



InspectorP61x

Ultra-compact intelligence, brilliance in every image

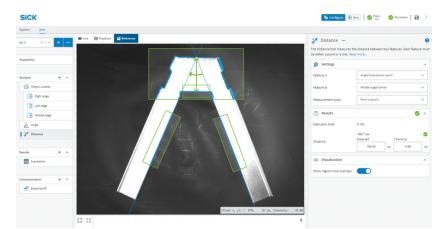
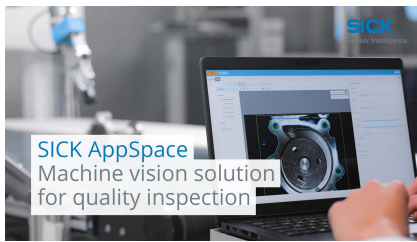
SICK
Sensor Intelligence.

Advantages



Simplicity out of the box

The ultracompact InspectorP61x fits into tiny spaces, and getting started to use it for inspection, positioning, and measuring is easy. The InspectorP6xx is a series of highly flexible all-in-one vision systems. Machine vision tools for quality assurance are integrated into the Quality Inspection toolset included with the sensor. Nonexpert users can easily configure the sensor in no time through an intuitive web user interface.



Convenient quality assurance since the optics, illumination and Quality Inspection toolset with tools for machine vision are included with delivery.

Snap-in mounting takes just seconds.

Easily configure the sensor in no time through an intuitive web user interface.



Get started instantly with quick mounting and intuitive web user interface.



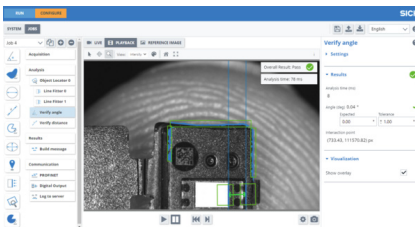
Color imaging

InspectorP61x has color imaging options that enable color characteristics to be inspected for color sorting, defect detection and quality assurance applications. Adding color imaging capabilities brings benefits for a variety of tasks, such as identifying components, recognizing materials, detecting color markings, assessing prints, confirming correct labeling, or determining food quality. Color information for teach-in and analysis is directly supported by AI tools in SICK Nova. This makes the predictions even better.



Measures fine details, fits into tiny spaces

The InspectorP61x is perfect for inline inspection of parts, assemblies, and finished products. Small- and medium-sized objects or parts of larger objects are easily inspected with the integrated illumination feature. Its small form makes the sensor ideal for machines where space is limited and for robot end-of-arm mounting.



Reliably measures very fine details with super close-ups.



Ultracompact 2D vision sensor fits into tiny mounting spaces.



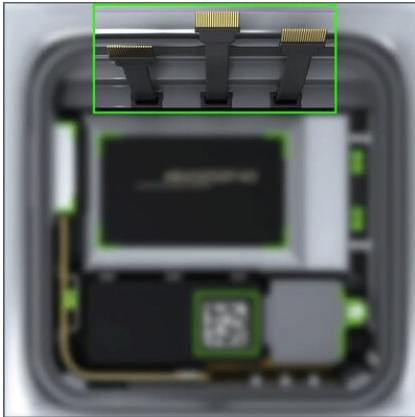
Perfect for robot end-of-arm mounting.



The InspectorP61x works perfectly for the inspection of small- and medium-sized objects and where space is limited.

Variants for every challenge

The selection of hardware configurations helps to deliver reliable results even in challenging conditions, to improve productivity and reduce waste.



InspectorP61x liquid lens variant enables fast, precise electronic focus adjustment without mechanical wear. Its IP65-rated housing provides superior protection against dust and water, while rapid focus changes make it ideal for dynamic applications requiring flexibility and reliability.



The near infrared (NIR) variant doesn't disturb the surroundings with flashing lights and can, for some applications, provide a more suitable contrast.



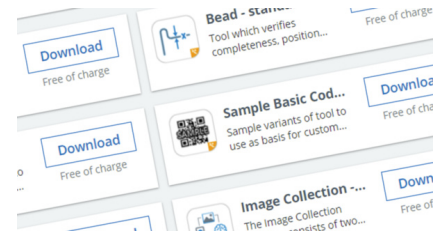
The many accessories, ranging from optical filters to external illumination, provide solutions in challenging conditions.



InspectorP61x offers a wide selection of hardware configurations that deliver reliable results even in challenging conditions.

Go one step further with SICK Nova

The Quality Inspection toolset of SICK Nova is included with InspectorP6xx 2D sensors. What does this mean? Machine vision applications are easily handled in a web browser using point-and-click configuration, giving users the freedom to combine tools for image processing and integration as they need. But the functionality does not end there: With SICK Nova, users can download additional Nova tools or develop their own, allowing them to quickly and conveniently extend functionality to fit the application – without limitations.



Quickly solve tasks with just the right tools at your fingertips, check out these Tutorials for how! Link to playlist

Choose the right sensor for the application and use the same familiar software.

Rapidly create customized solutions with AppPool downloads or custom development.



Rapidly handle your applications like never before. Add, combine, and customize tools with ease.



Unleash the capabilities of AI-assisted quality control

AI functionality makes machine vision tasks easier than ever. By teaching the vision sensor using examples instead of manually setting up rules, users can solve applications quickly while gaining new levels of inspection capabilities. Combining the benefits of AI tools and rule-based tools opens up extensive possibilities for solutions, regardless of how experienced the user is with machine vision.

Find out more about the AI solutions from SICK



Training the AI on the device

SICK Nova provide easy-to-use AI tools that can be taught using examples. Collect, train, and execute directly on the device. Combine with rule-based tools to easily verify known specifications.



AI training using SICK dStudio

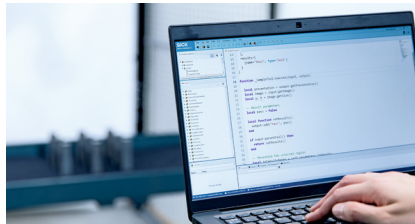
SICK dStudio Cloud Service trains AI at scale with optimized inspection accuracy and speed on the sensor. Convenient data management and collaborative annotation make handling large data sets a breeze and makes it possible to take on big projects with confidence.

Endless possibilities with SICK Nova in AppSpace

Some applications require everything to be programmed from scratch. So it is good to know that behind SICK Nova you have the SICK AppSpace ecosystem. Programming is fully flexible, and you have the support of other programmers and AppSpace developers.



Use SICK AppStudio for developing SensorApps and Nova tools that can run directly on all InspectorP devices.



Combine existing tools with custom code for turbocharged development and flexible re-use in SICK Nova.



The SICK Support Portal is the central community platform of a SICK AppSpace developer and offers access to tutorials, tools, documentation, and FAQs.



Development in SICK AppStudio facilitates complete customization if needed.



SICK LifeTime Services

From consulting to modernization: SICK LifeTime Services increase the productivity of plants and machines, improve the safety of your employees, and provide a solid foundation for sustainable business operations. As a solution provider, SICK works with you to manage the holistic implementation of projects relating to industrial automation, safety and digitalization.



Comprehensive industry know-how and more than 75 years of practical experience create ideas and provide knowledge for your solutions. Find out more



Technical data overview

Sensor	CMOS Color / CMOS monochrome (depends on variant)
Sensor resolution	1,280 px x 960 px (1.2 MP)
Optical focus	Adjustable focus (manual) Teach auto focus (liquid lens)
Operator interfaces	Web server
Control elements	1 pushbutton
Serial	✓, RS-232
Ethernet	✓, TCP/IP, FTP
EtherNet/IP™	✓
PROFINET	✓, PROFINET Single Port
Configuration software	Web GUI (SensorApp configuration), SICK AppManager (IP determination and configuration, SensorApp installation), SICK AppStudio (programming)
Dimensions	50 mm x 40.3 mm x 29.6 mm

Product description

The InspectorP61x, an industrial ultracompact 2D vision sensor, is perfect for inline inspection of smaller parts, assemblies, and finished products. Its small form makes the sensor useful in applications where space is limited or for robot end-of-arm mounting. The integrated optics and illumination enable the user to tune the light's brightness, color, and shape and obtain high-quality images out of the box. The included Quality Inspection toolset of SICK Nova lets both expert and nonexpert users configure the sensor in no time through an intuitive web user interface. Users can further extend or replace the functionality thanks to a growing collection of SICK Nova Tools and SensorApps from SICK AppPool or through custom development if needed.

At a glance

- Minuscule size
- Integrated illumination with adjustable color and shape
- Easy inspection of small- and medium-sized objects
- Monochrome or color imaging option
- Intuitive Web UI
- Quality Inspection toolset
- Optional AI-powered Intelligent Inspection toolset
- SICK Nova, SICK AppSpace, and HALCON support

Your benefits

- Ultra-compact 2D vision sensor fits into tight installation spaces
- Reliably measures very fine details with macro shots
- Immediate start thanks to quick mounting and an intuitive web interface
- Simple and flexible operation and configuration
- Easy validation of known specifications using rule-based tools from the Quality Inspection toolset
- Learning by example with the AI-powered Intelligent Inspection toolset to simplify common image processing tasks such as part classification and anomaly detection
- SICK Nova tool plug-ins for easy customization of inspections in Lua script

Fields of application

- Inline quality control for electronics, packaging, and automotive industries
- Manufacturing and assembly verification
- Part localization and measurement
- Detail inspection, counting, and measurement
- Perfect for robot end-of-arm mounting
- Add-ons through other SensorApps such as OCR and code reading

Ordering information

Other models and accessories → www.sick.com/InspectorP61x

- **SensorApp:** Nova Inspector
- **Products by tasks:** Classification, Identifying, Position determination, 1D code, 2D code, presence inspection, Quality check, measuring, 2D, OCR
- **Illumination:** integrated
- **Working distance:** 50 mm ... 300 mm
- **Sensor resolution:** 1,280 px x 960 px (1.2 MP)

Illumination color	Lens	Sensor	Optical focus	Type	Part no.
White	12 mm	CMOS Color	Adjustable focus	V2D611P-CMWCI4	1143233
	6 mm	CMOS Color	Adjustable focus	V2D611P-CMWBI4	1143232
Amber Blue	12 mm	CMOS monochrome	Adjustable focus	V2D611P-MMSCI4	1124949
			Teach auto focus	V2D611P-MLSCI5	1124942
	6 mm	CMOS monochrome	Adjustable focus	V2D611P-MMSBI4	1124948
			Teach auto focus	V2D611P-MLSBI5	1124943
Infrared	12 mm	CMOS monochrome	Adjustable focus	V2D611P-MMICI4	1124947
			Teach auto focus	V2D611P-MLICI5	1142000
	6 mm	CMOS monochrome	Adjustable focus	V2D611P-MMIBI4	1124946
			Teach auto focus	V2D611P-MLIBI5	1142001

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