

**YOUNG Barometric Pressure Sensors combine high accuracy and low power over a wide range of pressures and temperatures.**

**Now available with SDI-12 output.**

**Model 61402V** provides a calibrated 0-5 VDC analog output. Analog current consumption is less than 4 mA. A special "sleep" mode further reduces current draw to a few  $\mu$ A. RS232 serial output is also available.

**Model 61402L** features a standard 4-20 mA output or user selectable serial interfaces SDI-12, RS-232, RS-485.

The compact size of the barometer allows easy placement in most standard instrument enclosures. A plug-in connector simplifies wiring.

For outdoor use, an optional **Weatherproof Enclosure** offers a convenient mounting location while the **Pressure Port** helps minimize dynamic pressure errors due to wind.



## Specifications

**Pressure Range:**  
500 to 1100 hPa

**Operating Temperature:**  
-40 to +60°C

**Digital Accuracy\***  
0.2 hPa (25°C)  
0.3 hPa (-40 to +60°C)

**Analog Accuracy\*\***  
0.05% of analog pressure range

**Analog Temperature Dependence**  
0.0017% of analog pressure range/ °C (25°C reference)

**Long Term Stability:**  
0.08% FS per year

**Update Rate:**  
1.8 Hz max

**Serial Output:**  
Full duplex RS-232  
SDI-12, half duplex RS-485 (61402L only)  
1200 to 38400 baud  
Polled or continuous  
ASCII text, NMEA

**Analog Output:**  
0 to 5000 mV, 0 to 2500 mV (61402V)  
4 to 20 mA (61402L)

**Resolution:**  
Serial 0.01 hPa  
Analog 0.025% of analog scale

**Power:**  
7 to 30 VDC  
61402V – Vout, 3.6 mA  
– Sleep mode, 2.7  $\mu$ A  
– RS-232, 7.6 mA  
61402L – 4-20 mA, 25 mA max  
– RS-232 or RS-485, 8.5 mA  
– SDI-12, 1.5 mA

**Dimensions:**  
90 mm (3.6 in) x 60 mm (2.4 in) x 20 mm (0.8 in)

**Weight:**  
44 g (1.5 oz)

\* Defined as  $\pm 1$  standard deviation from NIST traceable pressure reference. Includes non-linearity, hysteresis, repeatability, and calibration uncertainty.

\*\* Defined as  $\pm 1$  standard deviation from ideal analog output. Total analog output accuracy is the root sum square of digital accuracy, analog accuracy, and analog temperature dependence.



Weatherproof Enclosure and Pressure Port

## Ordering Information

## MODEL

BAROMETRIC PRESSURE SENSOR, 0-5 VDC.....	61402V
BAROMETRIC PRESSURE SENSOR, 4-20 mA.....	61402L
WEATHERPROOF ENCLOSURE.....	61360
PRESSURE PORT WITH OFFSET BRACKET.....	61002

**CE** Complies with applicable CE directives.  
Specifications subject to change without notice.



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