SPECIM SX25

SPECIM
A Konica Minolta Company

UNLOCK PRECISE MATERIAL INSIGHTS

The Specim SX25 is a high spectral resolution line-scan hyperspectral camera built for those who demand the most accurate material analysis. Operating in the shortwave infrared (SWIR) range from 960 to 2500 nm, it delivers exceptionally detailed spectral data for accurate material identification and in-depth chemical analysis.

With advanced features such as built-in image correction and unified spectral calibration between units, the Specim SX25 ensures reliable and repeatable results across setups and users.
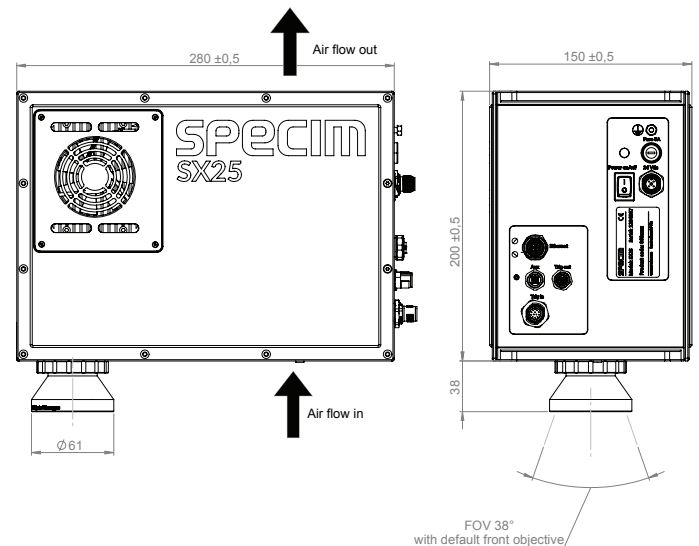
IDEAL FOR APPLICATIONS SUCH AS:

- Coating layer inspection
- Mineral and ore classification
- Agricultural and food quality analysis
- Chemical and pharmaceutical research
- Moisture and composition measurement
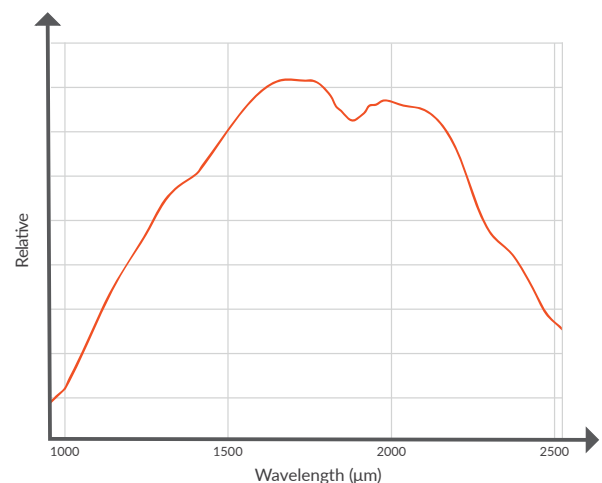- Cultural heritage and art conservation

KEY FEATURES

- Spectral range: 960–2500 nm
- High spatial resolution: 640 pixels
- Frame rate: 162 FPS
- Spectral flexibility: Select from 392 bands (MROI)
- Built-in image correction for enhanced data quality
- Unified spectral calibration for cross-device consistency
- GigE interface for easy integration
- Compact and lightweight (5.3 kg) for improved usability
- Compliance: CE

DIMENSIONS

280 ±0,5

Air flow out

150 ±0,5

200 ±0,5

38

Air flow in

Ø61

FOV 38°
with default front objective

SPECTRAL RESPONSE

Relative

Wavelength (μm)

Spectral Range	960 nm - 2500 nm	
Spectral resolution (FWHM)	8 nm	
Spectral sampling/pixel	4 nm	
Spectral bands	392	
F-number	2.0	
Optics magnification	0.8	
Effective pixel size	18.75 um	At fore lens image plane
Effective slit width	37.5 um	At fore lens image plane
Effective slit length	12 mm	At fore lens image plane
Dynamic range	73 dB = 4500:1	$DR=20*\log(S\_range/N\_readout)$
SNR maximum	1500	
Spatial samples	640	
Bit depth	16	
Maximum frame rate	162 fps	
Binning	1,2,4 spectral and spatial	
ROI	Freely selectable multiple bands of interest	In CameraOS
Pixel operability	99.5 %	
Image corrections	NUC, BPR, AIE	
Dark level stabilization	Yes	
Sensor material	MCT	
Integrated cooler	Stirling	
Full well capacity	≥ 1.5 Me-	
Read-out modes	ITR / IWR	
Lens mount	Specim mount	Accessory: C-mount adapter
Fore lens FOV options	38° OLETS17 OLESMacro 66° OLES9	
Camera digital data output/control interface	GigE Vision / Ethernet	
Camera control protocols	GenICam / Json-RPC	
Power input	24 VDC	150W 100-240VAC AC adapter to wall plug
Power consumption	Max 35 W, Typical 27 W	
Connectors	Ethernet, Aux, Power, Trig In, Trig Out	
IP	IP40	
Dimensions (L x W x H)	280 mm x 200 mm x 150 mm	
Weight	5.3 kg	
Storage temperature	-20 ... +50 °C (non-condensing)	
Operating temperature	+5 ... +40 °C (non-condensing)	
Relative humidity	5% – 95% (non-condensing)	