

# VS-1 SMART CAMERA



## Integrated Machine Vision System

The VS-1 smart camera combines a compact form factor with the broad applicability, versatility and proven performance of Visionscape software. Designed for use in a wide range of applications, the VS-1 smart camera provides a cost-effective, easily deployed solution for manufacturers to monitor quality, control processes, or identify and trace parts on production lines.

### VS-1 Camera: At a Glance

- Processes Up To 3600 Parts Per Minute
- Integrated With Visionscape Software
- Flexible C-Mount Optics
- Direct Connect Lighting Options

**HE 1610TIS:** VGA resolution, with Intellifind

**HE 1610TS:** VGA resolution, no Intellifind

**HE 1610TIH:** XGA resolution, with Intellifind

**HE 1610TH:** XGA resolution, no Intellifind

For more information on this product, visit [www.microscan.com](http://www.microscan.com).

### Flexible Configuration

The VS-1 smart camera features C-mount optics and separate lighting, with built-in digital I/O, serial communications, and Ethernet networking. All processing is done on-board using a high performance, embedded CPU.

### Rugged Design

With a cast alloy IP67 enclosure and M12 connectors, the VS-1 smart camera is an ideal choice for the toughest industrial applications.

### Application Examples

- Assembly verification (automotive, medical devices, packaging)
- Print quality inspection (pharmaceutical, other)
- Package quality inspection (food and beverage)
- Component presence/absence checking (electronics)
- Part location (robotics, machine builder)
- Part identification (automotive, electronics, packaging)

### Visionscape and Intellifind

Integrated Visionscape software offers powerful processing for image transformation and analysis, including high-level tools for character verification (OCR and OCV), and reading and verifying a wide range of barcodes. The optional Intellifind tool provides robust object finding and pattern recognition.

### VS-1 Camera: Capabilities

- Linear Barcodes  • Image processing  
 • Image analysis & feature extraction
- 2D Symbols  • Flaw detection  
 • Object location
- OCR/OCV ABC123 • Dimensional measurements  
 • Custom processing options



Shape Inspection

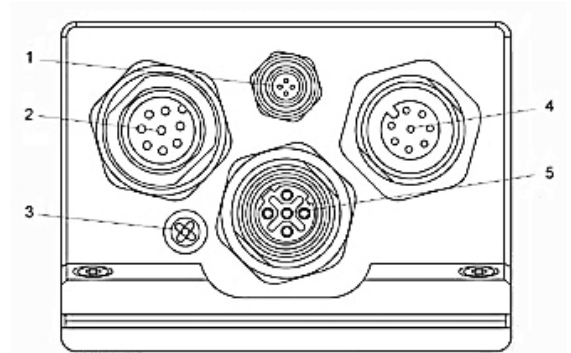
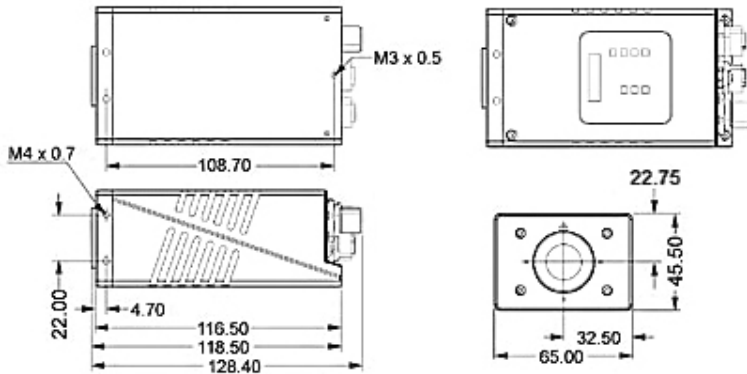


Pattern Comparison



Object Finding

# VS-1 SMART CAMERA SPECIFICATIONS AND OPTIONS



## MECHANICAL

**Height:** 2" (50.8 mm)  
**Width:** 2.25" (57.15 mm)  
**Depth:** 3.89" (98.73 mm)  
**Weight:** 1.70 lbs (0.77 Kg)

## SENSOR OPTIONS

Progressive scan, full frame and partial frame.  
**Sensor:** 1/3 inch  
**HE1600TTXS (VGA):** CCD 640 by 480 pixels, up to 60 fps  
**HE1600TTXH (XGA):** CCD 1024 by 768 pixels, up to 30 fps

## COMMUNICATION PROTOCOLS

**Interfaces:** Ethernet 10/100 MB, supports TCP/IP, DHCP, APIPA and static IP address  
**Software Flow Control:** RS-232

## IMAGING RATES

**HE1600TTXS:** 60 full frame images/second  
**HE1600TTXH:** 30 full frame images/second

## ELECTRICAL

**Power:** 24V at 300 mA (7 W)  
**Supply Voltage:** 20.4 to 28.8 V

## INPUTS/OUTPUTS

**Outputs 1-3:** 50 mA  
**Universal I/O 1-4:** (Optoisolated) 20 mA at 24 VDC

## ENVIRONMENTAL

**Operating Temperature:** 0° to 50° C (32° to 122° F)  
**Storage Temperature:** -10° to 70° C (-14° to 158° F)  
**Storage:** Up to 95% (non-condensing)

## SYMBOLGY TYPES

**2D Symbologies:** Data Matrix, QR Code  
**Stacked Symbologies:** PDF417, GS1 Databar and Composite  
**Linear Barcodes:** Code 39, Code 93, Code 128, UPC/EAN, UPC-E, UPC Supplementals, I2 of 5, BC412, Codabar, Postnet, Pharmacoce

## INDICATORS

**LEDs:** Trigger, Fail, Pass, Mode, Power, Link, Activity

## INPUTS/OUTPUTS

**LEDs:** Trigger, Fail, Pass, Mode, Power, Link, Activity

## SAFETY CERTIFICATIONS

FCC, CE

## ROHS/WEEE COMPLIANT

## ISO CERTIFICATION

Certified ISO 9001:2008 Quality Management System

## CONNECTORS

No.	Function
1	Lighting Power and Strobe
2	X1 Power and Primary IO
3	QuicSet
4	Secondary IO and Serial
5	X4 Ethernet

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 Performance data is determined using high quality Grade A symbols per ISO/IEC 15415 and ISO/IEC 15416 in a 25°C environment. For application-specific results, testing should be performed with symbols used in the actual application. Microscan Applications Engineering is available to assist with evaluations. Results may vary depending on symbol quality. **Warranty**—One year limited warranty on parts and labor. Free extended 3 year warranty upon online product registration.

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