

## **Technical Specifications**

### **PNOE device (main unit)**

Dimensions	72mm (W) x 78mm (D) x 108mm (H)
Weight	410g

### **PNOE device (flow sensor unit)**

Dimensions	93mm (W) x 48mm (D) x 45mm (H)
Weight	110g

### **Flow Sensor**

Sensing method	MEMS Mass Air Flow Meter
Range	±500 L/min
Accuracy	for flow range > 12.5% of full scale: ±1% of measured value for flow range < 12.5% of full scale: ± 1.25 L/min
Resolution	0.015 L/min
Response time	< 45 ms (from 50 to 450 L/min)

### **Oxygen Sensor**

Sensing method	Electrochemical O <sub>2</sub> sensor
Range	1 - 100% O <sub>2</sub>
Accuracy	< 1% of measured value
Resolution	0.1%
Response time	< 130 ms (10–90% OS step change)

### **Carbon Dioxide Sensor**

Sensing method	Non-dispersive infrared (NDIR) absorption CO <sub>2</sub> sensor
Range	0 - 20% CO <sub>2</sub>
Accuracy	±70 ppm +/- 5% of measured value
Resolution	10 ppm
Response time	< 250 ms (from 0 to 5% CO <sub>2</sub> )

### **Measured parameters**

V <sub>O2</sub>	[ml/min]
V <sub>CO2</sub>	[ml/min]
RER	
Ventilation (VE)	[L/min]
Tidal Volume (VT)	[L]
Breathing Frequency (BF)	[bpm]
FeO <sub>2</sub>	[%]
FeCO <sub>2</sub>	[%]
FetO <sub>2</sub>	[%]
FetCO <sub>2</sub>	[%]

### **Maintenance Cost**

- Nafion drying tube replacement cost: \$95 plus shipment every 4-6 months depending on usage.
- Oxygen sensor replacement cost: \$500 plus shipment every 2 years