

RespiCal

Calibration Analyser



For more than a decade, health care professionals have depended on the RT 200 for day-in-day-out performance. Today, the workhorse RT200 has a worthy successor- The **RespiCal** by Allied Healthcare. It offers so many new applications; it represents more of a revolution than an evolution.

Consider how the new enhanced capabilities of the RespiCal can help you in your task of providing equipment that is tested and ready to use without expensive down time or the need to relocate.



The unit is totally portable and weighs only 4.7 kg

In Stand alone mode the RespiCal can measure pressures, flows, volumes, barometric pressure, gas concentration and voltage from many devices.

The user can review up to three measurements simultaneously. Plus, the operator uses only four keys to control the unit.



The **RespiCal** can plug into a PC above a 486 with a RS-232 socket running Windows 95 or 98 operating system.

When connected to a PC running the provided software it will display any two real time measurements simultaneously. High pressure, low flow, low pressure, high flow, gas concentration percentage or 0 to 10 volt external input or medical breath calculations.

When connected to a PC all information can be documented and stored electronically for reference or record keeping.

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The **RespiCal** comes complete with manual, power cord, software, small bore hoses, "T" pieces, filter, adaptors and computer RS 232 cable.

Other accessories available are Hard Plastic water tight transport case, additional large bore hoses, DISS nuts and tail pieces plus Australian Diameter indexed hoses and fittings.

RespiCal gives biomed professionals a uniquely valuable tool to increase productivity and effectiveness.

- Pressure measurements with three pressure transducers, including barometer reading 10 to 18 PSO, low pressure of -120 to +120 cm H₂O and pressures from 0 to 100 PSIG,
- Flow measurements with two mass flow sensors, one for high and one for low measurements of Oxygen Nitrogen and Air,
- Software converts units to standard temperature and pressure (STP), ambient temperature and pressure (ATP) and body temperature and pressure saturated with water (BTPS),
- Tidal volume measurements of a ventilator or similar device are updated every other breath,
- Breaths per minute, inspiratory time, expiratory time and I:E ration are updated every other breath,
- Analogue voltages measured from 0 to +10 volts,
- Operator-set digital filter with three settings to smooth signal transitions on pressure and flow meters,
- Analogue signal output proportional to the selected pressure, flow or analogue voltage device. Output scaled to provide a 0 to + signal and
- Displays of gas temperature that allows the operator to compensate for temperatures in 1 degree increments.

Function	Lower Limit	Upper Limit	Accuracy	Response Time	Maximum Pressure
Low Flow	0.1 LPM	25 LPM	± 2.0% reading 10 to 25 LPM ± 4% reading or .1 LPM 0.1 to 10 LPM	30 ms	N/A
High Flow	25 LPM	240 LPM	± 2% reading 25 to 250 LPM	30 ms	N/A
Volume	0 L	20 L	± 5% reading or 20ml	N/A	N/A
Low Pressure	-120 cmH ₂ O	120 cmH ₂ O	± 0.75% FS from 12-120 cmH ₂ O ± 1% FS from 0-12 cmH ₂ O	10 ms	20 PSID
High Pressure	0 PSI	100 PSI	± 0.75% FS from 10 to 100 psi ± 1.0% FS from 0 to 10 psi	10 ms	150 PSID
Oxygen	0%	100%	± 2% FS	12 sec	N/A
Barometer	10 PSIA	18 PSIA	± 0.75% FS	10 ms	60 PSIA
Auxiliary Input	0 Volts	10 Volts	± 1% FS	10 ms	N/A
Analog Output	0 Volts	10 Volts	± 1% FS	10 ms	N/A
Digital Inputs	0 Volts	24 Volts	N/A	10 ms	N/A

Flow Response Time is to be no less than 30 ms to within 63% of the final reading. The pressure drop across the flow sensors is to be no greater than 20 cm H₂O at 200 LPM.