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AlcoTrue® M Breathalyser

Technical Specification

Sensor type	Professional Electrochemical sensor	
Sampling systems	High precision sampling system 0.2ml	
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 μ /l, 0.000 to 0.550 g/210L, 0 to 260 μ g/100mL, 0 to 260 μ g% (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/100ml, 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

For operations For storage

-5 to 50°C (23 to 122°F), 10 to 100 % R.H. (non-condensing), 600 to 1400 hPa -20 to 65°C (-4 to 149°F)

Sample conditions Minimal volume

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Adjustable, 1.2L (set as default)

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

After switching on

< 6 seconds

After completing a measurement in range (breath alcohol unit):

Typically

 $0.00 \text{ mg/l} \le 2 \text{ seconds}$ $0.25 \text{ mg/l} \le 4 \text{ seconds}$ $0.50 \text{ mg/l} \le 6 \text{ seconds}$ $1.00 \text{ mg/l} \le 10 \text{ seconds}$ $>1.5 \text{ mg/l} \le 15 \text{ seconds}$

After completing a measurement in range (blood alcohol unit):

 $0.00\% \le 2 \text{ seconds}$ $0.50\% \le 4 \text{ seconds}$ $1.00\% \le 6 \text{ seconds}$ $2.00\% \le 10 \text{ seconds}$ $>3.00\% \le 15 \text{ seconds}$



Calibration required

Permissable calibration range for unit of measuring

every 6 months

value:

mg/l 0.145 to 0.750 mg/l $\mu g/l$ 145 to 750 $\mu g/l$ g/210I 0.035 to 0.150 g/210I μ g/100ml 14.5 to 75 μ g/100ml μg% 14.5 to 75 μg%

‰ 0.35 to 1.50‰ % 0.035 to 0.150% g/I 0.35 to 1.50 g/I mg/100ml 35 to 150 mg/100ml mg% 35 to 150 mg% mg/ml 0.35 to 1.50 mg/ml

Standard calibration value:

mg/l 0.476 mg/l μg/l 476 μg/l g/210I 0.100 g/210I μg/100ml 47.6 μg/100ml μg% 47.6 μg% **%** 1.00% % 0.100% g/l 1.00 g/l mg/100ml 100 mg/100ml

The use of these standard calibration values corresponds to a conversion factor of 2100:1 between breath and blood alcohol concetration values

Units

Available: mg/l (set as default)

‰

Upon request: μg/l

g/210I

μg/100ml (Default for UK + 2300:1)

µg% **‰** % g/l mg/100ml mg% mg/ml P/A/F P/F

Available units can be selected by authorised personnel

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Dimensions (W x H x D)	185 mm x 55 mm x 40 mm
Weight 240g (including Alkaline batteries) 195g (including Li-Poly battery)	
Display	1.77" Colour display
Data memory	Up to 35,000 test result measurements
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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