# PS-E, PS-EH, and PS-EV Series— Economical Miniature Pressure Switches

- Vacuum to 3000 PSI (210 bar)
- High Proof Pressures
- Variety of Pressure Ports and Lead Wires Available

The Gems PS-E Series are designed for demanding applications where space and/or price are strong concerns. The switches utilize a piston/diaphragm design, which incorporates the high proof pressure of piston technology with the sensitivity of diaphragm designs. The switches can be field or factory set by a hidden Allen head adjustment that ensures against unauthorized tampering.

## Specifications

| | |
|---|---|
| **Ambient Temperature** | -40°F to +176°F (-40°C to +80°C) |
| **Switch** | 5 Amp, SPDT@120/240 VAC and 12/24 VDC (>2 million cycles) |
| **Approvals** | Microswitch is UL and CSA Recognized |
| **Repeatability** | 2% of Highest Set Point @ 68°F (20°C) |
| **Wetted Parts** | |
| **Diaphragm** | Buna-N (Optional EPDM or Viton®) |
| **Fitting** | Zinc-Plated Steel (Optional SS or Brass) |
| **Electrical Termination** | IP65 (Nema 4) DIN 43650A, or 18″ (0.5m) Long, 18 AWG (0.82mm²) PVC Jacketed Lead Wires (Optional IP68 Submersible Lead Wires) |
| **Pressure Port** | G or 1/4″ NPT Male (E Series Also Features 1/8″ NPT Male) (E, EH Also Available in 7/16″-20) |
| **Proof Pressure** | PS-E, EV 350 psi (25 bar) PS-EH 9000 psi (600 bar) |
| **Weight, Approximate** | 0.3 lbs. (0.14 kg) |

## How To Order

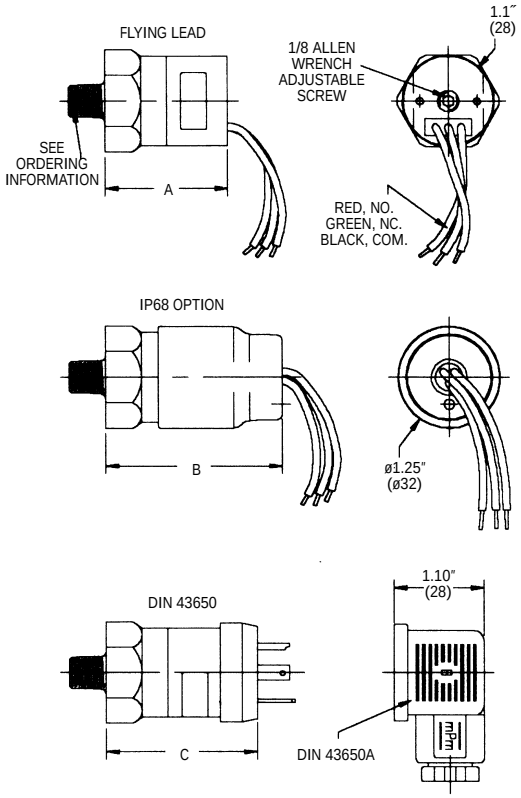
Use the **Bold** characters from the chart below to construct a product code.

**SELECT** **PS** **-E** **-1** **-4G** **-C** **-HC** **-X**

1. Series
   **-E** low pressure; **-EH** high pressure; **-EV** vacuum
2. Insert Range Code From Table Below[1]
3. Pressure Port
   **-4M** 1/4″ NPT male; **-4G** G 1/4 male; **-4S** 7/16-20″ UNF male
4. Circuit
   **-C** SPDT; **-A** SPST/NO; **-B** SPST/NC; (**-A** and **-B** options pertain to **-FL** versions)
5. Electrical Terminations
   **-FL** flying leads; **-FLWF** flying leads w/weather pack connector; **-H** DIN male only; **-HC** DIN connector w/strain relief; **-HN** DIN connector w/1/2″ conduit
6. Options
   **-1** Viton® diaphragm; **-2** EPDM diaphragm; **-3** 316 ss for 1/4″ ports; **-4** brass 1/4″ NPT PS-E only; **-7** gold electrical contacts; **-9** reduced deadband; **-B** oxygen cleaned; **-20** IP68 submersible[2]; **-SR** surge restrictor; DIN connection w/light also available

Note: (1) For factory-set units specify set points and units followed by **-R** for rising or **-F** for falling
**Example:** PS-E-50psi-R-4M-A-FL (50psi, Rising, 1/4″ NPT, Normally Open Switch, Leads)
(*) submersible option requires wire leads and factory preset set points (units are not field adjustable)

## Dimensions




| Series | Dimension inches (mm) | | |
|---|---|---|---|
| | A | B | C |
| PS-E; PS-EV | 1.50″ (36) | 2.16″ (55) | 1.85″ (47) |
| PS-EH | 1.73″ (44) | 2.39″ (61) | 2.08″ (53) |

| Series | Pressure Range Code | Adjustable Range | Average Dead Band |
|---|---|---|---|
| PS-E Pressure Switch | **-1** | 3-7 psi 0.2-0.5 bar | 1-2 psi 70-140 mbar |
| | **-2** | 5-30 psi 0.35-2 bar | 2-4 psi 140-280 mbar |
| | **-4** | 25-100 psi 1-7 bar | 3-12 psi 210-850 mbar |
| PS-EV Vacuum Switch | **-1** | 5-15″ Hg 150-500 mbar | 3-5″ Hg 100-150 mbar |
| | **-2** | 12-28″ Hg 400-925 mbar | 3-6″ Hg 100-200 mbar |

| Series | Pressure Range Code | Adjustable Range | Average Dead Band |
|---|---|---|---|
| PS-EH High Pressure Switch | **-1** | 10-30 psi 0.7-2 bar | 4-6 psi 0.25-0.4 bar |
| | **-2** | 25-75 psi 1.5-5 bar | 5-10 psi 0.35-0.65 bar |
| | **-3** | 65-300 psi 4-20 bar | 20-40 psi 1.3-2.6 bar |
| | **-4** | 250-1000 psi 17-70 bar | 40-85 bar 2.6-5.7 bar |
| | **-5** | 1000-3000 psi 70-210 bar | 120-220 psi 8-15 bar |