

## Honeywell Pressure Switches

HP, HE, MH, ME, LP, LE, 5000, and 1000 Series

50094081

Issue 5

Datasheet



### DESCRIPTION

The Honeywell Pressure Switch portfolio consists of:

- High Pressure (HE/HP Series)
- Medium Pressure (ME/MH Series)
- Low Pressure (LE/LP Series)
- 5000 Series, 1000 Series

These pressure switches are durable, reliable electromechanical gauge pressure on/off switches that are available with either single pole single throw (SPST) normally open or normally closed circuitry, or single pole double throw (SPDT) circuitry. Their high proof pressure and burst pressure ratings can allow for use in many rugged applications that require the making or breaking of an electrical connection in response to a pressure change of the system media.

### DIFFERENTIATION

- **Through optional smart diagnostic technology, Honeywell pressure switches are able to detect failures such as open circuits, cut wires, worn insulation, and more<sup>6</sup>**
- Optional smart diagnostic technology allows up to four segregated signal amplitudes to perform diagnostics and status<sup>6</sup>
- Pressure port snubber suppresses pressure spikes<sup>2</sup>
- IP67 sealing provides enhanced durability in harsh environmental and washing applications<sup>1</sup>

### VALUE TO CUSTOMERS

- Designed to provide resistance to corrosion and enhances equipment life with available two million life cycle rating and IP67 rating<sup>1</sup>
- Can expedite design and product cycle due to ability to receive samples in two weeks and production units in four weeks
- Can reduce tooling, service, and manufacturing labor costs due to standard connections, extended product life, and expedited design and production cycle

### FEATURES

- Pressure switching set point range: 3.5 psi to 4500 psi
- Proof pressure: from 500 psi up to 10,000 psi
- Burst pressure: from 1250 psi up to 20,000 psi
- Life cycle rating up to 2 million
- IP67 sealing rating<sup>4</sup>
- Operating temperature: -40 °C to 120 °C [-40 °F to 248 °F]
- Hysteresis option<sup>5</sup>
- More than 15 pressure port options and over 30 electrical terminations
- Plated steel, brass or stainless steel options<sup>3</sup>
- Switching point accuracy up to  $\pm 2\%$

### POTENTIAL APPLICATIONS



- Agricultural machinery
- Heavy duty construction machinery and trucks
- Lawn & garden machinery
- Marine vessels
- Material handling machinery
- Railway



- CNC machines
- Compressors/boilers
- Fracking equipment
- Food & beverage equipment
- Generators
- HVAC/R equipment
- Mud pumps
- Pneumatic equipment
- Presses/punches
- Pressure washers
- Trash compactors
- Water pumps & jet cutting machines

### PORTFOLIO

Honeywell also offers the [PBN1 Series](#) and [PBN3 Series](#) Pressure Sensor.

<sup>1</sup> HP, HE, MH, ME, LP, LE Series

<sup>2</sup> HP, HE Series

<sup>3</sup> ME, MH, LP, LE Series

<sup>4</sup> HP, HE, LP, LE, ME Series

<sup>5</sup> HP, HE, LP Series

<sup>6</sup> HP, HE, ME, LP, LE Series

# Honeywell Pressure Switches, HP, HE, MH, ME, LP, LE, 5000, 1000 Series

**Table 1. Specifications**

Characteristic	HP Series	HE Series	ME Series	MH Series	LP Series	LE Series	5000 Series	1000 Series
Product length (various terminations)	see pages 5 and 6	see page 5	see page 8	see page 7	see page 9	see page 9	see page 10	-
Product length (blade)	see pages 5 and 6	see page 5	see page 8	see page 7	see page 9	see page 9	58,42 mm [2.3 in]	65,6 mm [2.583 in]
Product length (#8-32 screws)	see pages 5 and 6	see page 5	see page 8	see page 7	see page 9	see page 9	60,96 mm [2.4 in]	-
Product length (Metripack)	see pages 5 and 6	see page 5	see page 8	see page 7	see page 9	see page 9	73,66 mm [2.9 in]	-
Hex size	27 mm	27 mm	27 mm	27 mm	27 mm	27 mm	0.50 in (steel) 0.437 in (brass)	M10 x 1.25 banjo fitting
Ease of installation	box spanner	box spanner	box spanner	box spanner	box spanner	box spanner	1/2 in open spanner	18 mm open spanner
Snap-action switch	yes	yes	no	no	yes	no	no	no
Set point <sup>1</sup> range	100 psi to 4500 psi	150 psi to 4500 psi	25 psi to 350 psi	40 psi to 500 psi	3.5 psi to 150 psi	3.5 psi to 150 psi	75 psi to 150 psi	10 psi to 60 psi [0,69 bar to 2,7 bar]
Set point ranges	6 (Base Style A) 7 (Base Style B)	6	4	4	4	4	8	-
Set point accuracy @ 25 °C (before test)	100 psi to 150 psi (±10 %); 150 psi to 500 psi (±6 %); 501 psi to 4000 psi (±3.5 %); 4000 psi to 4500 psi (±2 %)	150 psi to 1000 psi (±14 %); 1000 psi to 2000 psi (±12 %); 2000 psi to 4000 psi (±11 %); >4000 psi (±10 %)	25 psi to 50 psi (±3 psi); >50 psi to 100 psi (±7 psi); >100 psi to 150 psi (±10 psi); >150 psi to 250 psi (±13 psi); >250 psi to 350 psi (±16 psi)	40 psi to 70 psi (±7 psi); >70 psi to 130 psi (±10 psi); >130 psi to 200 psi (±15 psi); >200 psi to 280 psi (±20 psi); >280 psi to 350 psi (±30 psi); >350 psi to 500 psi (±40 psi)	3.5 psi to 10 psi (±1 psi); >10 psi to 50 psi (±3 psi); >50 psi to 100 psi (±7 psi); >100 psi to 150 psi (±10 psi)		0.5 psi to 1 psi (±0.3 psi); 1.1 psi to 3 psi (±0.5 psi); 3.1 psi to 7 psi (±1 psi); 8 psi to 13 psi (±2 psi); 14 psi to 24 psi (±3 psi); 25 psi to 50 psi (±5 psi); 51 psi to 90 psi (±7 psi); 91 psi to 150 psi (±10 psi)	20 psi ±10 psi; 58 psi ±20 psi
Average dead-band max.	n/a	n/a	25 psi to 50 psi (20 psi); >50 psi to 100 psi (30 psi); >100 psi to 150 psi (40 psi); >150 psi to 250 psi (50 psi); >250 psi to 350 psi (60 psi)	40 psi to 70 psi (±6 psi); >70 psi to 130 psi (±10 psi); >130 psi to 200 psi (±15 psi); >200 psi to 280 psi (±20 psi); >280 psi to 350 psi (±30 psi); >350 psi to 500 psi (±40 psi)	n/a	3.5 psi to 10 psi (±2.8 psi); >10 psi to 50 psi (±14 psi); >50 psi to 100 psi (±38 psi); >100 psi to 150 psi (±40 psi)	0.5 psi to 3 psi (±1.5 psi); 4 psi to 7 psi (±2.5 psi); 8 psi to 13 psi (±3.5 psi); 14 psi to 24 psi (±8 psi); 25 psi to 50 psi (±15 psi); 51 psi to 90 psi (±23 psi); 91 psi to 150 psi (±40 psi)	n/a
Operating pressure <sup>2</sup>	5,000 psi max.	5,000 psi max.	500 psi max.	600 psi max.	250 psi max.	250 psi max.	150 psi, 250 psi	1400 psi [96,5 bar] max.
Proof pressure <sup>3</sup>	10,000 psi (Base Style A) 6,500 psi (Base Style B)	10,000 psi	4,000 psi	6,000 psi	500 psi	500 psi	500 psi	2973 psi [205 bar]
Hysteresis	5 % to 55 % (based on set point range)	3 % to 65 % (based on set point range)	n/a	n/a	5 % to 55 % (based on set point range)	n/a	n/a	n/a
Burst pressure <sup>4</sup>	20,000 psi (Base Style A); 9,000 psi (Base Style B)	20,000 psi	8,000 psi	9,000 psi	1250 psi	1250 psi	4000 psi	3500 psi [241 bar]
Current rating (resistive)	5 A at 250 Vac 5 A at 24 Vdc	3 A at 250 Vac 3 A at 24 Vdc	7.5 mA to 3 A, 24 Vdc and 250 Vac	100 mA to 3 A max.	7.5 mA to 5 A, 24 Vdc and 250 Vac	7.5 mA to 3 A, 24 Vdc and 250 Vac	15 A, 6 Vdc; 8 A, 12 Vdc; 4 A, 24 Vdc	12 Vdc with two-1157 bulbs (4.4 A)
Current rating (inductive)	5 A at 115 Vac (SX rating); 3 A at 28 Vdc	n/a	n/a	n/a	1 A at 28 Vdc	n/a	1 A, 120 Vac 0.5 A, 240 Vac	n/a

<sup>1</sup>Port Style C: Switches less than 975 psi will use Base Style B; switches greater than 975 psi will use Base Style A.

Port Styles F and G: Switches less than 350 psi will use Base Style B; switches greater than 350 psi will use Base Style A.

Port Styles A, B, E, M, P, T, and Y will use Base Style B.

Switches less than 150 psi will only use Base Style B.