



Model 2100-101-2 Barometric Pressure Sensor



Operation

The Model 2100-101-2 barometric pressure sensor is designed for use in environmental applications that require excellent accuracy, fast dynamic response, and long-term stability and reliability.

To withstand the environmental extremes typically found in Automated Weather Station (AWS) and environmental monitoring applications, the Model 2100-101-2 housing is constructed of stainless steel and polyester. A removable 5-pin terminal strip module is provided for easy connection to data logger and signal connections, and a 1/8" Barbed fitting is used for pressure connection. The transducer's footprint (3.6" x 2.4" x 1.0") makes it ideal for use as a new or drop-in replacement to existing configurations.

The Model 2100-101-2 is operable in temperatures from -40°C to +60°C (-40°F to +140°F).

Model 2100-101-2 Advantages

- **Long-term Stability**
- **Better Than 0.1 hPa/yr**
- **Sleep Mode for Instant Startup (<1 sec.)**
- **Meets CE Conformance Standards**

This unit consumes low levels of power (3mA nominal) while in operation. Its sleep mode feature reduces power consumption to 1 μ A, and provides instant startup for applications where pressure readings must be taken quickly.

The Model 2100-101-2 utilizes a capacitive sensor and proprietary custom IC analog circuit. This fundamentally simple design and thermally stable glass fused ceramic sensing capsule is coupled with sophisticated capacitance charge-balance IC circuit where accurate signal conditioning and environmental compensation is performed. The sensor provides excellent thermal expansion coefficient and low mechanical hysteresis, which contributes to the long-term stability of the Model 2100-101-2.

Ordering Information:

- **Model No: 2100-101-2**



Optical Scientific Inc.

2 Metropolitan Court Suite 6 • Gaithersburg, MD, 20878 • USA

Ph. 301-963 3630 • Fax 301-948-4674

email: sales@opticalscientific.com www.opticalscientific.com

Model 2100-101-2 Barometric Pressure Sensor Specifications

Performance Specification	
Accuracy	
20° C	± 0.5 hPa
-0 to +40° C	± 1.0 hPa
-20 to +50° C	± 1.5 hPa
-40 to +60° C	± 2.0 hPa
Non-Linearity	± 0.4 hPa
Hysteresis @ 800 hPa	± 0.05hPa
Non-Repeatability @ 800 hPa	± 0.03 hPa
Resolution	.01 hPa
Response Time	<100 mSec
Proof Pressure	2000 hPa

Electronic Specification	
Electrical Circuit	3 or 4 Wire
Excitation	9.5 to 28 VDC
Output	0 to 5 VDC
Output Impedance	< 10 ohms
Current Consumption	3 mA nominal; 1 μ A (Sleep Mode)
Sensor Electrical Connection	5 Pin Terminal Block

Environmental Specification	
Operating Temperature Range	-40 to +60° C
Storage Temperature Range	-60 to +120° C

Physical Specification	
Case	Stainless Steel and Polyester
Pressure Fitting	1/8" (ID diameter) Barbed Fitting
Sensor Weight:	135g
Sensor Size	9.1 x 6.1 x 2.5 cm

Specifications are subject to change without notice.



Optical Scientific Inc. (OSi)
2 Metropolitan Court Suite 6
Gaithersburg, MD 20877 USA
Ph. 301-963-3630
Fax 301-948-4674
website: www.opticalscientific.com
email: sales@opticalscientific.com



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