

# Specifications

The following sections list general specifications for the In-Sight 8405 vision system.

## Vision System Specifications

Specifications	In-Sight 8405
Minimum Firmware Requirement	In-Sight Explorer 5.1.0
Job/Program Memory	512MB non-volatile flash memory; unlimited storage via remote network device.
Image Processing Memory	512MB SDRAM
Sensor Type	1/2.5 inch CMOS, rolling-shutter
Sensor Properties	7.13mm diagonal, 2.2 x 2.2µm sq. pixels
Maximum Resolution (pixels) <sup>1</sup>	2592 x 1944
Electronic Shutter Speed	32µs to 1000ms
Acquisition	Rapid reset, progressive scan, full-frame integration.
Bit Depth	256 grey levels (8 bits/pixel).
Frames Per Second <sup>2</sup>	10 full frames per second.
Lens Type	C-Mount
Trigger	1 opto-isolated, acquisition trigger input. Remote software commands via Ethernet.
Discrete Inputs	None.
Discrete Outputs	2 opto-isolated, NPN/PNP high-speed output lines.
Status LEDs	Network, 2 user-configurable.
Network Communication	1 RJ-45 Ethernet port, 10/100/1000 BaseT with auto MDIX. IEEE 802.3af TCP/IP Protocol. Supports DHCP, static and link-local IP address configuration.
Serial Communication	None.
Power	Class 2 Power over Ethernet (PoE) device.
Power Type	PoE Type A and Type B.
Power Consumption	6.49 W maximum per Class 2 PoE.
Current	Per Class 2 PoE requirements.
Voltage	48VDC nominal, applied from a Class 2 PoE injector, which is typically powered from some other voltage.
Material	Die-cast zinc housing.
Finish	Painted.
Mounting	Four M3 threaded mounting holes (1/4-20 and M6 mounting holes also available on accessory mounting block).
Dimensions	31.0mm (1.22in) x 31.2mm (1.23in) x 71.6mm (2.82in) without accessory mounting block. 39.0mm (1.54in) x 31.2mm (1.23in) x 71.6mm (2.82in) with accessory mounting block.

<sup>1</sup> The number of image sensor rows are configurable and can be set within the In-Sight Explorer software. Decreasing the number of rows will increase the number of frames per second acquired by the vision system. Refer to the AcquireImage topic in the *In-Sight® Explorer Help* file for more information.

<sup>2</sup> Maximum frames per second is job-dependent, based on the minimum exposure for a full image frame capture using the dedicated acquisition trigger, and assumes there is no user interface connection to the vision system.

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Weight	78 g (2.75 oz.) without accessory mounting block 109 g (3.84 oz.) with accessory mounting block

Case Temperature <sup>1</sup>	0°C to 50°C (32°F to 122°F)
Storage Temperature	-20°C to 80°C (-4°F to 176°F)
Humidity	< 80% non-condensing
Protection	IP30 with cables and lens attached.
Shock (Shipping and Storage)	IEC 60068-2-27: 18 shocks (3 shocks in each polarity in each (X, Y, Z) axis) 80 Gs (800 M/S <sup>2</sup> at 11 MS, half-sinusoidal)
Vibration (Shipping and Storage)	IEC 60068-2-6: vibration test in each of the three main axis for 2 hours @ 10 Gs (10 to 500 Hz at 100m/s <sup>2</sup> / 15mm)
Regulations/Conformity	CE, FCC, KCC, TÜV SÜD NRTL, RoHS