



# ipr B<sup>4</sup>

# **Basic Inline Process Refractometer**

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



# **SPECIFICATIONS**

# **Basic Inline Process Refractometer**

Measurement principle	Total internal reflection refractometer	R
Measuring scales	Sucrose (Brix) (already included) Up to 4 scales freely definable	TI
Measuring range	1.32000 - 1.51000 RI / 0 - 85 Brix	A
Accuracy	± 0.00007 RI / ± 0.05 Brix at 25°C	
Resolution	0.00001 RI / 0.01 Brix	•
Reproducibility	0.00005 RI / 0.036 Brix	•
Process temperature	- 10 to + 90 °C	•
Ambient temperature	- 10 to + 50 °C	•
Temperature sensor accuracy	± 0.1 °C	•
Temperature measurement	NTC sensor for measurement of sample temperature placed inside the prism	
Process pressure	0 - 10 bar	
Interfaces standard	2 insulated 4 - 20 mA analog outputs 2 digital output switch (up to 1 A) 1 serial output (RS232)	т <u>у</u> •
Interface optional	1 serial output (RS485 or USB)	•
Mechanical interfaces standard	VariVent type N 1.4404 Stainless steel	•
Mechanical interface optional	APV 1.4404 Stainless steel	
Dimensions, weight	245 mm x Ø 136 mm, 5300 g	
IP class	ІРб9К	
Light source, wavelength	LED, 589 nm	
Power supply	24 V DC	
Current consumption	< 120 mA (20 - 28 V)	
Wetted parts	Sapphire, 1.4404 Stainless steel	
Housing material	1.4404 Stainless steel	
Available immersion depths	0 - 90 mm	





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### **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





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