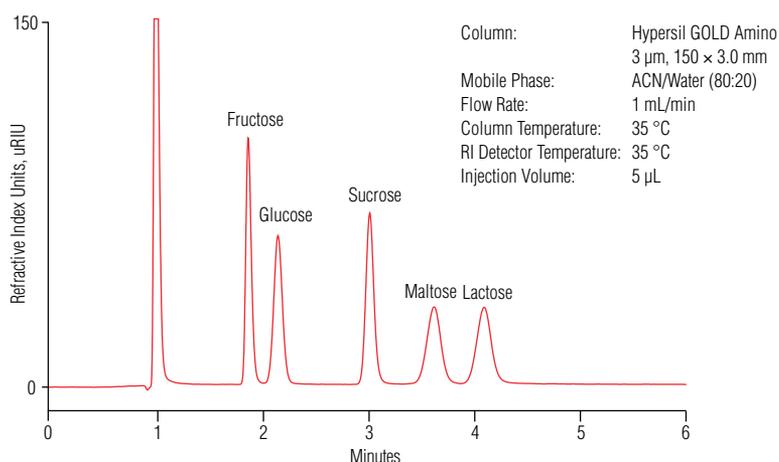


# RefractoMax 521

## Refractive Index Detector

Thermo Scientific offers the RefractoMax 521 Refractive Index Detector from ERC Inc. This detector, in combination with the Thermo Scientific™ Dionex™ UltiMate™ 3000 system, is the right choice for the isocratic analysis of sugars, polymers, and fatty acids. It features fast baseline stabilization and excellent reproducibility, combined with high sensitivity. The RefractoMax 521 is fully controlled by the Thermo Scientific™ Dionex™ Chromeleon™ Chromatography Data System, and can also operate in stand-alone mode.



Separation of five sugars on a Thermo Scientific™ Hypersil GOLD™ Amino column.

### Features

- The detector is highly sensitive and applicable universally. It provides very stable baselines with a drift of 0.2  $\mu$ RIU/h and a noise specification of 2.5 nRIU or less.
- The optical bench, thermostatically regulated from 30  $^{\circ}$ C to 55  $^{\circ}$ C, and the superior signal-to-noise ratio ensure highly precise measurement results.
- The extended flow rate range from 1 mL/min up to 10 mL/min and the operating range of 1.00 to 1.75 RIU enable the use of this detector for a wide range of applications.
- Applications include the analysis of all compounds with low UV-Vis activity, such as alcohols, mono- and polysaccharides, esters, fatty acids, or polymers.
- An Auto Set-up function automates purging, equilibration, autozero, and the control of baseline stability and noise.
- Operating with Chromeleon 6.80 or 7.1 software makes the detector easy to use and ensures maximum productivity in instrument control, data processing, and reporting of results.



## REFRACTOMAX 521 SPECIFICATIONS

Measuring Method	Deflection type
Refractive Index Range	1.00–1.75 RIU
Measuring Range	0.25–512 $\mu$ RIU
Linearity Range	600 $\mu$ RIU
Noise	$\leq$ 2.5 nRIU (response 1.5 s)
Drift	0.2 $\mu$ RIU/h
Response Time	0.1, 0.25, 0.5, 1, 1.5, 2, 3, 6 sec
Polarity	Positive/Negative
AutoZero	Optical and electrical auto zero
AutoZero Resolution	$\leq$ 1 (@ 8 mV/ $\mu$ RIU)/4 (@ 2 mV/ $\mu$ RIU) nRIU
Offset Range	0 mV to 500 mV
Integrator Output (Sensitivity)	DC 0 V to 1 V (2 mV/ $\mu$ RIU, 8 mV/ $\mu$ RIU)
Recorder Output	0 mV/FS to 10 mV/FS
Event Marker	Marker out: $\geq$ 5 % of FS
Temperature Control	30 °C to 55 °C: 80 °C Thermal protector
External Communication	RS-232C; RS-232-to-USB interface cable is included in shipment
External Output	(1) READY, (2) LEAK, (3) ERROR (OVER HEAT/LOW LIGHT INTENSITY/NULL GLASS HOME POSITION/LOST PARAMETERS/OPTICAL BALANCE) (contact capacity: DC24V 0.1A max.)
Flow Cell Type	2 Chambers
Flow Cell Volume	8 $\mu$ L
Flow Rate Range	1 mL/min to 5 mL/min
Maximum Flow Rate	10 mL/min (with water)
Pressure Rating	50 kPa (0.5 bar, 7 psi)
Internal Volume	Inlet port/flow cell: approx. 60 $\mu$ L; Flow cell/outlet port: approx. 480 $\mu$ L; Total: 540 $\mu$ L
Wetted Materials	SUS 316, PTFE, Quartz glass
Power Requirements	AC 100 V to 240 V +/- 10 %, 50 Hz/60 Hz, 120 VA max.
Dimensions	H 150 x W 260 x D 450 (mm)
Weight	12 kg

## Ordering Information

To order in the U.S., call (800) 346-6390 or contact the Thermo Scientific office nearest you. Outside the U.S., order through your local Thermo Scientific office or distributor. Refer to the following part numbers.

Description	Part Number
RefractMax 521 Refractive Index Detector	5060.0050

[www.thermoscientific.com/dionex](http://www.thermoscientific.com/dionex)

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