

# VEE GEE

## Digital Refractometers

**±0.1%**  
Digital Accuracy  
For Brix!

VEE GEE ANALYTICAL INSTRUMENTS  
**1**  
YEAR  
WARRANTY

### PDX-Series Models

- **Top-Level Features In A Palmtop Design**
- **High Accuracy & Wide Ranges**
- **Brix & Refractive Index Scales On All Models**

VEE GEE® PDX-Series Digital Refractometers perform at the highest level available in a portable digital design. All models are exceptionally simple to operate, are loaded with high-end features and functions, and provide fast and highly accurate results for liquid solids testing.








**Easy to Use.** Operation consists of placing 1 or 2 drops of a sample on the prism and pressing the READ/ENTER key; within 1 second, the reading is shown on the extra-large LCD display. With one push of the ZERO/CALIBRATE button, ALL units calibrate with distilled water. Oil standards are no longer required for calibration.

**Automatic.** The LED light source detects the refractive index (nD) of the sample, the thermo-sensor detects current prism temperature, and the result is calculated and quickly displayed in the selected scale on the LCD readout.

**Durable.** All PDX-Series models feature rugged construction to provide years of reliable use. The water resistant design allows them to be used in humid or harsh conditions; the stainless-steel sample well stands up to even corrosive samples.

**LCD Display.** The extra-large, menu-driven LCD displays the current reading, prism temperature level (°C or °F), current scale, ATC setting, high-low limits, and battery level.

**Keypad.** Constructed of ultra-durable Lexan® material, the color-coded keypad features large buttons and a water-resistant design. The 7-button design provides one-push operation for nearly all of the features.

	<b>Read/Enter.</b> One press provides quick and accurate readings. Used as the ENTER key in menu mode.
	<b>Temperature Display.</b> Toggles the temperature scale between °C and °F. Used as a cursor key in menu mode.
	<b>Automatic Temperature Compensation.</b> Activates and deactivates the ATC function. Used as a cursor key in menu mode.
	<b>High-Low Limits.</b> Sets the high and low reading limits. Also functions as the Y/N key in menu mode.
	<b>Zero/Calibration.</b> One press zeroes/calibrates the unit. To eliminate accidental calibrations, the key must be pressed for 3 seconds.
	<b>Multiple Scales.</b> Switches the refractometer through the Brix, Refractive Index (nD), and Salinity (Model PDX-1) scales.
	<b>On/Off.</b> Power key. Battery-saving, auto-off function powers the refractometer down after 3 minutes of non-use.

**Optoelectronics.** Optical glass prism with thermo-sensing unit detects prism temperature at reading; the 2048 pixel linear sensor drives highly accurate results.

**Sample Well.** High-polish, stainless steel material allows all samples to be quickly removed and cleaned from the prism area.

**Compact & Portable.** The small size and battery power (9V) of the PDX-Series models allow them to be used anywhere...the field, plant, or lab.

**Professional Features.** High-Resolution (2048 pixels) linear CCD sensor; extra-large, menu-driven LCD display; push-button operation; real-time prism temperature display in either °C or °F; Brix and Refractive Index (nD) scales on all units, automatic temperature compensation (with ON/OFF) function, power auto-off function; battery-level indicator.

**Custom High & Low Limits.** Allows users to automatically monitor the readings of samples by individually setting high and/or low limit values. If a reading falls above or below the set values, the red LED and the high or low limit LCD indicators flash until a key is pressed.

**Supplied With:** Storage Case (1), Carrying Case (1), Prism Cover (2), Plastic Transfer Pipet (1), 9V Battery (1), Instruction Manual (1).



Model PDX-95

# VEE GEE PDX-Series Specifications

	Model PDX-1	Model PDX-2	Model PDX-3	Model PDX-95
<b>Measuring System:</b>	Optical Refraction Critical Angle Detection	Optical Refraction Critical Angle Detection	Optical Refraction Critical Angle Detection	Optical Refraction Critical Angle Detection
<b>Measuring Range</b>	<b>Brix :</b> 0.0-45.0% <b>R.I. :</b> 1.3330-1.4098 nD <b>Salinity:</b> 0.0-28.0%	28.0-65.0% 1.3800-1.4535 nD --	60.0-92.0% 1.4400-1.5230 nD --	0.0-95.0% 1.3330-1.5320 nD --
<b>Resolution</b>	<b>Brix :</b> 0.1% <b>R.I. :</b> 0.0001 nD <b>Salinity:</b> 0.1%	0.1% 0.0001 nD --	0.1% 0.0001 nD --	0.1% 0.0001 nD --
<b>Accuracy</b>	<b>Brix:</b> ±0.1% <b>R.I. :</b> ±0.0001 nD <b>Salinity:</b> ±0.1%	±0.1% ±0.0001 nD --	±0.1% ±0.0001 nD --	±0.1% ±0.0001 nD --
<b>High-Low Limit Resolution</b>	<b>Brix:</b> 0.1% <b>R.I.:</b> 0.0001 nD <b>Salinity:</b> 0.1%	0.1% 0.0001 nD --	0.1% 0.0001 nD --	0.1% 0.0001 nD --
<b>Temperature Compensation:</b>	5 to 35°C	5 to 35°C	5 to 35°C	5 to 35°C
<b>Ambient Temperature:</b>	5 to 35°C	5 to 35°C	5 to 35°C	5 to 35°C
<b>Measuring Temperature:</b>	5.0 to 35.0°C	5.0 to 35.0°C	5.0 to 35.0°C	5.0 to 35.0°C
<b>Measuring Time:</b>	1.0 Seconds	1.0 Seconds	1.0 Seconds	1.0 Seconds
<b>Sample Type:</b>	Transparent, Translucent, & Opaque	Transparent, Translucent, & Opaque	Transparent, Translucent, & Opaque	Transparent, Translucent, & Opaque
<b>Sample Quantity:</b>	>0.1ml	>0.1ml	>0.1ml	>0.1ml
<b>Zero Calibration Liquid:</b>	Distilled Water	Distilled Water	Distilled Water	Distilled Water
<b>Display:</b>	LCD	LCD	LCD	LCD
<b>Measuring Light Source:</b>	LED	LED	LED	LED
<b>Sensor:</b>	Linear High-Resolution CCD	Linear High-Resolution CCD	Linear High-Resolution CCD	Linear High-Resolution CCD
<b>Prism:</b>	Optical Glass	Optical Glass	Optical Glass	Optical Glass
<b>Sample Well:</b>	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel
<b>Power Requirements:</b>	9V Battery (1)	9V Battery (1)	9V Battery (1)	9V Battery (1)
<b>Auto-Off Mode:</b>	>3.0 Minutes Non-Use	>3.0 Minutes Non-Use	>3.0 Minutes Non-Use	>3.0 Minutes Non-Use
<b>Battery Life:</b>	5000+ Readings	5000+ Readings	5000+ Readings	5000+ Readings
<b>Dimensions:</b>	170 (L) x 95 (W) x 45 (H) mm	170 (L) x 95 (W) x 45 (H) mm	170 (L) x 95 (W) x 45 (H) mm	170 (L) x 95 (W) x 45 (H) mm
<b>Weight:</b>	425g	425g	425g	425g
<b>Supplied With:</b>	Storage Case (1 ea.) Carrying Case (1 ea.) Prism Cover (2 ea.) Plastic Transfer Pipet (1 ea.) 9V Battery (1 ea.) Instruction Manual (1 ea.)	Storage Case (1 ea.) Carrying Case (1 ea.) Prism Cover (2 ea.) Plastic Transfer Pipet (1 ea.) 9V Battery (1 ea.) Instruction Manual (1 ea.)	Storage Case (1 ea.) Carrying Case (1 ea.) Prism Cover (2 ea.) Plastic Transfer Pipet (1 ea.) 9V Battery (1 ea.) Instruction Manual (1 ea.)	Storage Case (1 ea.) Carrying Case (1 ea.) Prism Cover (2 ea.) Plastic Transfer Pipet (1 ea.) 9V Battery (1 ea.) Instruction Manual (1 ea.)



Model PDX-1



Model PDX-2



Model PDX-3



Model PDX-95

## VEE GEE Ordering Information

Cat. No.	Model	Scale	Range	Resolution	Accuracy	ATC	Dimensions	Weight	Typical Uses
44001	PDX-1	Brix	0.0-45.0%	0.1	±0.1	Yes	170 x 95 x 45mm	425g	Fruit Juices, Soft Drinks, Wine Must, Cutting & Grinding Lubricants, Cleaning Agents, Pickling Brines
		Refractive Index (nD)	1.3330-1.4098	0.0001	±0.0001				
		Salinity	0.0-28.0%	0.1	±0.1				
44002	PDX-2	Brix	28.0-65.0%	0.1	±0.1	Yes	170 x 95 x 45mm	425g	Concentrated Fruit Juices, Jam, Sauces, Syrups, Canned Goods, Ketchup
		Refractive Index (nD)	1.3800-1.4535	0.0001	±0.0001				
44003	PDX-3	Brix	60.0-92.0%	0.1	±0.1	Yes	170 x 95 x 45mm	425g	Jam, Jelly, Marmalade, Malt, Liquid Sugar, Honey, Mineral Oils, Essential Oils
		Refractive Index (nD)	1.4400-1.5230	0.0001	±0.0001				
44101	PDX-95	Brix	0.0-95.0%	0.1	±0.1	Yes	170 x 95 x 45mm	425g	Fruit Juices, Soft Drinks, Wine Must, Concentrated Fruit Juices, Jam, Jelly, Syrups Liquid Sugar, Honey, Oils
		Refractive Index (nD)	1.3330-1.5320	0.0001	±0.0001				

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