

- L** LABORATORY
- P** PROCESS
- S** SOFTWARE
- A** AUTOMATION



# VariRef Series

Refractometer  
The next generation



SPECIFICATIONS	VariRef C	VariRef B	VariRef A
Measuring scales	Refractive Index (RI), Sucrose (% Brix) Standard scales included, freely definable scales		Refractive Index (RI), Sucrose (% Brix), USG
Measuring range	1.2900 - 1.5800 RI / 100% Brix	1.29000 - 1.58000 RI / 100% Brix 1.32000 - 1.70000 RI / 100% Brix	1.320000 - 1.580000 RI / 100% Brix
Resolution	0.0001 RI / 0.05% Brix	0.00001 RI / 0.01% Brix	0.000001 RI / 0.001% Brix
Precision	± 0,0001 RI* / ± 0.05% Brix*	± 0,00002 RI* / ± 0.02% Brix*	± 0,00002 RI* / ± 0.02% Brix*
Repeatability	± 0.0001 RI / ± 0.05% Brix	± 0.00002 RI / ± 0.02% Brix	± 0.000005 RI / ± 0.006% Brix
Ambient temperature		+ 10 °C to + 40 °C	
Temperature measurement		Pt 1000 sensor	
Temperature range	5 °C to 80 °C	5°C to 100 °C	20 °C (others upon request)
Temperature resolution		0.01 °C	
Temperature precision		± 0.03 °C *	
Measurement mode	Single sample or flow through measurement (with optional compartment door)		
Prism	Sapphire	Sapphire / YAG	Sapphire
Light source / wavelength	LED, interference filter 589 nm		
Display	None or 7" Touchscreen, 800 x 480 Pixel		
Operation	Touchscreen**, Keyboard***, Mouse***, Barcode Reader***, Remote via PC/Tablet/Smartphone with Aquisys3 software***		
Interfaces	Ethernet 10/100/1000, RS232, SH connector, USB, WLAN**, Modbus**, Canbus**, Profibus**		
Conformity	International Pharmacopoeia, ASTM, AOAC, DIN, FDA, ICUMSA and others		
Highlights	Modularity; user friendliness; fast temperature control; easy cleaning; variety of complete special sample room doors, e.g. for single or flow through measurements or for solid samples; the self-checking capabilities for cleanliness, environment temperature effects, calibration and more result in a virtually maintenance free product, 21 CFR part 11 conform; ELN; LIMS ready		

### Combining over 150 years of experience with the endless strive for innovation

The **VariRef**'s modular design allows you to integrate all your **VariFamily** instruments on one platform.

The new double isolated Peltier system and precision thermometer allow fast, precise temperature control while reducing the influence of ambient temperature.

The **VariRef** sample room has a flat design making it ideal for easy cleaning. A special covered version is available for use when dealing with hard to clean or hazardous materials.

The self-checking capabilities for cleanliness, ambient temperature effects, and calibration make the **VariRef** a virtually maintenance-free instrument.

\* Standard conditions (589 nm,  $t_s=20^\circ\text{C}$ ,  $t_A=23^\circ\text{C}$ )  
\*\* Optional  
\*\*\* PC/Tablet/Smartphone not included in delivery



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