

## X-RES

## AN EXTREME RESOLUTION SPECTROMETER THAT IS CAPABLE OF RESOLVING EXTREMELY CLOSE SPECTRAL FEATURES

- Perfect for High-Resolution Applications
- User-Interchangeable Slits and Filters
- · Optical Resolution as Precise as 0.05 nm (FWHM)
- \* Improved Optical Design With Focal Distance of 100 mm



# I<sub>max</sub>/2 fwhm = 0.07 nm 365,3 365,4 365,5 365,6 365,7 Wavelength (nm)

#### PERFECT FOR HIGH-RESOLUTION APPLICATIONS

X-RES spectrometers combine an improved optical design with a focal distance of 100 mm with the best available optics to provide great capability of resolving spectral features as precise as 0.05 nm. The eight complementary pre-configured wavelength ranges grant extreme resolution across the full UV/Vis/NIR range.







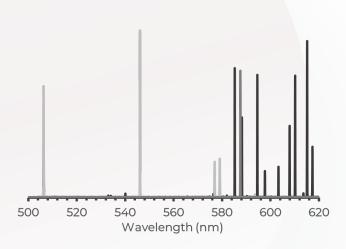
### CONTROL THE SENSITIVITY AND RESOLUTION OF YOUR SPECTROMETER

With X-RES spectrometer, you can take advantage of interchangeable slits and filters. User-interchangeable slits offer an easy and simple way of setting the optimal resolution/sensitivity while interchangeable filters provide the user with the ability to narrow the operational wavelength range of the spectrometer.

#### **EASY TO INTEGRATE IN YOUR SETUP**

As a fiber optic spectrometer, X-RES is ready to couple to a wide range of setups without the need for complex optical alignments. This flexibility is complemented with a number of integration tools that include triggers (trigger in/out and delays) and software packages for LabVIEW ™ or DLL, for software development. X-RES and all spectroscopic components of your setup can be centralized for full control with our new SPEC Hub solution.





#### CHARACTERIZATION OF ATOMIC EMISSION LINES

The spectrum represents a real life case of atomic emission lines detection of Mercury, Neon and Helium obtained with the X-RES spectrometer configured from 500 to 620nm. It's possible to verify the great performance with optimum simmetry and resolution over the entire range. Also, even with a really high density of peaks between 570 and 610nm the separation is perfect.

#### **Technical Specifications**

Parameter	Value	
Operational Range	185-1100 nm (divided in 8 operational ranges)	
Grating	According to the selected range	
Slit width	10 um	
Optical Resolution	0.05 to 0.1 nm	
Detector	3648-element Toshiba	
Trigger	In / Out	
Fiber Connector	SMA-905	
Interface	Mini-UBS (works also as power supply)	
Integration Time	3 ms (minimum)	
Dimensions	175 mm (L) x 151 mm (D) x 50 mm (H)	
Weight	1.5 Kg	

#### Ordering Information

Description	Wavelength Range	Part Number	
		<b>Base Version</b>	Improved Sensit.
Spectrometer X-RES1	190-290 nm	X-RES-1	X-RES-1-IS
Spectrometer X-RES 2	280-380 nm	X-RES-2	X-RES-2-IS
Spectrometer X-RES 3	370-460 nm	X-RES-3	X-RES-3-IS
Spectrometer X-RES 4	440-520 nm	X-RES-4	X-RES-4-IS
Spectrometer X-RES 5	500-620 nm	X-RES-5	X-RES-5-IS
Spectrometer X-RES 6	600-710 nm	X-RES-6	X-RES-6-IS
Spectrometer X-RES 7	690-810 nm	X-RES-7	X-RES-7-IS
Spectrometer X-RES 8	780-960 nm	X-RES-8	X-RES-8-IS





