

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

# iPR B3

## Basic Inline Process Refractometer

Our entry-level process refractometer with wide measuring range for various applications in food, pharma and more



## SPECIFICATIONS

## iPR B3

Measuring scales	Refractive Index (RI), Sucrose (Brix) (already included) Up to 4 scales freely definable
Measuring range	1.32000 - 1.52000 RI / 0-90 Brix
Resolution	0.00001 RI / 0.01 Brix
Accuracy	± 0,00014 RI* / ± 0.1 Brix at 25°C
Reproducibility	± 0.00014 RI / ± 0.1% Brix
Ambient temperature	- 10° to + 50°C
Sample temperature	-10° to + 90°C
Temperature measurement	NTC sensor for measurement of sample temperature placed inside the prism
Interfaces	2 insulated 4 - 20 mA analog outputs 2 digital output switch (up to 1 A) 1 serial output (RS232, alternatively RS485 or USB)
Power supply	24 V DC
Prism	Sapphire
Light source / wavelength	589 nm LED
Process pressure (max.)	MPa (145 psi, 10 bar)
Process contact material	Sapphire, Stainless steel
Mounting accessories	VariVent (Tuchenhagen), APV or TriClamp**

\* Standard conditions (589 nm, 20°C)  
\*\* Optional

### Refractometer applications

The applications of Refractometers are highly diverse.

#### Applications often used

- Determination of refractive index
- Determination of dry substance
- Determination of mass percent
- Brix measurement
- Standard scales (Brix, Oechsle, Zeiss, Fat, Honey)
- with automatic temperature compensation
- Qualitative analysis – identification of samples
- Interface detection
- Quantitative analysis of dissolved solids in water or other solvents
- Quantitative analysis of sugars, solves, glycol, fat, oechsle

#### Typical industries of the model

- Sugar industry
- Beverages
- Food (oil from palm, corn, sunflower, soya)
- Essential oil
- Chemical industry