

NIR SPECTROGRAPH 900 – 1700 nm

The NIR spectrograph offers high optical performance and easy integration for the NIR range. This spectrograph is designed to complement a camera that contains an InGaAs sensor and operates in the NIR (900 – 1700 nm) wavelength range.



NIR Spectrograph Specifications

Optical Characteristics	N17E
Spectral Range	900 - 1700 nm
Spectral Dispersion	110 nm/mm
Spectral Resolution	5 nm (w/ 30 μ m slit)
Spatial Resolution	RMS spot radius < 15 μ m
Image Size (Spectral x Spatial)	max. 7.6 x 14.2 mm
Numerical Aperture	F/2.0
Optical Input	Telecentric
Average Diffraction Efficiency	> 50%, independent of polarization
Stray Light	< 0.5% (halogen lamp, 1400 nm long-pass filter)
Slit Width, default	30 μ m (50, 80 and 150 μ m available on request)
Slit Length	14.3 mm
Magnification	1:1

Aberrations

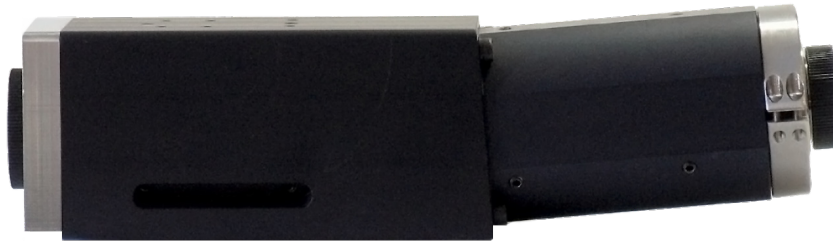
Bending of Spectral Lines Across Spatial Axis	Smile < 5 μ m (0.066%)
Bending of Spatial Lines Across Spectral Axis	Keystone < 5 μ m (0.035%)
Astigmatism	None

Mechanical Characteristics

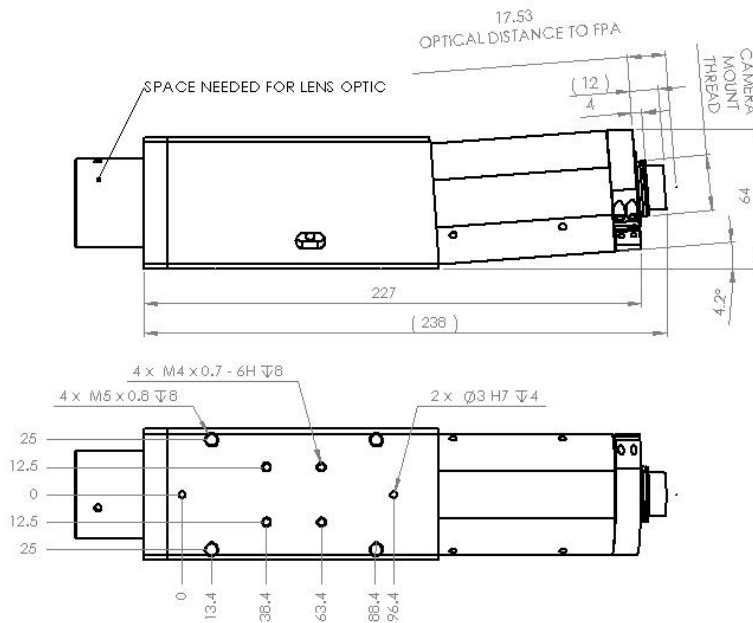
Body	Anodized Aluminum Tube
Size (W x H x L)	60 x 60 x 220 mm
Weight	1500 g
Lens Mount	Standard C-mount
Camera Mount	Standard C-mount or U-mount
User Adjustments	Image axis rotation relative to detector rows, back focal length adjustable \pm 1 mm

Environmental Characteristics

Storage Temperature	- 20 $^{\circ}$ C ... + 85 $^{\circ}$ C, non-condensing
Operating Temperature	+ 5 $^{\circ}$ C ... + 40 $^{\circ}$ C, non-condensing



Inspector N17E imaging spectrograph



Mechanical dimensions of Inspector N17E imaging spectrograph.

NIR Spectrographs Ordering Information		
Part Number	Description	Product Name
MRC-305-003-01	ImSpector – Enhanced NIR Spectrograph N17E, 30 µm slit* (default)	ImSpector N17E

* When ordering please specify if different slit width is needed.