

BlueEye™ Mobile



Portable gas quality analyzer
Reliable, no moving parts
Fast response time
Compact and robust

BROCHURE

About the BlueEye™ Mobile

The battery powered BlueEye™ Mobile is designed for mobile and handheld use. A single charge allows for over 3 days continuous operation. Connectivity via *Bluetooth LE* to dedicated iOS and Android Apps.

The ultra-fast sampling rate and high accuracy provide instant insight in the combustion properties and calorific content of the measured gas composition.

The single hand operated shut-off quick couplings ensure easy, fast and safe connections to any gas source. Measurement data is collected and saved within the App and automatically uploaded to a cloud service. Access to the cloud data is secure and can be customized for single or multiple users.

The BlueEye™ Mobile uses Bright Sensors' patented MEMS gas viscometer technology combined with other MEMS sensors. Although specifically developed for mobile applications such as commissioning, tuning, periodic maintenance, emission reduction, the device can be as easily used for more permanent measuring purposes.



Main Features

Measurement output:

- Wobbe Index
- Calorific content (HHV & LHV)
- CO₂ concentration
- Density
- Air Fuel Ratio (AFR and SARF)
- Methane Number

Accuracy:

- Pipeline gas typically <1%
- Other gas compositions on request

Maintenance free & reliable

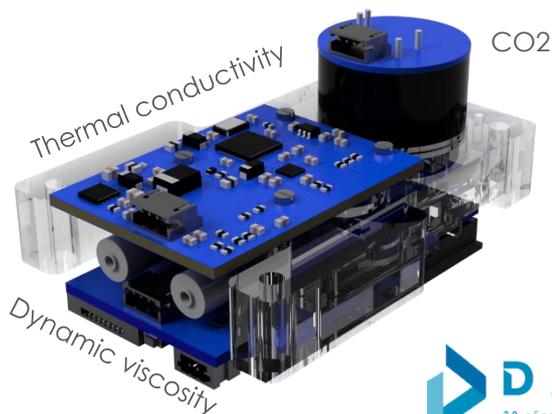
- No moving parts
- No chemical reactions

Fast & continuous measurement

- 7 second Viscosity
- 1 second Thermal Conductivity and CO₂

Other features:

- Waterproof robust enclosure
- Built-in pressure & flow reducer
- Interface: Bluetooth® LE, iOS & Android App
- Charging Power: USB 5V
- Plug-and-play installation
- Easy replacement of sensor unit
- CE, UKCA in progress



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BlueEye™ Mobile Specifications

Measurement	Units	Reference conditions	Calculation method
Wobbe Index (WI)	MJ/m ³ , kWh/m ³ BTU/scf	0°C, 15°C, 20°C, 25°C/101325 Pa. 60°F/14.696 psi	ISO 6976:1995 GPA 2172:2009
Higher Heating Value (HHV)			
Lower Heating Value (LHV)			
Density ρ	kg/m ³ , lbm/scf		
Air Fuel Ratio λ	-	-	Simplified method
Methane Number	-	-	ISO23306 PKI Methane Number
CO ₂ concentration*	mol%	-	-

Accuracy	≤ 1% of reading
Repeatability	≤ 0.2% of reading**
Dynamics	One measurement every 1s, reaction time T90 < 60s

Gas Composition Range					
Methane	70-100mol%	Higher Alcanes	0-1 mol%	Hydrogen	≤ 20 mol%
Ethane	0-20 mol%	Nitrogen	0-20 mol%	Water (Gaseous)	≤ 0.1 mol%
Propane	0-5 mol%	Carbon Dioxide	0-9 mol% (50 mol%)*	Dust, Liquids	Without
Butane	0-3 mol%	Oxygen	≤ 3 mol%	H ₂ S	≤ 0.01 mol%
Addressable range for HHV	8.38 to 12.875 kWh/m ³ (15°C/15°C), 810 to 1245 BTU/scf (60°F/14.696 psi)				
Operating gas temperatures	0 to 50°C, 32 to 122°F				
Operating gas pressures	960 to 1100 mbar, 13.9 to 16 psia				
Flow rate	50 ml/min (+/- 10%), 0.00177 scf/min (+/- 10%)**				

* in combination with CO₂ sensor, **on an unfiltered 1 second cycle measurement, *** flow rate range customizable on request

Electrical and Mechanical Specifications

Interfaces	Bluetooth Low Energy to dedicated iOS and Android App Secure cloud data storage website Serial (USB) to PC/laptop
Supply Voltage	USB 5V, <1W
Dimensions and Weight	180mm x 80mm x 42mm and 0.8kg, 7.08in x 1.65in x 4.92in and 1.76lbs
Gas Connections	2.7mm Single Shut-Off Quick Coupling
Certifications	IP66/EN 60529, CE, UKCA in progress

Environment Conditions

Operating Temperature	0°C to 50°C, 32°F to 122°F
Storage Temperature	-40°C to 70°C, -40°F to 158°F
Environment Humidity	0-95 % Relative Humidity, non-condensing
Burst Pressure	< 250 mbar, < 3.6 psig



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