

## Refractive index detector

### AZURA® Detector RID 2.1L / Highflow

#### Analytical / preparative refractive index detector

The AZURA® RID 2.1L / HighFlow are sensitive and competitively priced differential refractometers suitable for detecting compounds with little or no UV activity such as alcohols, sugars, lipids or polymers.

The RID 2.1L is designed for use in analytical HPLC (high performance liquid chromatography) as well as for GPC (gel permeation chromatography) applications. The RID 2.1L HighFlow is can be used in semi-preparative and preparative HPLC (high performance liquid chromatography) as well as under certain conditions for GPC (gel permeation chromatography) applications.

The intelligently designed optical unit with advanced temperature control ensures high sensitivity, fast baseline stabilization, and excellent reproducibility. Furthermore, the long-life LED, highly pressure resistant flow cell, improved safety features and enhanced diagnostics functions guarantee easy handling and minimal maintenance.

The wide linear dynamic range and a maximum flow rate of 10 ml/min (RID 2.1L) and 100 ml/min (RID 2.1L HighFlow) make these detectors the perfect choice for most laboratory tasks.

A variety of software control options is available: KNAUER offers various options for drivers. Detailed information on page 63.



#### Specifications

##### Detection

Detector type	refractive index detector
Versions	analytical (RID 2.1L) / preparative (RID 2.1L HighFlow)
Light source	long-life LED
Refractive index range	1.00 - 1.75 RIU
Noise	± 2.5 nRIU (RID 2.1L) / ± 50 nRIU (RID 2.1L HighFlow)
Drift	200 nRIU/h (RID 2.1L) / 2000 nRIU/h (RID 2.1L HighFlow)
Linearity	> 1000 µRIU (RID 2.1L) / > 4000 µRIU (RID 2.1L HighFlow)
Temperature control	OFF, 30 - 55 °C (1 °C increment)
Maximum flow rate	10 ml/min (pure water) (RID 2.1L) / 100 ml/min (pure water) (RID 2.1L HighFlow)
Time constants	0.00 / 0.01 / 0.02 / 0.05 / 0.1 / 0.2 / 0.5 / 1.0 / 2.0 / 5.0 / 10.0 s
Autozero	full range
Flow cell	5 bar back pressure resistance flow cell included
Flow cell volume	15 µl (RID 2.1L) / 9 µl (RID 2.1L HighFlow)
Wetted materials	stainless steel / fused silica / PTFE / PEEK

##### Communication

Maximum data rate	100 Hz (LAN) 20 Hz (Analog)
Inputs	Error (IN), Start (IN), Autozero, Flush (IN)
Outputs	Event 1, Start (OUT), Error (OUT), + 5 V, 24 V Valve
Analog outputs	1 x 0 - 2.5 V scalable, 20 bit, offset adjustable
Control	Mobile Control, software, event control, analog, terminal protocol
Interfaces	2 x LAN (RJ-45, dual IP-stack), USB (service only), multi-pin connector, analog (cinch connector)

##### Technical parameters

GLP	detailed report including operating hours, light source operating hours
Display	Mobile Control (optional)
Ambient conditions	temperature range: 4 - 40 °C, 39.2 - 104 °F humidity: below 90 % noncondensing

##### General

Power supply	100 - 240 V, 50 - 60 Hz, 65 W
Dimensions	361 x 158 x 523 mm (W x H x D)
Weight	10.8 kg
Leak sensor	yes (internal and external leak management)

Optional accessories	Mobile Control
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#### Ordering details:

ADD31	AZURA® Detector RID 2.1L analytical refractive index detector with flow cell
ADD38	AZURA® Detector RID 2.1L HighFlow preparative refractive index detector with flow cell