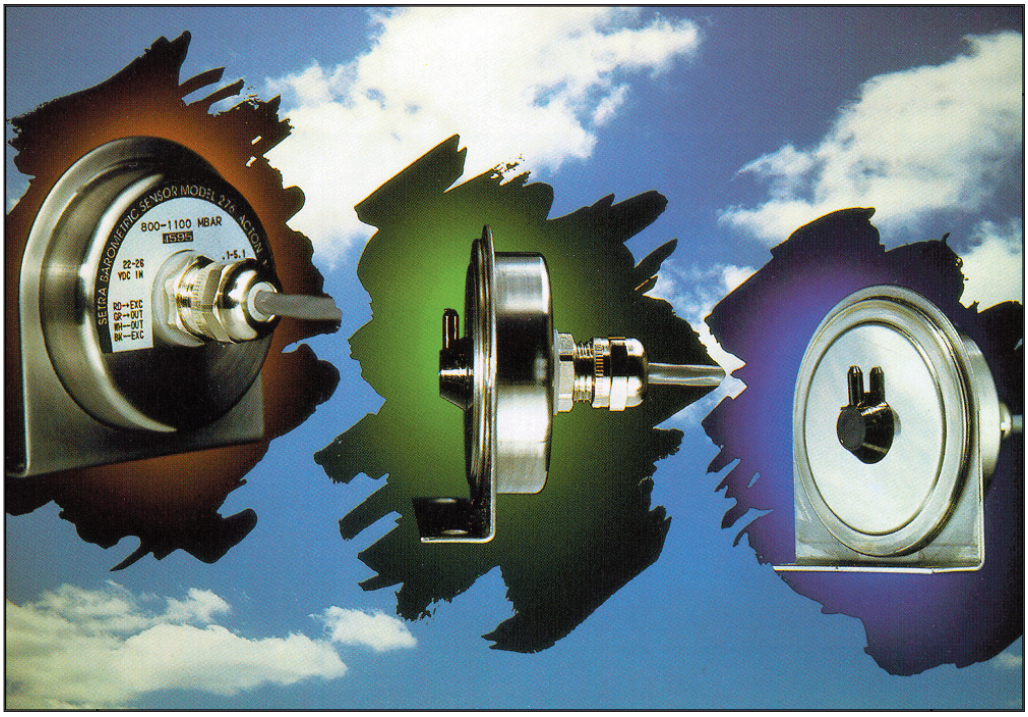
Model 276
Low Cost Barometric Pressure Transducer

Featuring the SETRACERAM™ Sensor
Barometric Pressure: 600-1100, 800-1100 hPa/mb
Absolute Pressure: 0-20 psia



Setra Systems has been a technology leader in Environmental Pressure Measurement for over three decades. The Model 276 is an extremely accurate and stable transducer based on the proven Setraceram™ sensing element. The glass fused ceramic capacitive sensing capsule is the heart of Setra's environmental pressure transducers because of its inherent thermal stability, low hysteresis and fundamentally simple design.

Another major feature of the 276 is Setra's custom Application Specific Integrated Circuit (ASIC). The ASIC works hand-in-hand with the Setraceram™ sensor to achieve long-term stability and high accuracy, unmatched by other manufacturers - even at a much higher cost. The ASIC circuit allows the 276 to operate with an excitation as low as 5 VDC for remote battery or solar powered applications.

The 276 is designed specifically to give maximum flexibility to system integrators and OEM's. The standard unit has a convenient mounting bracket and simple 1/8" tube fitting for quick installations. Its low cost, small size and available options make it application configurable.

If your OEM environmental application requires low cost, combined with superior performance, specify Setra's Model 276 and apply the savings to the bottom line.

Type of Pressure	Pressure Range	Maximum Pressure
Barometric	600-1100 mb 800-1100 mb	20 PSIA 20 PSIA
Absolute	0-20 PSIA	30 PSIA

NOTE: Setra quality standards are based on ANSI-Z540-1.
The calibration of this product is NIST traceable.

U.S. Patent Nos. 4168518; 4054833

Applications

- Environmental Monitoring Systems
- Weather Measurement Systems
- Weather and Environmental Data Logging
- Barometric Presure Compensation for Internal Combustion Engine Performance
- Cleanroom Barometric Pressure Compensation
- Automotive Emissions Test Equipment

Features

- Proven SETRACERAM™ Sensor
- 0.25% FS Accuracy
- Environmentally Rugged
- <±0.25% FS, 6 Month Stability
- Compact Size (2" dia. x 1")
- Excellent Long-Term Stability
- Low Power Consumption (for Solar or Battery Power)
- Fast Response
- Meets CE Conformance Standards

When it comes to a product to rely on - choose the Model 276. When it comes to a company to trust - choose Setra.

ISO 9001: 2000 Certified

Visit Setra Online:
http://www.setra.com

setra
800-257-3872

159 Swanson Rd., Boxborough, MA 01719/Telephone: 978-263-1400/Fax: 978-264-0292

Model 276 Specifications

Performance Data

Accuracy RSS* (at constant temp)	±0.25% FS**
Thermal Effects***	
Compensated Range °F(°C)	+30 to +130 (0 to +55)
Zero Shift (Over Compensated Range)	1% FS
Span Shift (Over Compensated Range)	1% FS
Resolution	Infinite, limited only by output noise level (0.0005% FS)
Time Constant	10 milliseconds to reach 90% final output with step function pressure input.
Long Term Stability	0.25% FS/6 months

*RSS of Non-Linearity, Hysteresis and Non-Repeatability.

**FS = 300mb for 800-1100mb range; 500 for 600-1100mb range; and 20 PSI for 0 to 20 PSIA.

***Units calibrated at nominal 70°F. Maximum thermal error computed from this datum.

Environmental Data

Temperature	
Operating* °F (°C)	0 to +175 (-18 to +79)
Storage °F (°C)	-65 to +250 (-55 to +121)
Vibration	2g from 5 Hz to 500 Hz
Shock	50g (Operating, 1/2 sine 10 ms)
Acceleration	10g

*Operating temperature limits of the electronics only. Pressure media temperatures may be considerably higher or lower.

Physical Description

Case	Stainless Steel
Electrical Connection	2ft. Multiconductor Cable
Pressure Fitting	1/8" Tube Fitting

Electrical Data (Voltage)

Circuit	3-Wire* (Exc, Out, Com)
Specify One:	
Excitation	Output
12 VDC (9.0 to 14.5)	0.1 to 5.1 VDC**
24 VDC (21.6 to 26.0)	0.1 to 5.1 VDC**
5 VDC (4.9 to 7.1)	0.5 to 4.5 VDC**
Power Consumption	0.2 Watts (24 VDC)
Output Impedance	5 ohms
Output Noise	<200 microvolts RMS (0 to 100 Hz)

*There are separate leads for +Exc, -Exc, +Out, -Out. The -Exc and -Out are commoned internally. The shield is connected to the case. For best performance, either the -Exc or -Out should be connected to the case. Unit is calibrated at the factory with the -Exc connected to the case. The insulation resistance between all signal leads tied together and case ground is 100 megohms minimum at 25 VDC.

**Zero and Full Scale Outputs are factory set to within ±0.25% Full Scale.

Pressure Media

Non-condensing air or gas compatible with stainless steel, alumina ceramics, gold and elastomer.

Available Options

Performance Options

Option #715	0.1% FS (RSS) Accuracy

Mechanical Options

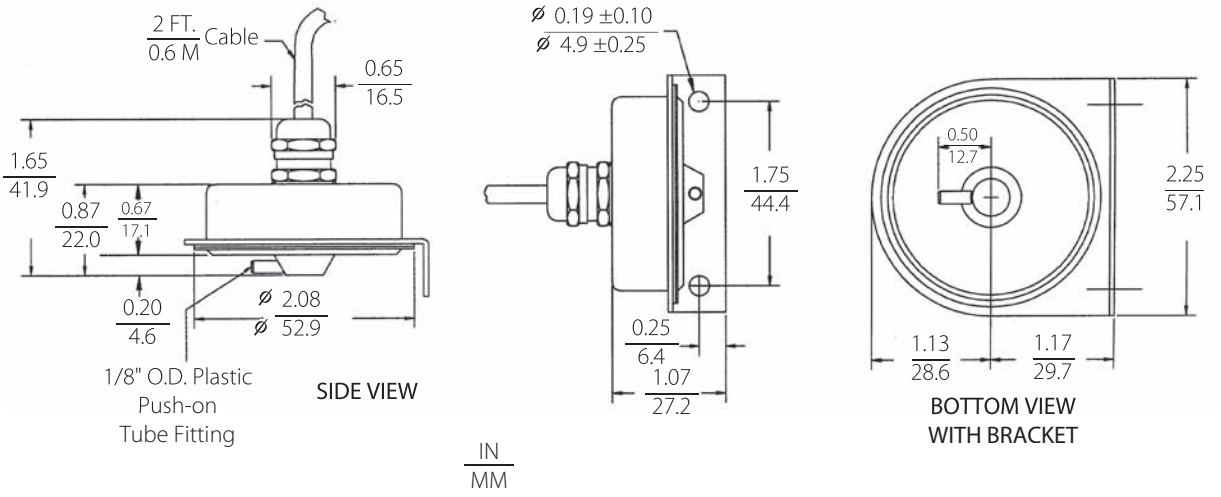
Option #803-825	Up to 25 ft. of cable can be supplied. Specify cable length when ordering (i.e., 805 for 5 ft. cable). Consult factory for cable lengths longer than 25 ft.
Option #839	1/8" NPT Pressure Connection

Calibration Certificate Option

Option #901	11-point Calibration Certificate

Specifications subject to change without notice.

Outline Drawings



SSP276 Rev.C 07/14/04

ORDERING INFORMATION

Example: Order as a Model 276, specify Pressure Range, Excitation, Electrical Output and Options.

159 Swanson Road, Boxborough, MA 01719/Tel: 978-263-1400;
Toll Free: 800-257-3872; Fax: 978-264-0292; email: sales@setra.com