

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



iPR FS

EHEDG Certified Inline Process Refractometer

With its certified hygienic design it is suitable for
almost all applications in food and beverage production



Specifications

Food Safety Inline Process Refractometer

Measurement principle	Total internal reflection refractometer
Measuring scales	100+ standard scales, freely definable custom scales, internal storage 4 simultaneous scales
Measuring range	1.32000 - 1.52000 RI / 0 - 90 Brix
Accuracy	$\pm 0,00014$ RI / ± 0.1 Brix*
Resolution	0.00001 RI / 0.01 Brix
Reproducibility	0.00007 RI / 0.05 Brix
Process temperature	-10 to + 150 °C (with water cooling) CIP/SIP up to 150 °C for 30 minutes
Ambient temperature	- 10 to + 55 °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
Interface standard	2 insulated 4 - 20 mA analog outputs 2 digital output switch (up to 1 A) 1 serial output (RS232)
Interface optional	1 serial output (RS485 or USB)
Mechanical interface standard	VariVent type N 1.4404 Stainless steel
Dimensions	256.6 mm x Ø 136 mm
Weight	approx. 5000 g
IP class	IP69K
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, PEEK
Housing material	1.4404 Stainless steel

*Standard conditions (t= 20 °C, p= 1013 mbar)

- Food safety requires certification according to European standard EHEDG. This is comparable to AAA.
- Hygienic design
- Rounded edges
- No slotted screws
- CIP/SIP possible (60 min max.)
- Material in contact with media: stainlesssteel, sapphire, PEEK
- Determination of dry substance
- Determination of mass percent
- Brix measurement
- Standard scales (Brix, Oechsle, Zeiss, Fat, Honey)
- with automatic temperature compensation

Typical applications for the model:

- Sugar industry
- Beverages
- Food (oil from palm, corn, sunflower, soya)
- Essential oil in aroma
- Sweets and chocolate

