

3.1.2 In-Sight Stainless Steel Vision System Specifications

Table 3-2: 5400CS, 5403S, 5400S Vision System Specifications

Specification		In-Sight 5400CS	In-Sight 5403S	In-Sight 5400S
Minimum Firmware Requirement		In-Sight version 2.80.01 PR1		
Memory	Job/Program	32MB non-volatile flash memory; unlimited storage via remote network device.		
	Image Processing	64MB		
Image	Sensor	1/3-inch CCD	1/1.8-inch CCD	1/3-inch CCD
	Sensor Properties	5.92mm diagonal, 7.4 x 7.4µm sq. pixels	8.80mm diagonal, 4.4 x 4.4µm sq. pixels	5.92mm diagonal, 7.4 x 7.4µm sq. pixels
	Resolution (pixels)	640 x 480	1600 x 1200	640 x 480
	Electronic Shutter Speed	16µs to 1000ms	27µs to 1000ms	16µs to 1000ms
	Acquisition	Rapid reset, progressive scan, full-frame integration.		
		24 bit color		256 grey levels (8 bits/pixel)
		Gain/Offset controlled by software.		
		60 full frames per second. ¹	14 full frames per second. ¹	60 full frames per second. ¹
	Lens Type	C-mount		
	CCD Alignment Variability ²	±0.127mm (0.005in), (both x and y) from lens C-mount axis to center of imager.		
I/O	Trigger	1 opto-isolated, acquisition trigger input.		
		Remote software commands via Ethernet and RS-232C.		
	Discrete Inputs	None built-in. Additional inputs available using a compatible I/O module (see Table 1-3). Unlimited inputs when using an Ethernet I/O system.		
	Discrete Outputs	2 built-in, high-speed outputs. Additional outputs available using a compatible I/O module (see Table 1-3). Unlimited outputs when using an Ethernet I/O system.		
	Status LEDs	Power, Network Status, Network Traffic, 2 user configurable.		

Table 3-2: 5400CS, 5403S, 5400S Vision System Specifications (Cont.)

Specification		In-Sight 5400CS	In-Sight 5403S	In-Sight 5400S
Communications	Network	1 Ethernet port, 10/100 BaseT, TCP/IP protocol. Supports DHCP (factory default) or static IP address.		
	Serial	RS-232C when connected to an optional I/O module.		
Power		24VDC $\pm 10\%$, 350mA maximum.	24VDC $\pm 10\%$, 500mA maximum.	24VDC $\pm 10\%$, 350mA maximum.
Mechanical	Material	ASTM 316L Stainless Steel.		
	Finish	Electropolish Passivated.		
	Mounting	Four M4 threaded mounting holes on back of vision system.		
	Dimensions	90.6mm (3.57in) x 124.0mm (4.88in) x 61.4mm (2.42in) with Lens Cover installed.		
		43.5mm (1.71in) x 124.0mm (4.88in) x 61.4mm (2.42in) without Lens Cover installed.		
	Weight	907 g (32.0 oz.) Lens cover installed, without lens.		
Environmental	Temperature	Operating: 0°C to 45°C (32°F to 113°F) Storage: -30°C to 80°C (22°F to 176°F)		
	Humidity	95%, non-condensing (Operating and Storage)		
	Protection	IP68 (with appropriate Lens Cover properly installed).		
	Shock	80 G Shock with 150 gram lens attached per IEC 68-2-27.		
	Vibration	10 G from 10-500 Hz with 150 gram lens per IEC 68-2-6.		
Regulatory Compliance		CE, UL, CUL, FCC, RoHS		

1. Maximum frames per second are job dependent and based on the minimum exposure for a full image frame capture.
2. Expected variability in the physical position of the CCD, from vision system-to-vision system. This equates to $\sim \pm 17$ pixels on a 640 x 480 resolution CCD and $\sim \pm 29$ pixels on a 1600 x 1200 resolution CCD.

3.3.2 5403S, 5400CS and 5400S Vision System Dimensions

Notes:

- All dimensions are in millimeters [inches] and are for reference purposes only.
- All specifications may be changed without notice.

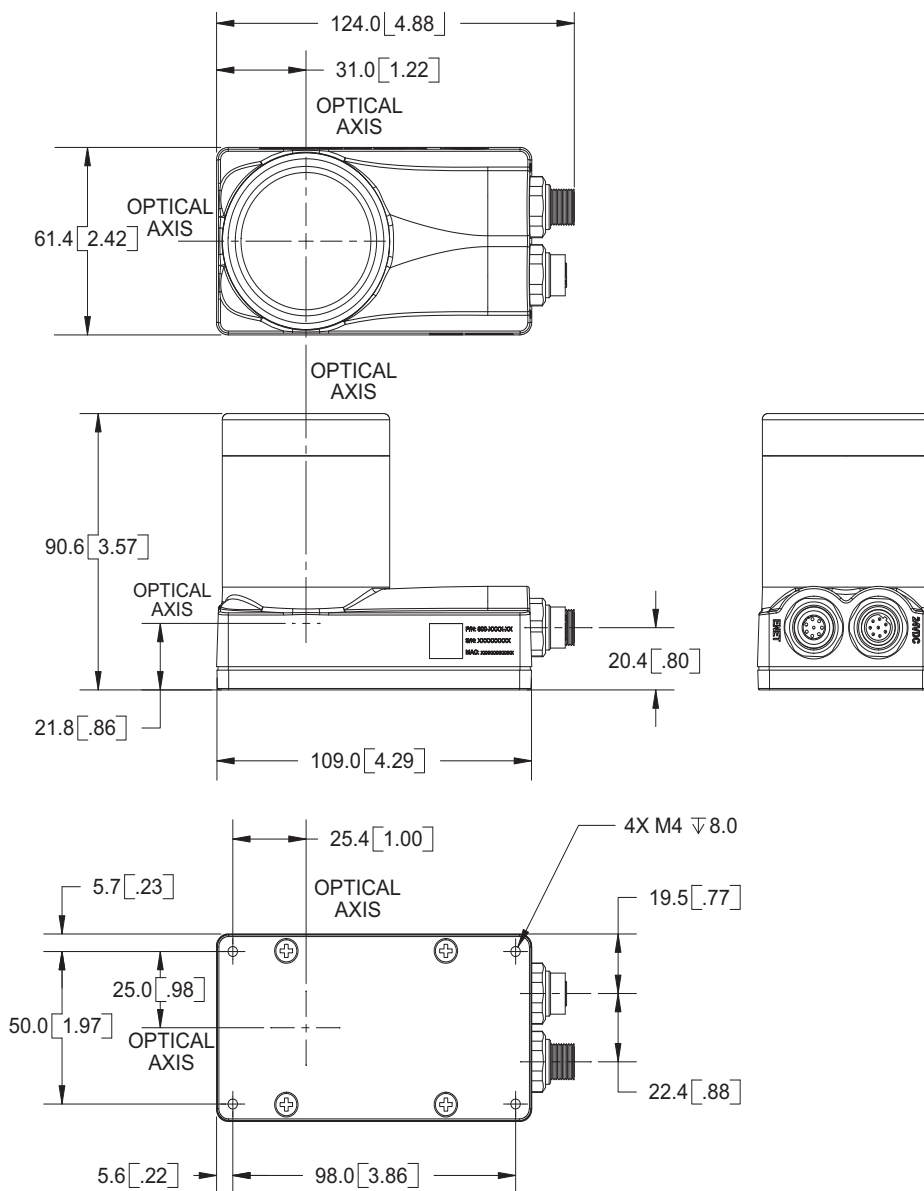


Figure 3-8: Stainless Steel Vision System Dimensions (With Lens Cover)

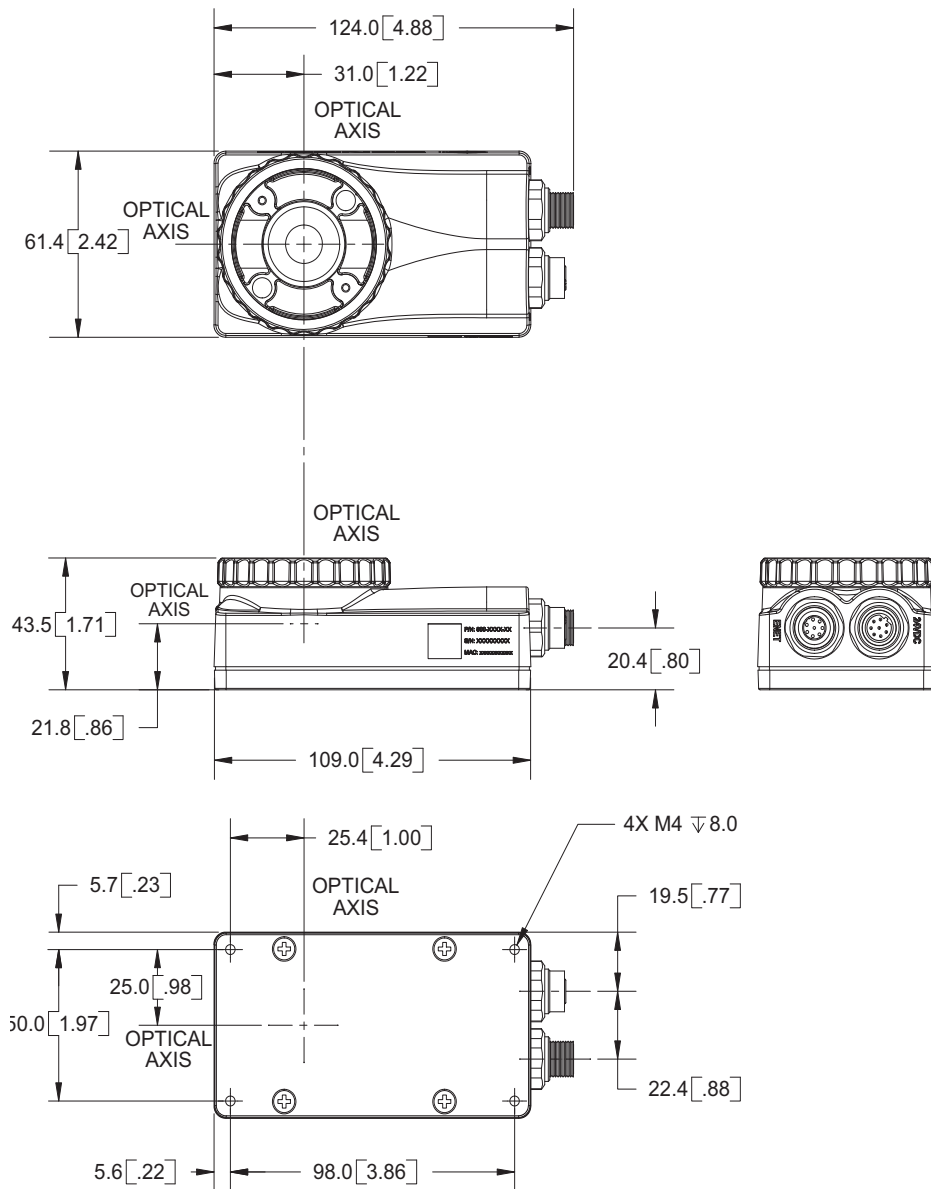


Figure 3-9: Stainless Steel Vision System Dimensions (Without Lens Cover)