



AlcoTrue[®] M Breathalyser

Technical Specification

Principle of measurement		Long life electrochemical sensor with precision intelligent microprocessor sampling system	
Breath sample		Controlled blow volume and time, default 1.2 l	
Measurement modes		Active mode (default) Fast mode (activated) Passive mode (activated) Mouth alcohol mode (if activated) Scanning mode (if activated)	
Measurement range			
Breath alcohol concentration (BrAC)		0.00 to 2.6 mg/l, 0 to 2600 µl, 0.000 to 0.550 g/210L, 0 to 260 µg/100 ml, 0 to 260 µg% (Ethanol mass per breath volume at 34°C and 1013 hPa.)	
Blood alcohol concentration (BAC)		0.00 to 5.50 ‰, 0.000 to 0.550 ‰, 0.00 to 5.50 g/l 0 to 550 mg/100 ml, 0 to 550 mg%, 0.00 to 5.50 mg/ml (Ethanol mass per blood volume resp. mass at 20°C and 1013 hPa)	
This data is given using a conversion factor of 2100:1 between breath and blood alcohol concentrations. Other conversion factors are available upon request.			
Ambient conditions			
Operation		-5 to 50°C (23 to 122°F), 10 to 100 % R.H. (non-condensing), 600 to 1400 hPa	
Storage		-20 to 65°C (-4 to 149°F), 10 to 100 % R.H. (non-condensing), 600 to 1400 hPa	
Measurement accuracy			
Reproducibility with ethanol standard			
0 to 0.476 mg/l	0.008 mg/l	0 to 1‰	0.017 mg/l
> 0.476 mg/l to 1 mg/l	4% of measured value	> 1‰ to 2‰	4% of measured value
> 1 mg/l	8% of measured value	> 2‰	8% of measured value
Sensitivity drift of measured value/month		Typically 0.5%	
Ready for operation		< 6 seconds after switching on	
After completing a measurement in range (breath alcohol unit):		Typically	
	0.00 mg/l	≤ 2 seconds	
	0.25 mg/l	≤ 4 seconds	
	0.50 mg/l	≤ 6 seconds	
	1.00 mg/l	≤ 10 seconds	
	>1.5 mg/l	≤ 15 seconds	
After completing a measurement in range (blood alcohol unit):			
	0.00‰	≤ 2 seconds	
	0.50‰	≤ 4 seconds	
	1.00‰	≤ 6 seconds	
	2.00‰	≤ 10 seconds	
	>3.00‰	≤ 15 seconds	
Applied part (mouthpiece)		Hygienic mouthpiece (Type “S”) with in-built non return valve and water trap	

Calibration required	every 6 months with automatic reminder	
Calibration type	Wet gas (default), dry gas, flow calibration	
Result format and unit	Digital in green/yellow/red and mg/l BrAc (default) or ‰ BAC. Other units/limits can be selected via the authorised service menu.	
Configurable units	µg/l µg/100 ml % g/100 ml mg% P/A/F	g/210 l µg% g/l mg/100 ml mg/ml P/F
Language	Configurable multi-language user menu, English (default) Other available country specific languages e.g. German, French, Spanish, Dutch, Italian, Polish, Serbian can be configured via the authorised service menu.	
Dimensions (W x H x D)	185 mm x 55 mm x 40 mm	
Weight	240g (including Alkaline batteries) 195g (including Li-Poly battery)	
Electrical supply	Internal batteries: 4 x 1.5V Alkaline type (Mignon, LR6, AA) Typ. ≤ 2100 measurements at room temperature (using active mode) Operating temperature: -20 to 65°C Storage temperature: -40 to 65°C or 3.7V, 2200 mAh Rechargeable Li-Poly type Typ. ≤ 2100 measurements at room temperature (using active mode) Charging temperature: 0 to 45°C Operating temperature: -20 to 65°C Storage temperature: -20 to 60°C	
Max power consumption of device by Li-Poly charging	600 mA, 5V DC	
Device interface	USB	
Hardware test procedure	Automatic self-test procedure at device start-up	
Warnings information	Acoustic and visual (configurable) Different sound/colour indication by negative and positive measurement result	
Device adjustments	PIN protected services menu access	
Degree of protection	IP43 (IPX3 protection against spraying water acc IEC 60529)	
Auto power off	After 3 minutes	
Display	1.77" colour display	
Data memory	Up to 35,000 test result measurements with date/time, calibration status	
Standards	EN 60601-1:2005 + Corr 1 (2006) + Corr 2 (2007) EN 55011:2007, EN61326-:2006 EN 60529:1991 +A1:2000	

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Viamed Limited · 15 Station Road · Cross Hills
 Keighley · West Yorkshire · BD20 7DT · United Kingdom
 Tel: +44 (0)1535 634 542 Fax: +44 (0)1535 635 582
 Email: info@viamed.co.uk Website: www.viamed.co.uk



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