

# PTR Refractometers

## incorporating electronic

## temperature control by peltier cell

- Accurate temperature control without a thermocirculator
- Wide range RI - 1.32 to 1.68, Brix 0 to 100
- Resolution up to 0.00001 RI, 0.01 Brix
- Temperature range up to 50°C
- Touch screen display
- **Wide choice of built-in scales:** Refractive Index, Brix, Temperature Corrected Brix, Butyro, HFCS Sodium Chloride, Baumé, Alcohol, Specific Gravity, Urea, user programmable scales
- Bluetooth, USB and RS 232 protocol outputs
- Stores over 1000 test results
- Full GLP capability
- Simple to use



# Technical Specification

	PTR 300	PTR 300X
<b>Range:</b>	RI 1.32 to 1.68, Brix 0 to 100% <i>(both models)</i>	
<b>Readability:</b>	0.0001 RI, 0.1 Brix	0.00001 RI, 0.001 Brix
<b>Scales:</b>	Refractive Index (RI), Brix, Temperature Corrected Brix, Butyro, Sodium Chloride, HFCS, Baumé, Alcohol, Specific Gravity, Urea or 'Add Blue', user programmable scales	
<b>Wavelength:</b>	Sodium Yellow 589 nm	
<b>Readout time:</b>	Variable from 1 to 3 seconds, continuous update or single scan with user programmable delay time or SPECIAL FEATURE read only when stable	
<b>Special features:</b>	Set upper and lower warning limits Average and standard deviation of readings	
<b>Memory storage:</b>	> 1000 test results	
<b>Temperature control:</b>	Internal electronic control by Peltier cell	
<b>Temperature stability:</b>	$\pm 0.015^{\circ}\text{C}$	
<b>Temperature accuracy:</b>	$\pm 0.05^{\circ}\text{C}$ at $20^{\circ}\text{C}$ , thermometer resolution $0.01^{\circ}\text{C}$	
<b>Sample temperature control range:</b>	$15^{\circ}\text{C}$ to $50^{\circ}\text{C}$	
<b>Working ambient temperature range:</b>	$10^{\circ}\text{C}$ to $30^{\circ}\text{C}$ PTR will control without assistance $10^{\circ}\text{C}$ below ambient to $20^{\circ}\text{C}$ above ambient	
<b>Temperature control assistance:</b>	Available as an option for control assistance by flowing water (need not be temperature controlled)	
<b>Display:</b>	Full colour programmable touch screen display	
<b>Light source:</b>	LED	
<b>Prism material:</b>	Synthetic Sapphire	
<b>Outputs / Inputs:</b>	Bluetooth, USB, RS 232, 1 x remote	
<b>Data output available:</b> (user selectable)	Scale, reading, temperature, time date, serial no., sample number, up to 6 user specified GLP* identifiers, average standard deviation	
<b>Power requirements:</b>	<b>86 to 265V AC, 47 to 63 Hz, &lt;30 watts</b>	
<b>Dimensions:</b>	Refractometer: 258 x 290 x 160 mm Power supply: 80 x 180 x 60 mm	
<b>Weight:</b>	Refractometer: 5.7 kg Power supply: 0.8 kg	
<b>Packed weight:</b>	Approximately 10 kg	

\* Good Laboratory Practice

All sizes and weights are approximate. Due to continuing research and technical advances, we reserve the right to alter specifications of any of the products in this leaflet.