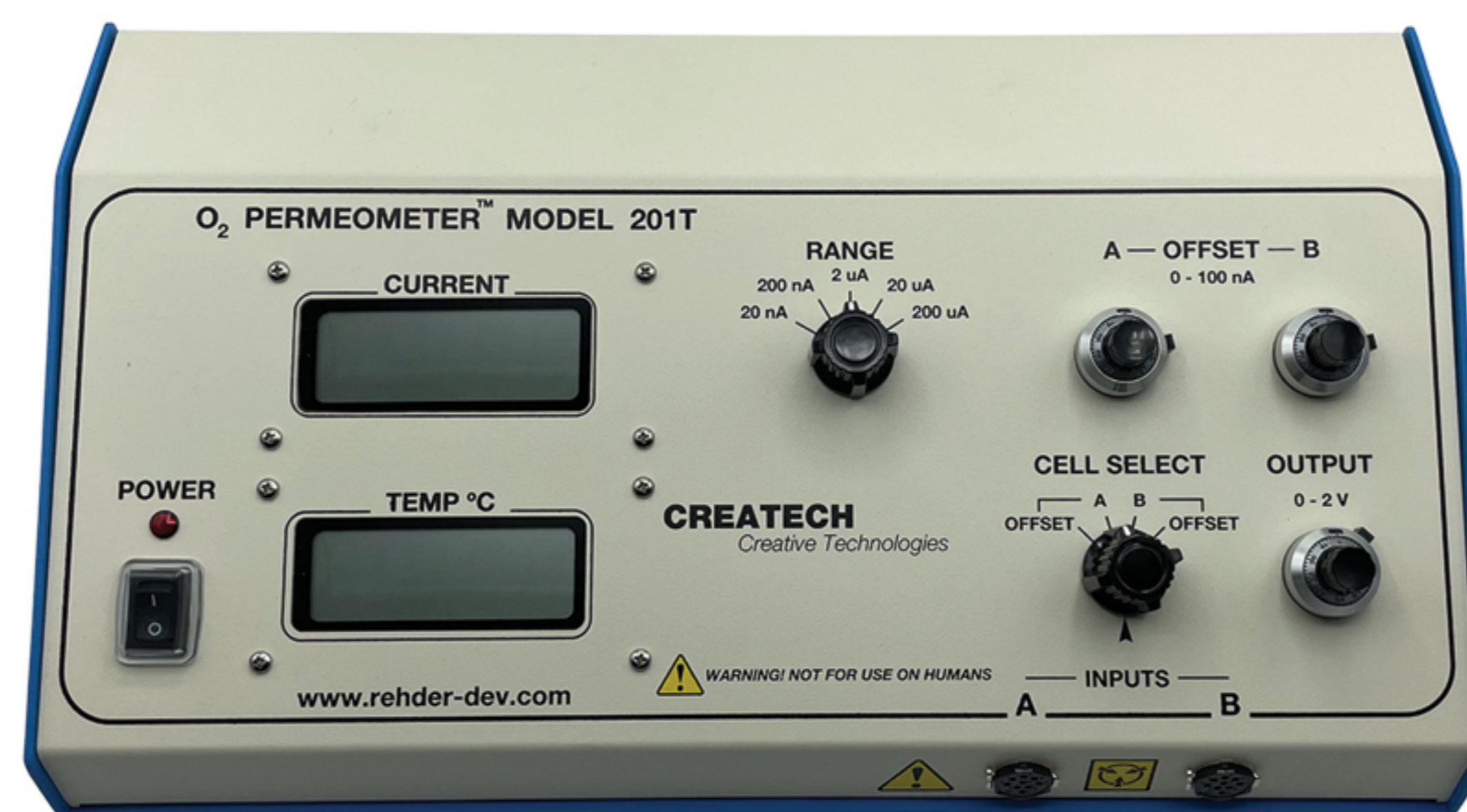


# 201T O<sub>2</sub> Permeometer for Contact Lenses



## INDUSTRY STANDARD

This is the standard instrument used throughout the contact lens industry, world wide, for measuring oxygen permeability of soft lenses. The instrument has a range of 1000 microns and reads out in one micron increment.

## RS-232 Interface

The 201T come with a RS-232 interface. This allows the user to collect current and temperature reading via a PC based computer.

## Software

Please ask about the 201T PM32 Data Acquisition package.

This is the standard instrument used throughout the contact lens industry, world wide, for measuring oxygen permeability of hard and soft lenses. The Model 201T Permeometer is the most advanced contact lens Oxygen polarographic amplifier system available. Designed to be used with Rehder Development Co. SSTS Polarographic Cells fitted with solid state temperature sensors, the 201T Permeometer provides a stable excitation voltage and simultaneously displays cell current and temperature on easy to read 3 1/2 digit displays. The Permeometer with Rehder SSTS cells is designed to meet the specifications of ISO18369.

The display can be switched between two cell inputs allowing one cell to decay while the other is being read. Other cells (such as Schema Versatae) can be used but the temperature of the cell will not be displayed. State-of-the-art design has eliminated the "zero" and "calibrate" knobs associated with other instruments. Zeroing and calibrating the display when switching from one current range to another is no longer necessary, increasing measurement speed and reducing possible errors.

The current is displayed in nano amps or micro amps depending on which range is selected and the temperature is displayed directly with a resolution of 0.1 degrees centigrade without the use of look up tables.

- The Model 201T, O<sub>2</sub> Permeometer is a highly specialized instrument, primarily used by contact lens manufacturers and researchers.
- The 201T is designed to accurately measure the oxygen permeability of soft contact lenses and other soft materials.
- The instruments are built to perform with the highest degree of precision and with the highest degree of reliability possible.
- The instruments when used in conjunction with the Createch/Rehder Dev Co. SSTS Polarographic Cells will provide reliable service for many years.

Short circuit proof chart recorder outputs are provided for both cell current and temperature. The analog output for cell current is adjustable from 0 to 2 volts full scale to maximize the resolution of the chart display.

The RS-232 computer interface and optional Windows compatible software allows the user to gather current and temperature data and perform statistical analysis. Data is plotted in a graphic window eliminating the need for a separate chart recorder. Data files can also be exported to other programs such as a spreadsheet or database.

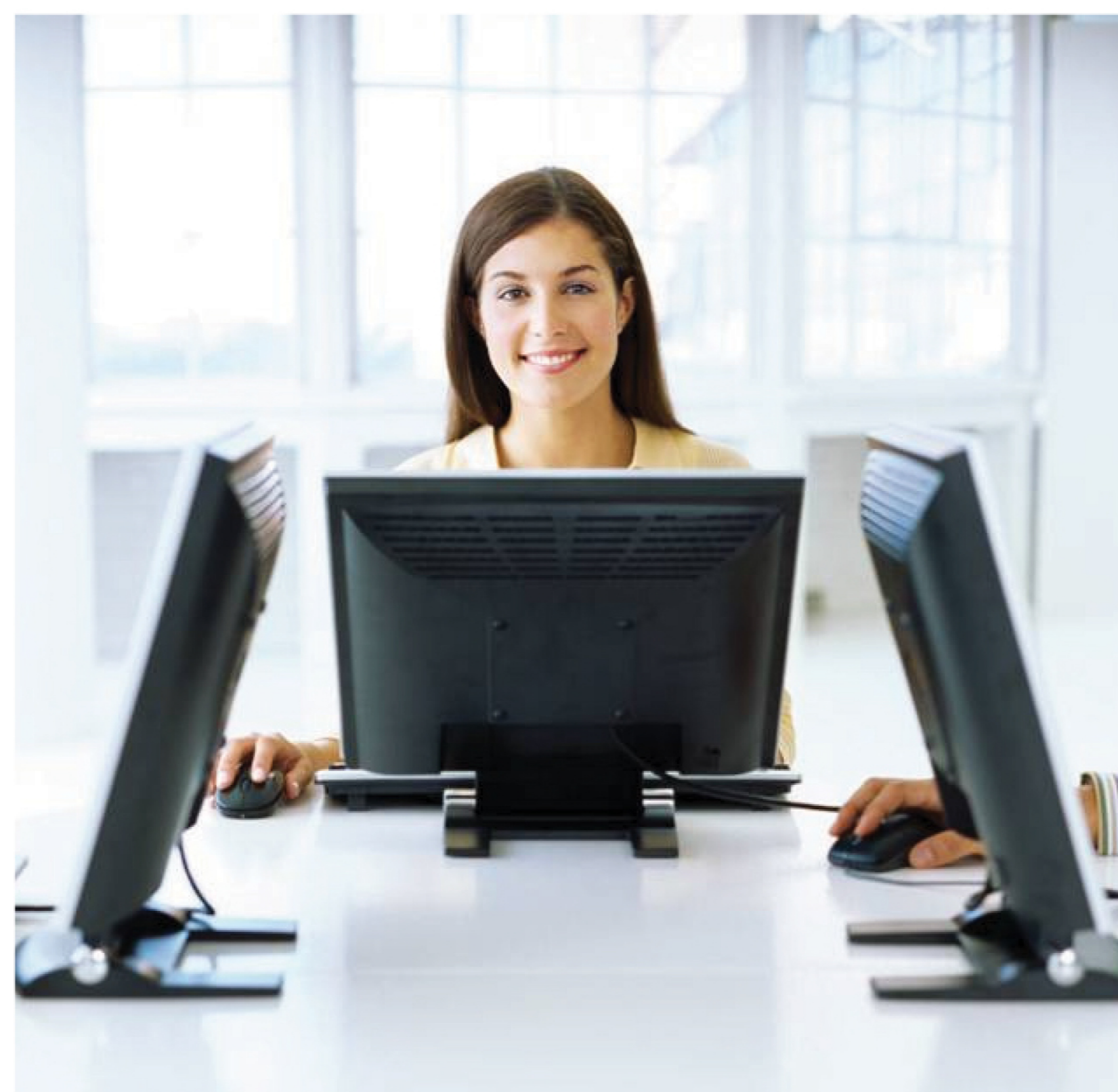
Other unique features of the Model 201T Permeometer are the calibrated current offset controls for each cell. Once adjusted, the dark current for each cell is subtracted from the cell current and the result displayed. This dark current offset compensation remains constant when the range is changed. If no offset is desired the control can be set to "0".

The 201T has a long record of reliability and is "CE" certified. Test modules are available to quickly verify proper operation and calibration.



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# Technical Specifications and Options



## Technical Specifications:

### Current Section:

Range	Full Scale Reading	Resolution
20nA	19.99nA	10pA
200nA	199.9nA	100pA
2 $\mu$ A	1.999 $\mu$ A	1nA
20 $\mu$ A	19.99 $\mu$ A	10nA
200 $\mu$ A	199.9 $\mu$ A	100nA

Accuracy: .5% of reading plus, plus/minus 1 count.  
Cell Excitation Voltage: .750 VDC.  
Current Offset: 0 to -100nA, calibrated 10 turn dial per cell.  
Chart Recorder Output: Adjustable, 0 to 2 volts full scale.

### Temperature Section:

Range: 0.0 to 50.0 degrees centigrade with Rehder cells.  
-55.0 to 100.0 degrees centigrade with universal probe.  
Resolution: 0.1 degrees centigrade.  
Accuracy:  $\pm$  0.2 degrees centigrade.  
Chart Recorder Output: 10mV/degree centigrade.

### General:

#### Readouts:

3 1/2 digit LCD displays .75" high.  
Requires room light for viewing.  
1999 full scale. 3 readings / second.

#### Inputs:

Cell A and B - Amphenol 9 pin 126 series gold plated connectors.

#### Outputs:

Cell current and temperature - 1/4" phone jacks, <1K ohms output impedance.

#### Controls:

Current Range Switch  
Cell Select Switch  
Power On/Off  
Chart Output Adjust  
Offset Current Adjust for A and B.

#### Outside Dimensions:

14" wide, 7 1/2" deep, 4" high. Sloped front.

#### Power.

105 to 125 VAC or 210 to 250 VAC, 50-60 Hz, 5W max.  
(Specify line voltage and power cord type when ordering)

## TECHNICAL SUPPORT

The 201T is a well built instrument but if you encounter technical issues

Createch/Rehder Dev Co offer full technical support.

## ZERO DOWNTIME

The 201T provides years of trouble free use. These units have been operating in labs worldwide for over 20 years

## TURNKEY SOLUTIONS

We offer a complete line of contact lens testing solutions such as the ET-3 Electronic Thickness Gauge and industry standard Polarographic Cells.

For more information on any of our products or services please visit us on the Web at:

[www.CreatechRehder.com](http://www.CreatechRehder.com)

## OPTIONS AVAILABLE

PM32 Data Acquisition Software  
Test Modules for Calibration Check  
Standard SSTS Polarographic Cells  
Custom SSTS Polarographic Cells  
needs. Ask for Quote.

## SERVICES AVAILABLE

Installation and Setup  
Maintenance  
Application Support  
Hardware Support  
Guaranteed Warranty



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