



HAND-HELD ULTRASONIC OXYGEN ANALYZER User Instruction

Model: RP-01

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1 Introduction

1.1 Purpose

The RP-01 is a rechargeable meter. It is used for the percentage determination of the oxygen content, the flow measurement at the outlet of oxygen concentrators and for the pressure measurement of non-aggressive gases.

1.2 Functional description

The RP-01 is used for oxygen concentration and flow measurement. This sensor does not need to be recalibrated, however we recommends conducting a metrological check once a year.

The oxygen concentration measurement is based on the different sound propagation times in oxygen and nitrogen. For the flow measurement, different sound propagation times in the flow direction and against the flow direction are evaluated.

The pressure measurement is carried out by means of a pressure measuring cell.

1.3 Important instructions for use and safety

Do not calibrate the RP-01 with 100% oxygen!

The RP-01 and all accessories that come into contact with oxygen should be kept free of oil and grease.

The RP-01 should be protected from moisture.

Smoking, fire are prohibited during use.

If the device has been stored at temperatures below 5 ° C, the device must adjust to the room temperature, otherwise malfunctions may occur. Only measure at room temperature.

2 operation

2.1 Switching on the device

Before switching on for the first time, the RP-01 should be charged using a charger. To do this, connect the charger and the RP-01.

To switch on, press the POWER key.



2.2 Display Modes

1. Press the Power button. Turn on the oxygen analyzer;
NOTE: After turn on the analyzer, if you don't use, it will turn off after approximately 3 minutes automatically. It can save power;
2. The LCD shows HELLO , After 8 seconds it will show C-21.0;
3. After you turn on the machine, If nothing shows in LCD, it may be out of power. try to connect to the DC power supply;
4. You can press the MENU button to select oxygen concentration , flow or pressure detection;
5. After you press the LED button, the backlight will light up, press again to close;

DISPLAY	MEASURES	UNIT
F	Oxygen flow	lpm
C	Oxygen concentration	%
P	Pressure	Kpa

2.3 Flow/ concentration measurement

Connect the outlet of the oxygen concentrator to the Flow/Oxygen port.

After switching on, the display shows the current oxygen concentration/ Flow numerically.

Please note that for most oxygen concentrators it is only 10 minutes after switching on the device that a precise concentration measurement can be carried out.

Oxygen concentrator and the RP-01, no humidifier may be connected.

2.4 Pressure measurement

For pressure measurement, the pressure line must be connected to the pressure port on the RP-01.
The pressure can be displayed in Kpa.

2.5 Battery Charging

When the battery icon is flashing, it indicates that it is charging.

3 Technical data:

OPERATIONAL	
Flow:	
Range:	0 to 10.0 L/min
Input:	PSA oxygen concentrator output only
Resolution:	0.1 L/min
Accuracy:	± 5% F.S. (± 0.2 L/min.)
Concentration:	
Range:	21% to 95.6% O ₂
Input:	PSA oxygen concentrator output only
Resolution:	0.1 %
Accuracy:	± 1.5%
Pressure:	
Range::	0-100Kpa
Resolution:	1Kpa
Accuracy:	±1%FS
Temperature:	+5°C to +55°C
Display:	LCD
power supply	12V 1A
Battery:	3150mAh
Quality Assurance:	24 month
Specifications:	Weight: 300g Width: 9.5 cm Length: 17.6 cm Length Including Inlet Fittings: 19.5 cm Thickness: 3.5 cm

4 NOTE:

- 4.1The RP-01 must not be used to monitor life support systems.
- 4.2The oxygen concentration measurement may only be performed in an oxygen-nitrogen gas mixture (e.g., oxygen concentrator).
- 4.3Before detecting, please take off the humidifier bottle.
- 4.4Battery can be charged