

AQS 1 Benzene

Specification Sheet

Near reference real-time monitor for benzene (C₆H₆)



Benefits

- Accurate, continuous measurement of atmospheric benzene
- Low power - compatible with solar and battery fence-line applications
- Design easily supports additional environmental measurements
- 15-minute measurement interval providing four discrete benzene concentration measurements per hour
- Aeroqual Cloud Software provides real-time data access, automatic reporting, data analytics tools, software updates, service and calibration support, and system diagnostics
- Data analytics tools include wind rose plotting for easy data visualization
- User configurable, real-time alerting allows users to respond quickly to emission events

What can it measure?

Can be configured to measure benzene, temperature, relative humidity, and wind.



Benzene Module Specifications						
Range	Display Resolution	Noise Zero; Span (% of reading)	Lower Detection Limit 3σ	Precision (% of FS)	Linearity (% of FS)	Drift 24 hours Zero Span (% of FS)
0-100 ppb 0-320 µg/m ³	0.01 ppb 0.01 µg/m ³	0.05 ppb, 0.16 µg/m ³ 1.4%	< 0.2 ppb <0.64 µg/m ³	1%	2.9%	0.04 ppb, 0.13 µg/m ³ 0.5%
Base System Specifications						
Control system	Embedded PC with on board data storage (>5 years)					
Communications	Standard: WIFI, Ethernet (LAN) Optional modem: Cellular IP 4G LTE, Integrated high gain antenna					
Software	Compatible with Aeroqual Cloud and OneView Software					
Measurement interval	1 minute data update (15-minute measurement cycle for benzene). User selectable averaging, up to 24 hr.					
Power requirements	100-260 VAC or 9-36VDC battery/solar: Power usage: 13 W. Compatible with Victron SmartSolar MMPT 100-20 (solar charge controller).					
Enclosure	Lockable IP65 GRP cabinet with integrated aluminum solar shield armor.					
Dimensions	685 mm x 330 mm x 187 mm (27" x 13" x 73/8") - includes gas inlet					
Weight	< 13 kg (28.6 lbs)					
Operating range	-10 °C to +45 °C (14 °F to 113 °F) Low temperature operation extendable with winterization pack (-40 °C)					
Mounting	Pole, tripod, and wall mounting brackets available					
Environmental sensor options	Gill WindSonic (ultrasonic wind sensor), Vaisala WXT536 (weather transmitter), Airmar 200WX (weather station)					
Inputs/Outputs	0-5V analog input, 4-20mA input, configurable relay output					
Gas System Specifications						
Inlet	Inert glass-coated stainless steel and Teflon sample inlet					
Pump	Long life 12 V brushless DC diaphragm pump					
Module technology	Temperature programmed desorption with PID detector for speciated concentration measurements of benzene.					