N-py series high-resolution near-infrared spectrometer

Product Introduction

Goptica's N-py series is a research-grade near-infrared fiber spectrometer featuring a symmetric Czerny-Turner optical path (focal length 100mm) and Hamamatsu cooled InGaAs detector, covering the 900-1700nm or 900-2500nm wavelength range. Unlike the HiNA-N series' transmission-based high-throughput optical path, the N-py utilizes a reflection-based C-T optical path, offering a more compact design with greater flexibility in spectral range and resolution, as well as dynamic range, making it ideal for high-precision near-infrared applications such as material analysis and moisture detection in the pharmaceutical industry.



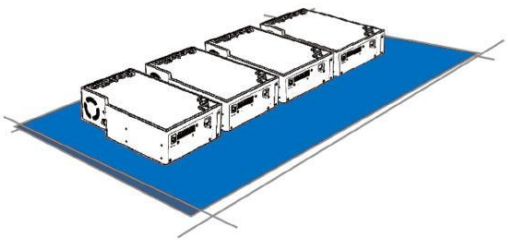
Characteristics

- Reflective C-T path
- Offers a flexible selection of gratings and detection ranges
- Refrigerated InGaAs detector
- Compact and stable design utilizing optical and electrical separation

Application

- Material analysis
- Near-infrared Raman detection
- Online moisture detection
- Various high-precision near-infrared reflectance and projection measurements

Improved consistency in performance control



Utilizing a flexible architecture and established quality assurance methods, "Uni-Standard" enables consistent inspection of various types of batch equipment. Leveraging advanced data analysis techniques, it can detect anomalies in equipment performance from large sample sets. It also supports online testing and experimentation to better assist users in managing the quality of their equipment.

Optical performance

Figures	Standard	Unit
Optical platform design	Symmetric C-T optical path	-
Wavelength range	900~1700、900~2200、900~2500	nm
Wavelength resolution	0.9~15	nm
Diffuse light	＜0.3%	-
Linearity after correction	＞99.5%	-

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Electrical parameters

Figures	Standard	Unit
Signal-to-noise ratio	1500：1	-
Image resolution (A/D)	16	bit
Integration time	5 μ s~30min	-
Energy consumption	5V DC@3A	-
Output method	10pin 2.54	-
Trigger mode	4	Species
Computer interface	USB 2.0/Gigabit Ethernet	-

Structure

Figures	Standard	Unit
Detector model	Hamamatsu，G14237-512WA Hamamatsu，G11477-512WB Hamamatsu，G14478-512WB	-
Dimensions	234.3*150.3*66.5	mm
Weight	1500	g
Pixels	512	μ m
Statue size	12.5*500	
Pixel depth	188 Me-	
Sensitivity	~400 Me-	

Available specifications

10 μ m	25 μ m	50 μ m	100 μ m	200 μ m	Optional grating available	Waves
0.5nm	0.8nm	1.5nm	3nm	6nm	830/1200nm	1064~1300nm ~1700cm-
2nm	3nm	5nm	10nm	20nm	300/1200nm	900~1700nm 512pix
5nm	7nm	12nm	18nm	34nm	200/1550nm	900~2200nm 256pix
3nm	5nm	10nm	16nm	32nm	200/1550nm	900~2200nm 512pix
5nm	8nm	11nm	18nm	38nm	150/2000nm	900~2500nm 512pix

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