

Visionary-S

3D snapshot – colorful perspectives for precise factory automation

SICK
Sensor Intelligence.

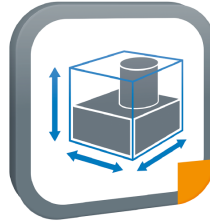
Advantages

Suitable software solutions from SICK



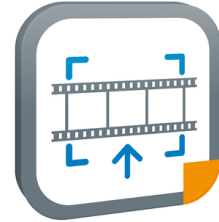
SICK Nova

Check presence inspection applications with ease using 2D and 3D machine vision



Static Package Dimensioning

Digital object measurement using 3D snapshot technology



EventCam App

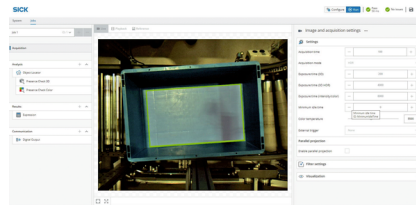
Event recording to show what happened before and at "the exact moment"

Go one step further with SICK Nova

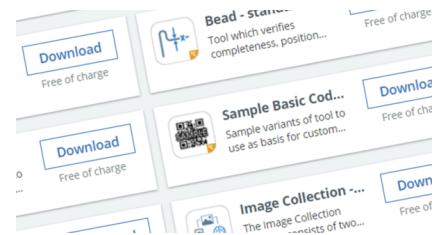
By combining Visionary-S AP with SICK Nova, applications in the area of machine vision can be implemented in a web browser without difficulty using a point and click configuration. This gives users the flexibility to combine tools for image processing and integrate them according to requirements to solve applications. But that's not all: With SICK Nova, users can download additional tools or even develop their own. This makes it possible to quickly and conveniently extend the functional scope to suit the particular application.



Nova Visionary-S for Visionary-S AP is available via the SICK AppPool.



Customer-specific applications can be solved by configuring various image analysis tools via a graphical user interface in a web browser.



Create solutions quickly and customize them yourself: with SICK AppPool downloads.



Technical data overview

Technology	3D snapshot stereoscopy
Scan/frame rate	30 fps, Up to 9,850,000 3D data points/s ¹⁾
Factory calibrated	✓
Enclosure rating	IP67
Configuration software	SOPAS ET Telegram interface Deep learning-based standalone sensor for localizing parts using 3D color imaging Nova Visionary-S SICK AppManager SICK AppStudio Web-Interface (depending on type)
Ethernet	✓ / Complete data stream combining distance and RGB values in one snapshot plus device control / ✓ / Data is application-specific or can be defined in independently-developed applications. (depending on type)

¹⁾ 0.03 s per 3D image.

Product description

Thanks to the innovative 3D snapshot technology, Visionary-S 3D vision sensors from SICK offer maximum flexibility for countless applications in factory automation. Based on the stereo vision principle, with the Visionary-S, SICK is offering solutions for the highest demands on accuracy and speed, even for stationary applications. The Visionary-S combines structured illumination with the proven technology of a color camera and delivers colorful depth images in real time. Powerful visualization tools, broad support of common programming languages and reliable 2D and 3D information make the Visionary-S the ideal solution for robotics, intralogistics and various quality assurance tasks in production, to name a few examples.

At a glance

- Up to 30 color depth images per second
- Works in absolute darkness and in daylight of up to 40 klx
- Resolution: 640 px x 512 px; depth resolution down to the sub-millimeter
- Output of 3D color data via a Gigabit Ethernet interface
- Temperature range: 0 °C ... 50 °C (depending on the housing), enclosure rating: IP67
- HDR mode

Your benefits

- Rugged cameras with a working range of 0.50 m to 6.50 m for industrial use
- More than 320,000 depth and color intensity values in a single recording
- High recording speed with very high resolution at the same time
- Flexibility: The camera can be integrated with the help of common programming languages
- High-efficiency illumination: Reliable depth data even with ambient light
- Visionary-S CX offers direct output of color and depth values via Ethernet
- Visionary-S AP is based on SICK AppSpace, which allows customers to create their own applications and load them onto the camera or use application-specific Key Apps

Fields of application

- Bin picking
- Navigation and positioning in robotics
- Quality control, e.g. of secondary packaging
- Palletizing and depalletizing
- Dimensioning of goods
- Verification, e.g. empty container detection at airports

Ordering information

Other models and accessories → www.sick.com/Visionary-S

- **Sub product family:** Visionary-S CX
- **Integrated application:** 2D and 3D data flow with the option of filtering data in the device
- **Working distance:** 0.5 m ... 6.5 m, 0.5 m ... 65 m (The “remote scanning range” can be selected with the distance mode in the user interface.)
- **Laser class:** 1
- **Scan/frame rate:** 30 fps, Up to 9,850,000 3D data points/s (0.03 s per 3D image.)
- **Pixel count:** 640 px x 512 px
- **Detection angle:** 60° x 50°

Type	Part no.
V3S102-1AAAAAA	1090184
V3S102-1AABAAB	1090185

- **Sub product family:** Visionary-S AP
- **Laser class:** 1
- **Pixel count:** 640 px x 512 px
- **Detection angle:** 60° x 50°

Integrated application	Working distance	Scan/frame rate	Type	Part no.
–	1.2 m ... 3.5 m	–	PALLOCS-VS	1139985
Data flow with the ability to process data in the device. Already-finished Key Apps can be loaded onto the device and independent applications can be created.	0.5 m ... 65 m	30 fps, Up to 9,850,000 3D data points/s ¹⁾	V3S142-1AAAAAA	1114319
			V3S142-1AABAAB	1114320
The installed SICK Nova Visionary-S SensorApp with Presence Inspection license allows easy presence checks using 3D machine vision. The data is processed within the device. The SICK SensorApp can be deinstalled.	0.5 m ... 65 m	30 fps, Up to 9,850,000 3D data points/s ¹⁾	V3S142-1AAAAABA NOVA PI	1138475
			V3S142-1AABABB NOVA PI	1138472
The installed SICK Nova Visionary-S SensorApp with Quality Inspection license allows presence checks and quality inspections using 3D machine vision. The data is processed within the device. The SICK SensorApp can be deinstalled.	0.5 m ... 65 m	30 fps, Up to 9,850,000 3D data points/s ¹⁾	V3S142-1AAAAABA NOVA QI	1138476
			V3S142-1AABABB NOVA QI	1138473

¹⁾ 0.03 s per 3D image.

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com