

S 2020 Refractive index detector

The **Refractive Index Detector S 2020** series provides a consistent enhancement of the already successfully established RID models RI2000 and RI2000-F. The RID S 2020 series offers users 3 times higher sensitivity, (compared to RI2000) stability and reproducibility required for optimal RI detection in HPLC / GPC. By consistently revising the electronic components, it has been possible to significantly improve drift and noise.

The optical system is now better insulated against temperature changes and with programmable temperature settings, ensures a stable baseline and an optimal signal/noise-ratio.

The auto zero, purge, polarity, temperature and the frequency for data output are externally controllable by USB or RS232 Port. RID system status - information such as temperature and total voltage can be externally retrieved by RS232 or USB. The **Refractive Index Detector S 2020** offers communication interface to acquire data directly with Clarity Chromatography Software without using any external signal interface.

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The **Refractive Index Detector S 2020** includes - **micro**, - **analytical** and - **semi preparative** refractive index detectors .



Technical Specifications*

	S 2020M, micro	S 2020A, analytical	S 2020P, semi preparativ
Detection Method:	Deflection	Deflection	Deflection
Refractive Index Range:	1.00 to 1.75	1.00 to 1.75	1.00 to 1.75
Flow Rate:	0,2 – 3,0ml/min	0,2 – 3,0ml/min	5 – 50ml/min
Flow Cell Volume	4 µl, 45° angle	9 µl, 45° angle	13 µl, 5° angle
Flow Cell Pressure	6 kg/cm ²	6kg /cm ²	6kg/cm ²
Dead Volume Into cell	6 µl	24 µl	88 or 314 µl *
Linearity Range:	0 - 500 µRIU	0 - 1000 µRIU	0 - 20000 µRIU
Noise Level:	10 x 10 ⁻⁹ RIU	5 x 10 ⁻⁹ RIU	10 x 10 ⁻⁸ RIU
Autozero Range:	Full Range	Full Range	Full Range
Drift with 1ml H₂O/min.	< 1mV/hour	< 1mV/hour	1mV/ hour
Purge Valve	yes	yes	yes / no (depends on flow)
Integrator Output:	+/- 1 Volt	+/- 1 Volt	+/- 1 Volt
Recorder Output:	+/- 10mV / 100mV / 1Volt		
Recorder Offset:	0 mV/10mV/ 100mV		
Recorder Range:	8 steps (1:8) - (16:1)		
Marker:	Yes / No		
Digital Interface:	RS232 / USB bidirectional		
Control of:	Purge, Autozero, Start, Stop, Heater, Data output rate, Polarity		
Current output of:	Temperature optical bench, Optical balance, sum voltage, difference voltage, Alarm (Signal too high/low, A/D out of range, No temp. sensor)		
Data Output Rate:	1 Hz, 2 Hz, 5 Hz, 10 Hz, Lock		
Digital Output TTL:	Intensity Alarm		
Digital Input TTL:	Purge, Autozero, Start, Marker		
Temperature Setting:	Ambient, 35°C to 55°C in 1°C steps, Thermal Fuse 70°C		
Time Constant:	RAW (0,0sec), Fast (0,4sec), Medium (0,8sec), Slow (1,6sec)		
Weigth:	9,6 kg		
Dimensions:	300 x 175 x 440 mm (W x H x D)		
Power Source:	AC 100-120/220-240V, 50/60 Hz, 50VA		
* depending on configuration			

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Order Information Refractive index detector S 2020

Part-No.:	Description:
S 2020, M	Refractive index detector S 2020M, micro
S 2020, A	Refractive index detector S 2020A, analytical
S 2020, P	Refractive index detector S 2020P, semi preparativ

Order Information Spare Parts Refractive index detector S 2020

Part-No.:	Description:
S2020-030	Flow cell, S 2020, micro
S2020-001	Flow cell, S 2020, analytical
S2020-031	Flow cell, S 2020, semi preparativ
S2020-012	Lamp S 2020
S2020-024	Seal kit for flow cell S 2020
S2020-006	Purge valve S 2020