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# RespiCal™

*Calibration Analyzer*



*Building on the RT 200's time-tested dependability, the RespiCal™ delivers vastly expanded capabilities that mean better patient care, greater flexibility and easier operation.*

For more than a decade, health care professionals have depended on the RT 200 for day-in-day-out performance. Today, the workhorse RT 200 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 and enhanced capabilities of the RespiCal™ can help you deliver better care, more effectively and productively than ever before possible.

- Stand-alone operation or use with a Windows 95® personal computer.
- Both numeric and graphic displays of any two real-time measurements — simultaneously. High pressure, low pressure, high flow, low flow, oxygen percentage or 0 to 10V external input.
- All information can be documented and stored electronically for monitoring and record-keeping.
- In stand-alone mode, RespiCal™ can measure pressures, flows, volumes, barometric pressure, oxygen concentration, breath calculations and voltages from many devices. The user will be able to review up to three measurements simultaneously. Plus, the operator uses only four keys to control the unit.

### New Capabilities

- Transportable (10 lbs.)
- Displays any two of high pressure, low pressure, high flow, low flow, oxygen percentage or 0 to 10V external input
- Real-time graphing
- Continuous storage for monitoring and record-keeping
- Automatic oxygen concentration measure
- Automatic calibration date tracking
- Adjustable trigger levels/Selectable trigger source
- Adjustable sample rate
- Single burst or continuous reading
- Integration of flows to measure volumes
- Able to display min, max and average values
- Multiple pressure and flow units of measure in English and metric units
- Calibration traceable to NIST standards

### Dimensions

- Width: 26 cm (10.2")
- Height: 16 cm (6.3")
- Depth: 26.5 cm (10.4")
- Weight: 4.5 kg (10 lbs.)

### Gas Compatibility

- Oxygen, Nitrogen, Air, and mixtures of these gases

### Electrical Requirements

- 115/230 VAC, 50/60 Hz

### Classification

- UL3101-1 and IEC 1010-1

### Operating Conditions

- Indoor use only; Altitudes up to 2000 m; Temperature 5° to 40° C; Maximum relative humidity 80% for temperatures up to 31° C decreasing linearly to 50% relative humidity at 40° C.

*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 PSI, low pressures of -120 to +120 cm H<sub>2</sub>O 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 ratio are updated every other breath.
- Analog voltages measured from 0 to +10 Volts.
- Operator-set digital filter with three settings to smooth signal transitions on pressure and flow meters.
- Analog signal output proportional to the selected pressure, flow or analog voltage device. Output scaled to provide a 0 to +10 Volt signal.
- Display of gas temperature that allows the operator to compensate for temperatures in 1 degree increments.

ventilators  
RespiCal™ offers  
regulators  
real-time graphing and full  
documentation in a user-  
friendly calibration analyzer  
for the 21st Century.  
flow meters



# The RespiCal™

Allied Healthcare Products, Inc. is committed to quality products and their optimum performance. We offer complete training and certification that enables you to maximize the use of this product.

*Broader applications than ever before for today's biomedical professionals.*



Part Number	Description
T300	RespiCal™ Calibration Analyzer (Includes software, operator's manual, power cord, RS-232 cable, accessory kit and filter adapter)

Part Number	Accessories
T300-A	RespiCal™ PC Software
T300-B	RespiCal™ Operator's Manual
T300-C	AC Power Cord
T300-D	RespiCal™ RS-232 Cable
T300-E	RespiCal™ Accessory Kit
T300-F	RespiCal™ Filter Adapter

## instrument specifications

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 <sub>2</sub> O	120 cmH <sub>2</sub> O	± 0.75% FS from 12-120 cmH <sub>2</sub> O ± 1% FS from 0-12 cmH <sub>2</sub> 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 H<sub>2</sub>O at 200 LPM.*



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