

BREATH MONITORS

HYDROGEN AND METHANE BREATH MONITORING TO HELP DETECT GASTRO-INTESTINAL DISORDERS

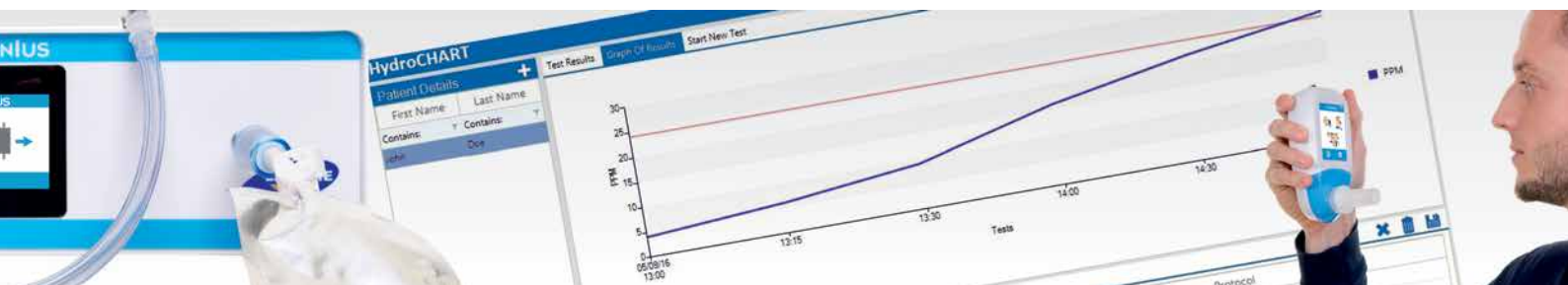


HYDROGENIUS

Compact hand-held hydrogen monitor with multiple patient testing up to 10 patients in one session

GASTROGENIUS

Desktop breath monitor for combined methane, hydrogen and oxygen measurement



HYDROGENIUS

COMPACT, HAND-HELD HYDROGEN BREATH MONITOR

HYDROGENIUS is a breath monitor used for Hydrogen Breath Testing (HBT) and measures hydrogen (H_2) levels in expired breath. It can be used to detect gastro-intestinal disorders like food malabsorption, sugar intolerances and Small Intestinal Bacterial Overgrowth (SIBO) in a non-invasive, patient friendly manner.

HYDROGENIUS is a user-friendly, hand-held monitor that allows automatic testing for up to 10 patients in one session. It can be used without any start up time, gives instant results and has built-in suggested testing protocols and alarms for even more ease of use.

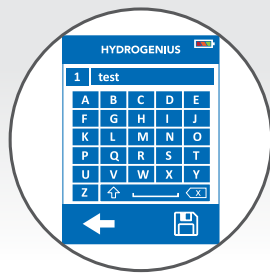


HIGHLIGHTS:

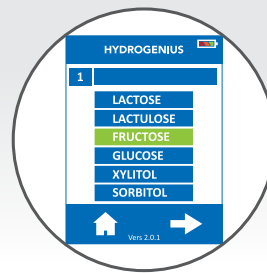
- Easy to use interface
- No start up time and instant results
- Multiple patient testing: measure up to 10 patients at the same time
- Large touch screen
- HYDROCHART™ software enables easy storage, data analysis and report printing
- Built-in suggested test protocols and alarms
- Simple calibration only required every 3 months
- Maintenance reminders



Multiple patient testing



Create and save patient details



Built-in testing protocol



D-Piece



FR
HYDRO
soft

GASTROGENIUS

COMBINED METHANE, HYDROGEN AND OXYGEN MEASUREMENT

The GASTROGENIUS is a portable desktop monitor which measures hydrogen (H_2), methane (CH_4) and oxygen (O_2) levels in expired breath samples in response to appropriate substrates. It helps health professionals to accurately detect gastro-intestinal disorders like food malabsorption, sugar intolerances and Small Intestinal Bacterial Overgrowth (SIBO).



A group of patients does not produce hydrogen and would not be diagnosed by Hydrogen Breath Testing (HBT) alone. By performing Hydrogen and Methane Breath Testing (HMBT) using the GASTROGENIUS misdiagnosis can be prevented for patients, who don't produce hydrogen, but methane or a combination of both. The additional O_2 reading in combination with a real-time traffic light dial and smiley face system helps motivate patients to provide an end-tidal sample. The GASTROGENIUS provides automatic O_2 correction for more accurate results.

HIGHLIGHTS:

- Hydrogen and Methane Breath Testing (HMBT) with instant results
- Breath bag option makes it possible to test multiple patients at the same time
- Breath bag option allows to take samples in a different room or at a different location
- Automatic O_2 correction for more accurate results
- Real-time traffic light dial and smiley face system to motivate patients
- HYDROCHART™ software enables easy storage, data analysis and report printing
- Fast warm up time of only 30 minutes
- Simple calibration only required every month
- Maintenance reminders



Direct Mouthpiece



Breath bag



Facemask



Easy interpretation

TECHNICAL SPECIFICATIONS

HYDROGENIUS

Concentration range	0 - 500 ppm (H ₂)
Display	Full colour touchscreen
Detection principle	Electrochemical sensor
Repeatability	< 5%
Accuracy	± 10%
CO cross interference	< 1%
Sensor operating life	2 years
Sensor sensitivity	1 ppm
Sensor drift	< 2% per month
T ₉₀ response time	≤ 40 seconds
Power	3 x AA (LR6 or equivalent) - up to 1000 minutes 1 x CR2032 Lithium coin cell
Operating temperature	15 - 35 °C (storage/transport 0 - 50°C)
Operating/storage/transport/ pressure	Atmospheric ±10%
Operating humidity	15 - 90% non-condensing (storage/transport 0 - 95 %)
Dimensions & weight	Approx. 37 x 77 x 140 mm Approx. 215 g (including batteries)
Materials	Case: polycarbonate/ABS blend SteriTouch® anti-microbial additive D-piece™: polypropylene



GASTROGENIUS

Concentration range	0-200 ppm (H ₂ & CH ₄) 14-23% (O ₂)		
Power input	230V/100V, 50Hz – 60 Hz, 0.5 – 1.0 A		
Fuse	T 3.15 AH		
Warm-up time	30 minutes		
Calibration frequency	Every 4 weeks		
Display	Full colour touchscreen		
Detection principle	Electrochemical sensor (O ₂ & H ₂) Infrared (CH ₄)		
Accuracy	CH ₄	Resolution	1 ppm
		Accuracy	± 10% of reading
		Repeatability	< 5% difference on consecutive readings
Accuracy	H ₂	Resolution	1 ppm
		Accuracy	± 10% of reading
		Repeatability	< 5% difference on consecutive readings
Accuracy	O ₂	Resolution	0.1%
		Accuracy	± 2.5% of reading
		Repeatability	< 5% difference on consecutive readings
Carbon Monoxide Cross-sensitivity (H ₂ only)	< 1%		
Temperature range	Operating	15-35°C (59° - 95°F)	
	Storage	0-40°C (32° - 104°F)	
Pressure range	Operating	900-1100 mbar	
	Storage	800-1200 mbar	
Humidity range	Operating	30-75% non-condensing	
	Storage	15-90% non-condensing	
Sensor operating life	2 years (O ₂ & H ₂) 5 years (CH ₄)		
Dimensions & Weight	Approx. 474 x 310 x 167 mm Approx. 8kg		
Monitor construction	Case: Aluminium		
Classification	Class I ME equipment: (externally powered) -Type BF applied part - Not suitable for sterilization - Not suitable for use in an oxygen rich environment - Intended for continuous use		
Response time	≤ 45 seconds		
Warranty	2 years (Gastrogenius without sensors) 1 year (O ₂ & H ₂ & CH ₄ sensors)		



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