samsara
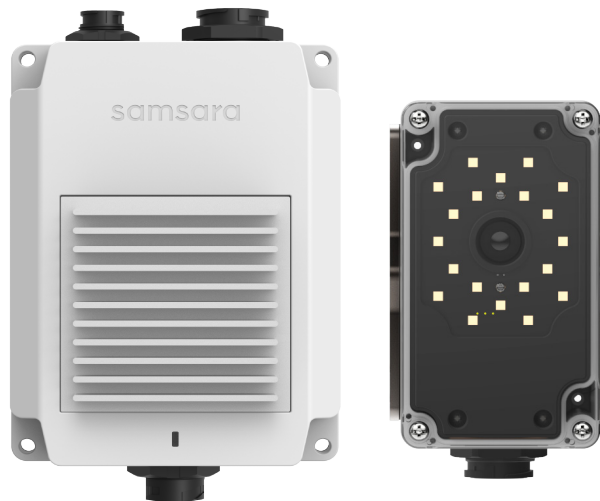
VS2 Series Vision System
Datasheet

OVERVIEW

The Samsara VS2 machine vision system offers a complete solution for automated quality control. Integrated hardware and cloud-based software simplifies setup, allowing you to solve key production and quality challenges for any industries. Increase quality and yield, reduce rework and scrap, and improve safety and compliance with configurable, code-free tools.

HIGHLIGHTS

Centrally managed

Securely access, view, and manage your entire inspection process from any device.

Traceability

Track and trace ouf of the box with real-time data and automatic logging.

Built-in analytics

Instantly review quality metrics and production data with automatically generated production run reports.

Easy setup

Share inspection programs across lines and set up HMIs in seconds.

Powerful vision applications across industries

Samsara Machine Vision offers powerful, intuitive inspection capabilities for any industry. Whether you're new to Machine Vision or a seasoned veteran, get started in seconds with easy-to-use tools that can be applied to hundreds of use cases. Seamlessly monitor, configure, and update your entire inspection process with our central dashboard.
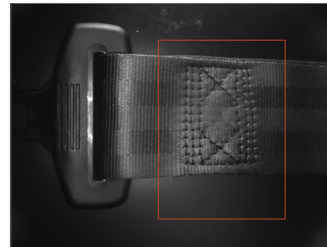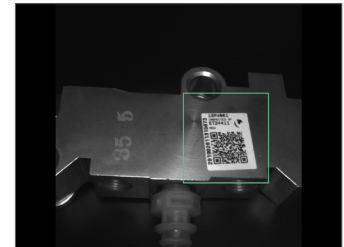
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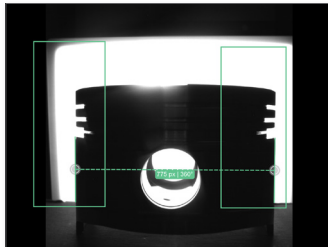
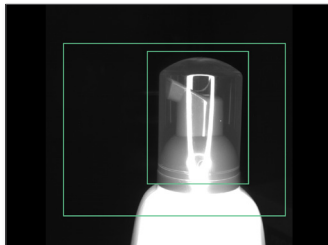
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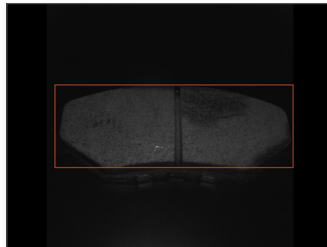
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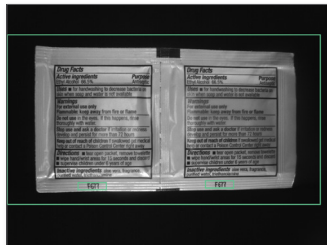

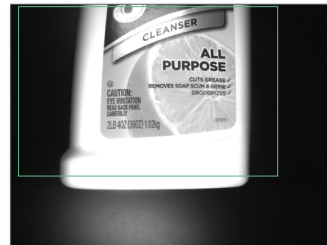ASSEMBLY VERIFICATION

TRACK & TRACE

CONSUMER GOODS

ASSEMBLY VERIFICATION

LOT CODE VERIFICATION

LABEL VERIFICATION
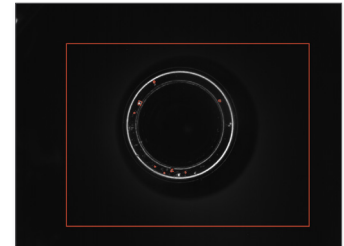

FILL LEVEL INSPECTION

FOOD & BEVERAGE

CAP PLACEMENT
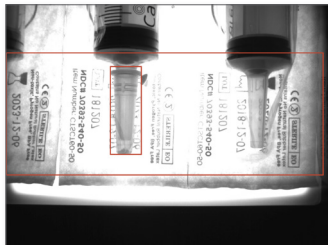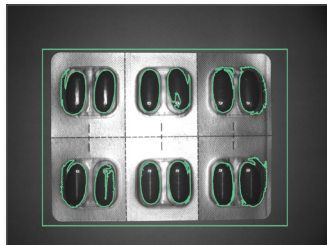

EXPIRATION DATE

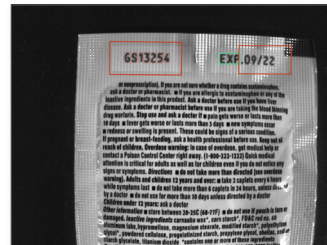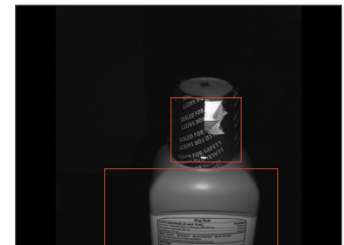BARCODE READING

PRODUCT QUALITY

PHARMACEUTICALS

ASSEMBLY VERIFICATION

PILL COUNT

EXPIRATION & LOT CODE

SEAL INSPECTION

Full visibility into every run

Whether you're on site or on the go, instantly review quality metrics with production run data. Samsara analyzes, labels, and tags images of every item and provides a production report for every run.

Seamless changeovers

VS2s integrate with existing production systems, PLCs, and historians to allow automatic product changeovers with minimal changes to existing operator processes. The built-in HMI Recipe Manager runs on any tablet and allows operators to quickly choose which product to run and identify current run status.
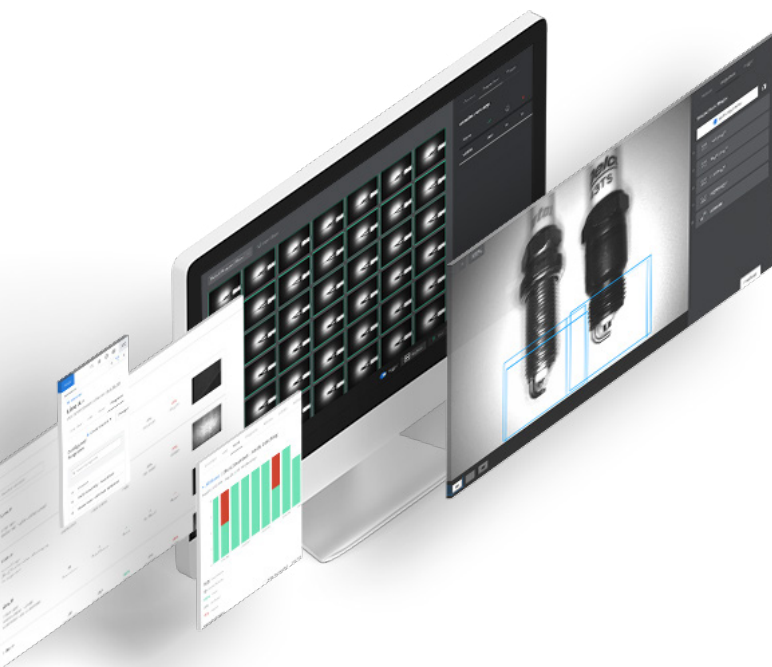
One kit wonder

Our Machine Vision solution kit offers dozens of inspection capabilities out of the box. With an easy-to-use dashboard, new programs can be configured and shared in just a few clicks – all without ever going on site. And because every camera is connected to the cloud, you can easily share common programs between lines with Cloud Sync.

VS2 Series Vision System Datasheet

ENCLOSURE

Dimensions (W x H x D)	Camera: 126 × 71 × 58mm (5.0 × 2.8 × 2.3 inches)
	Controller: 105 × 152 × 48mm (4.1 × 6.0 × 1.9 inches)
	Cables (included): 5m
Ambient Temperature	0° to 45°C
Material	Controller: UV-stabilized polycarbonate, Aluminium
	Mounting brackets: Powder-coated/corrosion-resistant stainless steel
Ingress Protection	IP67 (Camera and Controller and cable connections are all washdown-rated)
Indutrial Connectors	Power/IO: Bayonet-locking, IP67
	Camera: Bayonet-locking, IP67
	Ethernet: RJ45 with included IP67 waterproof cap
Integrated Illumination	White LEDs (5000K, integrated/internal)
External Illumination	External lighting options are available; contact Samsara for more information

IMAGING SENSOR

Sensor Type	1/3" monochrome CMOS with global shutter
Lens Type	Autofocus lens
Lens Lengths	4.2mm, 6mm, 8mm, 12mm, 16mm
Resolution	1.2 megapixels
Acquisition Rate	20 frames per second
Exposure Time	1/10,000 to 1/100 second
Installed Distance	6" to 11" (152 mm to 280mm)
Field of View	145 × 105mm at 152mm (5.7 × 4.1" at 6")
	243 × 185mm at 280mm (9.6 × 7.3" at 11")

VS2 Series Vision System Datasheet

POWER, INPUTS, AND OUTPUTS

Power	10V to 17V, 3A
Triggering Input	NPN/PNP supported (no software configuration required)
Reject Output	MNPN/PNP supported (no software configuration required)
LAN Ethernet	2 x RJ45, 10/100/1000 Mbps IEEE 802.3u 1000BASE-T Fast Ethernet
PLC & API	Modbus TCP, HTTP via REST API *See VS2 integration guide for more details*

CONNECTIVITY, TRACEABILITY, AND QUALITY MANGEMENT

Ethernet	110/100 Mbps (10/100 Base-T)
Wi-Fi	Wi-iFi 802.11 b/g/n
Traceability Dashboard	Included
Image History	2/sec maximum across all conditions (pass/fail); unlimited storage
Quality Analysis	All runs, match rate, and statistics are traceable to individual products
Remote Access	Integrated, secure live monitoring and remote configuration with no additional hardware
Data Security	All dashboard connectivity secured out-of-the-box via SSL with 256-bit AES encryption (military-grade)
USB Cable	5ft cable included (for camera to controller connectivity) Note: This is a high-performance cable. For optimal performance, we do not recommend using other USB cables. Please factor in cable length when considering installation options.
Supported Browsers	Google Chrome (For optimal performance, we do not recommend using other browsers).

BARCODE READING AND INSPECTION

Barcode Types	UPC-A, UPC-E, EAN-8, EAN-13, EAN-2, EAN-5 Add-On, Interleaved-Two-of-Five (ITF), Code 32 Italian Pharmacode, Code 39, Code 93, Code 128, Code 25, Code 11, DotCode, MSI Plessey, GS1 Databar, QR Code, Micro QR Code, Data Matrix, PDF417, MicroPDF417, Codabar, Aztec Code, MaxiCode, GS1 Composite Codes, KIX, RM4SCC