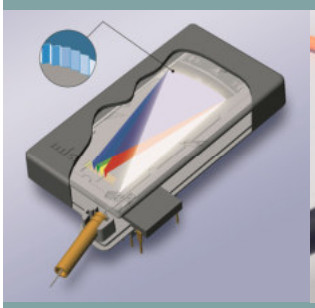
INSION®

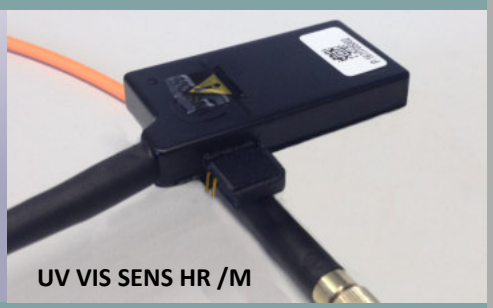
integrated spectral solutions

THE SPECTRAL SENSING COMPANY

UV VIS SENS HR micro spectrometer

Monolithic micro spectrometer for spectral sensing applications





UV VIS SENS HR /M

Product features:

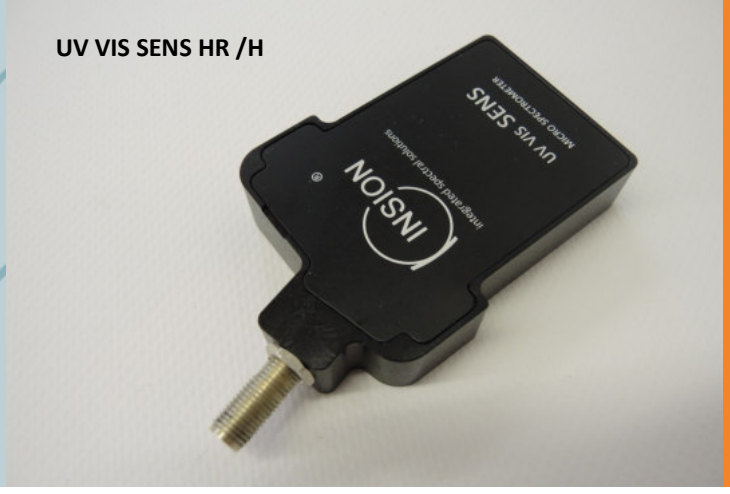
- » no moving parts
- » excellent mechanical, optical and thermal stability
- » unsurpassed price-performance ratio
- » small dimensions
- » easy and flexible handling

Excellent optical performance characteristics and inter instrument agreement due to a micro injection-molded hollow cavity waveguide design. The use of a state-of-the-art photo detector facilitates the precise measurement in the UV/VIS range for hand-held devices as well as for in-line process sensors.

Typical applications range from instrumental analysis, biological and clinical systems to colorimeters, food inspection systems and fluorescence measuring devices.

UV VIS SENS HR /S

UV VIS SENS HR /H



Technical Data | UV VIS SENS HR micro spectrometer

Entrance fiber	300/330 µm; NA = 0.22; low OH-
Entrance slit	15 µm x 300 µm
Spectral range (specified)	350 - 850 nm
Spectral range in 1st diffr. order (accessible)	280 - 1050 nm
Spectral resolution [$\Delta\lambda_{FWHM}$]	5 nm FWHM
Spectral accuracy	2 nm (typ.)
Reproducibility	≤ 0.1 nm
Blazed wavelength	420 nm
Sensitivity at 650 nm (with 16 bit ADC)	> 5 E15 cts x nm/Ws @ 650 nm
Signal to noise ratio (with 16 bit ADC)	≥ 5,000 at $T_{INTEGRATION}$=2 ms
Thermal wavelength stability	< 0.05 nm/K
Dispersion	1.9 nm/pixel
Integration time	1 - 40,000 ms
Stray light attenuation	> 18 dB GG495 (30 dB using SC30)
Operating temperature	0°C to +40°C
Storage temperature	-40°C to +60°C
Humidity	0% - 90% noncondensing
Detector array	S-CMOS

Versions:	**UV VIS SENS HR /M micro spectrometer OEM module**	**UV VIS SENS HR /S micro spectrometer OEM system**	**UV VIS SENS HR /H micro spectrometer**
Dimensions (LxWxH)	54 x 42 x 9.1 mm 2.13“ x 1.65“ x 0.36“ in	67 x 42 x 22 mm 2.64“ x 1.65“ x 0.87“ in	69.3 x 47.1 x 13.6mm 2.73“ x 1.85“ x 0.54“ in
Weight	22 g / 0.048 lb (incl. fiber and SMA 905 connector)	46 g / 0.1 lb (incl. fiber and SMA 905 connector)	47 g / 0.1 lb
Fiber length	450 mm; ± 25 mm / 17.7“ ± 1“ in	450 mm; ± 25 mm / 17.7“ ± 1“ in	-
Optical interface	Fiber 300/330 µm; NA = 0.22; low OH- / SMA 905 connector**	Fiber 300/330 µm; NA = 0.22; low OH- / SMA 905 connector**	SMA 905 socket**
Triggering	-	16 bit ADC,TTL signal (e.g. to control lamps, shutter, flash lights), synchronized with measurement, adjustable delay, TTL user bit, LV-TTL lamp or shutter control output	16 bit ADC,TTL signal (e.g. to control lamps, shutter, flash lights), synchronized with measurement, adjustable delay, TTL user bit, LV-TTL lamp or shutter control output
Interfaces	-	USB Full Speed, RS-232	USB Full Speed, RS-232
Connectors	DIL 22	USB 2.0 (micro B socket)	USB 2.0 (micro B socket), 9 pin socket
Accessories	Product Manual	Test Report, Product Manual, SPECview spectroscopy software, SPECcon interface DLL (Native C++)	Test Report, Product Manual, SPECview spectroscopy software, SPECcon interface DLL (Native C++)
Options			
Power requirements	5V	Via USB or external 5V	Via USB or external 5V
Power consumption	25 mW (typ.)	1.5 W (typ.)	1.5 W (typ.)

* Depending on calibration

** Customizing on request

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