

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) ¹ | 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 ² | 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. |

¹ 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.

² 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 |

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|----------------------------------|---|
| Case Temperature ¹ | 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 ² 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 ² / 15mm) |
| Regulations/Conformity | CE, FCC, KCC, TÜV SÜD NRTL, RoHS |