ICD8xx

Efficient sorting of objects at the highest conveyor speeds

SICK
Sensor Intelligence.

Digital fingerprint ready

## Acquire object information with dynamically focused color line scan camera

The ICR Identification Color systems are equipped with the first dynamically focusing line scan camera that produces high-resolution images of objects both in black and white and in color. These images can be used to reliably read 1D and 2D codes, and to obtain additional information about the object. This allows sorting processes to be automated based on information or color characteristics stored on the code, increasing throughput.

All-in-one device: Code reading, image acquisition and image processing

1D/2D code reading

Reliable camera-based reading of 1D and 2D codes ensures sorting processes are fast and correct. This reduces costs arising from incorrect sorting and minimizes manual rework.
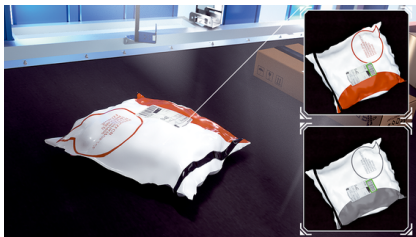
Gray and color image acquisition

Images are captured simultaneously in black and white and in color, enabling sorting based on color features and presence detection of labels. An additional color camera is no longer necessary, which simplifies installation and reduces hardware costs.

AI-based image processing

AI is used to extract additional information from an image to create a fully comprehensive digital fingerprint of an object. The software can be added easily and retroactively, while no additional hardware is required. This eliminates the effort of installing hardware and saves costs.

High sorting rates and minimization of incorrect sorting

Reduced manual rework and simplified installation

Automatic acquisition of (colored) object information in the ICR Pro Color

Additional functionalities


Reliable object verification

The Track and Trace Vision Software from SICK offer an additional functionality for any system with an ICR camera. The additional information about the object and label are collected directly within the camera, in parallel to code reading and image acquisition. This enables manual processes to be automated and ensures a reliable object verification in dynamic processes.

Track and Trace Vision Software – Additional functionality for track and trace systems
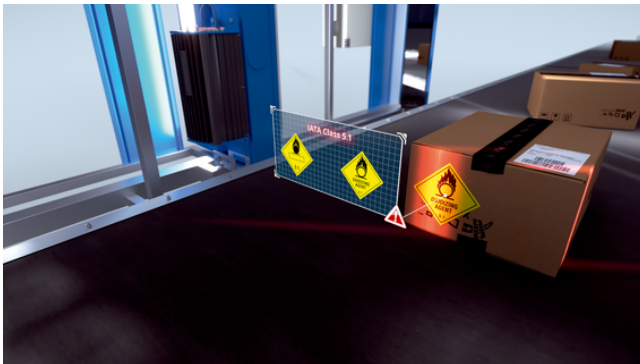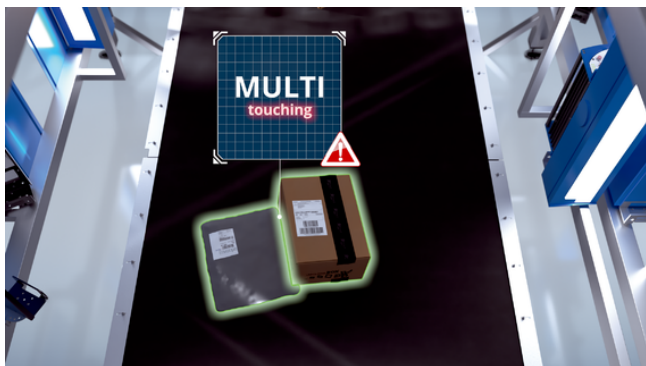

Hazmat Detection
Reliable detection of hazardous goods labels, regardless of label design.
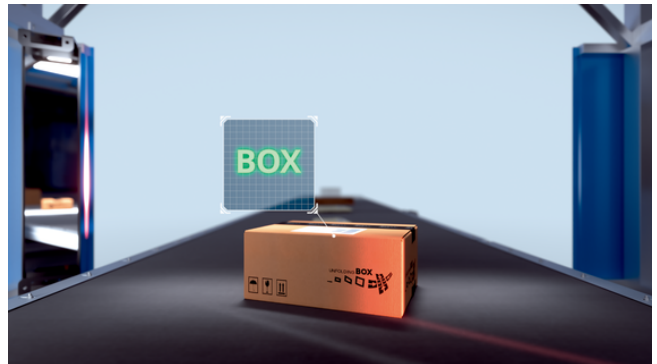
Bag Box Classification
Automatic detection of shipping bags and parcels for efficient sorting, regardless of shape, color and material.

Advantages

Single Item Verification
Verification of the singulation of cubic and irregular objects. The codes do not need to be visible.

Optical Character Recognition (OCR)
Detection of printed label text in addition to code reading.

✚ Controlled pre-sorting for sorting systems. Additional information for subsequent process steps.

ICD8xx

Technical data overview

Focus	Dynamic focus control, Fixed focus
Sensor type	CMOS line sensor monochrome / CMOS Color line sensor (depends on variant)
Sensor resolution	12,288 px (200 dpi, high resolution) 8,192 px (200 dpi, Standard resolution)
Line frequency	Max. 25 kHz ... max. 50 kHz (depends on variant)
Reading distance	850 mm ... 3,900 mm (depends on variant)
Enclosure rating	IP65
USB	✓
Ethernet	✓ (3), TCP/IP
CAN	✓ (2)
Weight	Approx. 11 kg

Product description

The ICD8xx image-based code reader is the ideal identification solution for sorting processes at very high conveyor speeds. The cubic and irregular shipping objects to be sorted are quickly and reliably identified while all common 1D / 2D codes as well as postal codes are taken into account. The excellent image quality of the integrated camera also enables use in OCR, video coding and vision applications. The sensor can be used both for narrow conveyor widths as well as for widths up to 1,600 mm and can be extended to include products such as a volume measurement system.

At a glance

- 8/12 k quad-line color sensor
- Linux-based software platform
- Ethernet-based code data transmission to the SIM2000 controller
- Integrated computing power to support the latest vision applications
- MTBF of 120,000 h

Your benefits

- Throughput of more than 18,000 objects/h at conveyor speeds of up to 4.5 m/s
- Conveyor belt widths of up to 1,600 mm are covered
- High-resolution image quality (200 dpi) for the best read rates, OCR results, video coding and vision applications
- Completely integrated code reading and vision solutions without requiring an additional PC/server
- Monitoring option thanks to decentralized image archiving
- Reduced shadow effects and minimal system footprint thanks to the 55° camera skew angle
- Simplified and cost-efficient cabling due to Ethernet line network topology

Fields of application

- Challenging code reading for optimizing sorting processes in the fields of transport and logistics
- Image acquisition and storage for OCR, video coding, archiving and vision applications

Ordering information

Other models and accessories ➜ www.sick.com/ICD8xx

- **Optical focus:** dynamic focus control, Fixed focus

Sensor resolution	Focal length	Communication interface	Type	Part no.
12,288 px (200 dpi, high resolution)	80 mm	USB, Ethernet, CAN	ICD880-45152020	1092555
	120 mm	USB, Ethernet, CAN	ICD890-45232010	1092552
			ICD890-45232020	1121586
			ICD890-47232010	1092554
8,192 px (200 dpi, Standard resolution)	95 mm	Ethernet, CAN	ICD890-44342031	1136999
		USB, Ethernet, CAN	ICD890-44342010	1092551
			ICD890-44342020	1092550
			ICD890-46342010	1092553

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."

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