

## Precision Spectrometers GMR-1D

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Optical Devices

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Angle and Refractive Index Measurement System from UV Range to Near-IR Range

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## Features

Measures refractive index over the UV, visible, and near-IR ranges.  
Measured angle is clearly displayed on a dedicated counter.  
Minimum deviation method offers highly accurate refractive index measurements.  
Excellent  $\pm 1''$  angular measurement accuracy. The 1/2-ratio gear system and photoelectric detection easily determine the angle of minimum deviation.

## Applications

Angular measurement of transparent samples, such as new materials and glass, across the UV, visible, and near-IR ranges.

## Extensive Options

Variable to user-defined wavelength specifications by adding a laser diode or other light source.

## Specifications

Measurement accuracy	Angular measurement accuracy: $\pm 1''$ Refractive index measurement accuracy: $\pm 0.00001$
Display	Angle counter digital display
Measurement wavelength range	254 nm to 2500 nm (with IR option)
Slit	Max. effective blade length: 15 mm

	Brightness: F/10
<b>Eyepiece lens</b>	Autocollimation eyepiece lens Focal distance: 16 mm
<b>Angle detector</b>	High-accuracy rotary encoder
<b>Measurement method</b>	Minimum deviation method PC calculates refractive index from measured sample peak angle and minimum deviation angle.
<b>Gear system</b>	Gear ratio: 1/2 Accuracy: 20" min.
<b>Light source</b>	Standard: automatic spectrum light-source unit - He, H2, high-pressure Hg, Cd Optional: automatic spectrum light-source unit - semiconductor laser 1300, 1550
<b>Detector</b>	VIS, UV: photomultiplier tube IR: thermoelectrically cooled Pbs detector
<b>Output format</b>	Lock-in amplifier
<b>Size and weight</b>	1210 x 550 x 650 mm, 130 kg

The system can be customized to your requirements. Consult your Shimadzu representative.

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