

- 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	± 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

