

Quick-Select Pressure Module Specifications

AQS-1 Sensor Module Ranges—

Inches of H₂O

Gauge and Differential

0/0.25	0/2.0	0/10	0/50	0/200
0/0.50	0/3.0	0/15	0/100	
0/1.0	0/5.0	0/25	0/150	

Compound

±0.125	±1.0	±5.0	±25	±100
±0.25	±1.5	±7.5	±50	
±0.50	±2.5	±12.5	±75	

Available Accuracies (% of span compared to standard):

- ±0.07% of span (ranges below 1 inH₂O)
- ±0.06% of span (from 0/1 through 0/200 inH₂O)
- ±0.1% of span (all ranges)
- ±0.25% of span (all ranges)

Calibration Standards:

±0.03% of reading secondary standards, traceable to NIST

Media Compatibility:

Clean, dry, nonconductive, noncorrosive gases

Overpressure Capability:

Positive Direction: 50 psi
 Negative Direction: 15 psi
 Maximum zero shift of less than 0.1% of span. No measurable span shift.
 Maximum Static Pressure: 100 psi
 (must not exceed overpressure specifications during testing)

AQS-2 Sensor Module Ranges—

PSIG and PSIA*

0/5*	0/30*	0/100*	0/250*	0/600	0/2000	0/5000
0/10*	0/50*	0/150*	0/300*	0/1000	0/2500	0/6000
0/15*	0/60*	0/200*	0/500	0/1500	0/3000	0/7500

Vacuum (PSI)

0/5	0/10	0/15	-15/+15	-15/+30	-15/+60
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Compound (PSI)

* Standard: nonisolated for clean, dry, nonconductive, noncorrosive gas use.
 Optional: ranges 0/10 through 0/300 psi isolated for use with any media compatible with 316 SS. All sensors with ranges of 500 psi and higher are isolated and can be used with any media compatible with 316 SS.

Available Accuracies:

- ±0.05% of span (psi ranges only)
- ±0.1% of span (psi ranges only)
- ±0.25% of span (all ranges)

Calibration Standards:

±0.01% of reading or better primary standards, traceable to NIST

Pressure Types:

Gauge to 300 psi sealed gauge above 300 psi
 Absolute ranges from 5 to 7500 psia
 Vacuum ranges of 0/5, 0/10 and 0/15 psiv

Overpressure Capability:

0/2 psi and below: 5x range
 0/5 psi through 1000 psi: 2x range
 Above 1000 psi: 1.5x range

General Pressure Measurement Specifications

Repeatability:* ranges 0/5 psi and above ±0.02% of span (typical)
 ranges 0/2 psi and below ±0.05% of span

Sensitivity:* ± 0.002% of span with damping
 1 part in 50,000 (max)

* included in accuracy specifications

Temperature Effect Specifications:

Operating Range Standard: 32° to 120° F (0° to 49°C)
 Operating Range Optional: 14° to 120° F (-10° to +49°C)
 Compensated Range: 20° to 120° F (-7° to +49°C)
 Reference Temperature: 70° ±3° F
 Temperature Error: maximum of ±0.004% of span per °F over the compensated range for zero and span

Storage Limits: -4° F to ±158° F (-20° to +70° C)

Operating Characteristics

Engineering Units: psi, inHg, inWC, ftSW, bar, mbar, kPa, MPa, mmHg, cmWC, mmWC, kgcm² and any single user-defined, field-programmable engineering unit

Damping: (Measurement Averaging) Programmable averaging from zero through 16 consecutive readings

Warm-Up: 5 minutes for rated accuracy (maximum)

Electrical Measurement Specification

Input (volts)	Accuracy	Input (mA)	Accuracy
0/10 Vdc	±0.025% fs	0/20 mA	±0.03% fs
0/30 Vdc	±0.10% fs	0/50 mA	±0.05% fs

Auto-ranging 10/30 Vdc and 20/50 mA
 Temperature Effect Electrical Measurement:
 ±0.001% of span per °F over the compensated range

Physical Characteristics

Display: Alphanumeric LCD, 0.37 in. height per line
 2 lines, 16 characters/line

Display Update: 100 ms

Process Connection: 1/8 NPT, internal thread

Electrical Connection: Miniature recessed banana jacks

Housing: Molded, high-impact ABS case, gray

Weight: Base unit: 2.2 lb (1.3 kg)
 Pressure Module: 0.5lb (0.3kg) each

Dimensions: 7.88 x 4.24 x 3.25 (l x w x h) inches nominal

Power Supply:

Internal: 9 Vdc batteries (2 required)
 External: ac adaptor 9 Vdc, 500 mA

Portable Operation: 30 hours on two 9 Vdc alkaline batteries

Serial Interface

Type: RS-232

Baud Rate: 300, 1200, 2400, 9600

Calibration

Both Quick-Select pressure modules and base unit electronics can be calibrated in the field.