



Efficient solutions for Warehouse and Distribution

Achieve more with intelligent sensors

SICK
Sensor Intelligence.

Solutions that keep pace with standards.

For maximum performance in all areas of logistics.

As one of the world's leading providers of industrial sensor solutions, we always set the benchmarks when it comes to successfully advancing quality and processes in logistics. In logistics centers, large retail and mail order warehouses and airports, SICK solutions help to constantly improve efficiency on both the large and small scale. Basing our work around the requirements of our customers, we eliminate the sources of errors and danger such as those on conveyor systems and contribute to the overall acceleration of processes. Our product range varies from simple photoelectric sensors to complex read stations for bar code and RFID identification. Thanks to our extensive application expertise, we can optimize your machine or process right down to the smallest detail – thus allowing maximum productivity and economic efficiency.

Global presence

Sensor solution provider

Innovation leader

International
service solutions

E-business –
Partner Portal

SICK
Sensor Intelligence.





STRONG PERFORMANCE

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Global presence.

Automation knows no borders.

A global perspective is what counts in factory and logistics automation. That's why SICK is also present worldwide. As an independent partner, we are always at your side and readily available. Regardless of where you are in the world, SICK is close by – with more than 40 national and international subsidiaries, as well as numerous sales offices and associated companies.

In addition to sales and services, our production and development is located internationally. SICK has a strategic and customer-oriented distribution of these departments in Germany, Italy, Sweden, Japan and the USA. As a result, we are even closer to changing market conditions and industry developments.

As an innovative, all-around sensor supplier with advanced expertise and the will to be a worldwide leader, SICK is committed to its customers. This philosophy is also included in our corporate statement – always stay one step ahead in creating state-of-the-art developments, worldwide.

Benefit from SICK's worldwide presence.
Everywhere, at all times.





All over the world

Europe

- Austria
- Belgium
- Czech Republic
- Denmark
- Finland
- France
- Germany
- Great Britain
- Italy
- Luxembourg
- Netherlands
- Norway
- Poland
- Romania
- Russia
- Slovenia
- Spain
- Sweden
- Switzerland
- Turkey

N. & S. America

- Brazil
- Chile
- Canada
- USA
- Mexico

Africa

- South Africa

Asia

- China
- India
- Indonesia
- Israel
- Japan
- Korea
- Singapore
- Taiwan
- United Arab Emirates

Australia

- Australia
- New Zealand

WORLD CLASS LOGISTICS AND SERVICE

The international SICK Logistics Center reduces delivery times and cuts servicing and stock-keeping costs. We deliver components and spare parts to the right place at the right time – You'll see the benefit of our state-of-the-art Logistics Center.

A worldwide presence is vital for services. With subsidiaries and sales offices all over the world, we maintain a local presence, wherever you need us.

SICK sensor highlights: Optimize logistics technology to reduce costs.

Efficient solutions for warehouses and distribution centers.

The global economy is becoming increasingly more complex, and so are the logistical demands placed on manufacturers, traders and sales departments. As an independent sensor expert, SICK offers tailor-made products and technologies and many years of experience in control, identification, monitoring and measurement processes. Our intelligent sensors reduce the complexity of our customers' logistics solutions, thus contributing to increased value creation. At the same time, SICK sensors can be integrated into any system environment, and as such they offer a high degree of investment security. Intelligent sensor solutions from SICK – for a fast, efficient and economical logistics chain.



DETECTION

SICK sensors control logistics processes. They detect the presence of products or transport units, measure distances, heights or overhang of goods, pallets or other transport systems, and thus ensure that logistics centers run smoothly.



IDENTIFICATION

To a large extent, the smooth running of a logistics process is dependent on the reliable identification of goods and load carriers. SICK offers a wide range of both mobile and fixed 1D and 2D bar code scanners and RFID systems for identification.



QUALIFICATION

The qualification of goods and load carriers is a decisive factor for the reliable flow of goods. SICK offers innovative solutions for volume and 3D scanning: for monitoring pallet dimensioning, optimizing volumes during goods warehousing and transporting or for detecting damage to goods and load carriers.



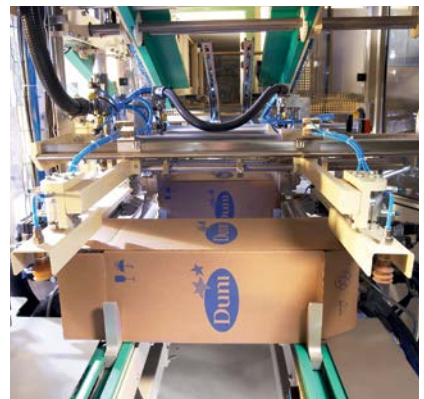
POSITIONING

The very strict requirements for positioning transport units such as high-bay stackers, transfer cars or automated guided systems can be met using highly precise distance measurement devices, encoders and absolute encoders from SICK.



PROTECTION

SICK photoelectric safety switches, laser scanners and safety evaluation and control units protect people from entering hazardous areas unsafely and prevent transport systems from colliding. SICK also provides outdoor scanners for reliable building security.



COMMUNICATION

With the most popular bus systems, from AS-Interface to PROFIBUS, from safety control solutions to IO-Link sensor-actuator interface and the associated sensors, SICK has the innovative technology to solve nearly any logistics application.

Model solutions for the logistics industry.





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Receiving Area



FOCUS 2	12
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Receiving Process



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Put Away Process



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Automatic Storage and Retrieval Systems



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Manual Warehouse Areas



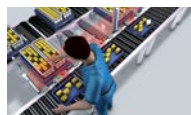
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Cold Storage



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Conveying and Storage



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Pick Process



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Packing and Shipping Area

Focus 1: Receiving Area



Pallet storage and retrieval

A C2000 is used to protect individuals from moving pallets in a pallet storage area. A W18 sensor detects pallet overhangs to prevent equipment jamming and damage to pallets. The ES21 provides an emergency stop to prevent operator harm.



Automated conveyor loading

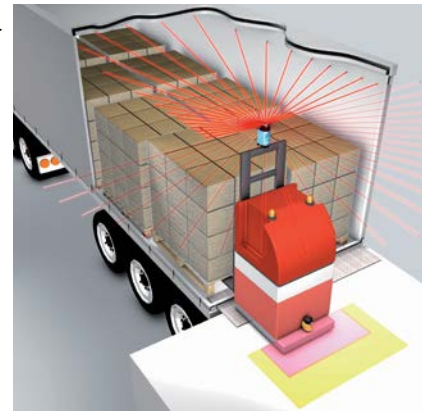
Parcels are placed onto conveyors in the receiving area and moved into a warehouse. An M4000 with UE403 muting module and W18 sensor provide protection against unwanted access to the robot cell loading area.





AGV contour navigation in shipping/receiving

In loading and unloading areas, safety laser scanners and navigation scanners are used to ensure safe movement of goods. NAV300 on the top of the AGV enables navigation even on natural landmarks – without direct sight to any reflector. The S3000 and/or S300 are used for collision prevention at the front and back of the AGV.



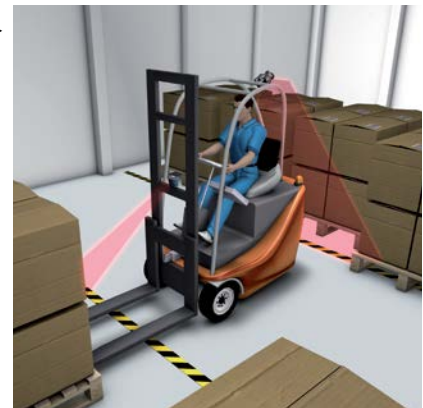
Extendable conveyor loaders

The S300 and S3000 provide reliable safety to individuals and help avoid collisions with boxes or other objects in loading and unloading areas. The scanner's protective field slows down or stops the conveyor from extending when an object is detected.



Forklift automation and safety

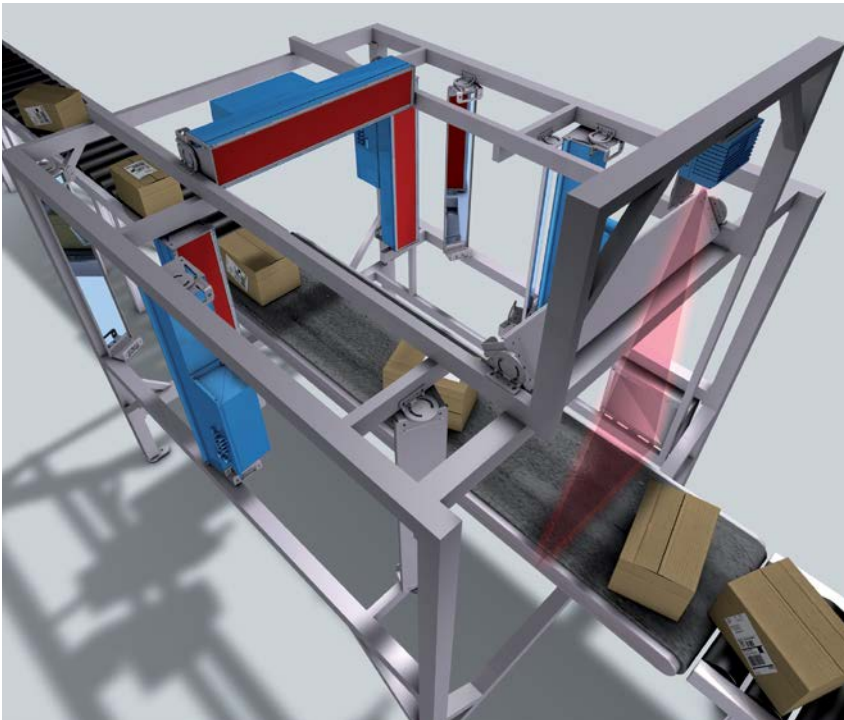
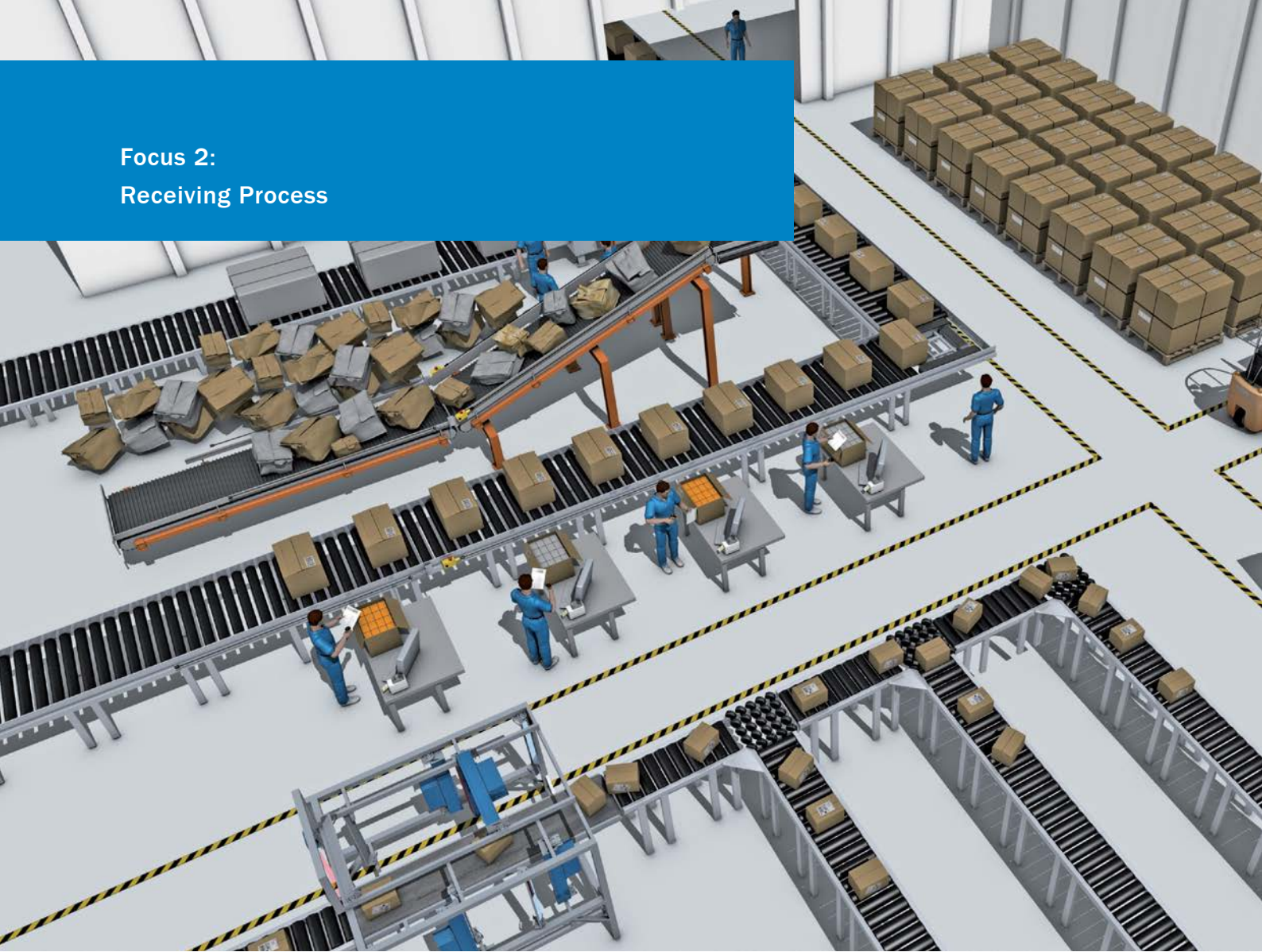
Pallet identification is faster and more accurate with CLV bar code scanners instead of hand scanning. Collision avoidance is provided by the S100 laser scanner, and proper fork position is ensured by the DRS60 encoder.



Depalletizer station

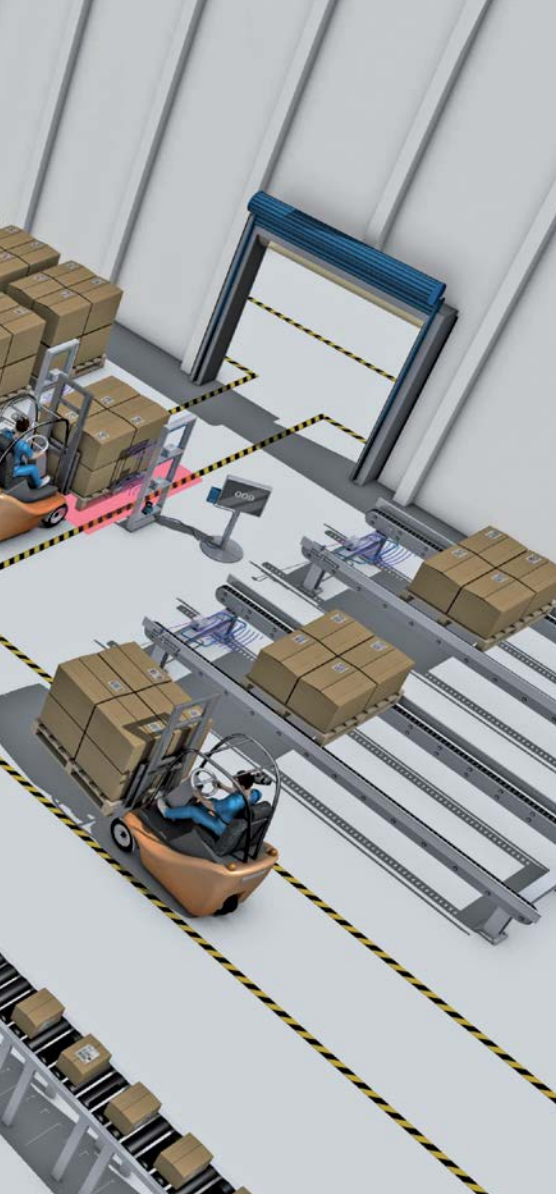
In the receiving area, manually-operated trucks or forklifts and AGVs deliver pallets to a depalletizing station for unloading. An S3000 safety laser scanner and C4000 light curtain provide area guarding as cartons are removed and placed onto conveyors. An IVC-3D camera profiles the pallet load.

Focus 2: Receiving Process



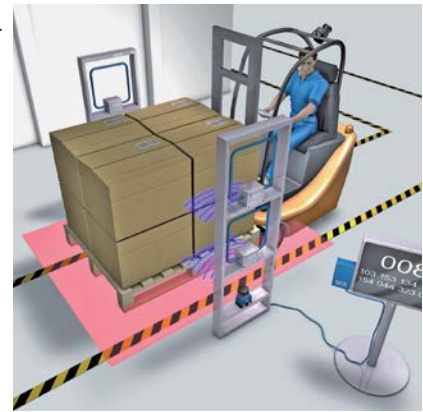
◀ DWS (Dimension, Weighing, Scanning) vision-based scanning systems

Items are automatically identified, weighed and dimensioned to maximize throughput in high-speed receiving areas. The ICR890 captures and processes bar code data or 2D codes from all 6 sides of the parcel if necessary. The captured image can be used for OCR demands, to process additional information from vendor labels. The VMS provides package dimensional data to optimize warehouse activities and weigh scales can also be integrated for gathering in-motion weight data.



RFID bulk scan in shipping/receiving areas *

Pallets loaded and labeled with RFID tagged parcels can be simultaneously scanned for pallet number, units, goods identifier, serial numbers and process data. All items are identified and transmitted with a single scan using an RFID solution. The LMS100 laser measurement sensor reliably detects the direction of the movement and triggers the antennas to read according to a variable setup.



Hand-held scanners in the receiving process

The IDM140 hand-held bar code readers are used to scan bar code data from the shipping manifest or the delivery note into warehouse management systems for tracking receipt of goods in receiving areas.



Hand-held scanners for reading 2D codes in the receiving process

The IT4800 hand-held 2D matrix readers are used to scan data into warehouse management systems for tracking receipt of goods in receiving areas.

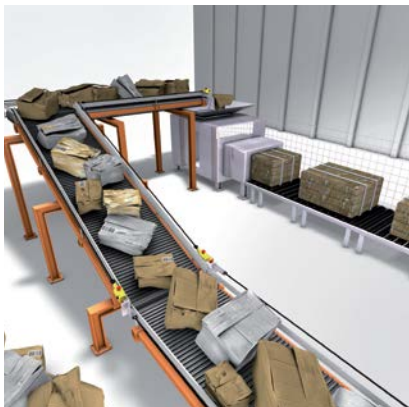


Accumulation conveyor/retrofits

Parcels are more efficiently accumulated along conveyor lines to reduce backpressure, jams and product damage using WTR sensors and logic modules. The WTR are mounted between the rollers of multiple conveyor zones where they are protected from damage.

Conveyor safety pulls

The i150 safety rope pull switch is used on any conveyor that requires safeguarding individuals, such as in automated recycling and waste management machines.



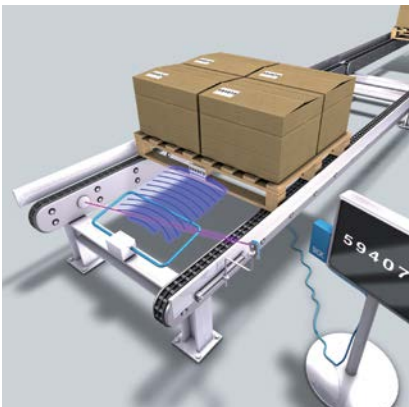
* All products not available in all countries.
Check with your local SICK Sales Representative.

Focus 3: Put Away Process



RFID pallet tag reading/writing*

Pallets with RFID tags are tracked through automatic storage areas using RFID read/write devices triggered by a W23 photoelectric sensor. Data is transmitted to a warehouse management system.



Pallet overhang detection

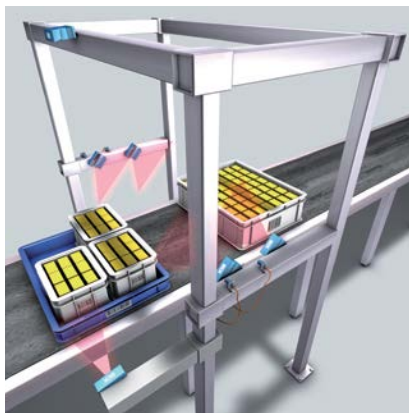
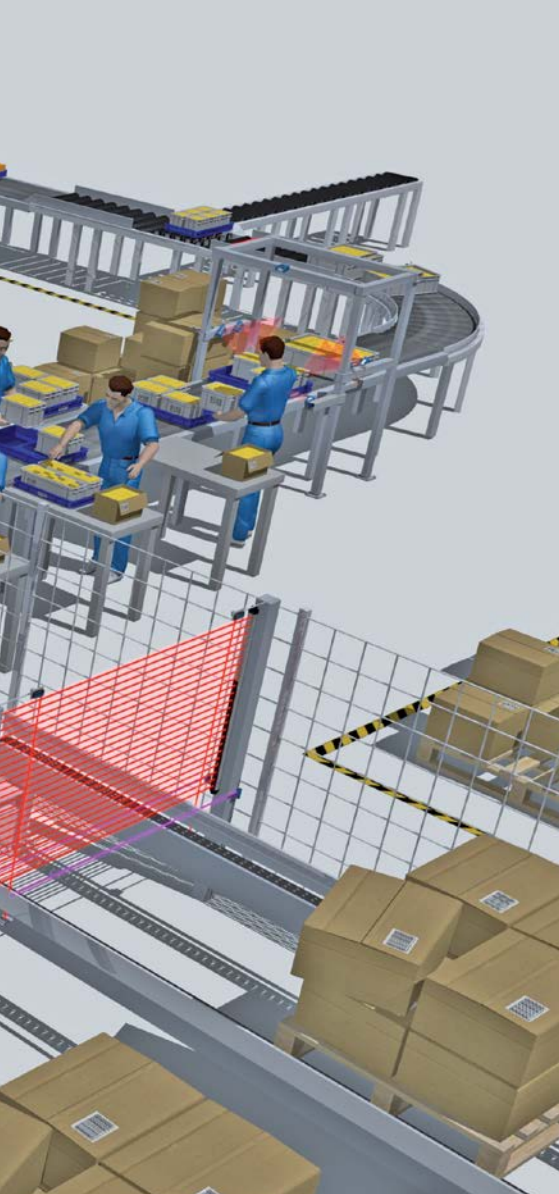
An MLG light grid and W18 sensor triggered by a W12 sensor detects overhanging items and provides height information on pallet loads to prevent collisions and damage in automated storage systems.



Automated pallet storage safety

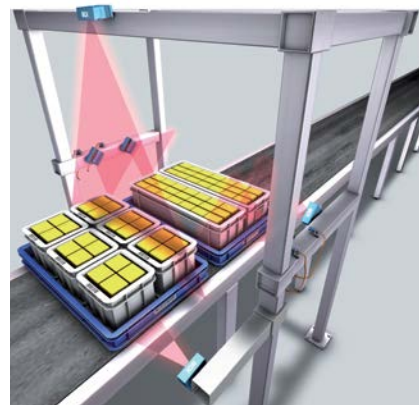
The C4000 Palletizer Advanced safety light curtain enables safe entry or exit from an automated pallet storage system. Pallets can pass unhindered, but if a person enters, the system is stopped.





▲ Tote fill check and scan

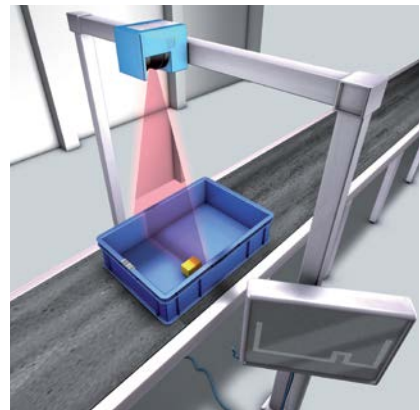
Tote loads are verified and scanned by CLV bar code scanners triggered by MHT15 proximity sensors in the storage or retrieval process. Data is transmitted and recorded in the warehouse management system.



Multiple totes on one tray get identified with their tote number and the tote position on the tray. This position can later be used in pick to light operations.

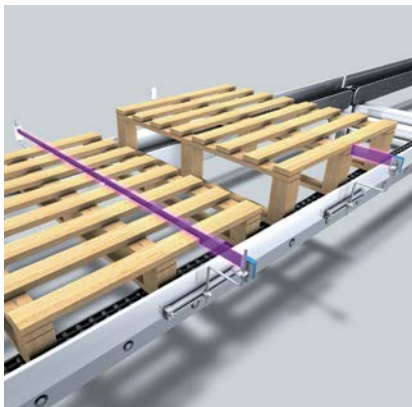
Empty tote detection ▶

Totes are scanned by a LMS laser measurement sensor, which detects empty totes and alternately provides position and volume data for optimizing tote utilization.



Pallet detection ▼

Reliable pallet detection is ensured with a reflex array sensor that can compensate for different pallet heights.



Pallet load profiling

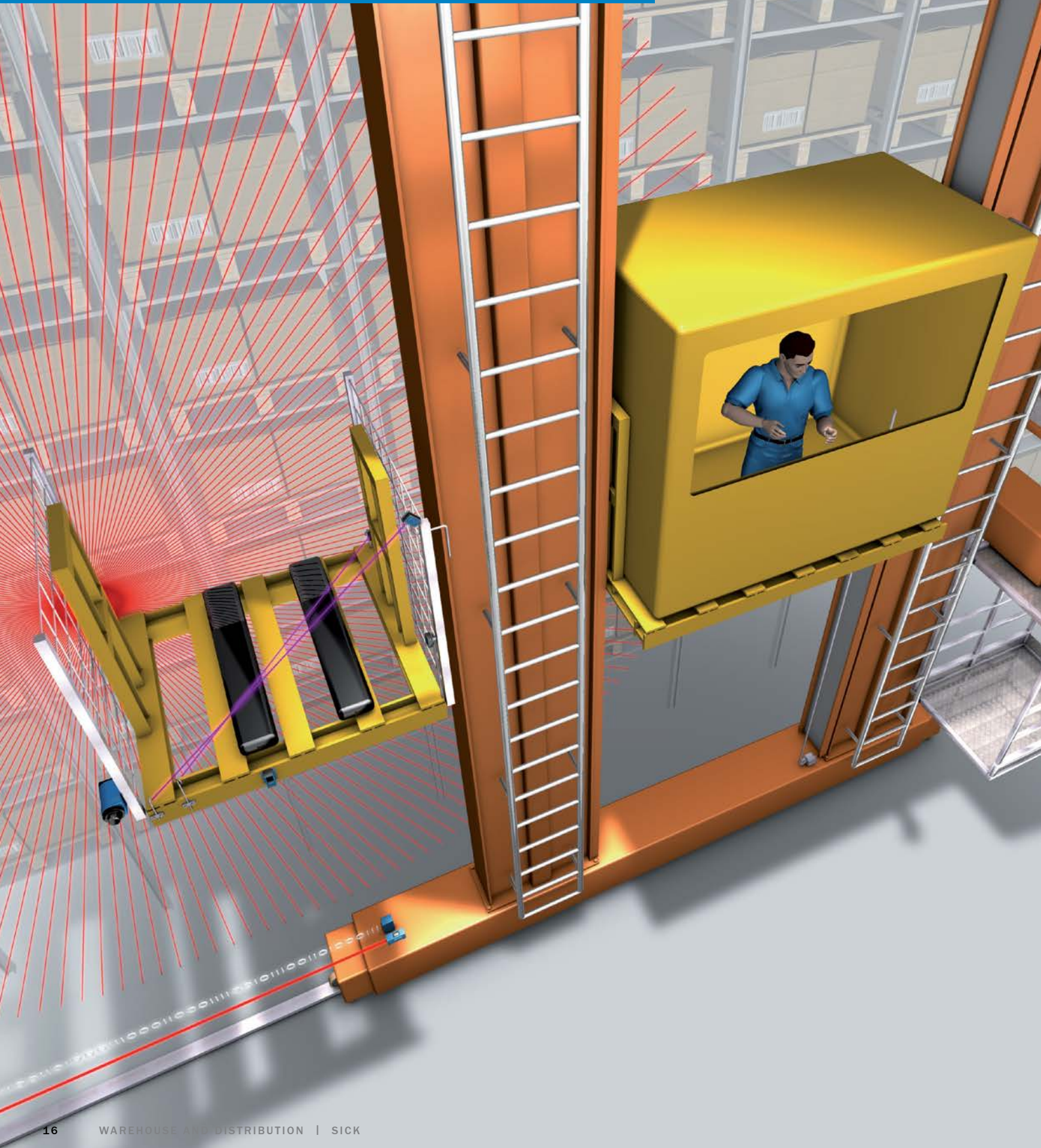
Pallet loads can be profiled as they move through the warehouse to detect unstable loads or overhang conditions using a



LMS400 laser measurement sensor. Volume data can also be provided to optimize load levels for shipping.

* All products not available in all countries.
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Focus 4:
Automatic Storage and Retrieval Systems



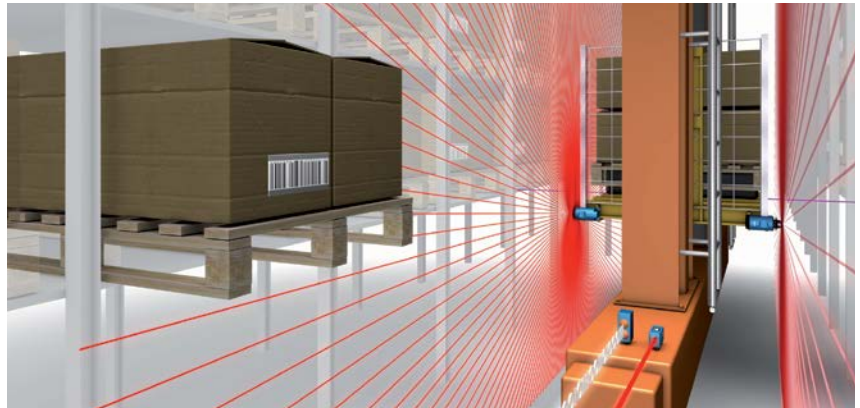
Pallet transfer car

The ISD wirelessly receives the location of the next pallet pickup. Photoelectric sensors check for pallet presence and dangerous overhang before the DME controlled transfer car stops in the right location for the pallet exchange.



ASRS alignment and obstruction detection

Proper positioning of vehicles used in ASRS applications is required to ensure proper placement of goods in high-bay storage without equipment or asset damage. The LD-OEM, DME, and ISD ensure alignment and detect potential hazards.



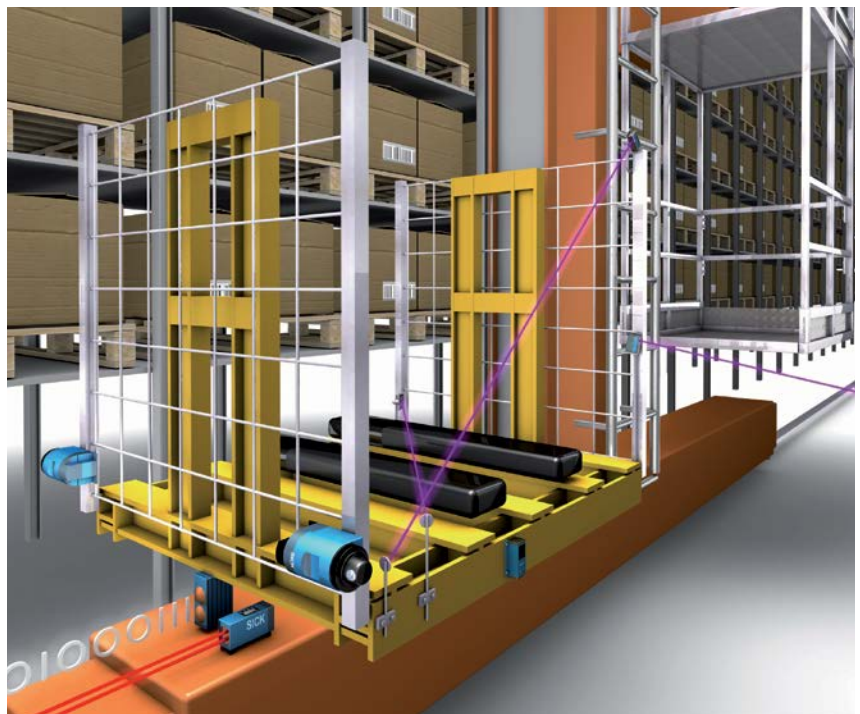
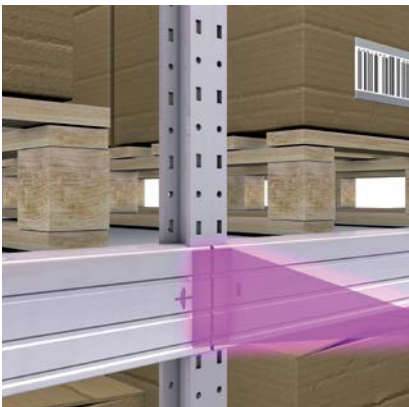
ASRS unit load automation

By combining position finders and photoelectric sensors, perfect unit load automation is possible. Storage bay availability is checked reliably by a DS30 distance sensor, that is immune to reflections.

A W27 sensor looks diagonally to check if loading area is open. The W27 sensor also determines if the goods have been placed on the unit load without an obstruction.

ASRS unit load fine positioning

Reduce incalculable risk due to changing geometry conditions in high-bay warehouses with a DMP3 sensor. Get reproducible x- and y-coordinates based on existing holes in the rack.

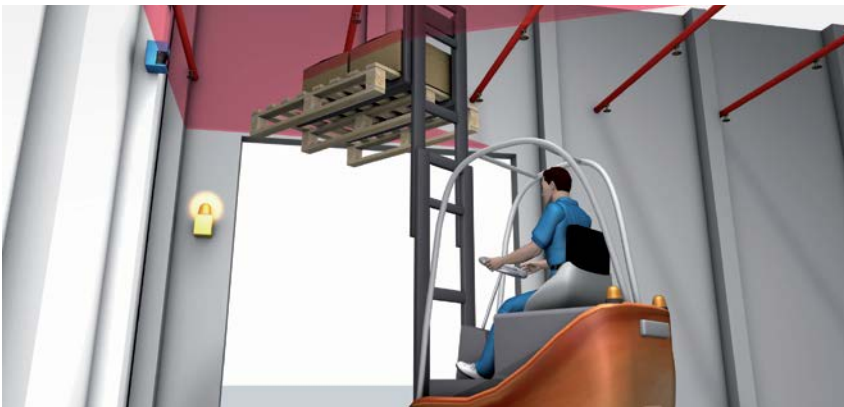


Focus 5: Manual Warehouse Areas



Vehicle height monitoring

A vertical warning field is provided by the LMS to guard against damage from over-extended forklift loads or high vehicles in areas with low hanging structures like doors, duct work, or sprinkler systems. A warning is sent to drivers to prevent collisions with overhead items.



High bay empty storage confirmation

Since a driver cannot see the storage area, DS60/DS30 distance measurement sensors and an S100 laser scanner are used to confirm that even double and triple deep storage areas are empty. A signal is sent to the driver to confirm the space is open.





Forklift anti-collision

An S100 mounted at the top of a forklift helps protect the areas behind the vehicle to minimize damage. If the protected area is interrupted, a signal is provided and the forklift movement can be halted.



Automatic package/pallet identification from forklifts*

CLV bar code scanners mounted to a forklift identify pallet loads as they are picked up or dropped off without manual scanning or having to get off the vehicle. Data is displayed to confirm that the correct items have been moved. As an alternative, tagged pallets or pallet loads can be identified with RFID equipment.



RFID bulk scan in shipping/receiving areas*

Pallets loaded and labeled with RFID tagged parcels can be simultaneously scanned for pallet number, units, goods identifier, serial numbers and process data. All items are identified and transmitted with a single scan

using an RFID solution. The LMS100 reliably detects the direction of the movement and triggers the antennas to read according to a variable setup.



Storage area access control*

To control the flow of vehicles and restrict access to certain areas, RFID readers are connected to door controls to limit access only to vehicles equipped with properly coded transponders.



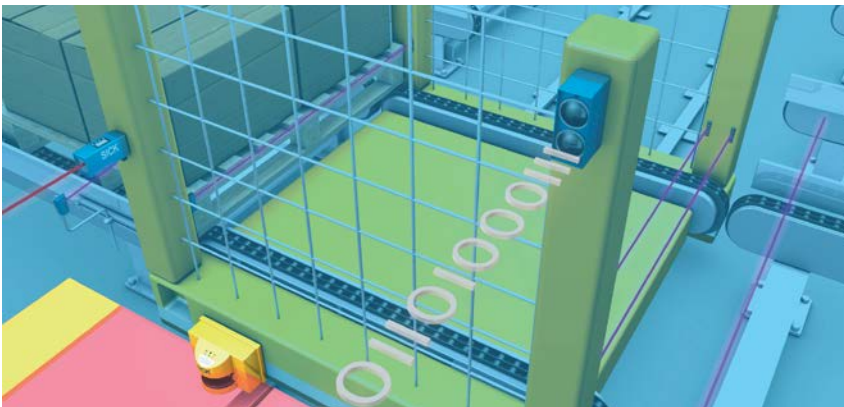
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Focus 6: Cold Storage



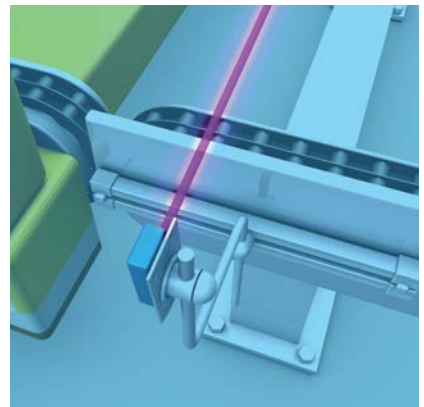
Pallet transfer car (cold storage)

The ISD wirelessly receives the location of next pallet pickup. Photoelectric sensors check for pallet presence and overhang before the DME controlled transfer car stops in the right location for the pallet exchange. All systems work in cold storage areas down to -30°C .



Pallet detection

SICK's broad range of photoelectric sensors for cold storage areas enable reliable detection of pallets or loads, for example, at temperatures down to -30°C .





Cold storage muting

Entry and exit from cold storage areas is managed by a C4000 safety light curtain, a Flexi controller, and a WS/WE18-3 muting system.



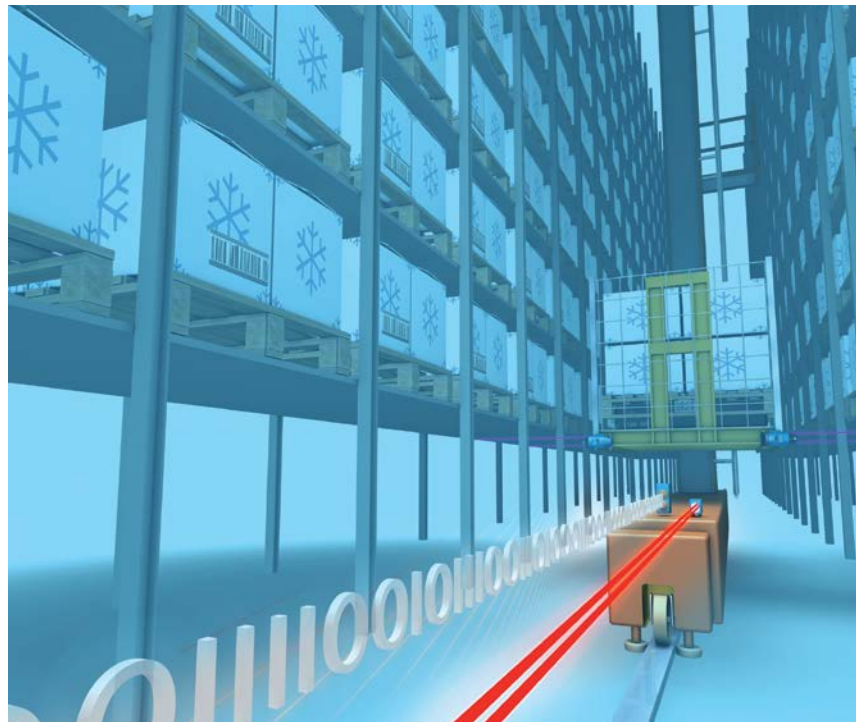
Cold storage AGV

To safeguard the mobile vehicle, an S3000 cold storage laser scanner is mounted on the vehicle.

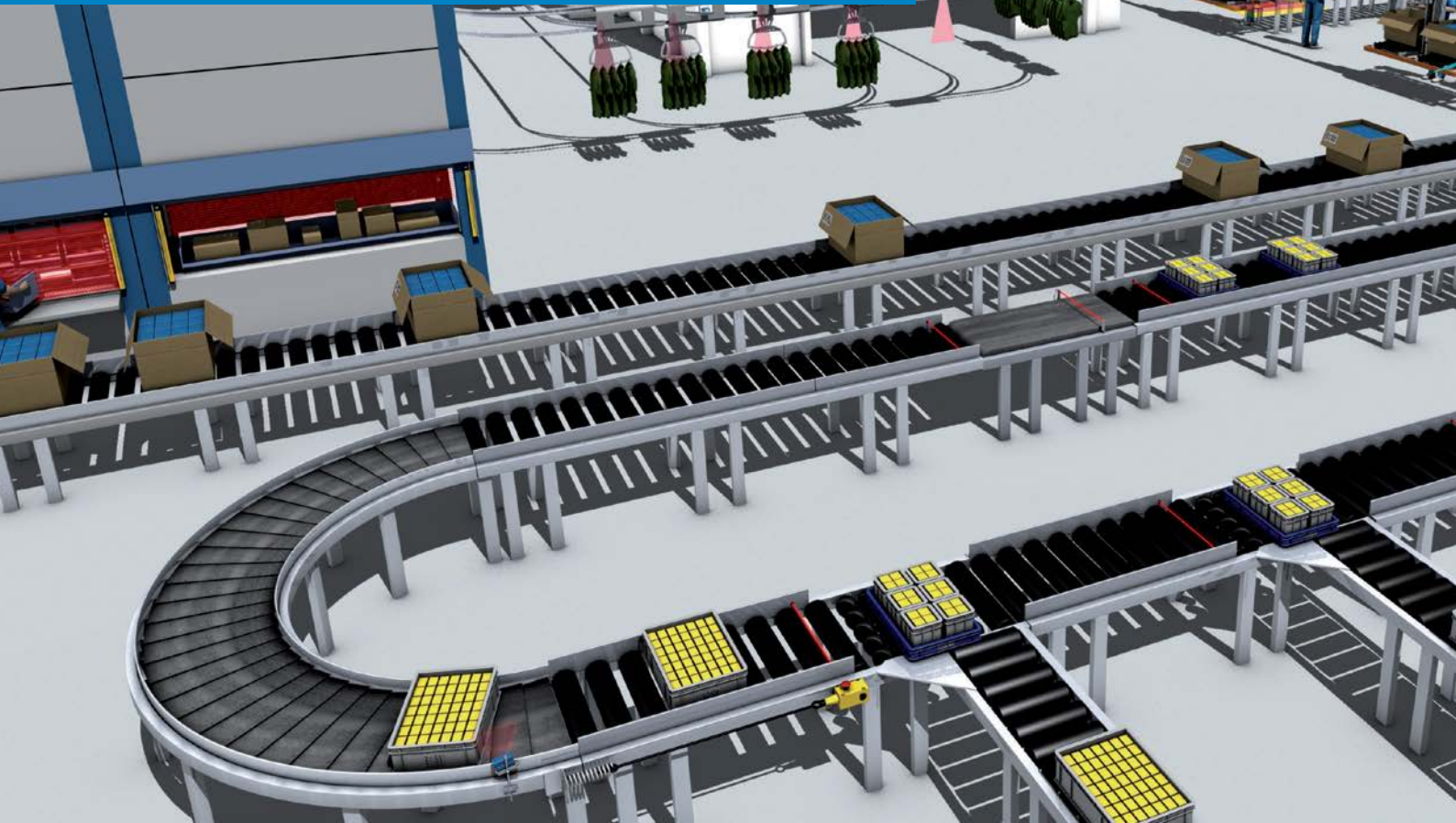


ASRS alignment (cold storage)

Proper positioning of vehicles used in ASRS systems is required to ensure proper placement of goods in high-bay storage areas. The DME is used to ensure proper alignment in cold storage environments down to -30°C . The ISD data transmission device handles the data exchange to the ASRS in cold storage areas.



Focus 7: Conveying and Storage



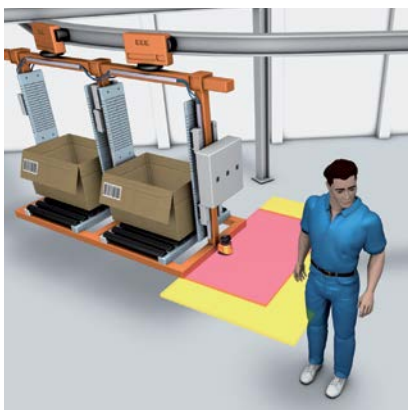
Overhead conveyor collision prevention

S100 laser scanner uses independent switching fields to either decelerate or stop to prevent collisions between hangers and product. Switchable field shapes permit optimum approach monitoring even in curves.



Overhead conveyor safeguarding

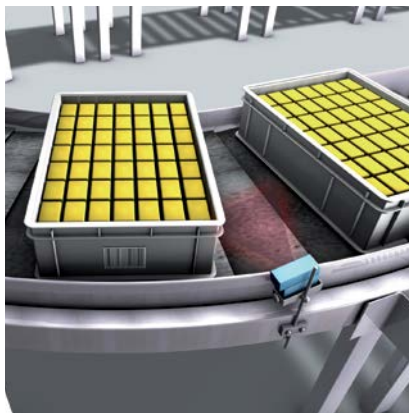
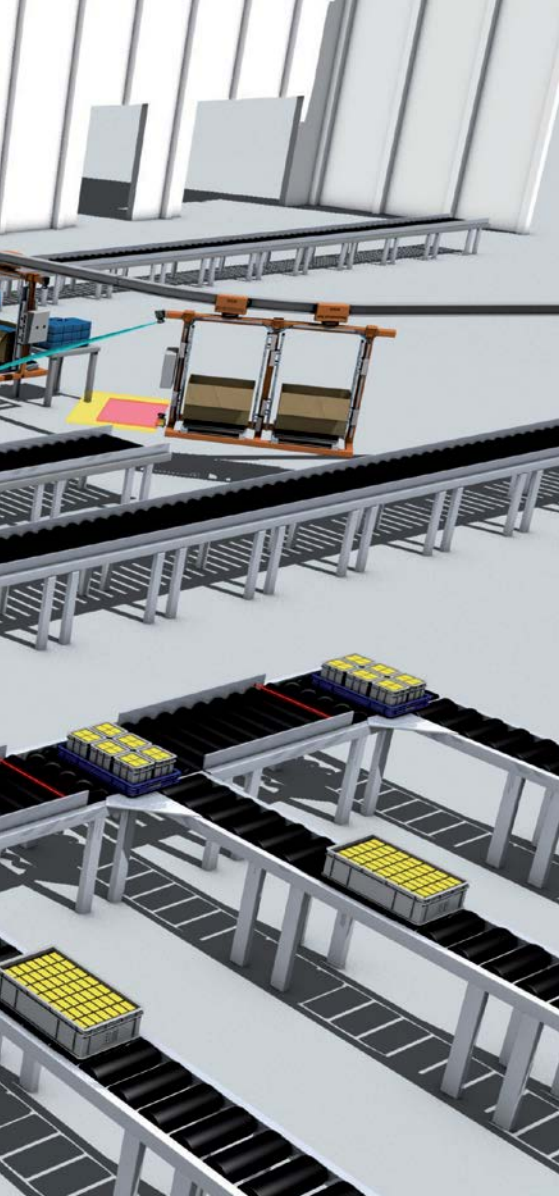
When overhead conveyors are used where people are also present, the S300 safety laser scanner ensures human safety.



Overhead conveyor guidance and positioning

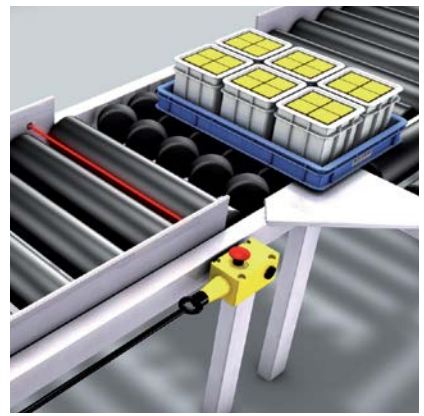
The iQ40 inductive sensor is used to position overhead conveyors properly by sending a signal to the controller when the vehicle is in the correct position.





▲ Tote identification and sorting

Totes traveling on a conveyor line through a warehouse are identified and tracked using CLV bar code scanners to ensure proper delivery to and from storage areas.

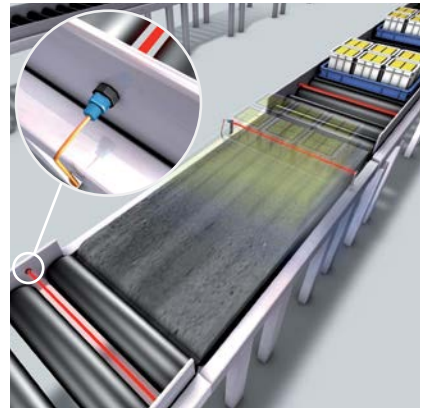


▲ Sort conveyor switching

An MHL15 sensor detects totes, which are then sent to the proper conveyor lanes using bar code data sent to the controller. An i150 emergency rope pull switch on the conveyor provides protection to individuals.

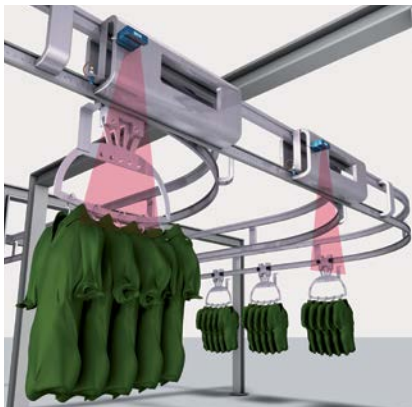
Conveyor gapping

The conveyor transfer belt is started and stopped to create space between bins using an MHL15 sensor. Reliable detection of bins eliminates collisions and provides smoother flow of items.



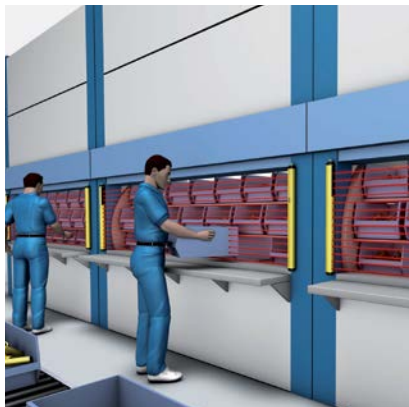
Overhang/garment conveyors

Items traveling on garment conveyors can be scanned and identified using CLV bar code readers. IME12 and MZT6 sensors can be used to direct the flow of hanging conveyor vehicles to the proper divert points.



Vertical storage system safety

The C2000 protects operators from harm as the shelves of a vertical storage system move up or down. Shelf movement is stopped automatically if someone reaches into the system.



Vertical storage safety and height detection

In addition to the safety equipment, an MLG identifies the correct height for proper bin placement and optimal space utilization in the storage system.

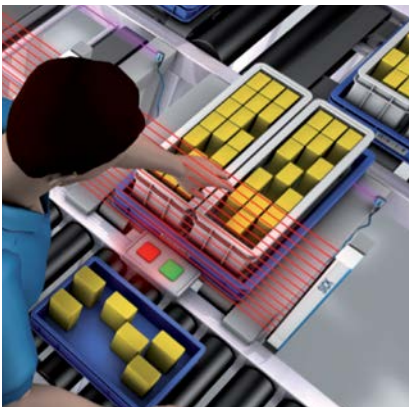


Focus 8: Pick Process



Tote picking and case break down

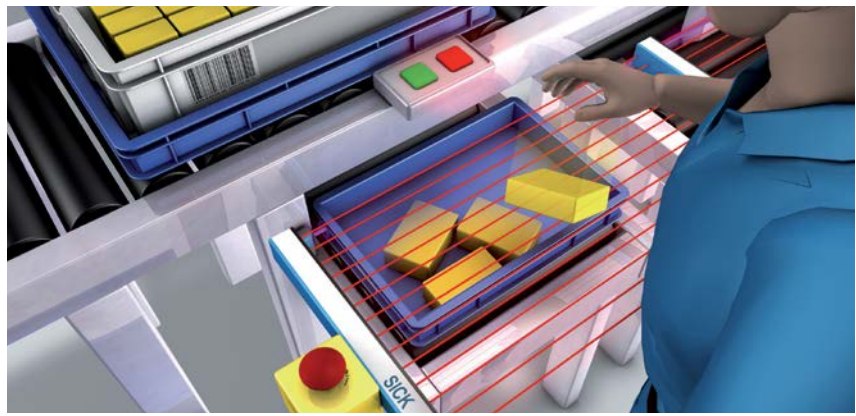
Breaking down totes or cases to smaller quantities is simplified using an MLG to ensure the proper items are selected. The control system tells the operator which tote to pick.



Picking error detection

At a manual picking station, the LMS is used to detect when the wrong item has been selected from a bin or storage section. If the picker chooses the wrong item or wrong number of items, a signal alerts the operator.





▲ Pick quantity verification

At a picking station, the MLG is mounted above the pick bin to count the number of items picked and placed in the bin. Bins are detected using the W100 and an ES21 is installed next to the pick location to stop conveyor travel if necessary.

Manual pick verification

IDM140 hand-held bar code scanners are used to check picking orders against a manifest. Individual items and shipping documents can be scanned to confirm order accuracy. MHL15 and W100 sensors are used to re-direct conveyor direction when a tote is detected.



Pick station error-proofing

Proper item selection can be ensured at a manual picking station using MLGs on the vertical and horizontal frames of the station. Since the MLG can be coded for different fields, a signal will tell the operator if an item has been selected from the wrong storage area or if too many items have been picked.

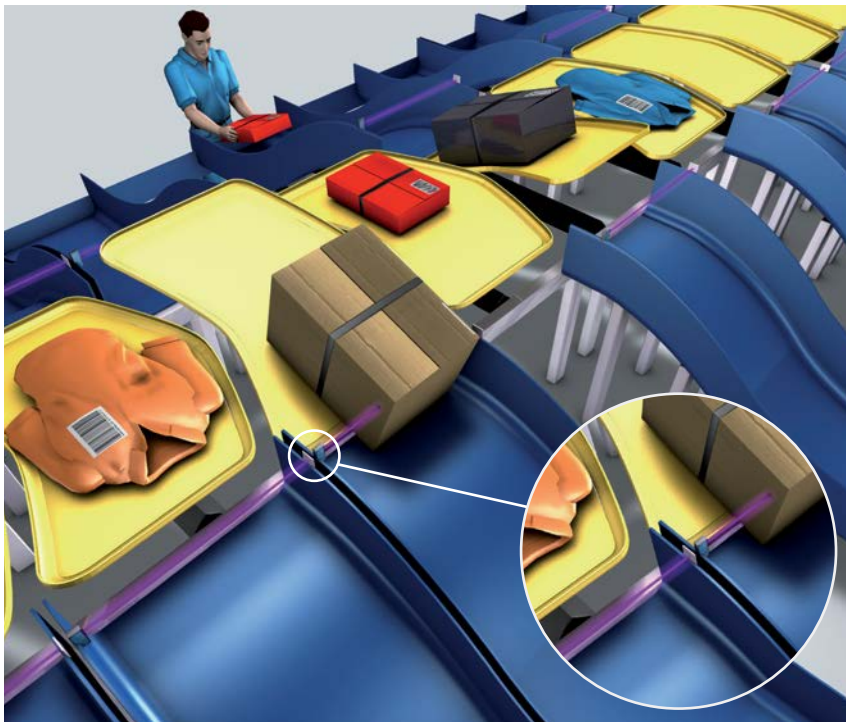


Pick to light manual picking stations

The PLG uses an integrated JOB light to signal the proper bin for picking or placing the next item. The PLG's single sided retro-reflective design saves bin space, reduces damage, and decreases installation costs.

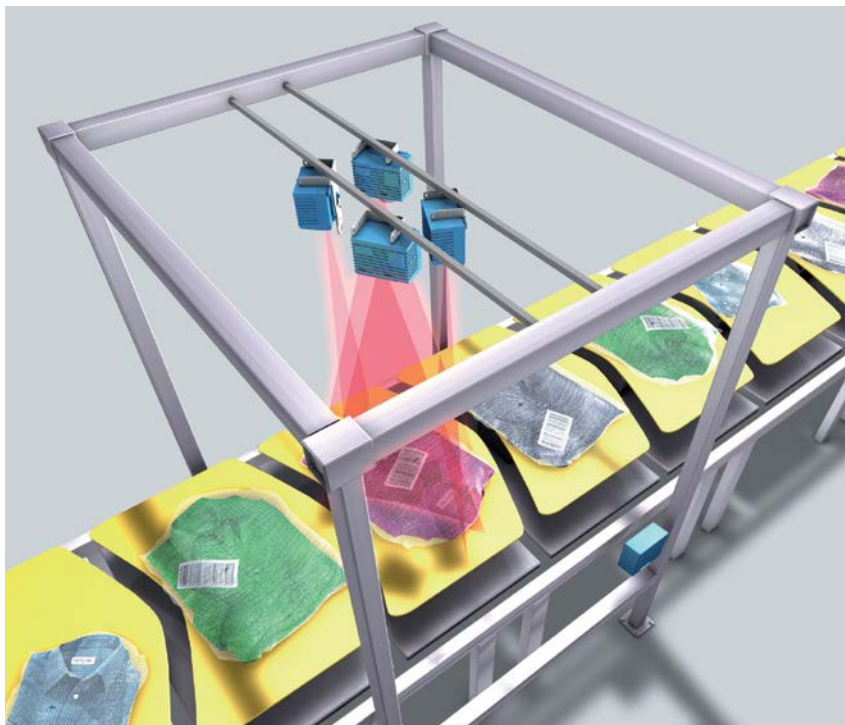


Focus 9: Sorter Applications



◀ Tilt-tray sorter off load detection

On automatic tilt-tray sorting systems, WL12-3 sensors are mounted at the divert lane entry point to verify the lane and count items that are diverted through it.



▲ Tilt-tray item identification

Bar coded items on a tilt tray in random orientation are identified and tracked using an OPS system. Omni directional coverage and aggressive scan and decode capabilities allow faster and more precise tracking of conveyed packages.

► Tilt-tray singulation verification

An IVC-3D camera detects if multiple items are present on a high-speed tilt-tray conveyor or sorting system prior to off load to a shipping area to reduce miss-shipments, minimize manual sorting, and improve package flow.



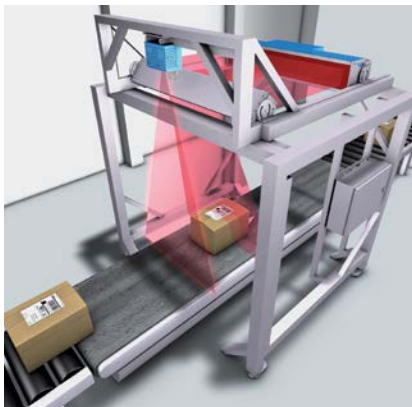
Focus 10: Packing and Shipping Area



DWS (Dimension, Weighing, Scanning) vision-based scanning systems

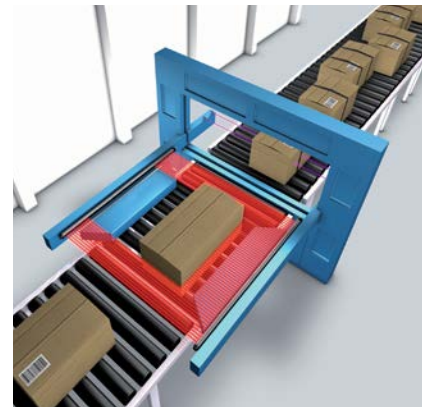
Items are automatically identified, weighed and dimensioned to maximize throughput in high-speed shipping areas. The ICR890 captures and processes 1D/2D image data, and the VMS provides package dimensional data to optimize shipment loads. Weigh scales can also be integrated for gathering in-mo-

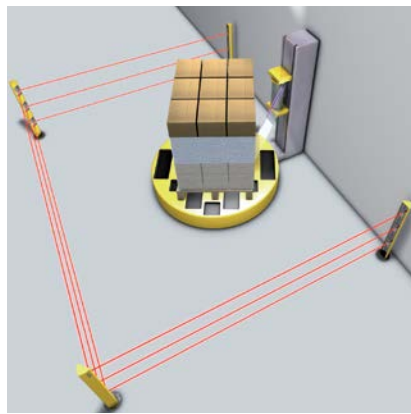
tion weight data for complete and accurate freight calculation. This information can update your warehouse management system and can also be used as basis for reliable credit memo processes with your forwarding company.



Automated wrapping machines

Carton size can be detected using an MLG to optimize material use. The wrapping process runs smoother and creates less waste.





▲ Stretchwrapper safeguarding

High-speed stretchwrapping processes are optimized and safeguarded using WT11-3, M4000, and ES21 devices. Pallet position is confirmed, wrapper utilization is optimized, and human safety is provided for continuous and safe operation.



▲ Pallet positioning for AGVs

In addition to the primary safeguarding function, raw measurement data could be extracted from the S300 or S3000 and used with external programming to help identify pallet geometry and location.

▶ AGV safeguarding and reflector navigation

Worker safety, accurate vehicle guidance, and collision prevention is ensured using S3000/S300 and NAV300 devices in areas where AGVs are used. Range of movement limits and collision prevention ensure safe and efficient transfer of items throughout a warehouse.



▼ Palletizer profiling and safeguarding

LMS laser sensors profile pallet loads to ensure proper load balance and to detect overhangs. C4000s provide guards around the perimeter of the palletizing station to ensure worker safety. A W18 sensor controls the stopping position of pallets to prevent damage to equipment and assets.



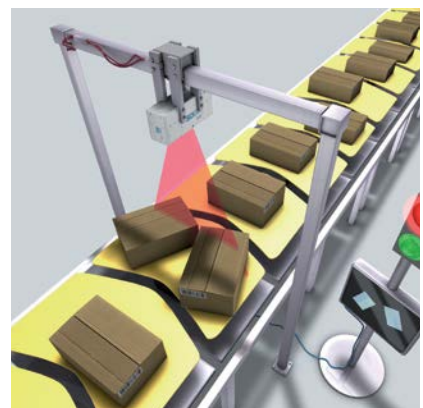
▼ Area access safeguarding

In enclosed areas where machinery may be running, i10 safety locks will interrupt operation to protect individuals from harm when a door is opened.

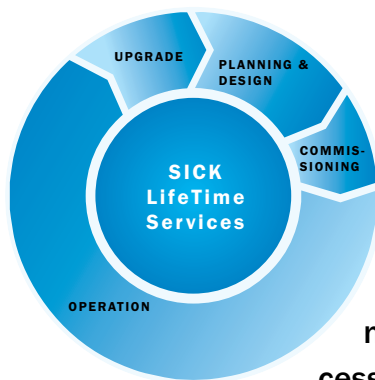


▼ Tilt-tray singulation verification

A Ruler 3D camera will detect when there are multiple items present on a high-speed tilt-tray conveyor or sorting system prior to off load to a shipping area to reduce miss-shippments, minimize manual sorting, and improve package flow.



SICK LifeTime Services - a good decision for every phase of a machine's life



Protective devices, identification systems and measuring systems report information relevant to the system control and protect man and machine. When optimally integrated and maintained, these components and systems offer great potential for safe processes, consistent product quality and protecting people and the environment.

The complete concept from SICK

From the first meeting and for many years to come, SICK LifeTime Services offer the right level of service to meet customers' needs. Place your trust in SICK from the beginning. Our practical experience and extensive knowledge of the industry make us highly-qualified partners. SICK service contracts are designed to be convenient. They include guaranteed hotline availability for quick help in solving the problem yourself as well as guaranteed reaction times for on-site call-outs – for all types of production, anywhere in the world.

Machine and system services

Service contracts for SICK LifeTime Services:

- Inspection contracts for assessing the current system status with recommendations for optimization
- Maintenance contracts for carrying out preventative measures and optimizations
- Service contracts as tailor-made service packages, from reaction time agreements to support availability





Consulting & Design

For the ideal fusion of product, application and industry expertise to form the perfect solution.



Product & System Support

For rapid reaction and reliable support for inquiries about integration and the function of SICK systems and sensors. Experienced specialists deal with your problems professionally and provide practical solutions.



Verification & Optimization

For optimum use and smooth operation of SICK systems and sensors. Use SICK's experience for optimum system efficiency.



Upgrade & Retrofits

For integration of powerful and innovative SICK systems and sensors into existing systems to maintain or increase efficiency.



Training & Education

For well-trained staff and optimum use of SICK systems and sensors. SICK seminars and user training courses increase the confidence of design engineers and supervisors.



Greater input. Greater output. Greater value.

Intelligent sensors from SICK.

Greater efficiency in logistics automation.

In recent years, modern logistics have become more and more powerful, thanks to logistics automation. The demand for simpler commissioning, greater availability and parameterizing and diagnostics capabilities have led to the use of “intelligent” sensors and actuators. The communication standard “IO-Link” offers further improvement, and SICK was the driving force behind the team of leading manufacturers from the automation industry who developed it. This has made it possible, even with standard sensors, to transfer the scanning distance or the contamination rating to a control unit, for example. Bi-directional communication with sensors and actuators allows a significant improvement to system performance and a reduction in machine downtime.

The sensor communications of the future.



SICK – connecting ideas

SENSORS WITH INTEGRATED INTELLIGENT ADDITIONAL FUNCTIONS

If required, SICK sensors can do more than just switch. The logic in the sensor allows an integrated additional assessment, e.g.:

- Object profile recognition
- Determination of object speeds
- Event counting

The settings on intelligent sensors from SICK can easily be edited during system or machine operation in order to react to changing ambient conditions or to account for changes in object characteristics. For example, intelligent sensors from SICK can be used to decouple time-critical processes.

Intelligent sensor control, therefore, leads to reduced traffic on the fieldbus networks, while the intelligent sensor ensures that the time-critical process places only minimal demands on the control hardware.

What's more, an intelligent sensor from SICK requires little implementation outlay from the control software. The system is completed with reliable object analysis, which works by filtering out interfering impulses.

**Would you like to know more about intelligent sensors?
Talk to us – we'll find a solution for you!**



REDUCED DOWNTIME

IO-Link allows pre-emptive error recognition and rectification and localizes failures quickly, e.g., localizing a wire break using a sensor alias name. The interface guarantees that devices can be replaced without mistakes, and allows quick commissioning and replacement thanks to reproducible, centrally stored parameter settings.

LOW MAINTENANCE COSTS

IO-Link recognizes and localizes wear, so that a targeted pre-emptive replacement can be made. It guarantees not only quick adjustment to the optimum process settings with simple transfer and reinputting of the device's parameter settings, but also protection against sabotage or accidental adjustment of the parameter values on the device.

STEP-BY-STEP RETROFITTING IN EXISTING SYSTEMS

IO-Link can easily be integrated into existing fieldbus networks. It offers innovation security using an open, universal standard. Full back-compatibility with previous binary-switching standard sensors allows step-by-step migration to the IO-Link system.

LOW VARIANCE OF SPARE PARTS

IO-Link allows you to reduce product variance via the parameter settings in the device. It guarantees universal connectivity and interfaces for all sensor variants.

Plant walk-through – on the way to a new safety culture

Production plants are becoming increasingly complex, the need for higher throughput is rising and operation is becoming more sophisticated. The more efficiently and reliably the machines and equipment function, the greater the emphasis on human safety. 80% of all safety incidents during operation concern people; only 20% are due to the technology.

Safety has a high value.

Because it serves to protect people.

Safety is an important part of the corporate culture. Optimally protected workstations and machines show that you value your staff. The feeling of being in safe hands improves the working atmosphere and your staff's ability to identify with the company.

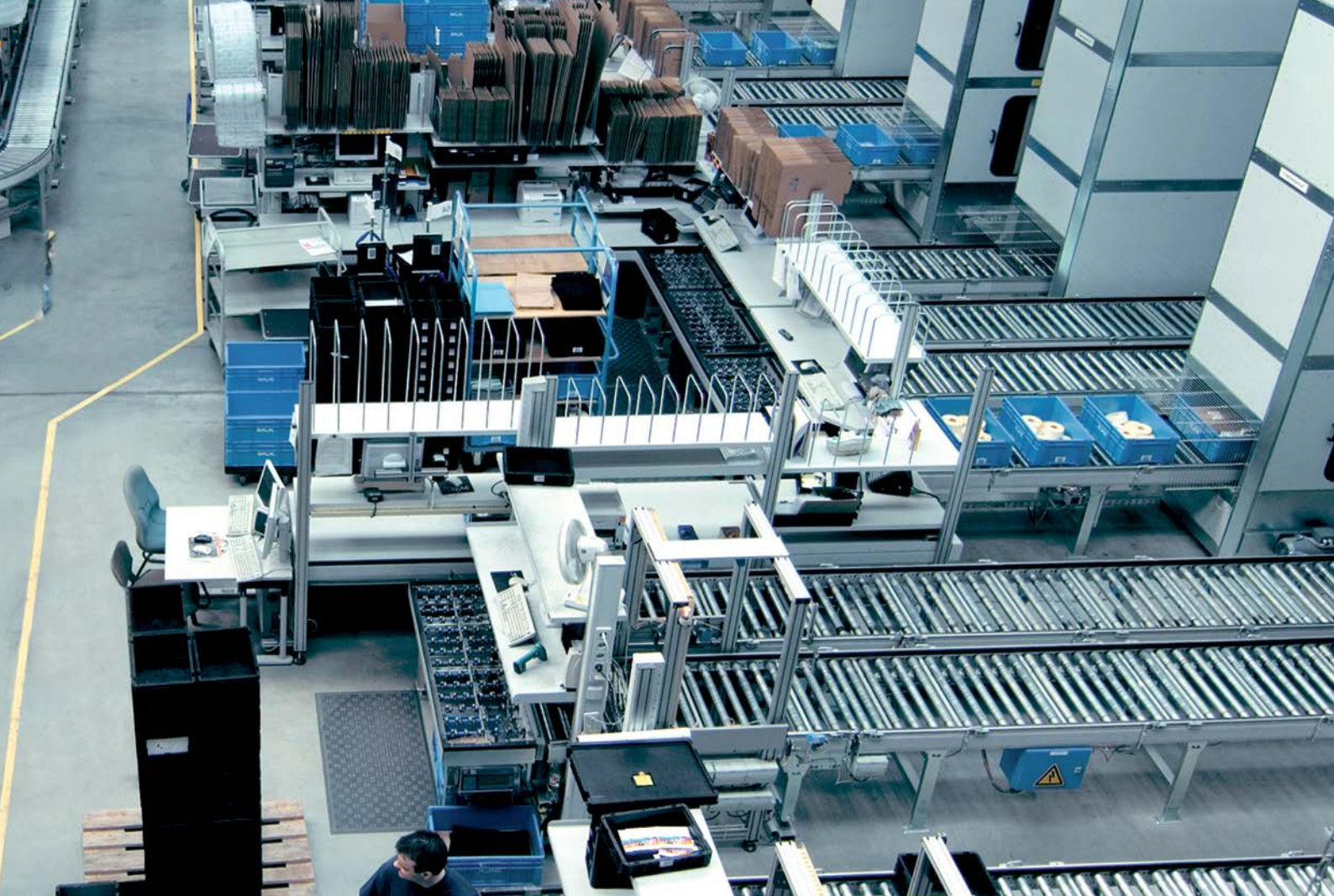
However, technology is advancing and safety strategies are becoming increasingly efficient. This is a key reason to examine safety from the ground up at your production plant. How? It's simple: With a plant walk-through accompanied by the market leader in the field of industrial safety: SICK.



SIGN OF QUALITY

SICK conducts more than 10,000 safety inspections each year and is accredited by DATech – an independent and internationally recognized confirmation of the reliability and quality of the defined services.





CLEARLY SEE WHERE YOU STAND

A plant walk-through with our safety specialists helps you, the decision maker, realistically assess the safety-related status quo of your machines and equipment. Critical zones are determined, recorded, prioritized according to potential risk and documented.

BASIS FOR A DECISION

For the concluding assessment, we consider:

- the integrity of the protection systems
- the priority of the machines
- organizational measures

ACHIEVE OPTIMAL SAFETY QUICKLY AND ECONOMICALLY

Based on the results of the plant walk-through, you are able to take action. SICK offers a full range of services: from risk assessment and safety inspections to complete safety-related plant modernization to meet your needs.

THE BENEFITS AT A GLANCE

- You get a concise overview of your plant's safety status
- You recognize the most important safety aspects
- You obtain planning tools for collaboration with authorities
- You obtain valuable assistance with implementing your future safety strategy

Further information on
safetyPlus®
can be found
www.sick-safetyplus.com



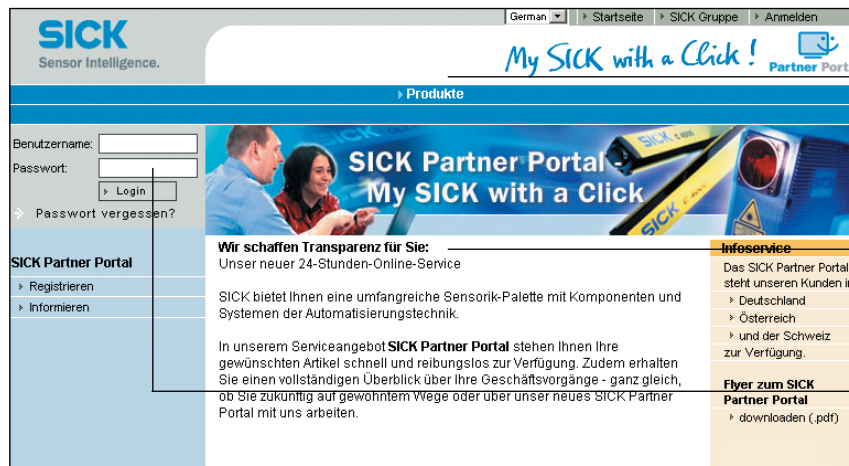
Work more efficiently online.

www.mysick.com – your sensor e-business Partner Portal.

An online portal is essential when efficient and fast processing of every detail is required!

You will find comprehensive e-commerce tools and information for your sensor planning at www.mysick.com: complete order administration – from a product availability check, through offers and order conditions, to order placement and status. The SICK Partner Portal supports your workflow with the individual provision of user rights. Moreover, simple online access to application examples and technical data, drawings and graphics will effectively accelerate your product selection.

Plan your product solution online – at SICK's Partner Portal.



User-friendly: you will find everything you need for solution planning under the menu items Products, Information and My Processes.

24-hour availability: regardless of where you are in the world or when you want to know something, everything is available within a click at www.mysick.com.

Secure: your data is password-protected and only visible to you. With individual user administration you define who may access what data and carry out which actions!



www.mysick.com/Products

The Product Finder lets you search for the suitable device for your application using your specification – from a large number of products in all areas of factory and logistics automation.



www.mysick.com/Applications

You can select an application description for your particular task, market or product group with the Applications Finder.



www.mysick.com/Literature

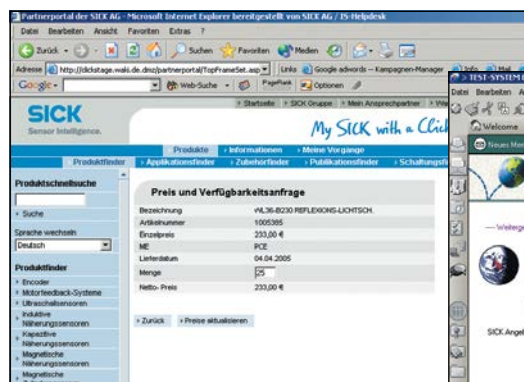
You can access all publications in the Literature Finder, e.g. Operating Instructions, technical information, customer magazines and other literature about SICK products.



THE ADVANTAGES OF USING IN SICK'S PARTNER PORTAL

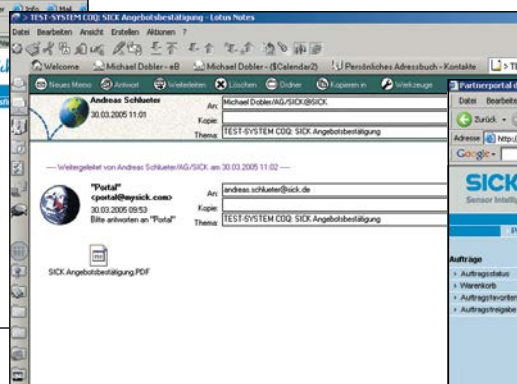
- Work more efficiently online
- User administration supports your workflow
- Product availability is immediately displayed
- All processes are sped up, saving you time. For example, price inquiries, quotes, orders
- Find products, applications, circuits and accessories even quicker
- Products and additional information are linked, ensuring comprehensive search results
- All processes available at a glance: product searches, quotes, order status, etc.
- Exclusive downloadable content: technical data, drawings, graphics, etc.

Order online now!



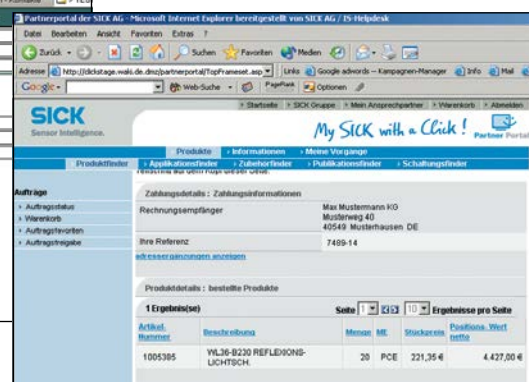
Request price and availability:

Find the price and delivery date of the desired products easily and quickly.



Request for a quote:

You can enter a reference number for a quote. The quote is available online. Each quote is confirmed via e-mail.



Online orders:

You can carry out the order process in just a few steps.



SICK sensor systems

Powerful, flexible and open for all system environments.

Bar code scanner
CLV420



Connection module
for bar code scanners
CDB400



Hand-held scanner
IT5620



OMNI portal scanner
OPS400



Omnidirectional bar
code reading system
CLX490



Connection module for CDM400 bar
code scanners



Distance sensor
DME5000



Industrial Vision
Camera IVC-3D



I/O link connection module



Multiturn absolute
encoder ATM60



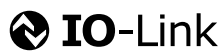
Incremental encoder
DKS40



AS-i
Fieldbus module

I/O LINK - THE NEW SENSOR/ ACTUATOR INTERFACE

Passive function elements become active process participants that communicate with the control level in order to autonomously signal their states and errors. This complete, central and continuous flow of information on all functions down to the sensor level allows more efficient operation of the plant as a whole.



Photoelectric
sensors
W18-3



Photoelectric
sensors
W27-3



Inductive
proximity sensor
IM18



Automation light
grids
MLG



Photoelectric
sensors
W12-2



Photoelectric
sensors
W27-2

FLEXIBLE CONTROL – WITH OR WITHOUT SAFE PLC

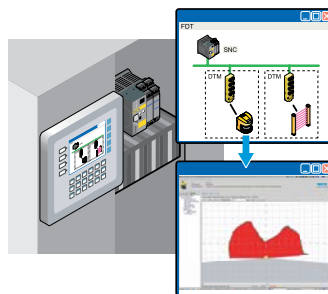
Safety controllers from SICK solve safety tasks flexibly and economically. Only as much control technology as the task requires is used. The system can easily be adapted and expanded – from simple solutions right up to more complex and inter-related safety functions. A considerable gain in efficiency!



Modular Safety Controller Flexi Soft

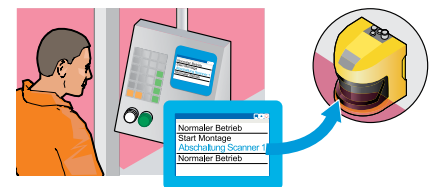
FDT/DTM TECHNOLOGY

- Standardized “Style Guide”: differing device tools can be operated with the same philosophy.
- Central data storage: the configuration data from differing device producers, the Device Type Managers (DTMs), are centrally stored in the Field Device Tool (FDT).
- Uniform access point: only the FDT constructs the connection to devices via the field level.



OPC SERVER

- Status and diagnosis direct to the Human Machine Interface (HMI) and via the company network
- Remote maintenance from anywhere, right down to the protective field
- Administration of information: configuration backup centrally stored
- Active-X allows illustration of protective fields in the OPC client via just a few mouse clicks.



Products from the Industrial Sensors, Industrial Safety Systems and Automatic Identification Divisions can be used on almost all system platforms. The potential for integration in the controller technology, based on standards valid worldwide, make every solution an investment with a secured future.

- PROFIBUS, PROFI-safe
- DeviceNet, DeviceNet Safety
- AS-i, AS-i Safety at Work
- CANopen
- Ethernet



Available gateways for these systems: PROFIBUS, Ethernet (TCP/IP), PROFI-safe and CANopen



Safety network solutions, AS-i Safety at Work



Safety network solutions PROFI-safe



Safety network solutions DeviceNet Safety



Safety laser scanner S3000



Safety light curtain C4000



Multiple light beam safety device M4000



Safety switches



Multiple light beam safety device M4000



Safety position switch



Worldwide presence with subsidiaries in the following countries:

Australia
Belgium/Luxembourg
Brasil
Ceská Republika
China
Danmark
Deutschland
España
France
Great Britain
India
Israel
Italia
Japan
Nederland
Norge

Österreich
Polska
Republic of Korea
Republika Slovenija
România
Russia
Schweiz
Singapore
Suomi
Sverige
Taiwan
Türkiye
United Arab Emirates
USA/Canada/México

Please find detailed addresses and additional representatives and agencies in all major industrial nations at www.sick.com

Handed over by:



Our Business Segment Expertise

Factory automation

With its intelligent sensors, safety systems, and automatic identification applications, SICK provides comprehensive solutions for factory automation.



- Non-contact detecting, counting, classifying, and positioning of any type of object
- Accident protection and personal safety using sensors, as well as safety software and services

Logistics automation

Sensors made by SICK form the basis for automating material flows and the optimization of sorting and warehousing processes.



- Automated identification with bar code and RFID reading devices for the purpose of sorting and target control in industrial material flow
- Detecting volume, position, and contours of objects and surroundings with laser measurement systems

Process automation

Optimized system solutions from SICK ensure efficient acquisition of environmental and process data in many industrial processes.



- Precise measurement of gases, liquids and dust concentrations for continuous monitoring of emissions and the acquisition of process data in production processes
- Gas flow measurements with maximum accuracy thanks to compact gas meters