

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 μ 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 μ 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 ± 1 standard deviation from NIST traceable pressure reference. Includes non-linearity, hysteresis, repeatability, and calibration uncertainty.

** Defined as ± 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

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



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