

## Model RI-101 Refractive Index Detector

*High sensitivity RI-Detector with a large dynamic range*



- Rapid stabilization through optimized temperature adjustment
- Maximum sensitivity available within the shortest time
- Integrated safety functions
- Complete control via the Geminix Data System

### Description:

Refractive index detectors are mostly used in HPLC as universal detectors, when the analytes do not carry chromophores, which can be measured with normal UV-detectors at wavelengths in the range above 200 nm. The disadvantage of refractive index measurement using a differential refractometer is however the significantly longer stabilization time compared with UV measurements,

Exactly this stabilization time for an RI-Detector is substantially reduced using the Model RI-101. A range of measures, e.g. automatic flushing of the reference cell with the „start up“ function and the optimized temperature adjustment, significantly shorten the stabilization phase, so that stable baselines even at maximum sensitivity are attained within very short times.

The large dynamic range combined with extremely low noise levels permits the quantitative determination of high analyte concentrations alongside traces of contaminants.

The detector is fitted with a leakage sensor so that the pump can be stopped automatically should any connection start to show signs of leakage.

All significant functions are controlled via Geminix, thus allowing all relevant control parameters to be defined in the Data System method.



## Specifications:

<b>Measuring principle:</b>	Differential measurement with deflection of the light beam
<b>RI range:</b>	1,00 – 1,75
<b>Measuring range:</b>	$\frac{1}{4} \sim 512 \mu\text{RIU}$
<b>Linearity range:</b>	$600 \mu\text{RIU}$
<b>Noise:</b>	2,5 nRIU (Response: 1,5 sec)
<b>Cell volume:</b>	$8 \mu\text{l}$
<b>Max. cell pressure:</b>	50 kPa
<b>Max. flow:</b>	10 ml/min
<b>Temperature control:</b>	AUS – 30 ~ 50 °C (in 1 °C Steps) – 77 °C
<b>Autozero function:</b>	Combined optical and electrical
<b>Autozero range:</b>	Complete RI range
<b>External control:</b>	RS-232C
<b>Polarity:</b>	Positive / negative
<b>Time constant:</b>	0,1 / 0,25 / 0,5 / 1,0 / 1,5 / 2 / 3 / 6 sec
<b>Operator Support:</b>	Automatic start up sequence / Validation
<b>Signal output:</b>	0 ~ 1V (Integrator) / 0 ~ 10 mV FS (recorder, range-dependent)
<b>Power supply:</b>	100 ~ 240 V ( $\pm 10\%$ ) 50 / 60 Hz
<b>Dimensions:</b>	200 mm x 260 mm x 400 mm (H x W x D)
<b>Weight:</b>	13,0 kg

## Ordering information:

### 78-279208

Model RI-101 RI-Detector,  $8 \mu\text{l}$  cell volume, rapid stabilization

For further informations, please contact us via:

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