

ECHO

HandO₂

MANUAL SYSTEM FOR OXYGEN ANALYSIS IN BLISTER PACKS

HandO₂ is used for determination of headspace and dissolved oxygen content in packages. Micro-invasive measurements are enabled by sensor tips smaller than 140 µm. Main application is packaging quality control in pharmaceutical and beverage industry, i.e. measuring oxygen concentration in blister packs, vials, tubes, and other modified atmosphere packaging technology.



ABOUT THE SENSOR

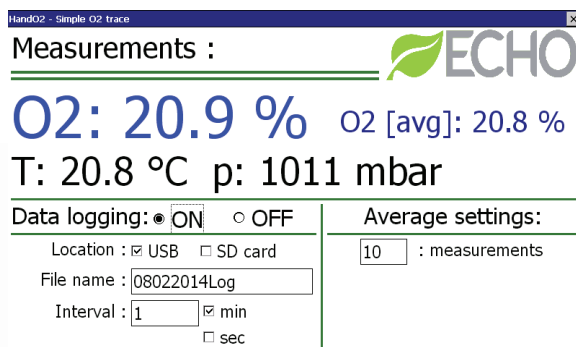
Chemical-optical oxygen sensor is designed for all research and packaging applications where a small tip size (<140 µm) and fast response time ($t_{90}<1s$) are necessary.

The oxygen micro sensor is mounted in needle-type housing for easy application. The instrument is equipped with specially designed needle holder, which is also used for calibration processes.


ADVANTAGES:

- ✔ No need of sample extractions
- ✔ High accuracy & precision
- ✔ No oxygen consumption during measurement
- ✔ Different types of needle for various vials types
- ✔ Pharmapack Software with automatic statistic report
- ✔ IQ & OQ documentation
- ✔ Salinity factor input for different salinity samples in vials
- ✔ Suitable for aqueous solutions, ethanol, methanol

CHARACTERISTICS	TEHNIICAL DATA
Measuring principle	Optical sensor
Measuring range	0-50% O ₂
Accuracy	+/- 3% rel or +/- 0.05% O ₂ , which is greater
Response time	(t ₉₀) 10s
Limit of detection	0.05% O ₂
Operating temperature	5-40°C
Dimensions	180 x 90 x 270 mm
Weight	1 kg
Level of protection	IP 50
Power supply	100V-220V AC/ 50 Hz
Interface	USB, RS485, Ethernet



HandO2 - Simple O2 trace

Measurements : 

O₂: 20.9 % O₂ [avg]: 20.8 %

T: 20.8 °C p: 1011 mbar

Data logging: ☒ ON ☐ OFF

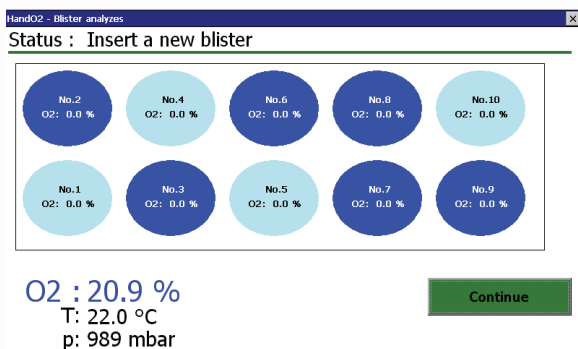
Location : ☒ USB ☐ SD card

File name : 08022014Log

Interval : 1 ☒ min ☐ sec

Average settings: 10 : measurements

Measuring screen



HandO2 - Blister analyzes

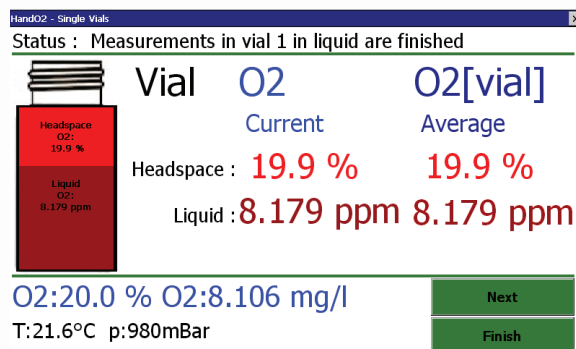
Status : Insert a new blister

No.2 O ₂ : 0.0 %	No.4 O ₂ : 0.0 %	No.6 O ₂ : 0.0 %	No.8 O ₂ : 0.0 %	No.10 O ₂ : 0.0 %
No.1 O ₂ : 0.0 %	No.3 O ₂ : 0.0 %	No.5 O ₂ : 0.0 %	No.7 O ₂ : 0.0 %	No.9 O ₂ : 0.0 %

O₂ : 20.9 %
T: 22.0 °C
p: 989 mbar

Continue

Blister measuring touch screen menu



HandO2 - Single Vials

Status : Measurements in vial 1 in liquid are finished

Vial	O ₂	O ₂ [vial]
	Current	Average
Headspace O ₂ : 19.9 %	Headspace : 19.9 %	19.9 %
Liquid O ₂ : 8.179 ppm	Liquid : 8.179 ppm	8.179 ppm

O₂: 20.0 % O₂: 8.106 mg/l
T: 21.6 °C p: 980 mBar

Next
Finish

Vials measuring

MANUFACTURER

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DISTRIBUTOR

