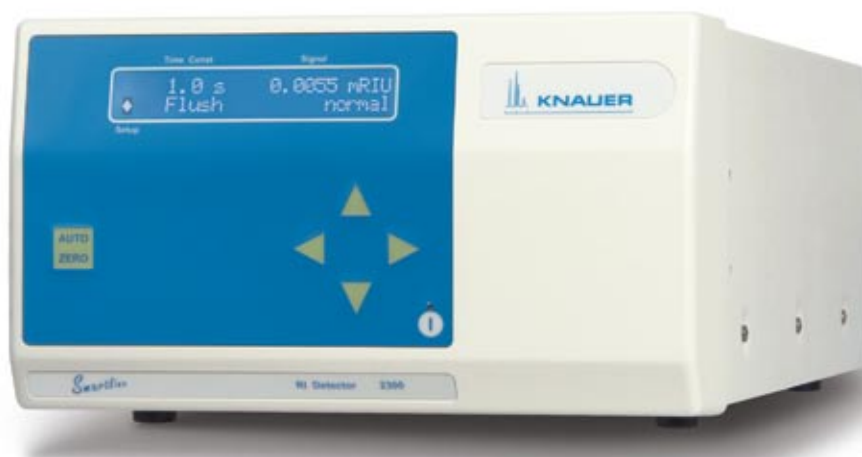


Smartline

► RI Detector 2300



Reliable refractive index detector

KNAUER Smartline refractive index (RI) detectors meet the needs of modern liquid chromatography applications. They are best suited for the detection of substances that do not absorb in the UV range, both in high performance liquid chromatography (HPLC) and gel permeation chromatography (GPC/SEC) applications.

Universal detection – The RI measurement principle is based on deflection caused by changes in the refractive index and so can be used to analyze non-absorbing compounds such as carbohydrates, hydrocarbons, lipids, and polymers.

Wide application range

- The **Smartline RI Detector 2300** was developed for analytical applications and features high sensitivity at flow rates up to 5 ml/min.
- Preparative applications can be realized with a flow splitter.

Stable detection – The thermally isolated optical bench and flow cell minimize the effects of ambient temperature changes on measurements, resulting in a more stable baseline and reproducible results.

Save Time – Optimized design and a high-efficiency light source reduce thermal influence to keep equilibration times short.

Maintenance friendly – LED light source features long-term stability and an extremely long lifetime for practically maintenance-free operation.

Reliable – The self-diagnostic function at start up allows for optimum system performance under routine operation.

Flexible control – Full range auto-zero and reference cell flushing can be activated by software, via RS-232, via analog signal, or from the front-panel for maximum connectivity.

Technical data

Detector type	refractometer
Light source	LED
Wavelength	950 nm
Refractive index range	1.00–1.75 RIU
Model	RI Detector 2300
Sensitivity	3×10^{-8} RIU
Noise	$\leq \pm 1.5 \times 10^{-8}$ RIU
Measurement range	$\pm 1 \times 10^{-3}$ RIU
Maximum flow rate	5 ml/min
Measurement angle	45°
Cell volume	15 μ l
Time constants	0.1/0.2/0.5/1.0/2.0/5.0/10.0 s
Wetted materials	stainless steel, quartz glass, PTFE with 25 % glass fiber, FFKM perfluor elastomer, PEEK
Output	signal polarity can be inverted
Digital	RS-232
Analog	± 1 V (scalable in 16 steps, for integrator)
Control	RS-232, remote control strip, keypad
GLP report	total operation time, serial number
Display	LCD 2 lines, 24 characters each
Power supply	voltage range: 90–260 V, 47–63 Hz, 10 W
Dimensions	226 x 135 x 410 mm (W x H x D)
Weight	8.0 kg

Ordering information

Order no. **Refractive index detection system**
A5160 Smartline RI Detector 2300

Spare parts and accessories
A0294 45° measurement cell*
A0277 set of seals*

* We recommend that exchange of cell or seals be done by authorized service personnel only.

Technical data are subject to change without notice.

Visit www.knauer.net for details on complete HPLC systems, HPLC columns, and osmometers.

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