

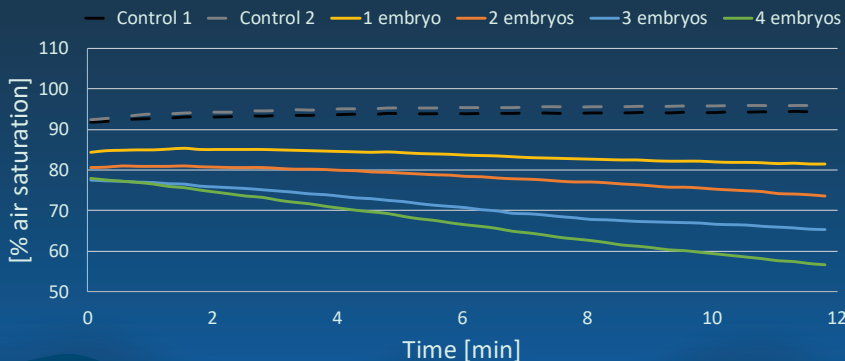
MICROPLATE RESPIROMETRY

High throughput system for measuring respiration rates
in tiny aquatic organisms



REAL DATA EXAMPLE

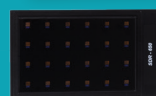
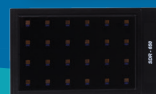
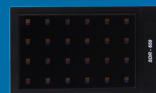
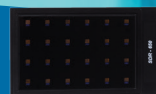
24-HPF ZEBRAFISH EMBRYOS (PER WELL)



Loligo® Systems



Loligo® Systems



FEATURES

- Re-usable 24-well microplates made of borosilicate glass
- Available well volumes: 80, 200, 500, 940 and 1700 μ l
- Optical fluorescence O_2 sensing technology
- Real-time O_2 measurements inside each gas-tight well
- Software for calibration, logging, graphs and statistics
- Connect 1-10 readers to a single PC

SYSTEM COMPONENTS

- 24-channel oxygen reader
- Glass microplate fitted with 24 sensor spots
- MicroResp™ software for Windows
- Splitter and USB cable for PC communication
- Silicone gasket, compression block and guide

MICROPLATE READER SYSTEM	SPECIFICATIONS
Compatible oxygen sensor	Reusable sensor spots
Oxygen channels	24
Power supply	100-240 V AC
Power adaptor	100-240 V AC IN / 18-24 V DC O
Oxygen units	% oxygen saturation, % air saturation, kPa, Torr, mg/L, mmol or ml/L
Measurement range	0-50 % oxygen saturation 0-235 % air saturation 0-50 kPa 0-235 Torr 0-22.5 mg/L 0-700 μ mol 0-22.5 ml/L
Resolution	$\pm 0.4 \% O_2$ at 20.9 % O_2 ± 4 hPa at 207 hPa $\pm 5 \mu$ mol at 283.1 μ mol $\pm 2 \%$ air saturation at 100 % air saturation
Sample interval	From <5 to 60 sec.
Precision	$\pm 1 \% O_2$ at 20.9 % O_2 $\pm 5 \%$ air saturation at 100 % air saturation
Drift at 0 % oxygen (sampling interval 10 min.)	< 0.2 % O_2 within one week < 1 % air saturation within one week
Measurement temperature range	5-45 $^{\circ}$ C
Response time (T90)	< 30 sec.
Compatibility	Aqueous solutions, ethanol, methanol
Cleaning procedures	Ethanol / chlorine solution