

Digital, Miniature Pressure Switch with Display

- **Compact, 1" cube that fits practically anywhere**
- **8 selectable pressure units**
- **Two fully-programmable PNP digital outputs**
- **Bright, multi-colored, 4-digit display and LED indicators for high readability**
- **Two pressure port locations - one horizontal and one vertical - for easy installation**



Overview

These miniature pressure switches provide PNP output switch control for non-corrosive gasses. The PSW-1110 features a bright 4-digit, 7-segment, programmable display that makes it easy to see the current pressure.

The ultra-compact size and multiple pressure port orientations make this unit easy to install practically anywhere. There are both a horizontally and vertically oriented pressure ports.

The PNP outputs are fully programmable, and the user can also select one of eight pressure units: psi, bar, kg/cm², KPa, MPa, inHg, cmHg, and Atm. There are four options for output modes. The main options are hysteresis and window modes, and each of those have high and low methods of actuation.

The PSW-1110 is also available with the following options: additional pressure ranges, NPN outputs, alternate pressure port thread types, and with liquid media compatibility. Contact us if you would like to learn more about these options.

Specifications

Accuracy	± 1% FS
Repeatability	± 1% FS
Response Time	135 ms
Burst Pressure	300 psi
Compatible Media	Non-Corrosive Gasses
Supply Voltage	10-30 Vdc
Electrical Connection	20" Cable with Flying Leads
Current Consumption	≤80 mA
Output	PNP
Media Temperature Range	0 to 100°C (32 to 212°F)
Temperature Accuracy	± 2°C (± 4°F)
Operating Temperature	-10 to 60°C (14 to 140°F)
Storage Temperature	-20 to 70°C (-4 to 158°F)
Operating & Storage Humidity	35 to 85% RH
Process Connection Material	Zinc Alloy
Enclosure Materials	ABS
Weight	80g
Shock	100g (980 m/s ²)
Acceleration	10g (98 m/s ²)
Vibration	10 to 500 Hz freq., 0.06" (1.5 mm) amplitude

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Operation Modes

There are two main types of output modes for the digital output - hysteresis mode and windowed mode.

Hysteresis mode has two types of actuations, active low and active high, as shown on the left side of the Output Modes figure below.

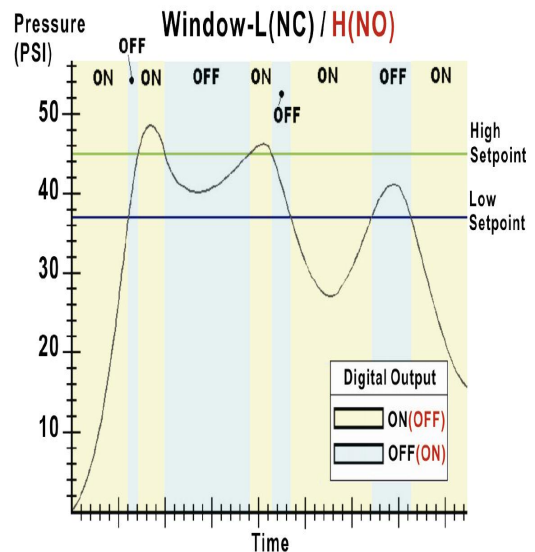
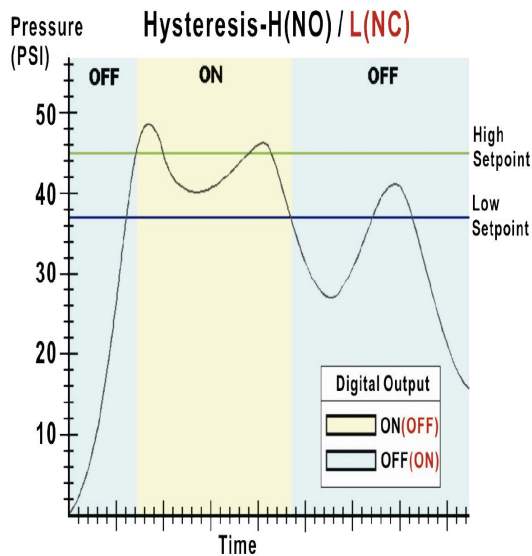
Active Low: Turns the output off when the pressure has reached the high setpoint (green line). The output remains off until the pressure has dropped below the low setpoint (blue line).

Active High: Turns the output on when the pressure has reached the high setpoint. The output remains on until the pressure has dropped below the low setpoint.

Windowed mode also has two types of actuations, active low and active high, as shown on the right side of the Output Modes figure below.

Active Low: Turns the output off when the pressure is between the high setpoint (green line) and the pressure low setpoint (blue line).

Active High: Turns the output on when the pressure is between the high setpoint (green line) and the pressure low setpoint (blue line).



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Accessories

Our product accessories section contains a selection of mounting accessories. Vertical or horizontal brackets are available, made for easy mounting to another surface; the sensor has two threaded mounting holes on the back side that either bracket screws into. Panel mounts are also offered and suitable for a wide range for the panel cutout due to spring loaded clips molded into the housing.

Additional Options

The PSW-1110 is also available with the following options: additional pressure ranges, NPN outputs, alternate pressure port thread types, and with liquid media compatibility. If you would like to learn more about these options or require further customization of this design, contact us using the chat function or by emailing us at pressure@omega.com.

Dimensional Drawing

