

Refractive Index Detector

Shodex RI-101, 102, 104

The Shodex RI-100 series is a versatile and high sensitive RI detectors that can be used with various manufactures' HPLC systems. It consists of a color-LCD, an automatic start-up function, and a validation wizard.



⟨Features⟩

- Equipped with a color liquid crystal display, the detector monitors analytical status in real time.
- The automatic start-up function controls the complicated operations such as blank substitution and baseline stabilization automatically.
- The validation wizard enables easy component validation.
- Improved temperature control system shortens the required warm-up time and provides stable background.
- The leak sensor automatically stops the pump in case of solvent leakage.
- External input and output terminals and RS232C communication ports can be used to connect various HPLC systems for an advanced automation.

Product Code	F4010101	F4010104	F4010102
Model	RI-101	RI-104	RI-102
	Analysis	Semi-micro	Preparative
Flow cell type	2 chamber-type		
Measuring method	Deflection type		
Refractive Index range	1.00~1.75		
Measurement range	0.25~512 μ RIU	0.25~512 μ RIU	2.5~5120 μ RIU
Drift *	0.2 μ RIU/h	0.2 μ RIU/h	2 μ RIU/h
Linearity range	\geq 600 μ RIU	\geq 600 μ RIU	\geq 6000 μ RIU
Noise **	\leq 2.5nRIU	\leq 5nRIU	\leq 25nRIU
Response	0.1, 0.25, 0.5, 1, 1.5, 2, 3, 6sec		
Auto zero	Full auto zero		
Auto zero range	All range		
Off-set range	0~500mV (Same as integrator output)		
Off-set resolution	10mV (Same as integrator output)		
Integrator output (Sensitivity)	DC 0~1V (2mV/ μ RIU, 8mV/ μ RIU)	DC 0~1V (2mV/ μ RIU, 8mV/ μ RIU)	DC 0~1V (0.2mV/ μ RIU, 0.8mV/ μ RIU)
Cell volume	8 μ L	2.5 μ L	8 μ L
Flow rate	(Usual)	0.2~3.0mL/min	1.0~50mL/min
	(Max.)	10mL/min (solvent ; pure water)	1.0mL/min (solvent ; pure water)
Maximum back pressure	50kPa		
Internal volume	IN \rightarrow Cell : ca. 60 μ L	IN \rightarrow Cell : ca. 10 μ L	IN \rightarrow Cell : ca. 120 μ L
	Cell \rightarrow OUT : ca. 600 μ L	Cell \rightarrow OUT : ca. 355 μ L	Cell \rightarrow OUT : ca. 510 μ L
	All (Cell \rightarrow OUT) : ca. 670 μ L	All (Cell \rightarrow OUT) : ca. 370 μ L	All (Cell \rightarrow OUT) : ca. 640 μ L
Recorder output	0~10mV/FS		
External input	Purge On/Off, Auto Zero, Marker		
External output	① READY (Automatic start-up) ② LEAK ③ ERROR (OVER HEAT/LOW LIGHT INTENSITY/NULL GLASS HOME POSITION/LOST PARAMETERS/OPTICAL BALANCE) (Contact capacity : DC24V 0.1A max.)		
Temperature control	OFF, 30~55°C (1°C step), 77°C Temp. fuse		
Communication port	RS232C		
Operational support functions	① Automatic start-up (Start Up Sequence) ② Span/Validation Guide ③ Real Time Baseline Monitor		
Wetted materials	Stainless steel 316, Teflon, Quartz glass		
Power source, Power consumption	AC100~240 \pm 10%, 50/60Hz, 150VA max		
Dimensions, Weight	W260 x D400 x H200 (mm), ca.13kg		
Accessories	Power cable, signal cable, connector tube, fuse, operation manual		

*Pure water 1mL/min, PURGE OFF

**Pure water, response : 1.5sec