

AZURA® Detector RID 2.1L

The AZURA® RID 2.1L is a sensitive and competitively priced differential refractometer. It is suitable for detecting compounds with little or no UV activity such as alcohols, sugars, lipids or polymers. This instrument is designed for use in analytical 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 10 ml/min maximum flow rate make the AZURA® RID 2.1L the perfect choice for most laboratory tasks.



Key features

- Temperature controlled optical unit
- Long-life LED
- Pressure resistant flow cell
- 55 years experience
- Made in Germany

Specifications

Detection

Detector type	Refractive index detector
Version	analytical (RID 2.1L) / preparative (RID 2.1L HighFlow)
Light source	Long-life LED
Detection channels	1
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)
Flow cell	5 bar back pressure resistance Flow cell included
Max. flow rate	10 ml/min (pure water) (RID 2.1L) / 100 ml/min (pure water) (RID 2.1L HighFlow)
Flow cell volume	15 µl
Wetted materials	Stainless steel / fused silica / PTFE / PEEK
Temperature control	OFF, 30 - 55 °C (1 °C increment)
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
Maximum data rate	100 Hz (LAN)/20 Hz (Analog)
Autozero	Full range
Leak sensor	Yes (internal and external leak management)

KNAUER offers various software control options:
www.knauer.net/softwarecontrol

For detector accessories
 see p. 42

Communication

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

Other

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 and external pressure release valve