

Overview of the Sensor



The iVu Series Image Sensor is used to monitor parts for type, size, orientation, shape, and location. The package consists of lighting, sensor, lens, and display. Appropriate cables and mounting brackets can be ordered for each application. Additionally, other lenses, brackets, filters and external lights are available. Installation, setup and configuration can be done quickly without requiring a PC to configure the sensor.


Features

- Three sensors in one package—a match sensor that determines whether a pattern on a label or part matches some reference pattern; an area sensor that detects whether a particular feature (or features) is present or not; and an area sensor with tools that adjust for motion
- No external PC required to configure the sensor
- USB 2.0 compliant host provided for easy updating and diagnostics
- Special image processing expertise is not required
- Integrated color touch screen display
- High speed processing

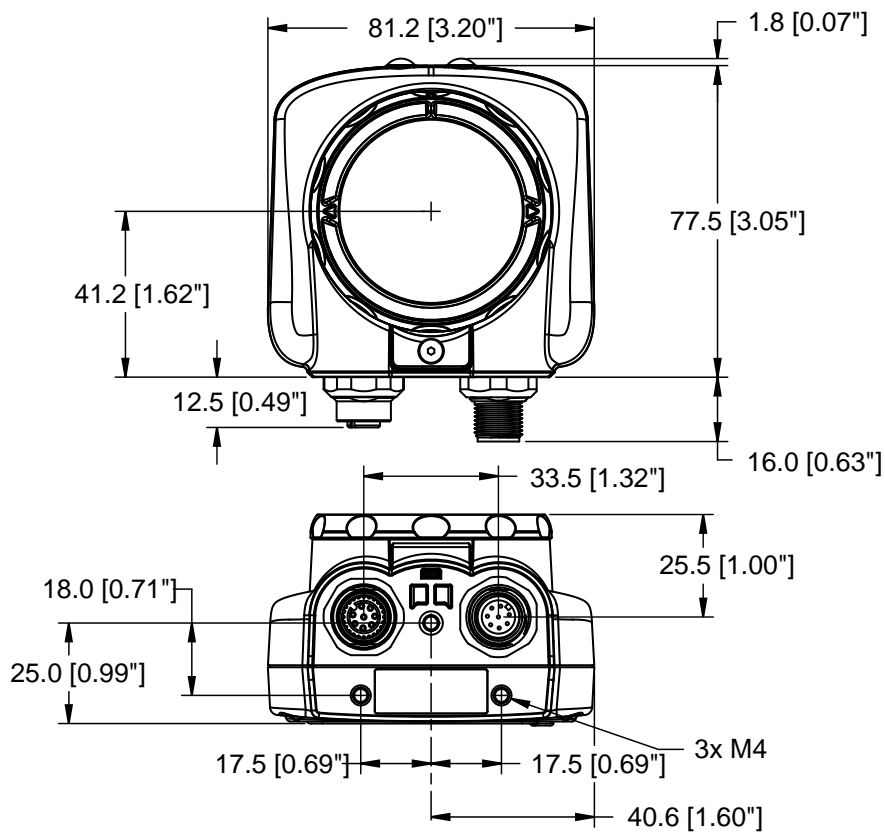
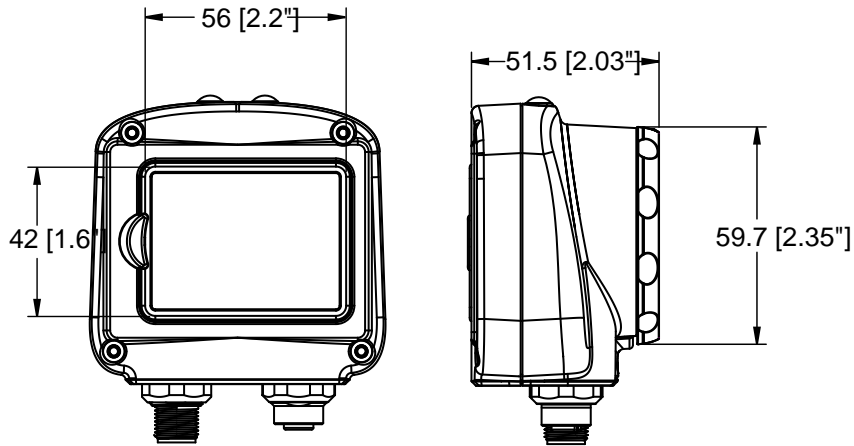
Models

| Ring Light Options | Lens Options | | | | Output Type |
|--------------------|--------------|-----------|-----------|-----------|-------------|
| | 8 mm | 12 mm | 16 mm | 25 mm | |
| None | IVUTGNX08 | IVUTGNX12 | IVUTGNX16 | IVUTGNX25 | NPN |
| | IVUTGPX08 | IVUTGPX12 | IVUTGPX16 | IVUTGPX25 | PNP |
| Red | IVUTGNR08 | IVUTGNR12 | IVUTGNR16 | IVUTGNR25 | NPN |
| | IVUTGPR08 | IVUTGPR12 | IVUTGPR16 | IVUTGPR25 | PNP |
| Blue | IVUTGNB08 | IVUTGNB12 | IVUTGNB16 | IVUTGNB25 | NPN |
| | IVUTGPB08 | IVUTGPB12 | IVUTGPB16 | IVUTGPB25 | PNP |
| Green | IVUTGNG08 | IVUTGNG12 | IVUTGNG16 | IVUTGNG25 | NPN |
| | IVUTGPG08 | IVUTGPG12 | IVUTGPG16 | IVUTGPG25 | PNP |
| IR | IVUTGNI08 | IVUTGNI12 | IVUTGNI16 | IVUTGNI25 | NPN |
| | IVUTGPI08 | IVUTGPI12 | IVUTGPI16 | IVUTGPI25 | PNP |

Sensor Specifications


| Feature | Description |
|-------------------------------|---|
| Power Connection | 8-pin Euro-style (M12) male connector; accessory cable required for operation (see Power Cables on page 4). |
| USB 2.0 Host | 8-pin Euro-style (M12) female connector; optional USB cable required for operation of USB Thumb Drive (see USB Cables on page 5). |
| Power Requirements | Voltage: 10-30V dc Current: 500 mA maximum (exclusive of I/O load) |
| Output Configuration | NPN or PNP determined by model |
| Tools | Match, Area, Area with Motion |
| Demo Mode | Full tool functionality on canned images |
| Sensor Lock | Optional password protection |
| External Strobe Output | + 5V dc |
| Integrated Ring Light | Red, NIR, Green, Blue |
| Output Rating | 150 mA |
| Display | 68.5 mm (2.7") LCD Color Integrated Display 320 X 240 Transreflective |
| Acquisition | Frames Per Second: 100 max. |
| Exposure Time | 0.1 to 1.049 s |
| Imager | 1/3 inch CMOS 752 X 480 pixels; adjustable Field of View (FOV) |
| Lens Mount | M12 X 1 mm thread; micro video lens |
| Construction | Black Valox™ sensor housing; acrylic window Weight: Approximately .295 kg (10.4 oz.) |
| Environmental Rating | IP67 |
| Operating Conditions | Stable Ambient Temperature: 0° to + 50° C (+32° to + 122° F) Relative Humidity: 95%, max. relative, non-condensing |
| Certifications |  |

Dimensions



Cable Connections

The power and I/O cable for the iVu Series sensor is available in 2, 5, 9, and 15 m (6, 15, 30, 50') lengths. The 8-pin connector on the sensor is shown below (B). See the table below for details.

| | Pin # | Wire Color | Description | Direction |
|---|-------|------------|-------------------------|-------------------------|
|  | 2 | Brown | 10-30V dc | Input |
| | 7 | Blue | Common (Signal Ground) | Input |
| | 6 | Pink | External Trigger | Input |
| | 5 | Gray | Remote Teach | Input |
| | 1 | White | Pass/Fail | Output |
| | 8 | Red | Ready | Output |
| | 4 | Yellow | Strobe Out (5V dc only) | Output |
| | 3 | Green | <i>Reserved</i> | Output (Do not connect) |

Power Cables

| Model | Length | Description |
|---------------------|------------|--------------------------|
| MQDC2S-806 | 2 m (6') | 8-pin cable, straight |
| MQDC2S-815 | 5 m (15') | |
| MQDC2S-830 | 9 m (30') | |
| MQDC2S-850 | 15 m (50') | |
| MQDC2S-806RA | 2 m (6') | 8-pin cable, right angle |
| MQDC2S-815RA | 5 m (15') | |
| MQDC2S-830RA | 9 m (30') | |
| MQDC2S-850RA | 15 m (50') | |

USB Cables

| Model | Length | Description |
|------------------|------------|------------------------|
| MQDEC-8005-USB | .15 m (6") | USB cable, straight |
| MQDEC-801-USB | .30 m (1') | |
| MQDEC-803-USB | .90 m (3') | |
| MQDEC-810-USB | 3 m (10') | |
| MQDEC-8005RA-USB | .15 m (6") | USB cable, right angle |
| MQDEC-801RA-USB | .30 m (1') | |
| MQDEC-803RA-USB | .90 m (3') | |
| MQDEC-810RA-USB | 3 m (10') | |

Lenses

| Model | Lens Description |
|-------|------------------|
| LMF08 | 8 mm lens |
| LMF12 | 12 mm lens |
| LMF16 | 16 mm lens |
| LMF25 | 25 mm lens |

Filters

| Model | Description |
|-------|------------------|
| FLTMR | Red filter kit |
| FLTMB | Blue filter kit |
| FLTMG | Green filter kit |
| FLTMI | IR Filter kit |

Brackets

| Model | Description | Mounting Bracket |
|-----------|---|--|
| SMBIVURAL | Right angle, left mounting bracket |  |
| SMBIVURAR | Right angle, right mounting bracket |  |
| SMBIVUB | Bottom mounting bracket kit |  |
| SMBIVUU | U-shape mounting bracket kit (includes SMBIVUB) |  |



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