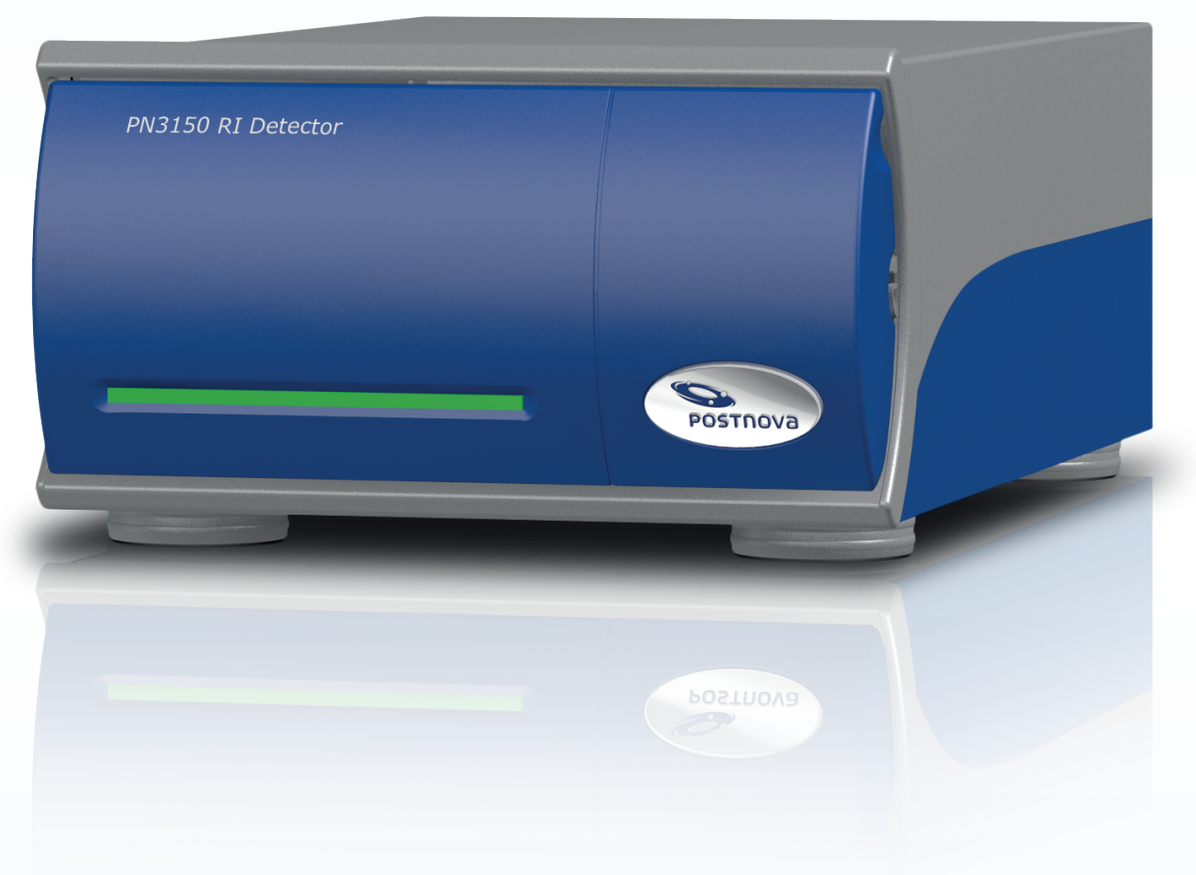
POSTNOVA

PN3150 RI

Refractive Index Detector



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PN3150 Refractive Index Detector

Features

The new PN3150 deflection type differential Refractive Index Detector is a detection system which offers the highest sensitivity combined with exceptional baseline stability at the same time. Thus the system is ideally suited for „flow sensitive“ applications such as FFF and GPC.

The unit comes in the new Postnova design and has a removable front cover. The manual touch keys combined with the display allows complete control of the detector without the need for any external software system.

An auto-start procedure allows the user to purge, calculate noise and drift values and auto zero before a Ready Status is indicated. This procedure is completely automated and does not need to be supervised by the user.

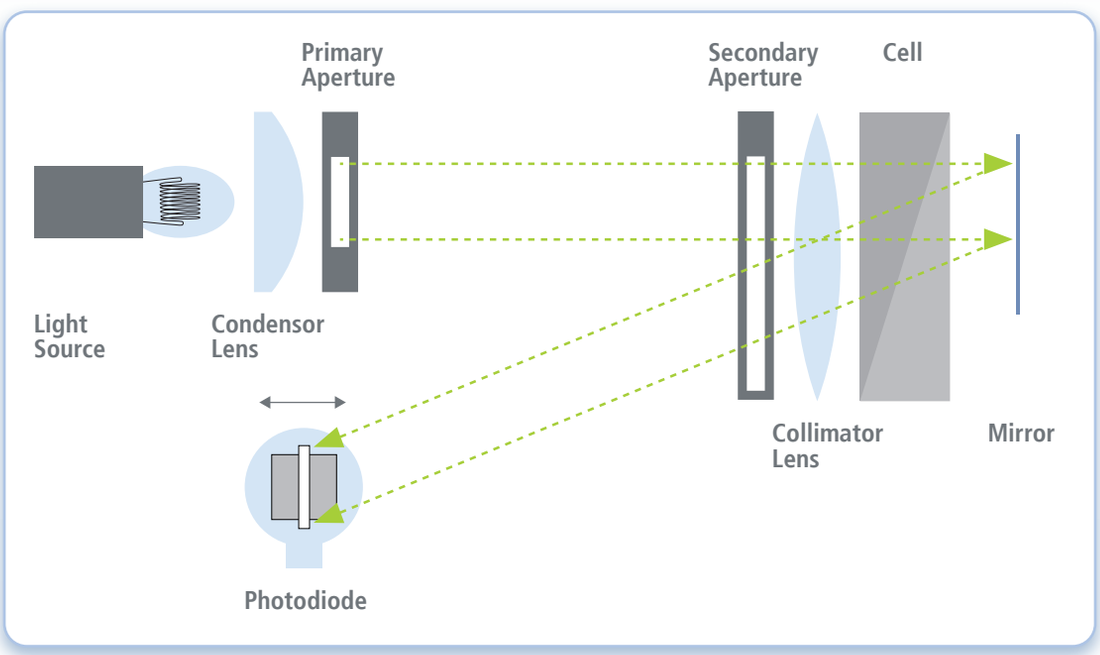
Temperature can be set from 30 – 50 °C in 1 °C increments. Because of the unique high speed temperature control provided by the thermally shielded optics with a counter current heat exchanger and the programmable temperature control, the detector offers a highly stable baseline and a very good signal/noise ratio in an extraordinary short time compared to other available systems.

The PN3150 Refractive Index Detector also has a solvent leak sensor that indicates a solvent leak inside the detector.

The detector fits completely into the Postnova product portfolio and can be combined with all other Postnova systems as well as with chromatography systems from different manufacturers.

The detector is available as analytical, micro and preparative version by using different cell volumes.

The working principle of this deflection type RI detector is shown in the following figure:



Ordering Information

S-DET-3150-001	PN3150 RI Detector
Z-DL-PN3150vis	Detector Lamp
Z-DET-3150-001	Flow Cell Assembly
Z-DET-3150-006	Purge Valve

Specifications

- Environmental Conditions:
  Relative humidity 20 – 80 % (non-condensing) at an operating temperature range of 10 – 30 °C
- Detection Principle:
  Deflection type differential RI detector
- Refractive Index Range:
  1.00 to 1.75
- Temperature Settings:
  30 °C to 50 °C in 1 °C steps
- Flow Rates:
  Micro cell: 0.2 – 1 mL/min (**)
  (with pure water as mobile phase)
  Analytical cell: 0.2 – 10.0 mL/min (*)
  (normally 0.2 – 3.0 mL/min)
  Prep. cell: 1 – 100 mL/min (**)
  (normally 1 – 50 mL/min)
- Maximum Back Pressure:
  50 kPa
- Flow Cell Volume:
  Micro: 2.5 µL (**)
  Analytical: 8 µL (*)
  Preparative: 8 µL; (**);
  larger inlet/outlet tubing than analytical cell
- Internal Volume:
  Inlet port to flow cell: approx. 60 µL
  Flow cell to outlet port: approx. 630µL
  Total internal volume: approx. 690 µL
  (for standard analytical cell)
- Wetted Materials:
  SST316, PTFE, PFA, Quartz Glass
- Response Time:
  0.1; 0.25; 0.5; 1.0; 1.5; 2; 3; 6 s
- Measuring Range:
  0.25 – 512 µRIU
- Linearity:
  600 µRIU
- Noise Level:
  2.5 nRIU (response: 1.5 seconds)
- Integrator Output:
  0 – 1 V
- Recorder Output:
  0 – 10 mV
- Power Consumption:
  150 VA (maximum)
- Power Requirements:
  100 – 240 VAC @ 50 – 60 Hz
- Dimensions (DxWxH):
  450 x 270 x 160 mm
- Weight:
  13 kg

(*) Standard (analytical), most sold
(**) On request

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