



## Model O2CPX – Cardiopulmonary Exercise Analyzer



The Model O2CPX is a table top analyzer used to monitor performance parameters during exercise testing. Breath-by-breath O<sub>2</sub>, CO<sub>2</sub> and flow rate is measured precisely and accurately with internal sensors. Heart rate and pulse oximetry interfaces are compatible with Polar and Nonin accessories. Ambient temperature, humidity and barometric pressure is acquired for precise measurement correction. Our reliable solid state oxygen sensor does not require routine maintenance or factory calibration. Our O2CPX hardware easily collaborates with customer software solutions via USB interface.

### Features

- Oxigraf laser absorption spectroscopy oxygen sensor delivers fast response time and long life
- Non-dispersive infrared CO<sub>2</sub> sensor
- Differential pressure transducer for pneumotach measurement
- Pneumotach interface includes zeroing valve for differential pressure transducer
- Internal sampling pump and built-in proportional valve for precise flow control during breath-by-breath pressure changes
- Sample flows can range from 50-200ml/minute (standard) or up to 350ml/minute (optional)
- Heart rate measurement via a Polar heart rate monitor receiver and HRM transmitter
- Pulse oximetry via a Nonin Xpod SpO<sub>2</sub> cable and ear or finger clip
- Calibration gas control for accurate temporal alignment of the gas and flow measurements using an included valve
- Ambient relative humidity, temperature and barometric pressure measurement
- Serial interface over a USB connection provides a digital solution for data capture and communication
- Easy interface to customer software solutions for cardiopulmonary exercise test measurement and reporting
- Small size and low power consumption
- CE and UL/CSA approval

## Specifications

### Performance

Gas Sample Measurement Range	5-100% oxygen, 0-10% CO2
Resolution	0.01% for O2 and CO2 in digital interface
Stability (4 hours)	O2: $\pm 0.3\%$ (XC mode), $\pm 0.1\%$ (LN Mode) CO2: $\pm 0.1\%$
Response Time (O2)	170ms $\pm 15$ ms @ 150ml/min (10-90%) 100ms $\pm 15$ ms @ 350ml/min (10-90%) (electronic filter 13, using 1 meter sample line with 30 cm Nafion tubing)
Response Time (CO2)	190ms $\pm 15$ ms @ 150ml/min (10-90%) 140ms $\pm 15$ ms @ 350ml/min (10-90%)
Sample flow rate	50-200ml/min adjustable (flow up to 350ml/min requires alternate proportional valve)
Pneumotach Pressure Sensor	At 1 liter/sec flow, RMS noise of $\pm 0.003$ l/s
Humidity Sensor	0-100% RH
Ambient Temperature	-10 to 50°C
Barometric Pressure	Measures 500-1150 mbar

### Electrical

Power 100-230VAC, 50/60 Hz, 30 watts maximum (12VDC 1.5A typical)

### Mechanical

Width x Height x Depth	7.5 inches (190 mm) x 3.0 inches (76 mm) x 9.2 inches (234 mm) WxHxD
Weight	Instrument 4.5 pounds (2.0 kg), power module 1.5lbs (0.7 kg)

## Model O2CPX–

Oxigraf Model O2CPX, Cardiopulmonary Exercise Analyzer, P/N 07-0464

(includes power supply and cord, USB type B to A cable, and ambient environment sensor probe)

### Options and Accessories:

Polar HRM Coded Receiver, P/N 07-0478

Polar H1 Transmitter ;P/N 07-0479

Polar HRM Strap, P/N 07-0480

Nonin Xpod SpO2 Cable, P/N 07-0473

Nonin finger clip, P/N 7001-0241

Nonin ear clip, P/N 7001-0242

High Flow proportional valve (contact Oxigraf)

Optional Pneumotach, sample tubing, calibration gasses , and regulators (contact Oxigraf)

Oxigraf has a comprehensive sales, service and engineering design and support team at our facility in Sunnyvale, California. Please feel free to contact us with your applications and requirements and let us serve you.



238 East Caribbean Drive, Sunnyvale, CA 94089 USA

Phone: 650-237-0155

E-mail: [kona.sales@oxigraf.com](mailto:kona.sales@oxigraf.com)

Website: [www.konacpx.com](http://www.konacpx.com)