

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

# VariRef Series

Refractometer  
The next generation



SPECIFICATIONS	VariRef A	VariRef E	VariRef H
Measuring scales	Refractive Index (RI), Sucrose (% Brix) Standard scales included, freely definable scales		Refractive Index (RI), Sucrose (% Brix), USG
Measuring range	1.29000 - 1.58000 RI / 100% Brix	1.32000 - 1.70000 RI / 100% Brix	1.32000 - 1.58000 RI / 100% Brix
Resolution	0.00001 RI / 0.01% Brix	0.00001 RI / 0.01% Brix	0.000001 RI / 0.001% Brix
Precision	± 0,00002 RI* / ± 0.02% Brix*	± 0,00002 RI* / ± 0.02% Brix*	± 0,00002 RI* / ± 0.02% Brix*
Repeatability	± 0.00002 RI / ± 0.02% 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	YAG	Sapphire
Light source / wavelength	LED, interference filter 589 nm		
Display	None, 5" or 7" Touchscreen, 800 x 480 Pixel		
Operation	Touchscreen**, Keyboard***, Mouse***, Barcode Reader***, Remote via PC/Tablet/Smartphone***		
Interfaces	Ethernet 10/100/1000, RS232, SH connector, USB, WLAN**, Modbus**, Canbus**, Profibus**		
Conformity	International Pharmacopoea, ASTM, AOAC, DIN, FDA, ICUMSA and others		
Highlights	Modularity; user friendliness; fast temperature control; easy cleaning; special covered version; the self-checking capabilities for cleanliness, environment temperature effects, calibration and more result in a virtually maintenance free product, 21 CFR part 11 ready; ELN; LIMS ready		
Dimensions	With Display: 310 x 220 x 235 mm (W x D x H) / Without Display: 310 x 220 x 150 mm (W x D x H)		

\* Standard conditions (589 nm,  $t_r=20^{\circ}\text{C}$ ,  $t_a=23^{\circ}\text{C}$ )

\*\* Optional

\*\*\* Not included in delivery

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

The **VariRef** possesses the well-established flat and easy to clean **Schmidt + Haensch** sample room. When dealing with sticky, hard to clean or hazardous materials we offer you special cover versions to ensure proper sampling.

The new double isolated peltier systems allows **fastest and precise temperature control**. The newly developed **ATC** (Ambient T-Control) takes temperature variations of the ambience of the instrument into account as well.

