**VISION**

## A30 SMART CAMERA

The A30 Series is a stand-alone, general purpose and cost effective Smart Camera that can be installed even in harsh industrial environments thanks to its IP67 rated housing. The A30 Series features a VGA (640x480) CCD imager, built-in discrete I/Os as well as Ethernet and Serial interfaces. Thanks to the ultimate programming flexibility offered by Impact software, the A30 Series represents the answer to every machine vision need.

## HIGHLIGHTS

- IP67 Rated Enclosure with sealed connectors – No bulky 'add on" enclosure required for harsh environments

- High quality VGA CCD sensor – delivering reliable and stable image quality performance

- Can be run with or without an operator interface – For full turnkey integration capability or standalone use

- Complete Impact software toolset for ultimate programming flexibility – Ability to address any inspection and user interface needs through Impact software

- Complete communications support, including RS232 Serial, Ethernet and Discrete I/O – For easy data transfer to any industrial platform

- Real-time operating system – Offers highly deterministic timing for precise output of inspection results

## PRODUCT SPECIFICATIONS

| | |
|---|---|
| Resolution | 640 x 480 CCD |
| Pixel size | 7.4 x 7.4 um |
| Imager size | 1/3" |
| Lens mount | C-Mount |
| Frames/sec | 60 |
| Processor | 800 MHz TI Da Vinci |
| Housing | Right Angle - IP67 |
| Housing dimensions maximum (LxWxH) | 123 x 65 x 86 mm (4.84 x 2.55 x 3.41 in) |
| Dedicated I/O | 1 In / 1 Out |
| Configurable I/O | 1 In / 2 Out |
| I/O optically isolated | YES |
| External button | YES |
| Power requirements | 10-30 VDC 1.0 - 0.33 A |
| RS-232 serial | YES |
| Ethernet | YES |
| Storage | 256 MB Flash |
| RAM | 512 MB |
| Operating Temperature | 0 to 45 °C |
| Humidity (non-condensing) | 0 to 90% |
| Certifications | CE, CSA |

## APPLICATIONS

### Surface Flaw Detection

The A30 smart camera is perfectly suited to identify flaws such as scratches, porosity and other defects in the surfaces of machined materials or other finished goods. The system will identify and quantify the size, location and number of defects allowing for easy defect sorting and analysis. Additionally, the integrated high speed I/O will allow for fast rejection or signaling of inspection results to reject mechanisms or other devices such as PLCs. Viewing images and inspection data, as well as controlling the A30's settings, can be done through Impact's Control Panel Manager software.
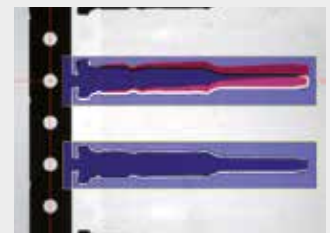
### Hi-Speed Product locating

With powerful high speed features, that rival more expensive PC based systems, the cost effective A30 is excellent for accurately finding part position and rotation of product - in mere milliseconds. This capability makes the smart camera perfect for locating moving parts or compensating for movement in manufacturing processes that present paroducts in an inconsistent manner during inspection. This capability is a standard feature of the A30 product and enhances the smart camera's inspection performance.

### Template Matching

When contoured products, such as stamped connector pins, need inspections for edge variation or surface defects, the A30 can provide reliable testing at speeds up to 60 images per second with template matching. When the system trained on a good or 'golden' part, variations found in inspected parts can be quantified for both size and number of defects. Tolerance parameters can then be set to allow small acceptable variations and or a maximum number of found defects in the inspected product. The operator is shown where the defects are found, by highlighted areas surrounding the defect, in the part image.
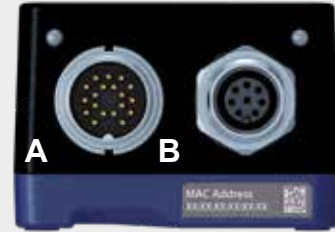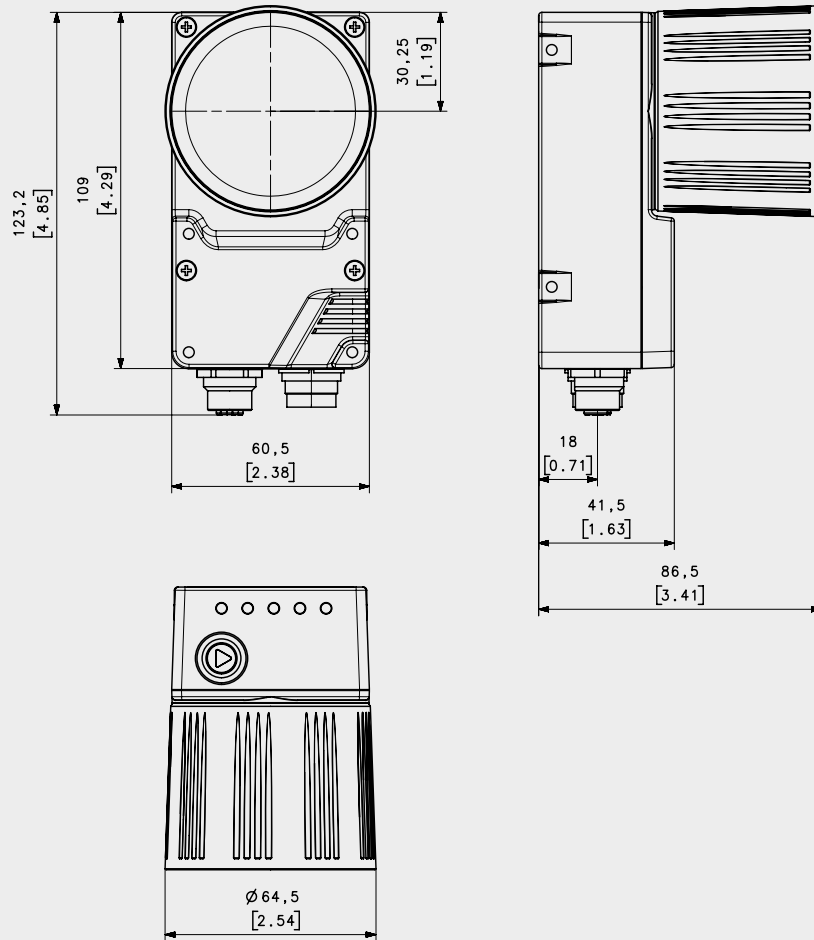
## HMI INTERFACE

| LED Color | Red | Yellow | Yellow | Yellow | Green |
|---|---|---|---|---|---|
| LED Function | Busy | Out 1 | Out 2 | Out 3 | On Line |

## CONNECTORS

**A** - M16 Male 19 poles (I/O & Power)
**B** - M12 Female 8 poles A-Coded (Gigabit Ethernet)

## DIMENSIONS

30,25
[1.19]

123,2
[4.85]

109
[4.29]

60,5
[2.38]

18
[0.71]

41,5
[1.63]

86,5
[3.41]

Ø 64,5
[2.54]

mm
[inch]

## MODEL SELECTION AND ORDER INFORMATION

| MODEL | ORDER N° |
|---|---|
| A30, 640 x 480, 60 FPS, 1/3" CCD | 959965000 |

## ACCESSORY SELECTION AND ORDER INFORMATION

| MODEL | DESCRIPTION | ORDER N° |
|---|---|---|
| OCR Software License | OCR software license | 098-0223 |
| CAB-SCS01 Cable, A30/T4x to CBX, 1M | T4x to CBX connection cable - 1 meter | 95A906068 |
| CAB-SCS03 Cable, A30/T4x to CBX, 3M | T4x to CBX connection cable - 3 meters | 95A906069 |
| CAB-SCS05 Cable, A30/T4x to CBX, 5M | T4x to CBX connection cable - 5 meters | 95A906070 |
| CAB-SCS10 Cable, A30/T4x to CBX, 10M | T4x to CBX connection cable - 10 meters | 95A906071 |
| CAB-GE01 M12-IP67 TO RJ45 1M | Gig-E ethernet cable - 1 meter | 93A050034 |
| CAB-GE03 M12-IP67 TO RJ45 3M | Gig-E ethernet cable - 3 meters | 93A050035 |
| CAB-GE05 M12-IP67 TO RJ45 5M | Gig-E ethernet cable - 5 meters | 93A050036 |
| CAB-GE10 M12-IP67 TO RJ45 10M | Gig-E ethernet cable - 10 meters | 93A051389 |
| I/O Board, A30/T4x, Female DB25, DIN Rail Mountable | I/O Board, DIN Rail Mountable | 95A906346 |
| CBX500 CONNECTION BOX MODULAR | CBX500 connection box | 93A301068 |
| CBX800 GATEWAY | CBX800 connection box | 93A301077 |
| BM300 PROFIBUS MODULE | Profibus module | 93ACC1810 |
| BM310 PROFIBUS IP65 MODULE | Profibus module with IP65 connector | 93ACC1811 |
| BA100 DIN RAIL ADAPTERS | CBX adapter for DIN rail mounting | 93ACC1821 |
| BA200 BOSCH ADAPTERS | CBX adapter for Bosch profile mounting | 93ACC1822 |

CE | **FDA** Conforming to FDA regulations

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