L LABORATORY

P PROCESS

S SOFTWARE

A AUTOMATION

SCHMIDT HAENSCH

innovators by tradition since 1864

iPR C²

Compact Inline Process Refractometer

Our compact, lightweight all-round instrument
with excellent price performance ratio

Specifications	Compact Inline Process Refractometer
Measurement principle	Total internal reflection refractometer
Measuring scales	100+ standard scales, freely definable custom scales, internal storage 2 simultaneous scales
Measuring range	1.3200 - 1.4420 RI / 0 - 60 Brix
Accuracy	± 0.0002 RI / ± 0.15 Brix*
Resolution	0.00007 RI / 0.05 Brix
Reproducibility	0.0001 RI / 0.075 Brix
Process temperature	- 10 to + 80 °C
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 (up to 30 bar with APV connection)
Interfaces standard	insulated 4 - 20 mA active analog output (≤ 450 Ω) 1 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
Mechanical interfaces optional	VariVent type N Hastelloy C276 APV 1.4404 Stainless steel APV Hastelloy C276
Dimensions	140.1 mm x Ø 69 mm
Weight	1900 g
IP class	IP69K
Light source, wavelength	LED, 589 nm
Power supply	24 V DC
Current consumption	< 75 mA (20 - 28 V)
Wetted parts	YAG, 1.4404 Stainless steel, FFKM
Housing material	1.4404 Stainless steel
Software	UniConfig

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

Typical applications:

- Determination of refractive index
- Determination of dry substance
- Determination of mass percent
- Brix measurement
- Standard scales (Brix, Oechsle, Zeiss, Fat, Honey)
- 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 for the model:

- Water quality
- Dilution of beverages and softdrinks
- Urea production
- Organic solvents
- Wastewater control
- Inorganic Salts
- Disinfectants
- Oilseed pressing
- Concentrate recovery
- Detergent concentration
- Latex
- Cutting oils
- Cooling lubricants

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