

# AQS 1 Benzene

## Specification Sheet

Near reference, real-time monitor  
for benzene (C<sub>6</sub>H<sub>6</sub>)

### Benefits

- Accurate, continuous measurement of atmospheric benzene
- Low power - compatible with solar and battery fence line applications
- Modular design easily supports additional pollutant and 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?

- Benzene, wind, weather, and noise.



#### Benzene Module Specifications<sup>2</sup>

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 <sup>3</sup>	0.01 ppb 0.01 µg/m <sup>3</sup>	0.05 ppb, 0.16 µg/m <sup>3</sup> 1.4%	< 0.2 ppb <0.64 µg/m <sup>3</sup>	1%	2.9%	0.04 ppb, 0.13 µg/m <sup>3</sup> 0.5%

#### Base System Specifications<sup>1</sup>

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 (benzene 15-minute measurement cycle). User selectable averaging, up to 24 hr.
Power requirements	100-260 VAC or 9-36VDC battery/solar: Power usage: 13 W (benzene module powder = 3 W).
Enclosure	Lockable IP65 GRP cabinet with integrated aluminum solar shield armor.
Dimensions	685 mm x 330 mm x 187 mm (27" x 13" x 7 3/8") - 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
Environmentally integrated sensor options	Gill WindSonic (ultrasonic wind sensor), Vaisala WXT536 (weather transmitter), Cirrus MK427 Class 1 (noise sensor), Novalynx Pyranometer (solar radiation), Airmar 200WX (weather station)
Compatible tested sensors	A wide range of other sensors can be integrated including: Victron SmartSolar MMPT 100-20 (solar charge controller), BSWA 308 (sound level meter) and Svantek SV971A (sound level meter). Contact Aeroqual for more information.
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.

1. The benzene module can be fitted into the Aeroqual AQM 65.