

Refractive Index Detector

Shodex RI-501, 502, 504

The Shodex RI-500 series is a versatile and high sensitive RI detectors that can be used with various manufactures' HPLC systems. It consists of an automatic start-up function, a double temperature control and a validation wizard. The detector series are available as Analytic, semi-micro and preparative line up.



<Features>

- 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 double 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 LAN (RJ45) communication ports can be used to connect various HPLC systems for an advanced automation.
- Usable in UHPLC systems.

Product Code	F4010501	F4010502	F4010504
Model	RI-501	RI-502	RI-504
	Analysis	Preparative	Micro
Flow cell type	2 chamber-type		
Measuring method	Deflection type		
Refractive Index range	1.00~1.75		
Measurement range	0.25~512 μ RIU	2.5~5120 μ RIU	0.25~512 μ RIU
Drift *	0.2 μ RIU/h	2 μ RIU/h	0.2 μ RIU/h
Linearity range	\geq 600 μ RIU	\geq 6000 μ RIU	\geq 600 μ RIU
Noise **	\leq 2.5 nRIU	\leq 25 nRIU	\leq 5 nRIU
Response	0.1, 0.25, 0.5, 1, 1.5, 2, 3, 6sec		
Auto zero	Full auto zero		
Auto zero range	All Refractive Index Range		
Recorder output range selection	0.25 - 512 μ RIU/FS	2.5~5120 μ RIU	2.5~5120 μ RIU
Integrator output range selection	128/512 μ RIU/FS	1280/5120 μ RIU/FS	128/512 μ RIU/FS
Integrator output (Sensitivity)	DC 0~1V (2mV/ μ RIU, 8mV/ μ RIU)	DC 0~1V (0.2mV/ μ RIU, 0.8mV/ μ RIU)	DC 0~1V (2mV/ μ RIU, 8mV/ μ RIU)
Cell volume	8 μ L	8 μ L	2.5 μ L
Flow rate	(Usual)	0.2~3.0mL/min	1.0~50mL/min
	(Max.)	10mL/min (solvent ; pure water)	100mL/min (solvent ; pure water)
Maximum back pressure	50kPa		
Internal volume	IN \rightarrow Cell : ca. 60 μ L Cell \rightarrow OUT : ca. 630 μ L All (Cell \rightarrow OUT) : ca. 690 μ L	IN \rightarrow Cell : ca. 120 μ L Cell \rightarrow OUT : ca. 540 μ L All (Cell \rightarrow OUT) : ca. 660 μ L	IN \rightarrow Cell : ca. 10 μ L Cell \rightarrow OUT : ca. 385 μ L All (Cell \rightarrow OUT) : ca. 395 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 $^{\circ}$ C (double Temperature control)		
Communication port	LAN		
CE / RoHS certificates available	YES		
Wetted materials	Stainless steel 316, Teflon, Quartz glass		
Power source, Power consumption	AC100~240 \pm 10%, 50/60Hz, 150VA max		
Dimensions, Weight	W260 x D420 x H165 (mm), ca.12.5kg		
Accessories	Power cable, signal cable, connector tube, operation manual		

*Pure water 1mL/min, PURGE OFF

**Pure water, response : 1.5sec