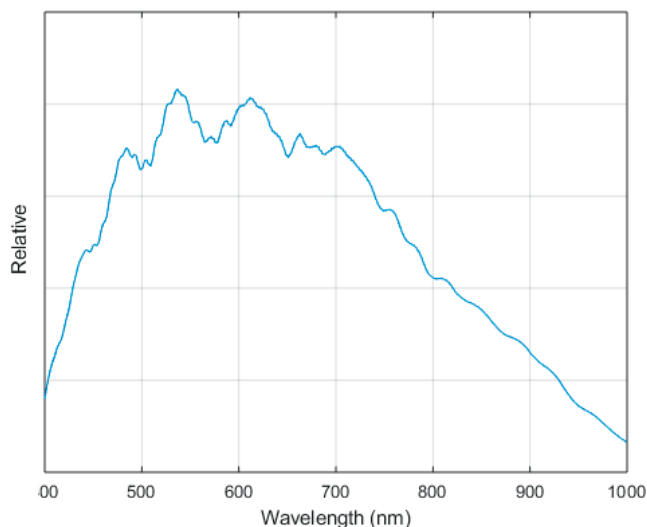




FEATURES

- Spectral range of 400-1000 nm
- High spatial resolution of 1024 pixels
- High image speed of 327 FPS (full range)
- Free wavelength selection from 224 bands within the camera coverage
- Built-in image correction
- Unified spectral calibration between units
- Reversed polarity and over-voltage protection
- GigE standard interface
- Easy mounting to industrial environment
- Certificates: CE, RoHS

SPECTRAL RESPONSE



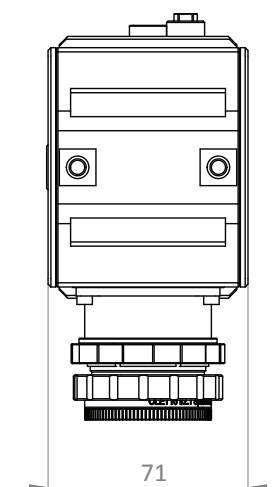
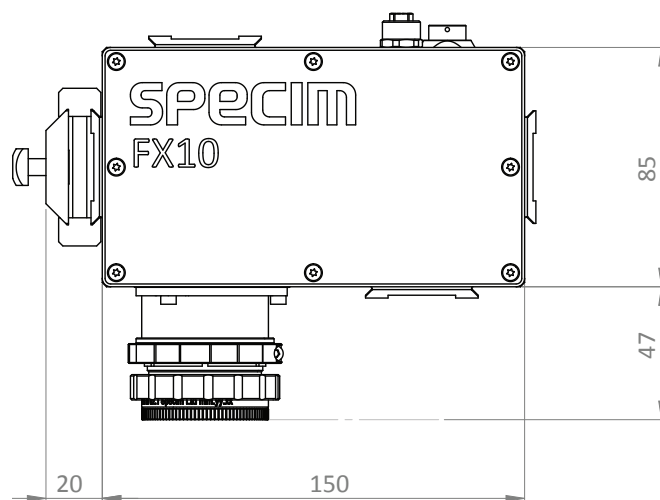
IMPROVE ACCURACY AND REDUCE COSTS

The Specim FX10 camera is designed for both industrial and laboratory applications. It operates in line-scan mode and captures hyperspectral data in the visible and near-infrared (VNIR) spectral range of 400-1000 nm.

Specim FX10 cameras are best suited for:

- Vegetation & agriculture
- Phenotyping
- Color & density in printing
- Display & light source inspection
- Food quality

DIMENSIONS



Spectral Range	400-1000 nm	
Spectral resolution FWHM (typical mean)	5.3 nm +/- 0.3 nm (2 sigma)	
Spectral sampling/pixel	2.7 nm	With default binning
Spectral bands	224	With default binning
Spatial pixels	1024	
Numerical aperture	1.7	With default lens
Optics magnification	0.80	
Effective pixel size	19.9x9.97 µm	At fore lens image plane
Effective slit width	42 µm	At fore lens image plane
Effective slit length	10.2 mm	At fore lens image plane
SNR @ max. signal	420 : 1	
Dynamic range	60 dB = 1000:1	
Bit depth	12	
Maximum frame rate	327 FPS full range	
Binning	2,4,8 spectral and spatial	Default: 2 spectral x 1 spatial
ROI	Freely selectable multiple bands of interest	Minimum height of ROI is two 1-binned rows. Maximum frame rate is determined by the total number of rows included in the mMROI's
Pixel operability	99.993%	
Image corrections	Non uniformity correction Bad pixel replacement Automatic Image Enhancement (AIE)	One point NUC AIE: Unified spectral calibration + corrected smile and keystone aberrations
Sensor	Silicon CMOS	
Sensor cooling	Passive	
Full well capacity	90 ke-	
Read-out modes	IWR / ITR	
Lens mount	Custom mount	
Fore lens FOV options	12°, 24°, 38° (default), 46°, 51°, 83°, Macro lens	
Camera digital data output/control interface	GigE Vision	
Camera control protocols	GenICam	
Power input	12V -10% to 24V +10%	
Power consumption	Max 4 W	
Triggers	Shaft encoder inputs A,B,Z,Alarm TTL out, Two wide voltage/TTL outputs	
Connectors	17 pin M12 for power and I/O, M12 X-coded Ethernet connector for GigE	Trigger and synchronization: Shaft encoder interface (A,B,Z) and three digital output
IP	IP52	
Dimensions (L x W x H)	150 x 85 x 71 mm	Mounting surface option on three sides. Mounting kit adds 24 mm distance on mounting side.
Weight	1.3 kg	
Storage temperature	-20 ... +50°C (non-condensing)	
Operating temperature	+5 ... +40°C (non-condensing)	
Relative humidity	5% – 95% (non-condensing)	

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