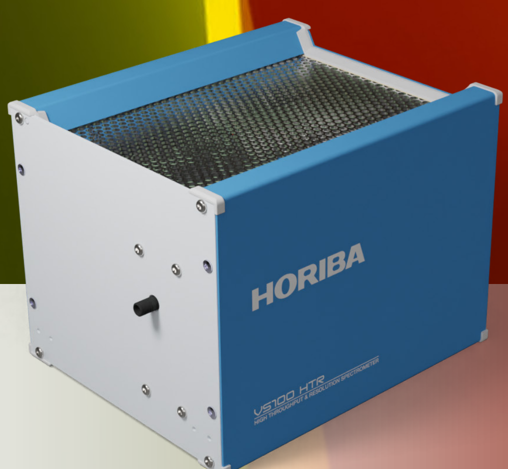
HORIBA

VS100 HTR

High Throughput & Resolution
for OEM Industrial Applications

- High throughput & resolution
- Large spectral range
- Robustness and thermal stability
- Flexible use for Single or Multichannel
- Full customization



VS100 HTR
SpecSheet

Discover the VS100 HTR Spectrometer: Redefining Precision and Versatility

Set a new benchmark in spectrometry with the VS100 HTR, an innovative optical module engineered for **exceptional throughput and remarkable resolution** over a **wide spectral range**. Delivering up to **five times the throughput of standard systems** and a sharp **1 nm resolution**, the VS100 HTR ensures precise, accurate measurements with minimal stray light. Its superior image quality makes it the ideal choice for both single and multichannel applications.

Built with a **robust, optimized architecture**, the VS100 HTR offers **outstanding mechanical strength and temperature stability,** ensuring reliable, **consistent performance** even in demanding environments.

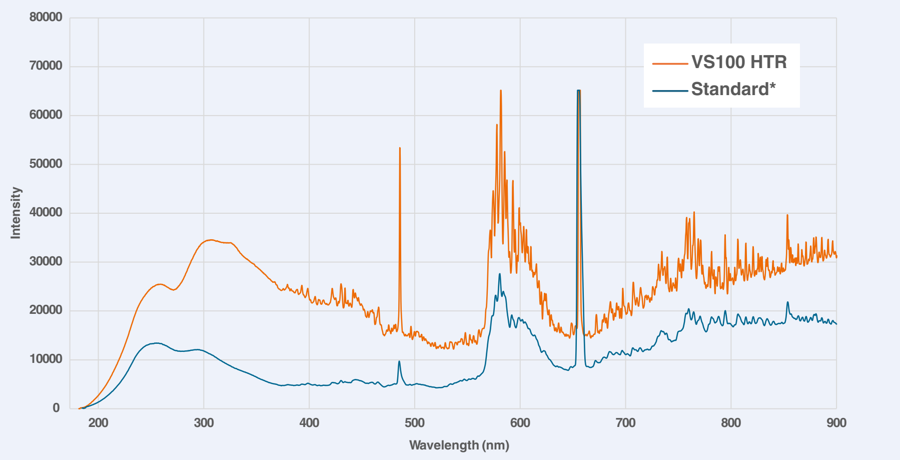
Specially **designed for detecting low-intensity signals**, this spectrometer provides uncompromising sensitivity and precision. Its advanced features make it the perfect fit for sophisticated industrial analysis, enabling more sensitive, reliable, and flexible measurements than ever before.

Specifications	
Typical applications	Lifesciences (Microplate readers, HPLC techniques,...), Semiconductors (Endpoint)
Measurement type	Absorbance, Emission, Reflectance
Spectral range	190-900 nm
Spectral resolution (FWHM)	1 nm(1)
Numerical aperture (NA)	0.22
Relative stray light	<0.15%(2)
Wavelength interpolation accuracy	<0.1 nm(3)
Wavelength stability over operational temperature	<0.2 nm
Detector	Back-thinned CCD
Maximum acquisition rate	714 Spectra/s
Output signal format	16bit
Dynamic range (FW/RN)	5200:1(4)
SNR	500(5)
Input connector	SMA 905(6)
Recommended input fiber core diameter	600 µm(7)
Recommended fiber NA	0.22
Communication	Ethernet TC/IP, Programmable Digital & Analog IO
Power requirements	24V, 1A
Typical power consumption	4W
Software	SDK SAPI / JY70 Spectrometer
Operating temperature	5°C to 45°C
Storage temperature	5°C to 55°C
Dimensions (L, W, H)	170 x 142 x 135 mm

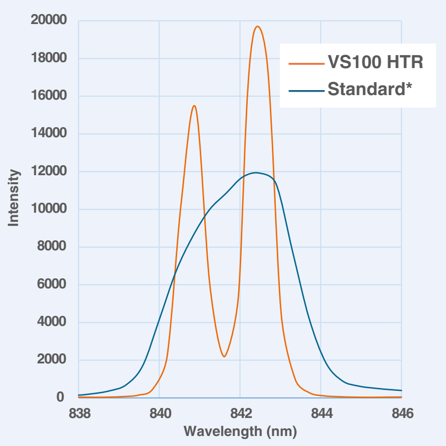
(1) 25 µm slit
(2) Measured with GG495 UV cut filter and 2,800 K tungsten lamp. Relative stray light is the maximum relative output for wavelength smaller than 480 nm. It is expressed in % relative to the maximum signal output in the 800 mm region.
(3) Wavelength interpolation accuracy measured after factory calibration on spectral lines.
(4) Dynamic range is defined as the ratio of the saturation level to the readout noise of the sensor.
(5) SNR is defined as the ratio of the average signal value over time to the standard deviation of the signal.
(6) Customization on slits, fibers and detectors available for volume industrial applications.
(7) 600 µm fiber core diameter used for test. Other diameters are possible.

Performance

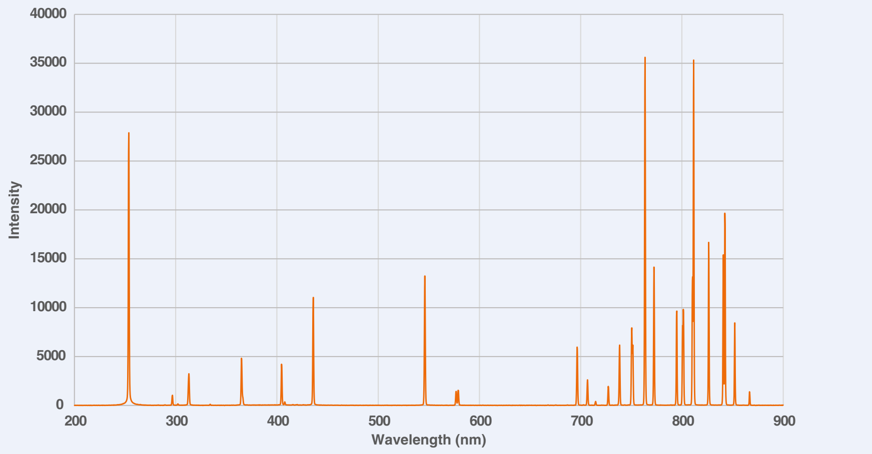
Throughput



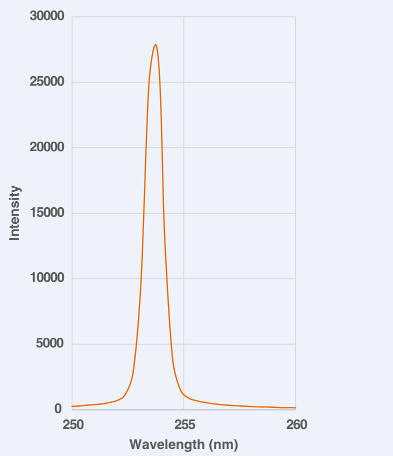
Resolution



Spectral Range



Symmetry



*Comparison with standard compact spectrometer with the same numerical aperture

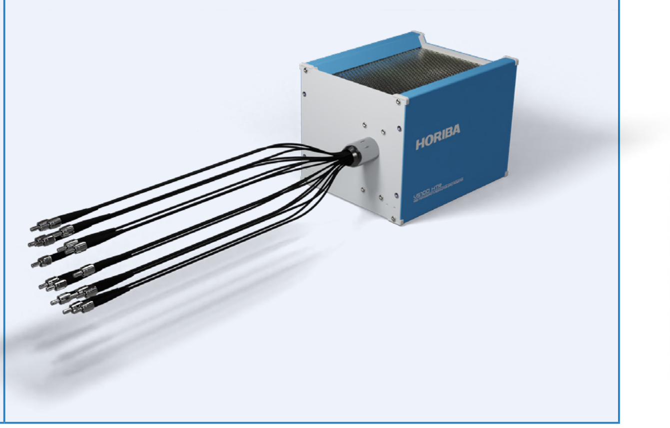
Options

Modular approach or full customization

HORIBA has more than 30 years experience as an OEM leader in grating and spectrometer supplies for industrial applications. We can propose standard spectrometer platforms, or customize them with different input types (slits or fibers), gratings, detectors or electronic drivers to satisfy any specific requirement.

Example of VS100 HTR customization with 16 channels

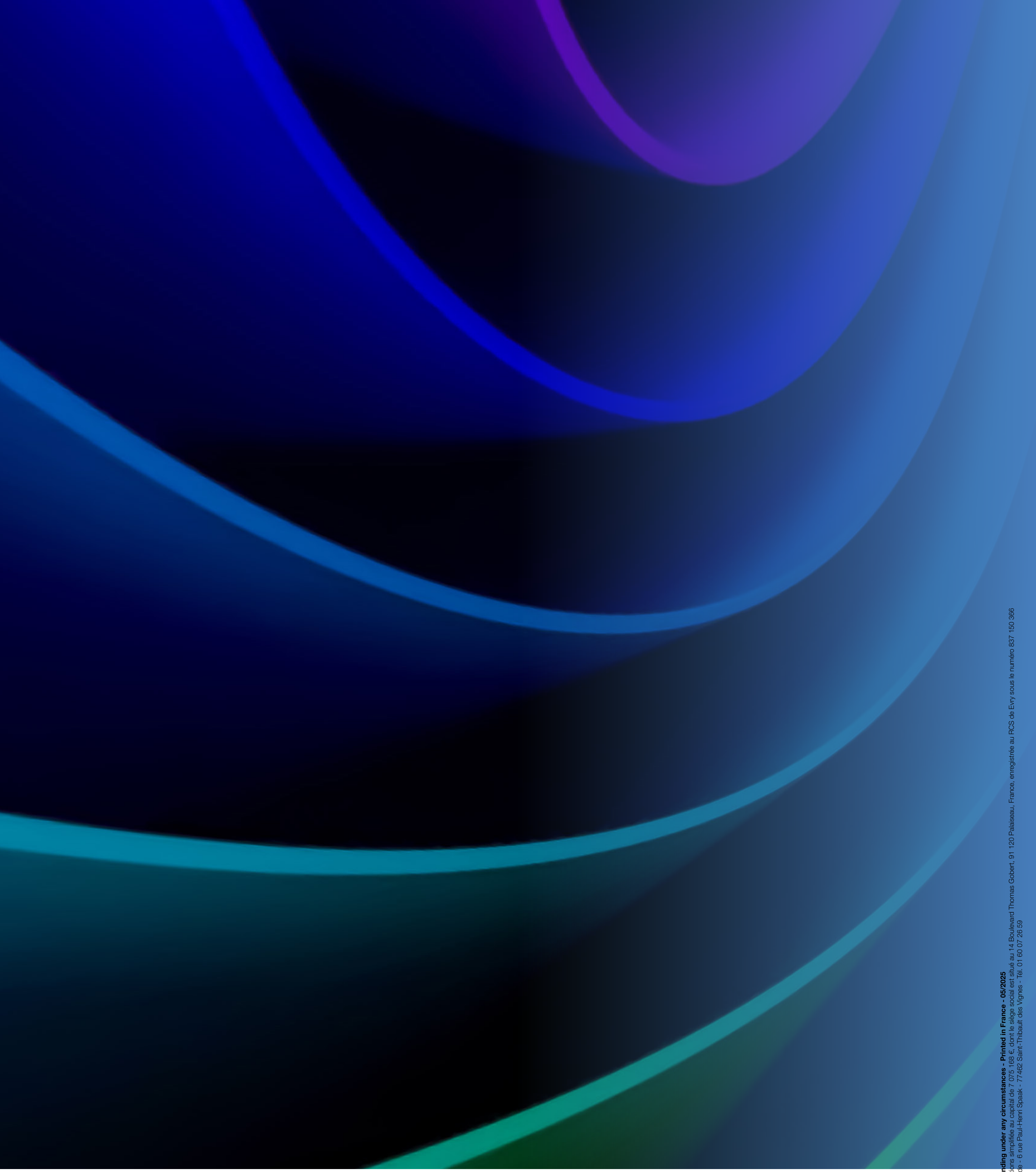
This unique optical design allows high quality image for volume industrial applications.



Conformity / Norms and compliance

HORIBA green policy

HORIBA has a strong and responsible environmental commitment with sustainable solutions through innovative eco-friendly technologies and designs.



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Explore the future

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