psi max.
<b>Proof pressure</b>	10000 psi	10000 psi
<b>Burst pressure</b>	20000 psi	20000 psi
<b>Pressure ports</b>	M14 × 1.5, M18 × 1.5, 1/2-20 UNF, 9/16-18 UNF, 3/4-16 UNF, 7/8-14 UNF	M14 × 1.5, M18 × 1.5, 1/2-20 UNF, 9/16-18 UNF, 3/4-16 UNF, 7/8-14 UNF
<b>Electrical termination</b>	spade terminals, screw terminals, Deutsch DT04-3P-E005 (3-pin connector), Amp Super Seal 1.5 - 282105-1 (3-pin connector), 10-inch cable, 18 AWG (wire out, no connector), 10-inch cable w/Deutsch DT04-3P-E005 (3-pin connector) (16 AWG)*, 10-inch cable w/Amp Super Seal 1.5 - 282105-1 (3-pin connector) (18 AWG)*, 10-inch cable w/Metripack 280 Delphi 15300002 (2-pin connector) (18 AWG)*, 10-inch cable w/Din43650-C (3-pin connector) (18 AWG)*, 10-inch cable w/M12x1 (Brad Harrison Micro) - 21032121306 Harting P/N (3-pin connector) (18 AWG)*, 10-inch cable w/Packard Weatherpack Male Terminal - 12020827 (3-pin connector) (18 AWG), MA = 10-inch cable w/Deutsch DT04-2P-E005 (2-pin connector) (18 AWG), 3-inch cable w/Packard 2P tower connector - 12015792 (2-pin connector) (18 AWG), 2.75-inch cable w/Packard 2P shroud connector - 12010973 (2-pin connector) (18 AWG), 4-inch cable w/Packard 2P ahroud connector - 12010973 (2-pin connector) (16 AWG), 5.5-inch cable w/ITT Cannon 2P Sure-Seal circular connector - SS2R-120-1804-000 (s-pin connector) (18 AWG), 8.5-inch cable w/ITT Cannon 3P Sure-Seal circular connector - SS3R-120-8551-001 (3-pin connector) (16 AWG)*, 10-inch cable - vacuum impregnated w/Deutsch DT06-3S-EP06 (3-socket connector) (16 AWG)*, 10-inch cable - vacuum impregnated w/Deutsch DT04-3P-E005 (3-pin connector) (16 AWG)*, 4.5-inch cable w/ blade terminals 6,3 mm x 0,8 mm (16 AWG)*, 6-inch cable w/Amp Super Seal 1.5 - 282104-1 (2-pin connector) (18 AWG)*, 10-inch cable w/Deutsch DT06-2S-CE06 (2-socket connector) (18 AWG), 10-inch cable w/Metripack 150 Delphi 12129615 (3-pin connector) (18 AWG)*, 10-inch cable w/AMP 2,5 mm system series connector 1-967402-1 (18 AWG)*, 4.5-inch cable w/Packard ahroud connector 12015792 (2-pin connector) (18 AWG), 10-inch cable w/ Metripack 150 Delphi 12052641 (2-pin connector) (18 AWG), 10-inch cable w/Deutsch plug HD 16-3 96S (3-pin connector) (16 AWG)*	
<b>Mechanical life</b>	2 million	1 million

\*These connectors are designed for dual circuit (SPDT) by default. They can be used for single-circuit applications (SPNC/SPNO) by making suitable connections. Refer to wiring diagram.



## 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>Port</b>	5 mm smooth perpendicular; 5 mm barbed radial	5 mm smooth perpendicular; 5 mm barbed radial
<b>Electrical termination</b>	4,8 mm x 0,5 mm blades	6,3 mm x 0,8 mm blades
<b>Mechanical life</b>	up to 20M cycles, depending on load	up to 5M cycles, depending on load



## Vacuum Switches

### 5000 Series

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

## 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.

## 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.

### **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.**

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Sensing and Control

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