



AutoSmoke™ Opacity Meter



AutoTest® AutoSmoke Opacity Meter is a compact, lightweight, robust and reliable vehicle smoke analysis tool. Easy to use and maintain, it can be integrated with the AutoTest® AutoGas 4 or 5 gas analyser to provide a comprehensive vehicle emission testing solution.

Test:



Specification

Power: Designed to be powered either in 13.5 VDC, 110 VAC and 230 VAC

Continuous voltage power supply (DC):

- Operating range: 13.5 VDC $\pm 15\%$
- Required power: 65 W

Alternating voltage (AC):

- Operating range: 110-230 VAC $\pm 10\%$ -15%
- Frequency: 50-60 Hz $\pm 2\%$

Effective optical length: 215mm ± 0.5 mm

Tube Preheating time: 3 to 6 min depending on ambient temperature

Resolution: 0.1% or 0.01 m-1

Accuracy: < 1.0% of opacity in the full range

Ambient temperature range for operation: +2 to +40°C

- Humidity: 30% to 90%
- Storage temperature: -32°C to +55°C

Measured gas Temperature: 0-256 C ± 1

Light Source: (LED) spectral peak 560nm ± 10 nm

Light Detector: peak spectral response 560nm ± 10 nm

- N value: Scale range from 0.00 to 99.9%
- K value: Scale range from 000 to 9.99 m-1

Physical response time: < 0.2 sec (10% to 90%)

Electrical response time: 0.9 sec

Unique Specification

- Size: 200 mm x 400 mm x 170 mm
- Weight: 9kg
- Battery operated - built in, rechargeable
- Automatic Zero adjustment and calibration before use
- Automatic adjustment for sooting
- Suitable for diesel engines
- Auto-sleep feature
- Weekly calibration check
- WiFi connected
- PC software controlled

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**Want More Info on
AutoSmoke Opacity Meter?**

Scan the QR code grab more
info from our website

Note: Outer appearance and specifications are subject to change without prior notice



Technical Specification

Measurement Parameters	Range	Resolution	Accuracy	
			Relative	Absolute
CO (Carbon Monoxide)	0 – 15.5%	1 ppm	±3%	±0.03% Vol
CO ₂ (Carbon Dioxide)	0 – 25% Vol	0.1%	±4%	±0.04% Vol
HC (Hydro Carbon)	0 – 20000 PPM	1 PPM	±5%	±10% Vol
O ₂ (Oxygen)	0 – 25% Vol	0.01%	±3%	±0.1% Vol
NOx	0 – 5000 PPM	1 PPM	±4%	±25 ppm Vol
Lambda	0.2 – 2.0	0.001		
AFR	0 – 30%	0.01%		
Oil Temperature	0 – 120°C	1°C		
Engine RPM	600 – 3500 RPM	10 RPM	5%	
Measuring Gas Intake	3 litres/minute			
Leak Test	Electronic			
Condensate discharge	Automatic			
Warm up time at 0°C	<10 minutes			
Zeroing and RPM calibration	Automatic			

Electrical Specification

Operating temperature	+5°C to +45°C
Storage temperature	-20°C to +70°C
Overall machine dimensions, unpacked	W310 x D400 x H210mm
Machine weight, unpacked	9kg

General Specification

AC Power supply	220V to 265V AC, single phase, 50/60 Hz
DC Power supply	11V to 32V DC battery
Power consumption	25 Watt

