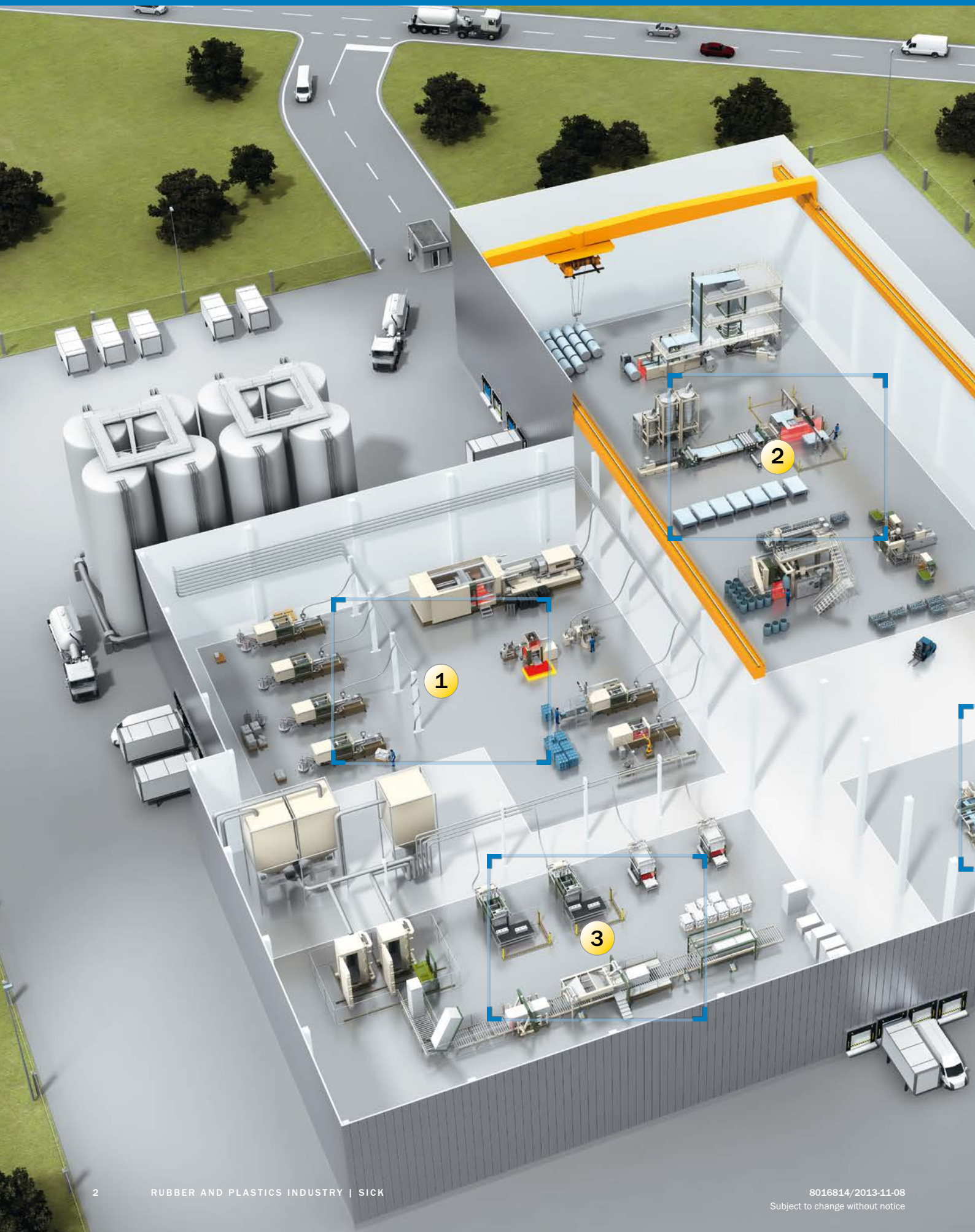


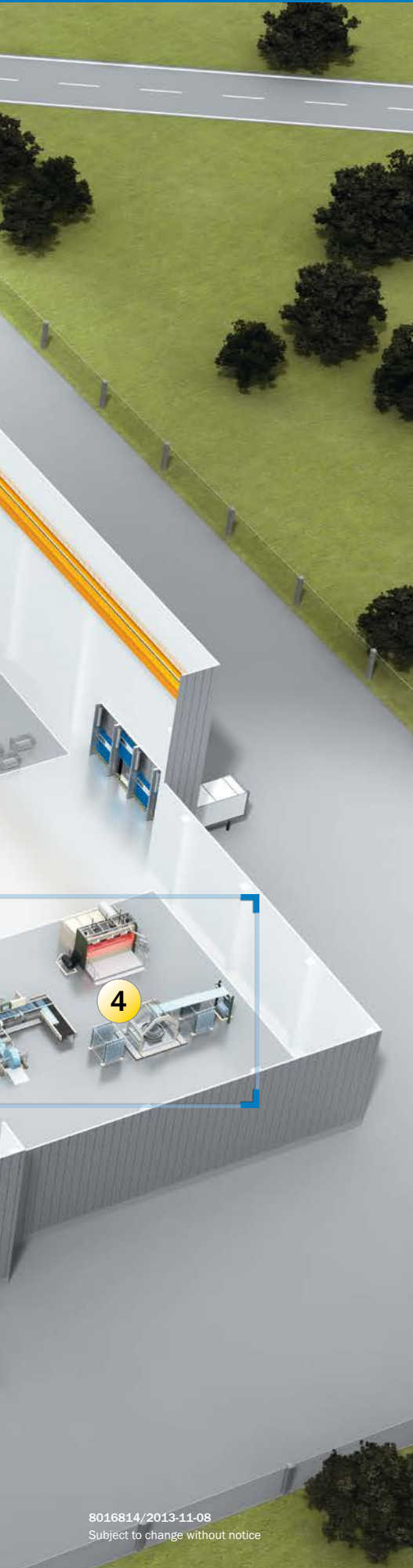


Efficient Solutions for the Rubber and Plastics Industry

Achieving more with intelligent sensors

SICK
Sensor Intelligence.





Efficient Solutions for the Rubber and Plastics Industry

Challenges

Sensor Solutions to improve production efficiency	4
---	---

Applications in focus

1 Injection molding	7
2 Extrusion	15
3 Foaming	23
4 Further processing	29

Products

Product overview	32
------------------	----

Special Pages

Vision Sensors for Easy Quality and Process Control	80
Competence in machine safety	82
Flexi Soft safety controller	84

Allgemeine Informationen

Company	88
Industries	90
SICK LifeTime Services	92
Versatile product range for industrial automation	94
Industrial communication and unit integration	98
Services – www.mysick.com	99

Sensor Solutions to improve production efficiency

The rubber and plastics industry provides products to a multitude of other industrial sectors. In particular, the automotive, electronics, and white goods industries, as well as the packaging industry have a significant influence on the development of this industrial sector. However the medical, sports, and toy industries also rely on rubber and plastics products.

Various types of production processes and machines such as injection molding machines, extruders, film and foam systems, and thermoforming machines are used to serve this variety of industry requirements. Various materials such as granulates, liquids, and semi-finished products are processed in different, to some extent automated processes.

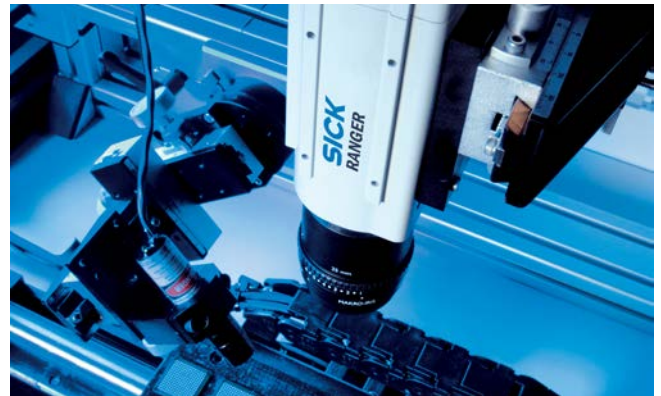
Since production is done on a very large scale, the highest degree of efficiency and economy as well as quality and safety are required.

With its industry and sensor expertise, SICK makes a significant contribution toward fulfilling these requirements.



Safety

Safe machines ensure high productivity. SICK offers the widest portfolio of safety solutions: marked by a high degree of integration in its controls and accompanied by an extensive range of services that includes consulting, commissioning, training and additional education.



Quality control

SICK offers the appropriate solution for all quality control applications: fiber-optic sensors to check that components are present in injection molding machines, displacement sensors for precise measurement of extruded profiles, vision sensors for in-line quality control and smart camera systems for high-end testing. This ensures that the high quality level demanded is achieved.



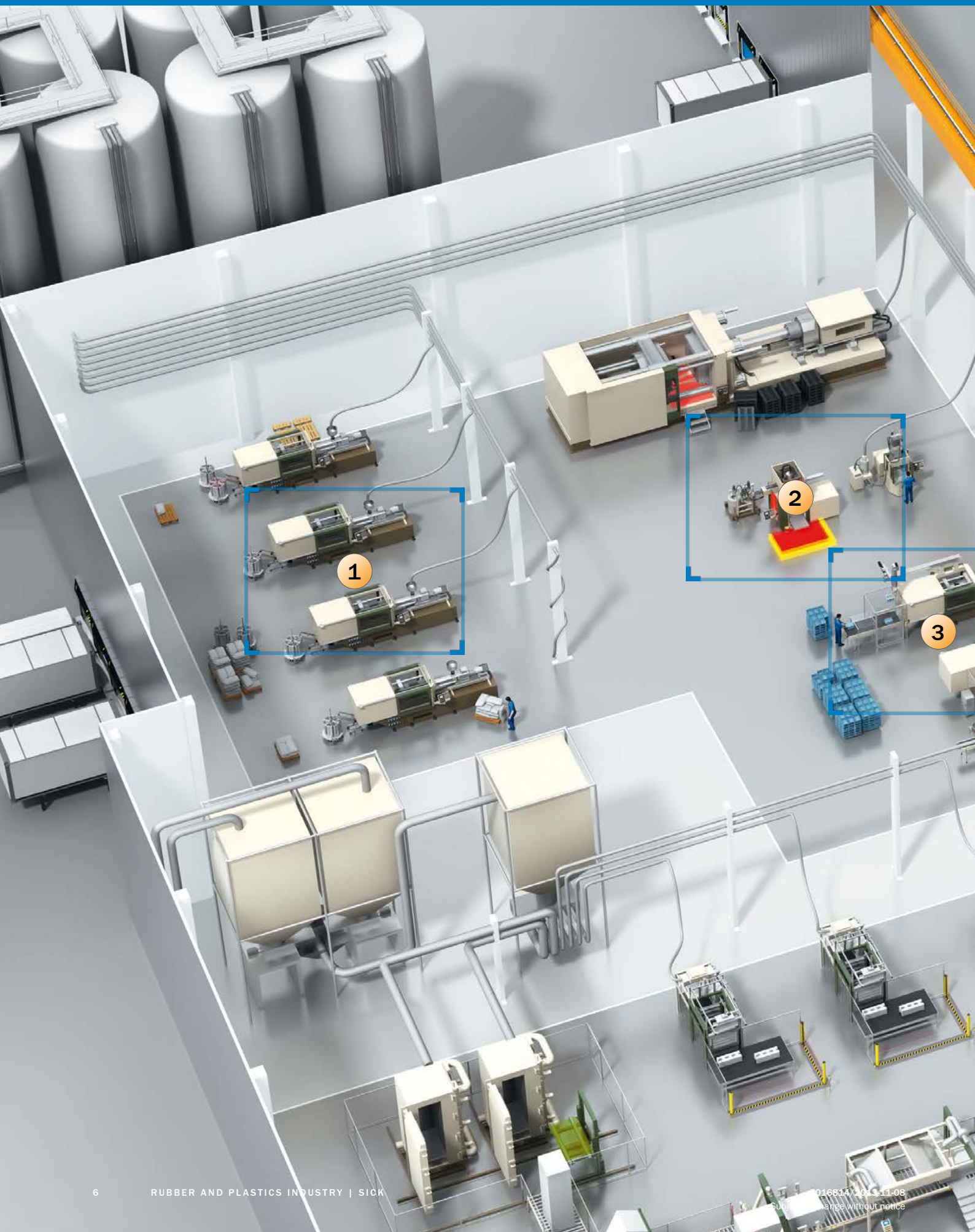
Track-and-trace

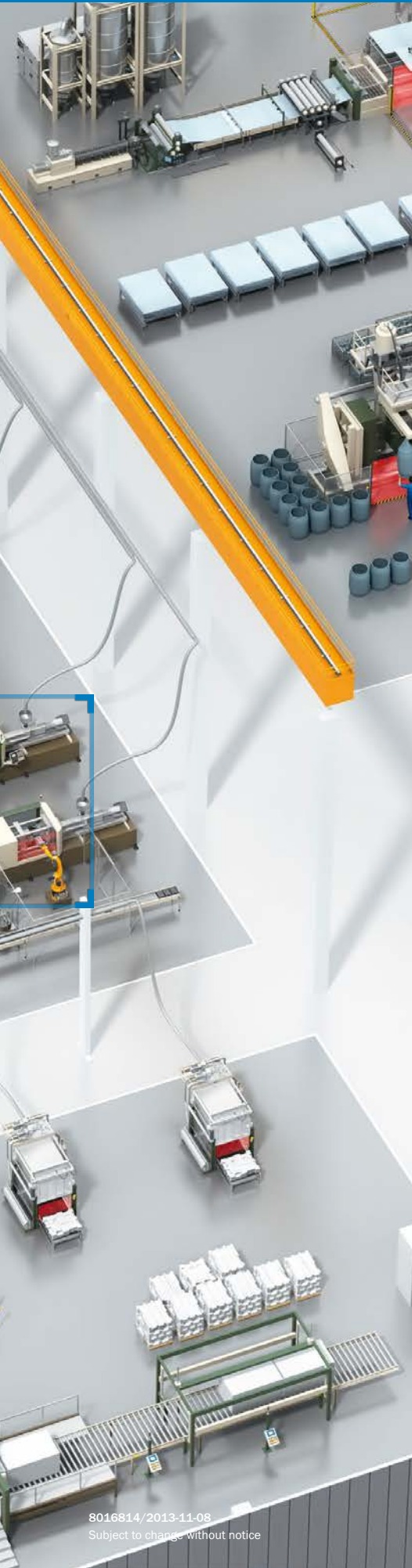
Marking with bar codes and 2D matrix codes is standard, but the properties of the products as well as the material-handling environment mean that identification puts high demands on code reading. SICK offers ideal industrial reading systems for the rubber and plastics industry, with easy integration, high durability and superior read rates, as well as the ability to get operations back up quickly in the event of a failure.



Flexible automation

Mass products that are produced in type-related large series require a high degree of automation in production. In addition, the wide variety of models keeps increasing, and thus the requirement for short changeover times, easy operation and minimal downtimes. Modern, intelligent sensors from SICK save the settings with automatic teach-in, have a diagnostic capability and thereby contribute significantly to providing a solution to these tasks.





Injection molding

Focus 1 **8**

- ① Horizontal injection molding machine

Focus 2 **10**

- ② Vertical injection molding machine

Focus 3 **12**

- ③ Automated production cell



2 Part counting

The injection-molded parts are counted with the FLG frame light grid. The sensor can be aligned easily and quickly thanks to the rugged frame design. With a resolution of up to 2 mm, it is even possible for the frame light grid to count small parts. This means, for example, that when the exact quantities are determined, a container change can be carried out.

3 Flow measurement

FFU ultrasonic flowmeters monitor the flow rate in the tool cooling cycles of the machine. Thanks to the rugged design of the sensors – which do not contain any moving parts – they are even suitable for use in harsh environmental conditions.

4 Minimum fill level monitoring

To prevent the material feed hopper from being emptied and machine downtime occurring as a result, the CM30 capacitive proximity sensor detects the minimum fill level in the feed hopper. If the minimum fill level is insufficient, the sensor switches. This signals to the operator that the material must be slackened.



FLG → p. 50



FFU → p. 78



CM30 → p. 43



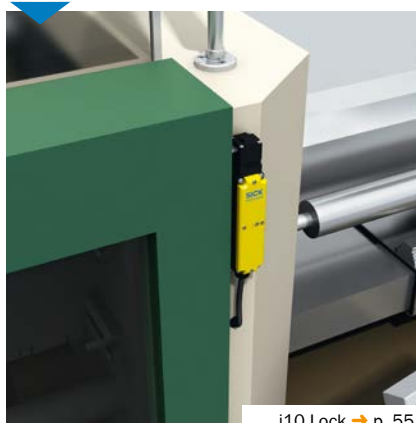
5 Mobile material identification

To enhance process reliability, the IDM140 hand-held scanner reads the bar code stickers on the material sacks and transfers the data in the code to the machine controller. This ensures that the right material for the job and product in question is fed to the machine.

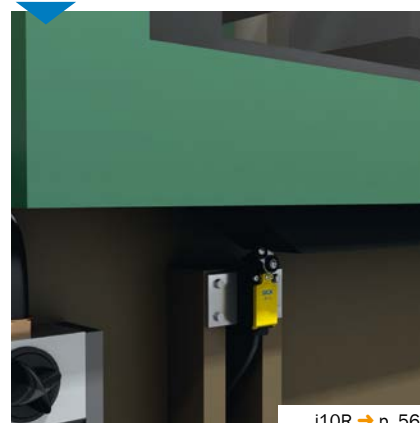
1 Hazardous point protection

The rugged i10 Lock safety locking device locks the sliding protective cover of the machine, ensuring that it is impossible to interfere with the injection molding machine during the injection molding process. To achieve the

required safety level and to reduce the possibility of manipulation to the safety locking device, the position of the sliding protective cover of the machine is also monitored with the i10R safety position switch.



i10 Lock → p. 55



i10R → p. 56

6 Safe machine stop

In a hazardous situation, the ES21 safe emergency stop pushbutton can trigger a machine stop.

7 Safe machine interior monitoring

On a large injection molding machine, it must be ensured that there are no operators inside the machine if the machine process is accidentally started up by a second operator. An S3000 safety laser scanner is therefore used to monitor the interior of the machine.



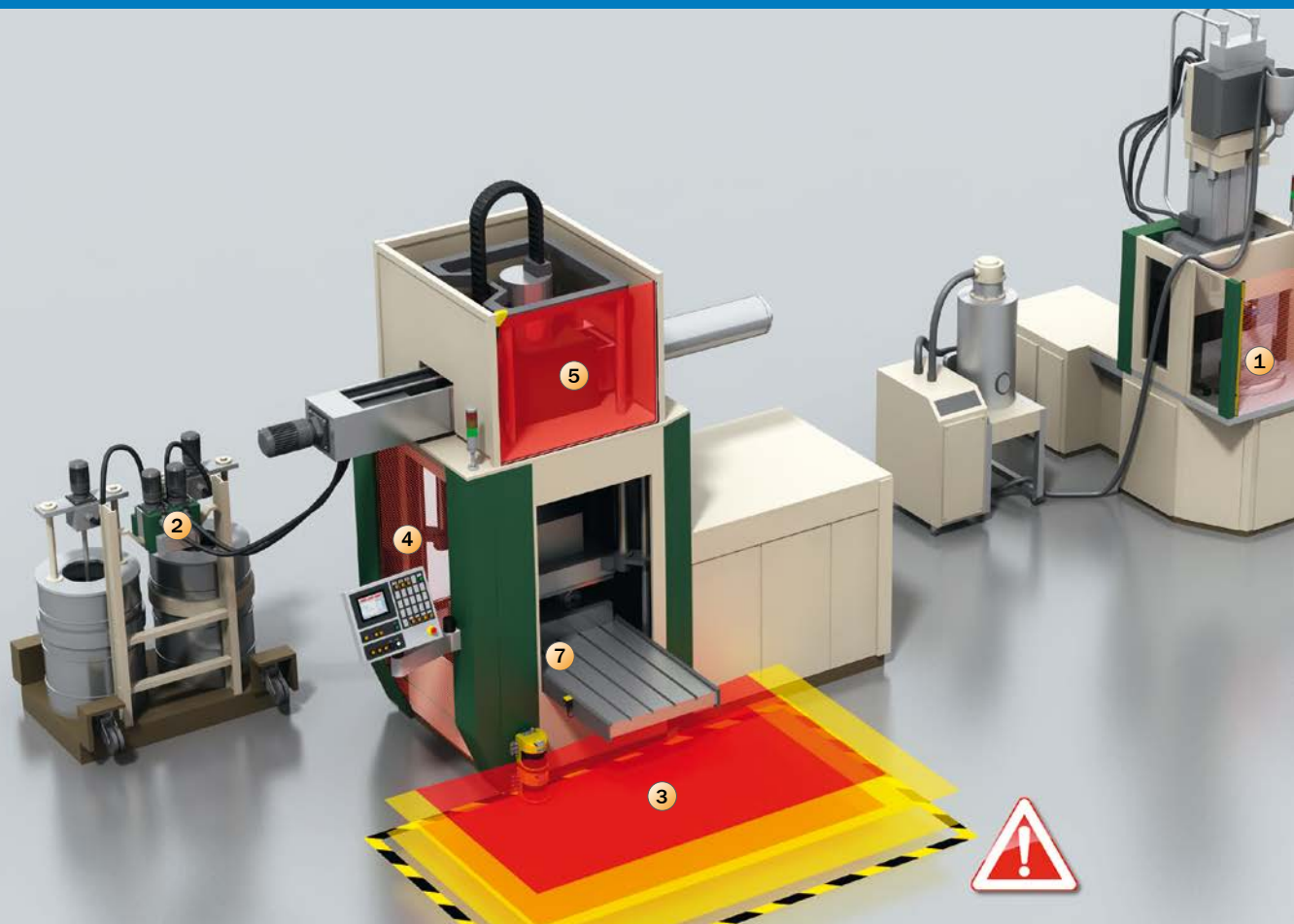
IDM140 → p. 67



ES21 → p. 59



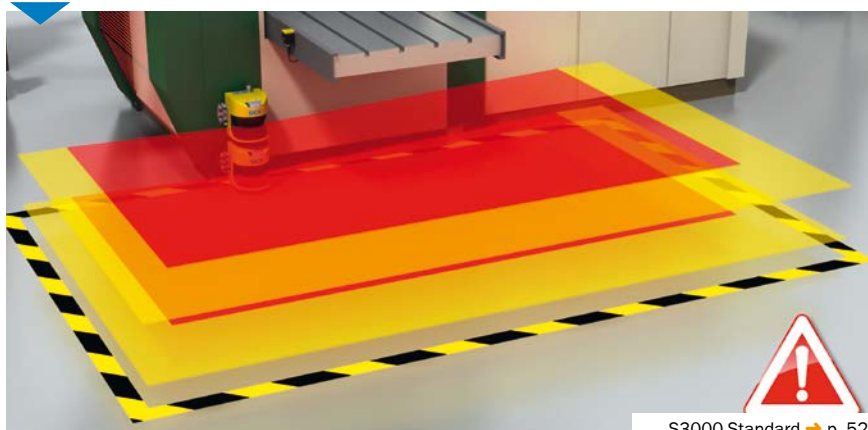
S3000 Standard → p. 52



2 Dynamic hazardous point protection at the sliding table

Because the sliding table performs dangerous movements, the hazardous area around the table must be safeguarded. This is achieved using the Flexi Soft safety controller in combination with S3000 safety laser scanners. Protective and warning fields are configured according to the dangerous movement. This means that, as long as there are no dangerous situations present, the table can be freely accessed in order to remove parts. If the table has a servo-electric drive, the safe position and safe

standstill data for the table can also be determined using the MOC motion control component of the Flexi Soft safety controller. *Please note: A special prototype test for fulfilling the machine-specific safety design is required for this application. It is not possible to adopt the application directly without special testing. SICK will be happy to support you in developing appropriate safety concepts for your machine, so that they comply with the appropriate safety requirements and standards.*



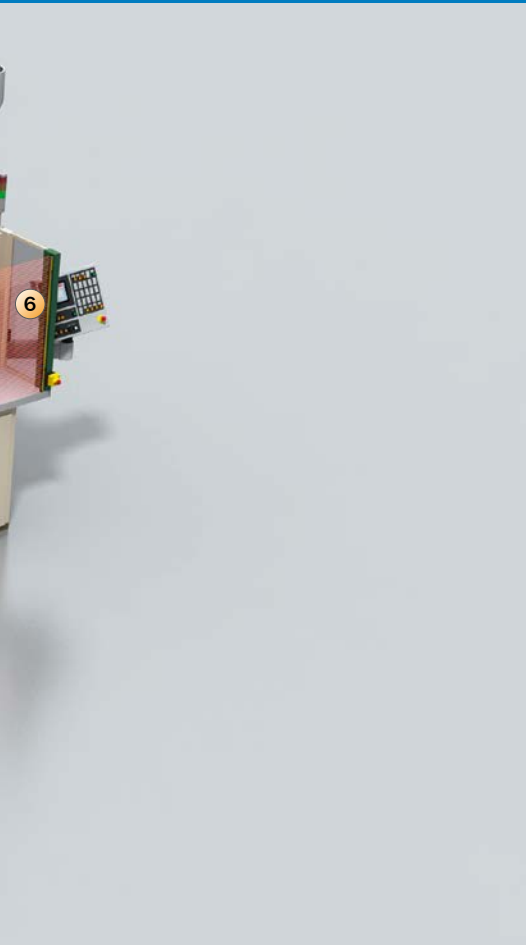
S3000 Standard → p. 52

3 Hazardous point protection at the clamping unit

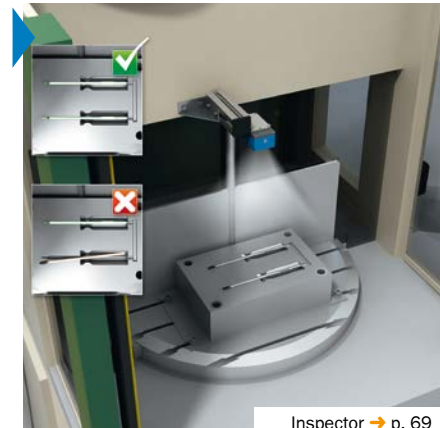
The miniTwin4 safety light curtain provides a straightforward protection method against reaching under and into a dangerous area. For this safety application, two safety light curtains are cascaded. This provides a safeguard against the clamping unit's hazardous point.



miniTwin4 → S. 54

**1 Monitoring the position of inserts**

When producing hybrid components, metallic inserts are positioned in the injection molding tool and then insert-molded with plastic. The Inspector vision sensor identifies any incorrectly positioned inserts. This prevents machine downtime and damage to the tool.



Inspector → p. 69

2 Pressure monitoring during material transportation

To ensure a constant feed of material into the machine when providing a supply of liquid silicone, PBT pressure transmitters measure the pressure in the machine lines.



PBT → p. 77

4 Hazardous point protection at the injection unit

The V300 safety camera system secures the access opening to the hazardous point of the injection unit. No physical guards such as doors are required. The injection unit is freely accessible.



V300 → p. 54

5 Hazardous point protection at the rotating table

The rotational movement of the table can present a danger for the machine operator. To eliminate this risk, the deTec4 Core safety light curtain is mounted at the access opening to the hazardous point of the rotating table. In a hazardous situation, the ES21 safe emergency stop pushbutton can also trigger a machine stop.

ES21 → p. 59
deTec4 Core → p. 53**6 Safe position and end position monitoring**

On injection molding machines that have a rotating or extending table, the end positions of the table are safely monitored using the non-contact IN4000 Direct Inductive safety switch.



IN4000 Direct → p. 59



3 Checking the presence and position of trays

To control the conveying line, it is necessary to check whether the trays to be transported are present and whether they are in the correct position. The WTB12-3 small photoelectric sensor is used for this purpose. In addition to detecting the trays, this photoelectric sensor can also detect the position of the trays using the background suppression function.

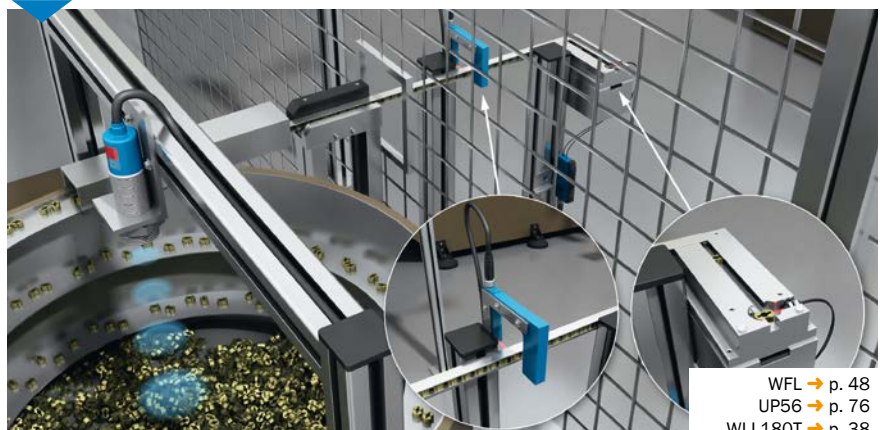
4 Checking presence and fill level in the singulation system

To ensure that the vibration drives of a bowl feeder and the linear conveyors connected to it are not continually in operation, the presence of the material to be conveyed must be checked at various points in the singulation system. To ensure this occurs, all the material placed on the linear conveyor is detected using the rugged and easily adjustable

WFL fork sensor. The WLL180 fiber-optic sensor is even able to monitor the presence of parts on the loading pallet when the space available is severely limited. The UP56 ultrasonic level sensor is used to check how full the bowl feeder is.



WTB12-3 → p. 36



WFL → p. 48
UP56 → p. 76
WLL180T → p. 38



1 Inline quality control

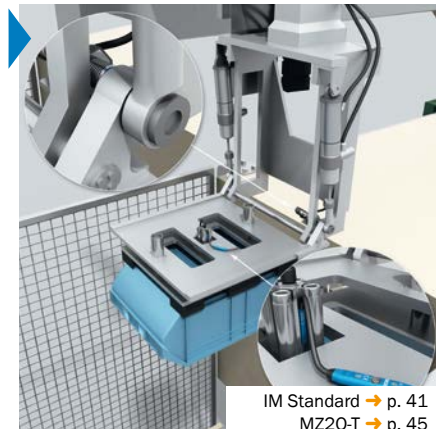
The process of producing injection-molded plastic parts is subject to many influences (temperature fluctuations, differences in plastic granule quality, etc.) Errors such as overfilling or underfilling the mold are recorded by the Inspector vision sensor. This means that the defective parts can be separated and removed from the process reliably.



Inspector → p. 69

2 Gripper function monitoring

The MZ2Q-T magnetic cylinder sensor monitors the pneumatic cylinder in the gripper. The sensor has two switching points. This means that both end positions of the short stroke cylinder can be monitored with just one sensor and one connecting cable. The IME08 inductive proximity sensor detects the end position of the flap axis integrated into the gripper.

IM Standard → p. 41
MZ2Q-T → p. 45

5 Collision protection between the robot and the injection molding tool

Closing the injection molding tool while a robot is accessing it damages both the tool and the robot. The access opening to the tool area can be monitored reliably with the SGS smart light grid or, alternatively, with the TiM3xx 2D laser scanner.

SGS → p. 50
TiM3xx → p. 74

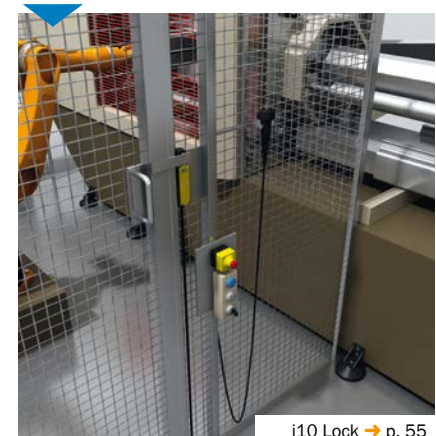
6 Detecting parts in the gripper and the injection molding tool

There is very limited room available for sensors in the robot gripper and the injection molding tool. For this reason, the W2 Flat miniature photoelectric sensor is the ideal choice for detecting inserts and finished parts so that they can then be placed in the gripper. The WLL180T fiber-optic sensor, featuring high temperature-resistant LL3 fibers, is perfect for use in injection molding tools.

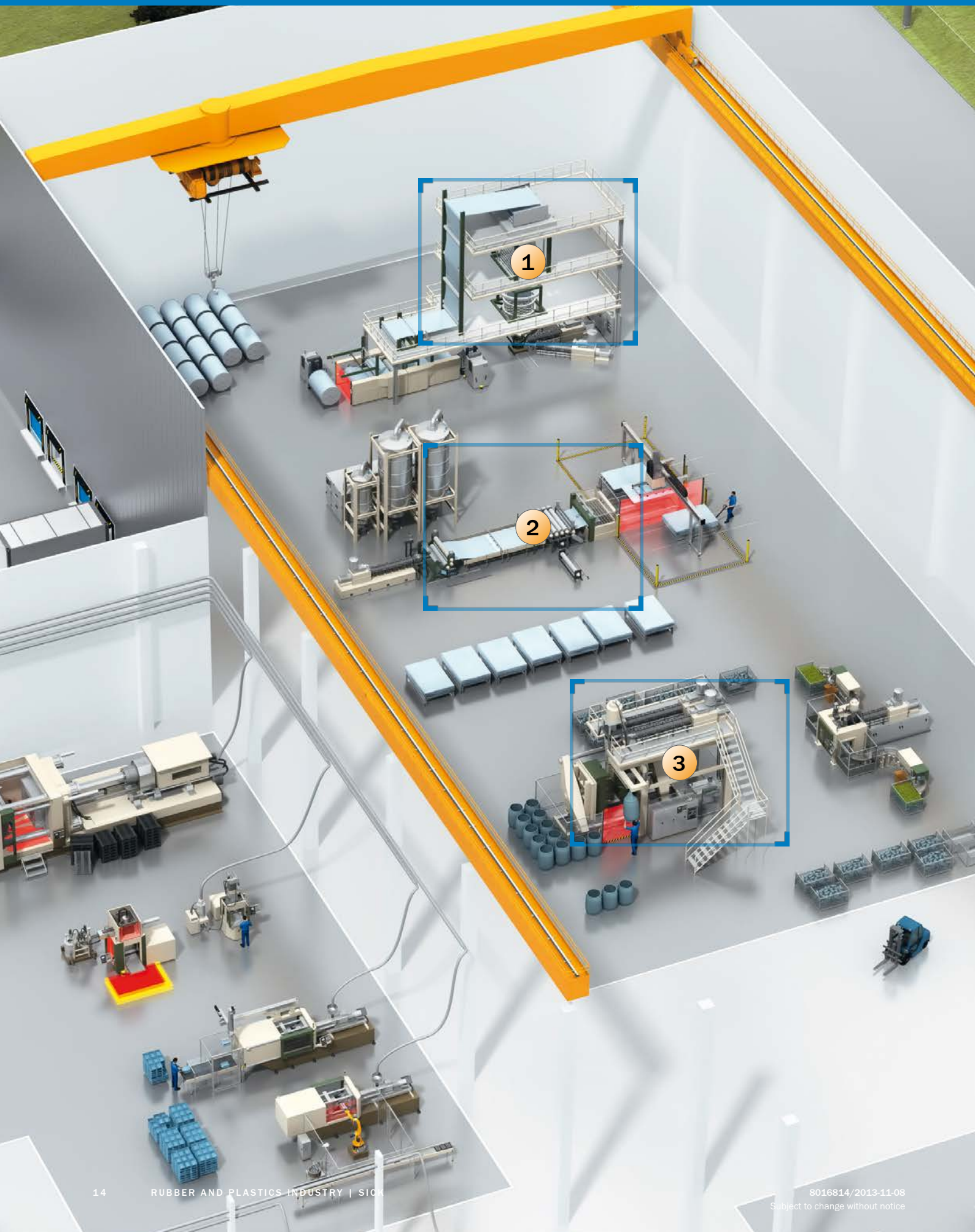
W2 Flat → p. 34
WLL180T → p. 38
LL3 → p. 39

7 Access protection for a robot cell

The rugged i10 Lock safety locking device locks the door to the work cell and ensures that all process steps are completed before the door can be opened. When the door is open, the i10 Lock prevents start-up of the system. The door must be closed for the system to restart.



i10 Lock → p. 55





Extrusion

Focus 1 **16**

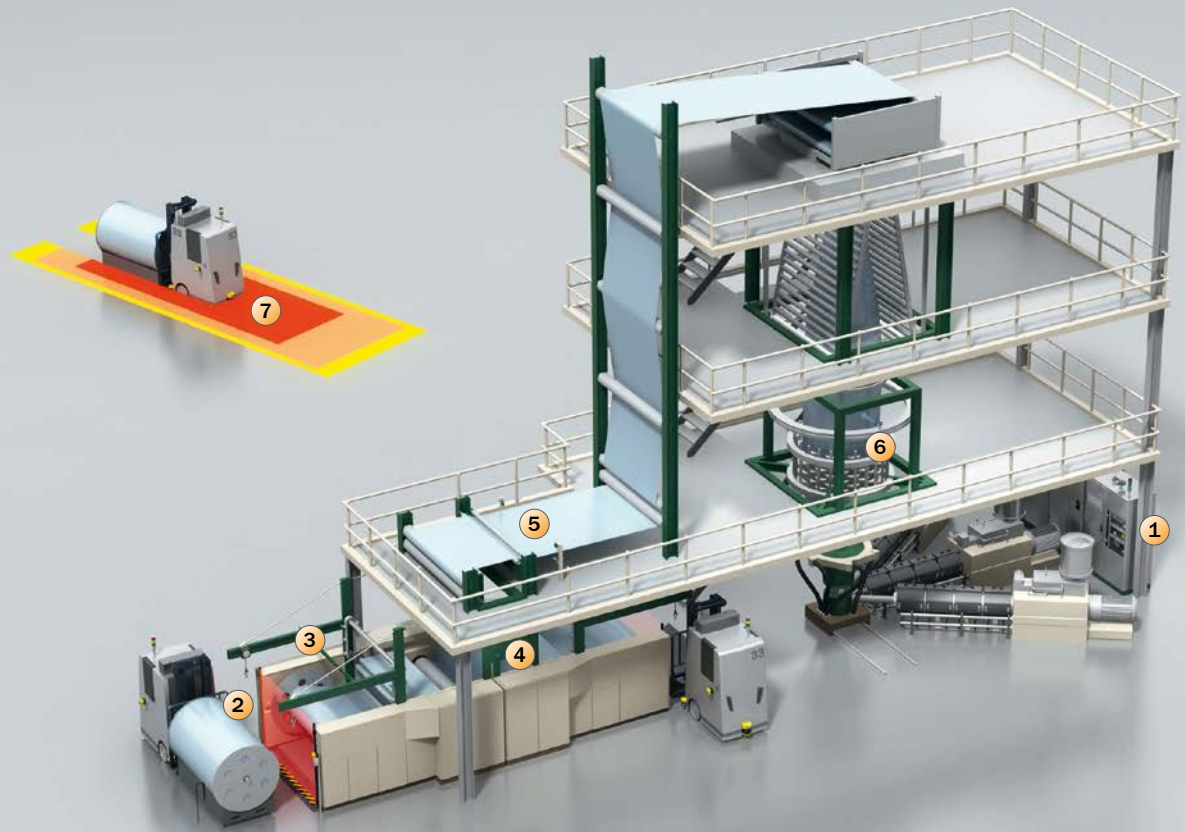
- ① Blown film extrusion line

Focus 2 **18**

- ② Profile extrusion line

Focus 3 **20**

- ③ Extrusion blow molding machine



2 Access protection at the winding unit

The continuous action of winding up a film sheet represents a dangerous movement. The deTec4 Core safety light curtain reliably monitors access to the winding unit.

3 Measurement of the roller diameter

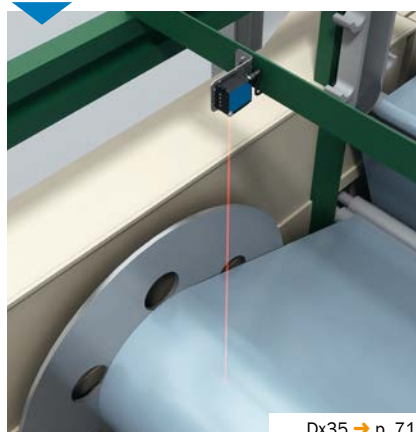
The Dx35 distance sensor measures the height of the material on the bobbin as the film sheet is wound onto the coil. This detects when a bobbin is full and must be replaced with an empty one.

4 Speed measuring

The DFS60 incremental encoder monitors the speed of the film sheet on a roller. This enables the film sheet to be wound up onto the coil at a constant rate. The DFS60 is highly rugged and can be individually configured.



deTec4 Core → p. 53



Dx35 → p. 71



DFS60 → p. 65

1 Safe control solution

The modular Flexi Soft safety controller is responsible for complete monitoring of all safety functions of the extrusion line. All safety functions, such as the safety switch, emergency stop pushbutton,

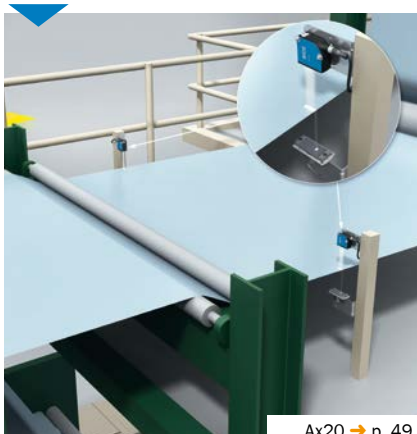
and opto-electronic protective devices, are easy to connect and interconnect. Gateways for all conventional fieldbus systems are also available.



Flexi Soft → p. 62

5 Edge guiding

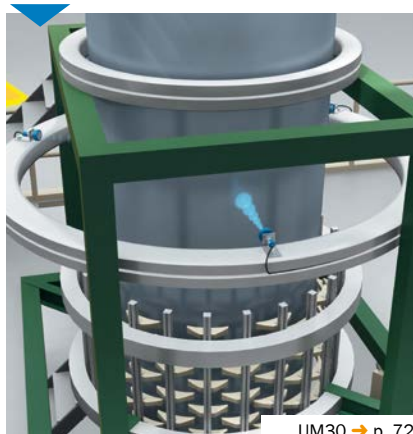
Ax20 array sensors enable precise leading edge detection of extruded profiles. They offer a high repeatability of 0.03 mm and can detect even the smallest grayscale variations in the visible area.



Ax20 → p. 49

6 Determining the film tubing diameter

The diameter of the film tubing is determined by the signal evaluation function of three UM30 ultrasonic sensors. The air feed is controlled based on this diameter, which ensures a consistent, high-quality production result.



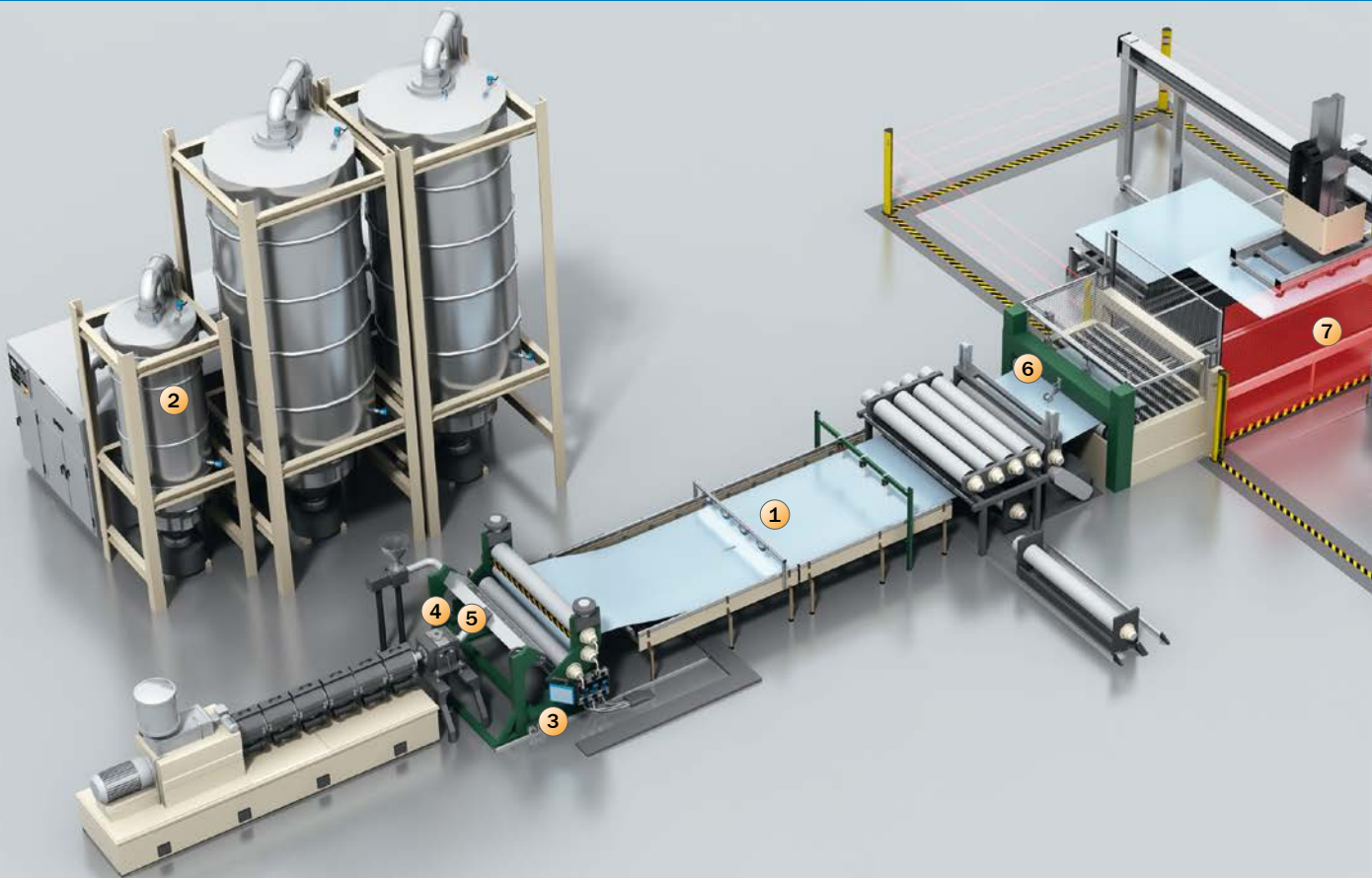
UM30 → p. 72

7 Mobile hazardous area protection

The S300 Mini, S300, and S3000 safety laser scanners protect automated guided vehicles against collisions with people, other vehicles, and materials on the floor. Safety laser scanners can receive speed information via dynamic inputs. The appropriate protective field is activated based on this information.



S300 Mini Standard → p. 51



2 Level measurement in the material container

The UP56 ultrasonic level sensor continuously measures how full the material container is. Alternatively, in the case of large silos, the LBV3x0 vibrating level sensors can detect the minimum and maximum fill levels in the material container.

3 Flow measurement

FFU ultrasonic flowmeters monitor the flow rate in the tool cooling cycles of the machine. Thanks to the rugged design of the sensors – which do not contain any moving parts – they are even suitable for use in harsh environmental conditions.

4 Profile interruption monitoring

The FLG standard automation light grid with a frame design reliably detects any interruption in the continually extruded profile when profiles with dimensions of up to 200 mm x 250 mm (W x H) are being extruded.



LBV300 → p. 76
UP56 → p. 76



FFU → p. 78



FLG → p. 50



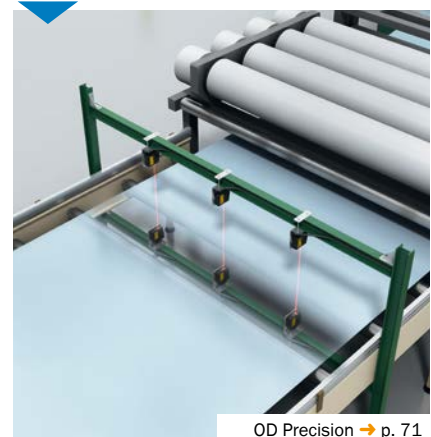
1 Inline quality control for plastic plates

After the extruded plastic plate has passed the cooling section, OD Precision short-range distance (displacement) sensors arranged in pairs record the thickness of the plate with high precision. This enables reliable measurement deviations of less than 1 µm. The

measured values are used for automatically correcting the roll gaps in the calendar of the extrusion line. Several Inspector vision sensors also check the extruded plastic plate for surface defects and color deviations.



Inspector → p. 69



OD Precision → p. 71

5 Fiber break monitoring

During the production of fine plastic fibers, the highly precise W9LG-3 small photoelectric sensor detects breaks in fibers directly downstream of the fiber cutting equipment. This prevents excessive waste from being produced.

6 Speed measuring

The DFV60 incremental encoder uses a friction wheel to measure the exact feed speed of the extruded plastic plate. The measured value obtained is used to control the plate sizing saw downstream.

7 Multi-sided access protection with separation of working areas

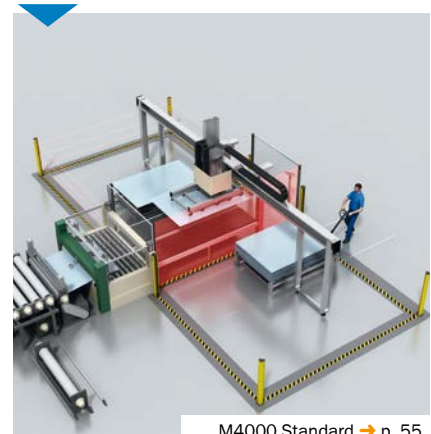
Several M4000 multiple light beam safety devices and mirror columns are used to define two separate safety zones around the working area of the transfer robot. This means that one area can be unloaded while the transfer robot is working in a different area.



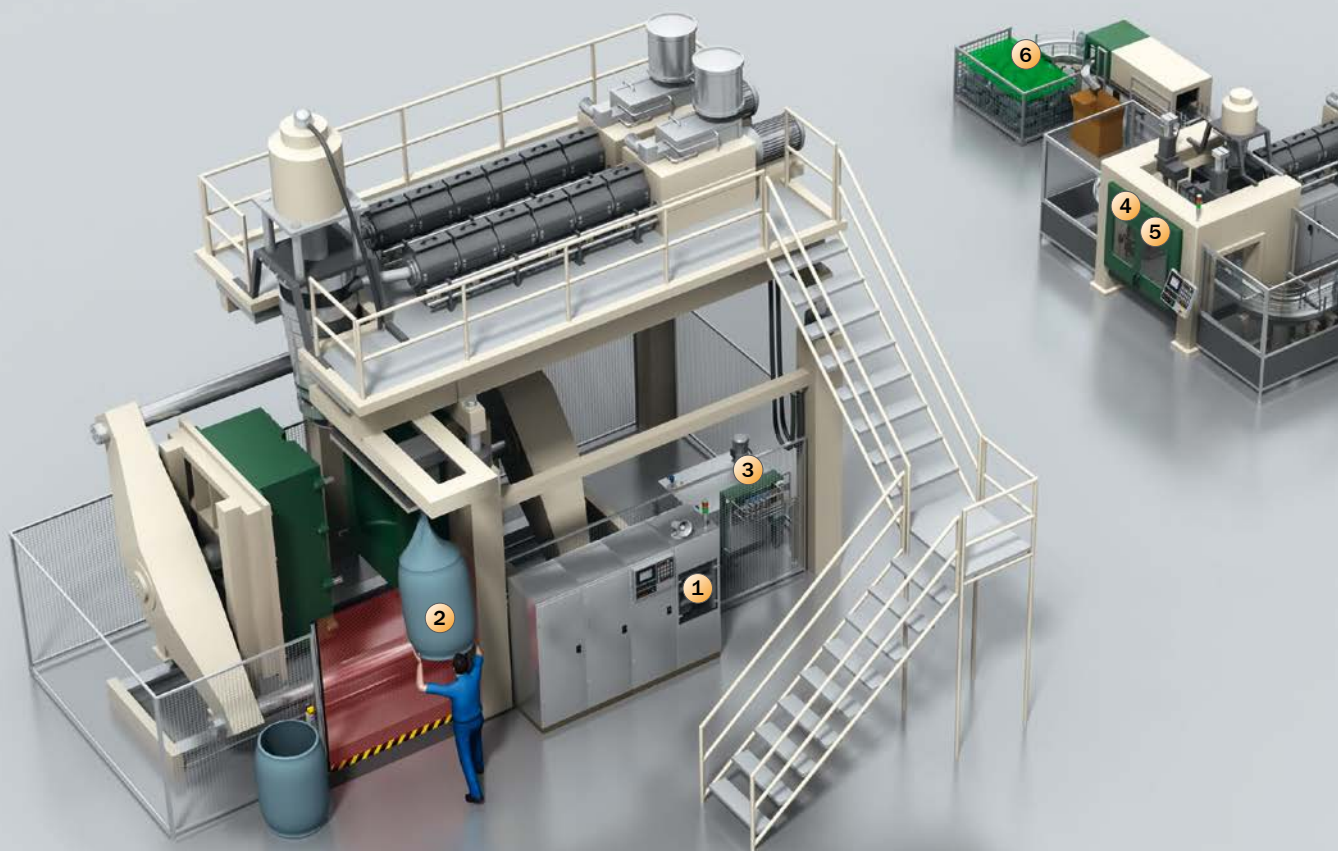
W9LG-3 → p. 36



DFV60 → p. 65



M4000 Standard → p. 55



2 Access protection at the clamping unit

The closing movement of the tool can present a danger for the machine operator. For this reason, the deTec4 Core safety light curtain reliably monitors access to the winding unit.

3 Monitoring the hydraulic pressure

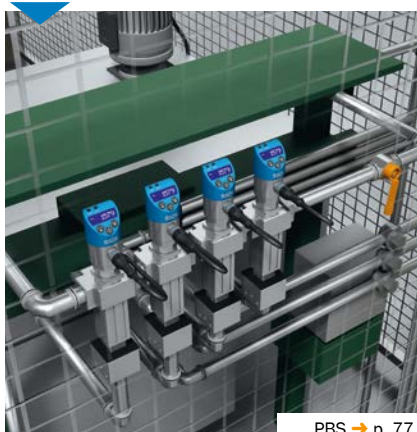
The PBS pressure sensors regulate the pressure in the hydraulic system of the extrusion blow molding machine. The PBS requires no moving parts and is therefore wear-free, stress-free, and maintenance-free. The dual-rotational housing enables flexible installation.

4 Monitoring the position of the blowing mold

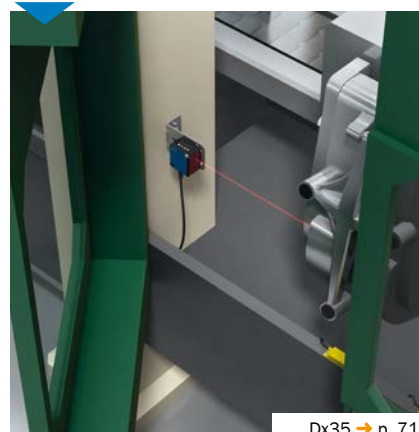
The position of the blowing mold is monitored with the Dx35 mid-range distance sensor. It is ideally suited for use in confined spaces due to its small size.



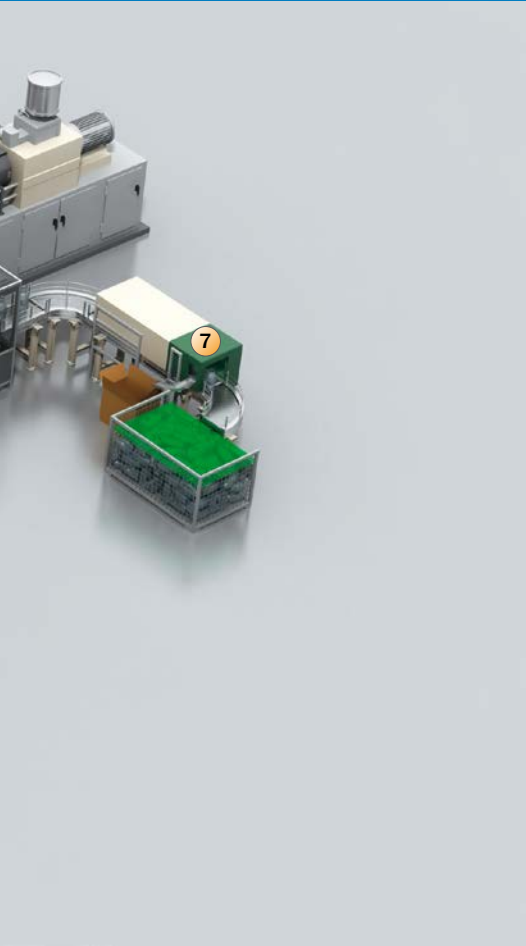
deTec4 Core → p. 53



PBS → p. 77



Dx35 → p. 71



1 Safe control solution

The modular Flexi Soft safety controller is responsible for complete monitoring of all safety functions of the extrusion blow molding machine. All safety functions, such as the safety switch, emergency

stop pushbutton, and opto-electronic protective devices, are easy to connect and interconnect. Gateways for all conventional fieldbus systems are also available.



Flexi Soft → p. 62

5 Monitoring of safety doors

Non-contact RE2 magnetic safety switches monitor safety doors without causing wear. Together with the Flexi Soft safety controller, they ensure that it is not possible to start the machine with the doors open. When the machine is running, opening a door triggers a machine stop.

6 Overrun monitoring and part counting at the material box

The TiM3xx 2D laser scanner is used for overrun monitoring. It signals the maximum fill level at which the material must be replaced. If a part falls into the material box, it breaks through the scanning field of the TiM3xx. This enables the parts to be counted.

7 Inline quality control

Once the hollow part has been shaped, the excess material in the neck area is cut off. After this, the Inspector vision sensor checks that the material in the neck area has been cut off correctly and that the cutting edge is neat. This approach ensures that defective parts are taken out of the process.



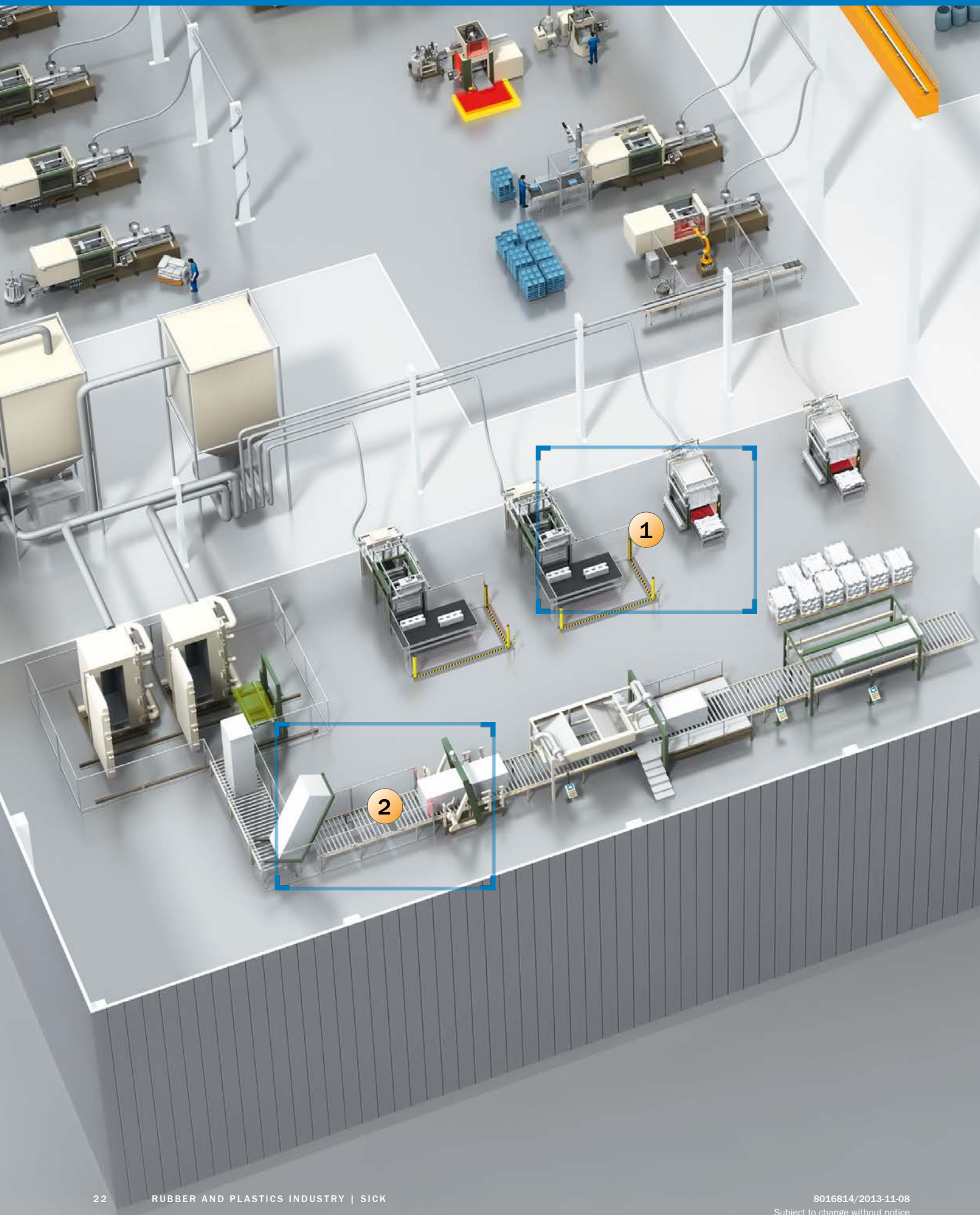
RE2 → p. 58
Flexi Soft → p. 62



TiM3xx → p. 74



Inspector → p. 69





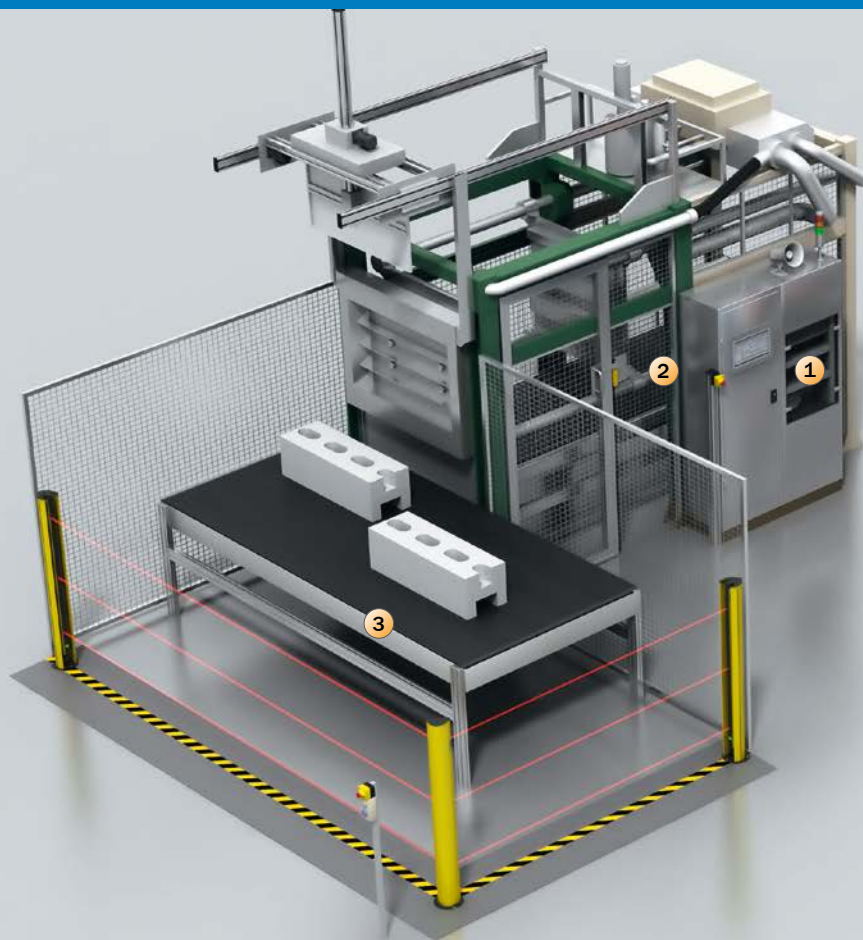
Foaming

Focus 1 **24**

- ① Shape molding machine

Focus 2 **26**

- ② Block molding machine



2 Access protection

The rugged i10 Lock safety locking device locks the access door to the molding machine. This makes it impossible to access the machine during the foaming process. In the event of a hazardous situation, the operator can stop the machine immediately with the ES21 safe emergency stop pushbutton.

3 Multi-sided access protection

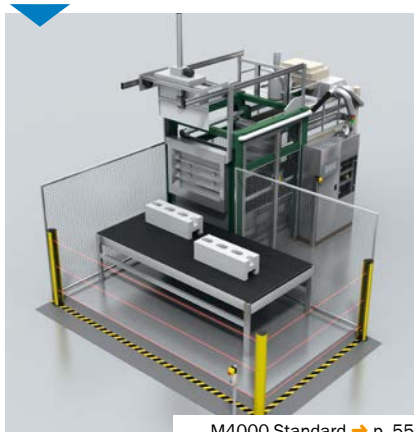
M4000 multiple light beam safety devices and mirror columns safeguard the working area of the linear robot. This ensures that the robot is stopped safely as soon as a machine operator enters its working area. It is only possible to restart the robot after this has been acknowledged.

4 Hazardous point protection at the conveyor belt opening

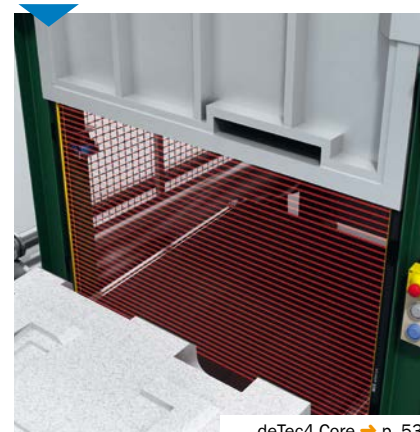
The closing movement of the molding tool can present a danger for the machine operator. For this reason, the deTec4 Core safety light curtain reliably monitors the opening of the conveyor belt.



i10 Lock → p. 55
ES21 → p. 59



M4000 Standard → p. 55



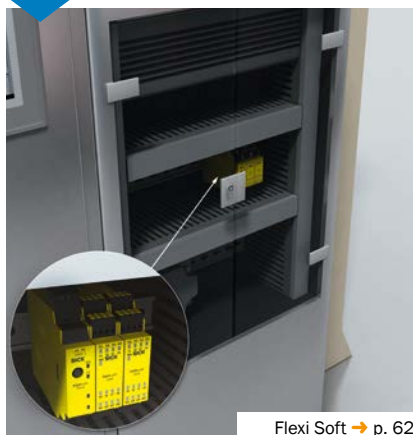
deTec4 Core → p. 53



1 Safe control solution

The modular Flexi Soft safety controller is responsible for complete monitoring of all safety functions of the shape molding machine. All safety functions, such as the safety switch, emergency

stop pushbutton, and opto-electronic protective devices, are easy to connect and interconnect. Gateways for all conventional fieldbus systems are also available.



Flexi Soft → p. 62

5 Pressure measurement in the hydraulic system

The PBS pressure switch monitors the preset system pressure of the machine. The PBT pressure transmitter also measures the pressure that builds up in the closing cylinder of the machine. This ensures that the locking force of the tool can be adjusted.

6 Ejection and overrun monitoring

The TiM3xx 2D laser scanner monitors ejection and overrun. It signals that the foam-formed part has been ejected. If a part is ejected incorrectly, the TiM3xx signals that the tool area is not free. This prevents the part from being damaged by the tool closing again.



PBS → p. 77
PBT → p. 77



TiM3xx → p. 74



2 Temperature measurement in the steam line

The polystyrene beads in the block molding machine plasticize and expand when hot steam is supplied to the machine. The block is molded. The TCT temperature sensor measures the temperature of the steam in the supply line to the mold machine.

3 Area scan on the removal device

To ensure the block is removed automatically, an area scan is carried out on the removal device. The TiM3xx 2D laser scanner signals whether the removal area is free or occupied. This prevents a collision or even the possibility of the entire system coming to a standstill.

4 Safe system stop

The i150RP safe rope pull switch is the ideal safety solution for longer conveyor systems since the switching function can be triggered from any point along the conveyor system.



TCT → p. 78



TiM3xx → p. 74



i150RP → p. 60



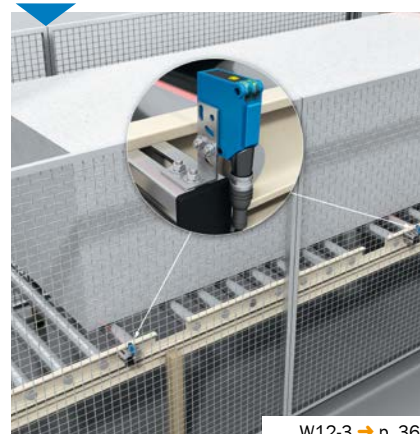
1 Controlling the conveying line

The WL15 small photoelectric sensor reliably detects the presence of the foamed block in order to control the downstream conveying line. The WL15 is designed for highly flexible mounting

using M18 front mounting plastic nuts and a snap ring or side attachment. When it comes to mounting on an aluminum profile, the WL12-3 small photoelectric sensor is the perfect choice.



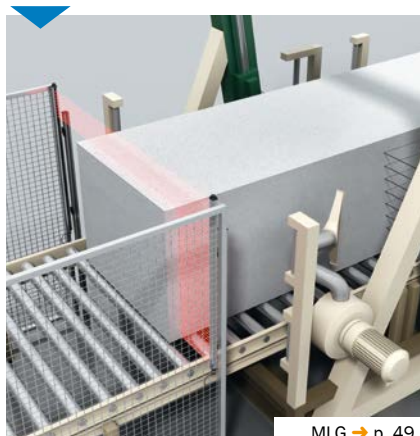
W15 → p. 38



W12-3 → p. 36

5 Determining the height of the foamed block

The plate cutting system is operated by multiple block molding machines. The height of the block must be determined before cutting since the blocks are delivered with various heights. The MLG automation light grid determines the height of the block being fed in, which makes it possible for the cutting wires to be set and adjusted automatically.



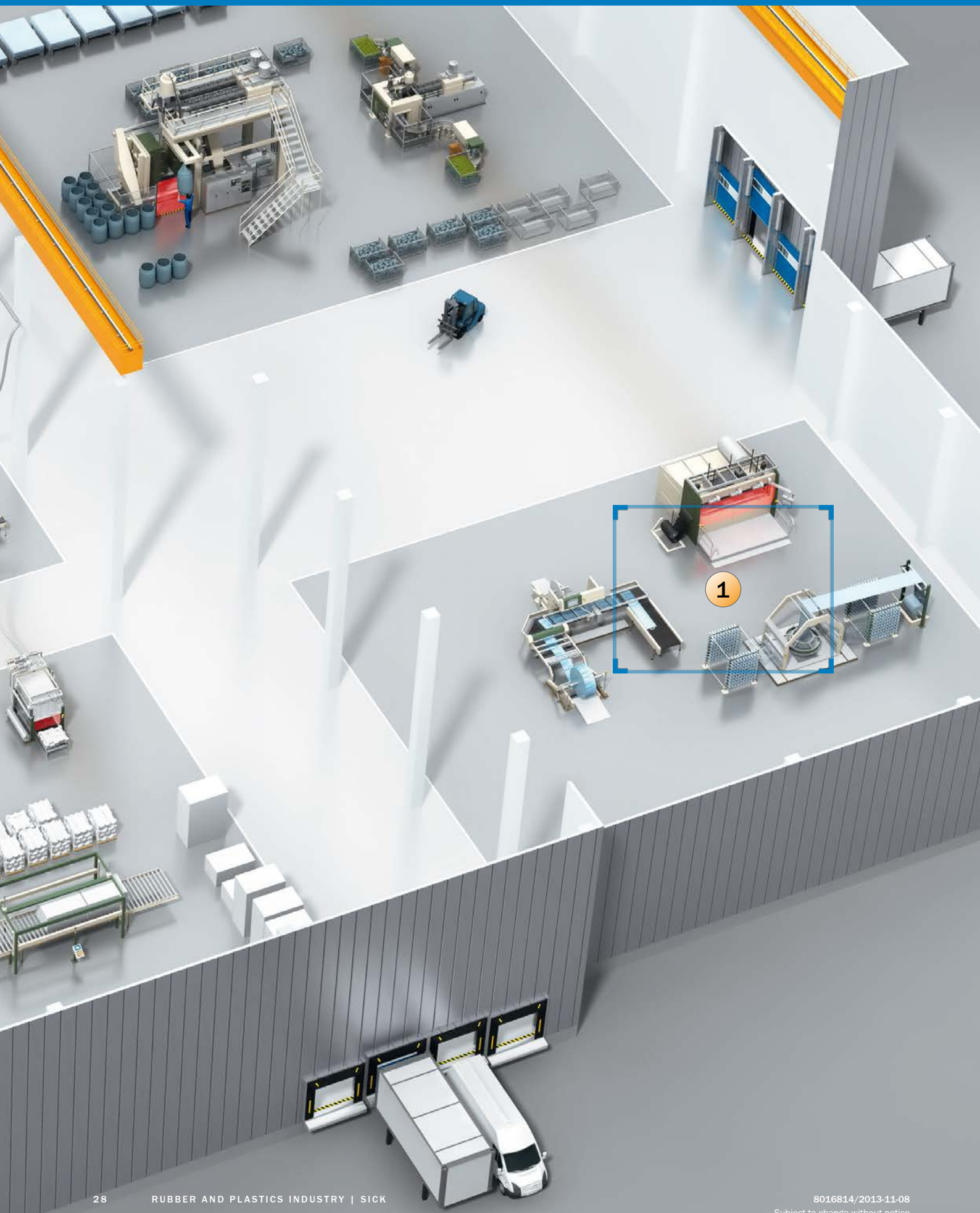
MLG → p. 49

6 Position monitoring for the tilting device

The foamed block is tilted in the plate cutting system before processing. The tilting device is driven by a pneumatic cylinder. The MZT8 magnetic cylinder sensors detect the position of the short stroke cylinder with high precision and monitor its end positions. It is possible to mount the sensors regardless of the short stroke cylinder's shape. If there is no mounting slot, special adapters are available.



MZT8 → p. 45





Further processing

Focus 1

30

- ① Thermoforming, bag and sack production and weaving machine

Thermoforming, bag and sack production and weaving machine

**3 Identifying film and fabric rollers**

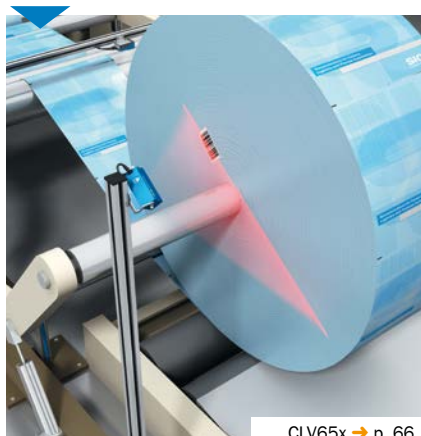
Over the entire manufacturing process, it must be possible to trace the production material. Important information such as the type of material, film thickness, sheet width, and additional parameters is contained in the bar codes. The CLV650 bar code scanner reads these codes.

4 Edge guiding

The Inspector PI50 vision sensor precisely determines the leading edge of the film web and passing on the position information. For two-point leading edge control a system of V180-2 cylindrical photoelectric sensors could be an alternative solution.

5 Detecting print marks

The KT5 contrast sensor precisely and quickly detects printing marks in a wide range of different colors. Machine functions such as foil cutting can be controlled reliably using these printing marks.



CLV65x → p. 66



Inspector → p. 69

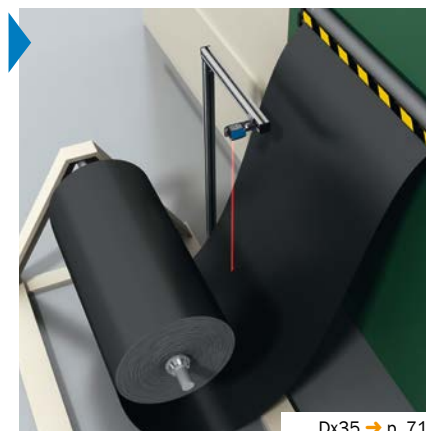


KT5 → p. 47



1 Loop control

The Dx35 distance sensor controls the feed of plastic film into the thermoforming machine. It is positioned via the loop and either measures the slack of the film continually or signals two distance points previously taught in.



Dx35 → p. 71

2 Hazardous point protection on a thermoforming machine

The miniTwin4 safety light curtain provides a straightforward protection method against reaching under and into a dangerous area. Two miniTwin4 safety light curtains form a cascade. This secures the access area to the thermoforming machine.



miniTwin4 → p. 54

6 Measuring the film tension

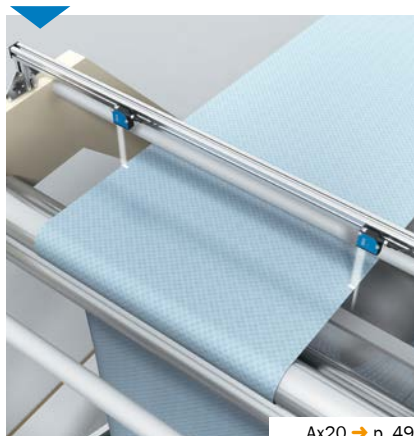
When a continuous tubular film is being processed into a finished plastic bag, the film sheet must be kept under tension in the bag fabrication machine. The MPS analog positioning sensor detects the film tension using the position of the deflection roller.



MPS → p. 44

7 Measuring the sheet width on the weaving machine

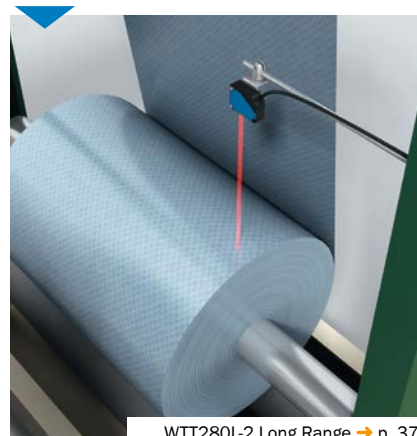
Two Ax20 array sensors measure the width of the sheet of fabric. This ensures that a fabric tube with a uniform diameter is produced.



Ax20 → p. 49

8 Signaling a roller change

The W280-2 long-range compact photoelectric sensor is used to signal a full fabric roller. Thanks to the two switching points that can be taught in, it is also possible for an advanced signal to be output. This signals to the machine operator that the roller will have to be changed soon. The machine's downtime is reduced as a result.



WTT280L-2 Long Range → p. 37



Product overview

Miniature photoelectric sensors

W2S-2	34
W2 Flat.	34
W4-3	35

Small photoelectric sensors

W9L-3	35
W9LG-3	36
W12-3	36

Compact photoelectric sensors

W280L-2 Long Range	37
------------------------------	----

Cylindrical photoelectric sensors

V180-2.	37
W15	38

Fiber-optic sensors and fibers

WLL180T	38
LL3.	39

MultiTask photoelectric sensors

MultiPac	39
MultiLine Sensor	40

Inductive proximity sensors

IM Miniature	40
IM Standard	41
IMP High Pressure.	41
IQ Miniature	42
IQ Standard	42

Capacitive proximity sensors

CM	43
CQ	43

Analog positioning sensors

MPS	44
MPA	44

Sensors for T-slot cylinders

MZ2Q-T.	45
MZT8.	45

Sensors for C-slot cylinders

MZ2Q-C	46
RZC1	46

Contrast sensors

KTM	47
KT5	47
KT10	48

Fork sensors

WFL	48
---------------	----

Array sensors

Ax20	49
----------------	----

Advanced automation light grids

MLG	49
---------------	----

Standard automation light grids

FLG	50
---------------	----

Smart light grids

SGS	50
---------------	----

Safety laser scanners

S300 Mini Standard	51
S300 Expert	51
S3000 Standard	52
S3000 Advanced	52

Safety light curtains

deTec4 Core	53
C4000 Palletizer	53
miniTwin4	54

Safety camera systems

V300 Work Station Extended	54
--------------------------------------	----

Multiple light beam safety devices

M4000 Standard	55
--------------------------	----

Electro-mechanical safety switches

i10 Lock	55
i10R	56
i110P	56
i110R	57

Non-contact safety switches

RE1	57
RE2	58
TR4 Direct	58
IN4000 Direct	59

Safety command devices

ES21	59
i150RP	60
E100	60

Safety relays

UE10-30S	61
UE45-3S1	61
UE48-20S	62

Safety controllers

Flexi Soft	62
Flexi Classic	63
Motion Control	63

Absolute encoders

AFS/AFM60 EtherCAT	64
------------------------------	----

Incremental encoders

DBS36	64
DFS60	65
DFV60 measuring wheel encoder	65

Wire draw encoders

EcoLine	66
-------------------	----

Bar code scanners

CLV65x	66
------------------	----

Image-based code readers

LECTOR®62x	67
----------------------	----

Hand-held scanners

IDM140	67
IDM160	68

RFID

RFH6xx	68
------------------	----

Vision sensors

Inspector	69
---------------------	----

Smart cameras

IVC-3D	69
------------------	----

High-end cameras

Ranger	70
------------------	----

Short range distance sensors (displacement)

OD Value	70
OD Precision	71

Mid range distance sensors

Dx35	71
Dx50	72

Ultrasonic sensors

UM30	72
UM18	73

Double sheet detector

UM18 Double Sheet Detector	73
--------------------------------------	----

2D laser scanners

TiM3xx	74
TiM5xx	74

Level sensors

LFP Cubic	75
LFV300	75
LBV300	76
UP56	76

Pressure sensors

PBS	77
PBT	77

Flow sensors

FFU	78
---------------	----

Temperature sensors

TCT	78
TBS	79



W2S-2 – At a glance

- Complete product family of photoelectric sensors in a tried-and-tested sensor design
- Adjustable BGS photoelectric proximity sensor with an sensing range up to 120 mm
- Optical performance data that exceeds market standards for sensing range and housing design
- Reliable detection of jet-black, poorly reflective and highly reflective objects
- PinPoint LED ensures high sensing ranges and reliable object detection

Your benefits

- Reliable object detection in confined environments helps cut costs and save space
- Sub-miniature housing enables seamless integration and creates opportunities for new machine designs
- Tried-and-tested, rugged housing design can be easily integrated into compact machines and systems
- Complete, ultra-small product family with operating functions for every application
- The 45-degree tilted cable entry offers maximum installation flexibility with additional soft rubber bearings to absorb vibrations and tensile loads

→ www.mysick.com/en/W2S-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



W2 Flat – At a glance

- One of the smallest photoelectric sensors in the world
- No external amplifier required
- Variant designed to detect transparent and glossy objects
- Rugged housing with metal-reinforced fixing holes

Your benefits

- High-performance solutions for very tight spaces provide increased application flexibility
- Fast response times with a high level of accuracy and precise switching points
- The high enclosure rating and the rugged housing offer a long service life that withstands harsh environmental conditions
- Quick and easy installation since sensors can be mounted directly on machine parts

→ www.mysick.com/en/W2_Flat

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





W4-3 – At a glance

- Best-in-class background suppression, reliable detection of critical objects and a high immunity to ambient light
- Quick and easy setup using a precise 5-turn potentiometer, control wire or teach function
- Best background suppression in its class
- PinPoint LED for brightest light spot in its class
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Low-cost integration due to optimal machine integration in areas with limited space
- Application versatility due to reliable detection of shiny or jet-black objects
- Rugged mounting system with M3 threaded metal inserts reduces maintenance costs due to a long service life
- High immunity to ambient light reduces downtime caused by false trips
- Clearly visible light spot simplifies alignment
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

→ www.mysick.com/en/W4-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



W9L-3 – At a glance

- Tough VISTAL™ housing
- Precise laser light spot
- Photoelectric proximity sensor in laser classes 1 and 2
- Photoelectric retro-reflective sensor with autocollimation optics and polarizing filter; models available for clear material detection
- Through-beam photoelectric sensors with sensing ranges of up to 60 m
- SIRIC technology
- Connections: M8 and M12 plugs, cable as well as cable with plug
- M3 and M4 hole pattern

Your benefits

- Precise detection of small objects and object features
- Detection of objects even through small openings
- Less machine downtime due to stable VISTAL™ housing as well as the suppression of optical interference
- The longest detection and sensing ranges in its class
- Best-in-class background suppression for photoelectric proximity sensors
- No blind spots, detection of shiny objects using photoelectric retro-reflective sensors
- A wide variety of connection and mounting options
- Highly visible light spot simplifies alignment

→ www.mysick.com/en/W9L-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





W9LG-3 – At a glance

- Tough VISTAL™ housing
- Precise laser light spot, laser class 1
- Continuous switching threshold adjustment (CTA)
- Autocollimation optics and polarizing filter
- Teach-in
- SIRIC technology
- Connections: M8 and M12 plugs, cable as well as cable with plug
- M3 and M4 hole pattern

Your benefits

- Precise detection of small objects and object features
- Detection of objects even through small openings
- Best-in-class for detecting transparent objects
- Less machine downtime thanks to the stable VISTAL™ housing
- No blind spots, also detects shiny objects
- Wide range of connection options
- Multiple mounting options
- Highly visible light spot simplifies alignment

→ www.mysick.com/en/W9LG-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



W12-3 – At a glance

- Best-in-class optical performance due to superior OES technology
- Autocollimation with retro-reflective sensors
- Background and foreground suppression with second emitter LED on proximity sensors
- Highly visible, precise light spot and high-energy IR transmitters
- Rugged die-cast zinc housing, optional with Teflon® coating
- Mounting options with through holes, base blind holes, oblong through holes and dovetail
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Reliable detection due to superior ASIC (application-specific integrated circuit) technology and immunity to optical interference factors from the industrial environment
- PinPoint LED technology provides a bright, small and precise light spot that enables quick and easy sensor alignment
- Precise switching characteristics ensure reliable object detection, reducing downtime caused by re-adjusting sensors during recipe changes
- Wide range of products enclosed in a rugged metal housing enables application flexibility in a broad range of industrial environments
- Flexible mounting options reduce installation time
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

→ www.mysick.com/en/W12-3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





W280L-2 Long Range – At a glance

- WTT280L-2: sensing distance up to 4 m
- WLT280L-2: sensing distance up to 18 m
- Complete background suppression: very small black/white shift, insensitive against reflections from the background (e.g. shiny metal, window, safety vest)
- Visible red class 1 laser light
- Version 1: with 1 x switching output and light/dark switch, version 2: with 2 x switching outputs and light/dark switch
- Disable laser by wire
- Reliable detection also in very fast production processes thanks to the switching frequency of 1000 Hz

Your benefits

- Reliable target detection with difficult target colors, angles and color transitions (black/white shift)
- One sensor with two outputs and two status LEDs improves application flexibility and reduces the number of sensors needed
- Quick and easy commissioning with sensing distance adjustment potentiometers and status LED – one for each output
- Quick and easy alignment with a red class 1 laser light
- Rotatable connector and light/dark switch for mounting and installation flexibility

→ www.mysick.com/en/W280L-2_Long_Range

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



V180-2 – At a glance

- Low-cost M18 housing sensor on the market
- Long sensing distances: 100 mm, 400 mm, 800 mm (proximity sensor), 300 mm (proximity sensor with BGS), 6 m (retro-reflective sensor) and 20 m (through-beam sensor)
- Bright power and signal LEDs with 360° visibility
- Wide product portfolio solves a broad range of applications
- High switching frequencies up to 1000 Hz
- Available in a metal housing for applications in harsh environments
- Optical axis selectively axial or radial (90°)

Your benefits

- Low-cost M18 cylindrical sensor on the market reduces installation costs
- Bright red sender LED simplifies alignment and saves installation time
- Bright power and signal LEDs with 360° visibility offer quick and simple troubleshooting, reducing maintenance time and costs
- The flat and smooth lens reduces the collection of dust and dirt, ensuring safe operation with less maintenance and fewer costs

→ www.mysick.com/en/V180-2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





W15 – At a glance

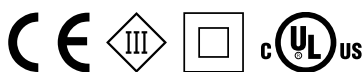
- M18 front mount using plastic nut or snap ring, side assembly with 24.1 mm through holes
- Flush mounting possible using the snap ring
- Transparent back cover
- Best-in-class background suppression and red PinPoint LED
- High immunity to ambient light
- Highly visible LED indicators

Your benefits

- Completely compatible with many competitor models, making it easy install and commission
- Flush mounting reduces setup time and prevents obstructions to material flow on conveyor systems
- Clearly visible LED indicators reduce setup time and simplify troubleshooting
- Reliable detection due to best-in-class background suppression that ignores stray background reflections, detects multi-colored/shiny objects and provides high immunity to ambient light
- Customer-specific options reduce material and labor costs

→ www.mysick.com/en/W15

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



WLL180T – At a glance

- Selectable response time up to 16 μ s
- Sensing range up to 20 m (Through-beam system); up to 1400 mm (proximity system)
- Bus-compatible with anti-interference
- 2 x 4-digit display
- Adjustable hysteresis
- Rotatable display screen
- High-resolution signal processing
- Programmable time delays

Your benefits

- Reliable, rapid process detection, even under the most difficult ambient conditions, such as dust, spray or mist
- Easy commissioning and product changeover due to external teach-in
- Cross-talk is eliminated when utilizing bus configuration option
- Quick, easy setup and adjustment due to an intuitive operating menu
- Flexible parameter adjustment due to high-resolution signal processing. Hysteresis and time delays can be adapted to suit the application, e.g., when detecting tiny or transparent objects
- Easy-to-read display, even under difficult installation conditions

→ www.mysick.com/en/WLL180T

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





LL3 – At a glance

- Very large selection of plastic and glass fiber-optic cables.
- Fiber-optic cables resistant to chemicals and high temperature
- Threaded and smooth sleeves, bands of light (array), 90° reflection versions available
- Focused optics
- Proximity and through-beam versions available
- Plastic, protective metal or Teflon sheathing available

Your benefits

- Very large selection of fiber-optic cables with plastic and glass fibers, giving users more application flexibility
- Resistant to damage caused by mechanical and chemical stress, as well as high temperatures
- Standard and customer-specific types
- Simple installation saves time
- For detection of objects, surfaces, leading edges, and fluid levels

→ www.mysick.com/en/LL3

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MultiPac – At a glance

- Two redundant receiver arrays from SICK
- The newest SICK chip technology
- Intense, visible red HighPower LED
- Sensing distance up to 500 mm
- Fast and precise commissioning thanks to the highly visible light spot

Your benefits

- Redundant receiver arrays provide reliable detection of shiny, gloss, dark, or irregular shaped objects without signal interruptions
- Products can be detected using a higher angle of incidence. This removes the typical mounting restrictions associated with detecting these products.
- In applications involving plastic wrapped bottles, the MultiPac replaces current solutions which require expensive mechanical height adjustment
- Allows overhead detection of product that is transported on a single conveyor belt but separated into multiple lanes

→ www.mysick.com/en/MultiPac

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





MultiLine Sensor – At a glance

- Two logical and intelligently linked sensors with background suppression in one miniature housing offer the highest ruggedness for object detection
- Consistent, reliable detection of structures and perforated objects such as e-cards
- Consistent, reliable detection of reflective and irregular objects such as blister packs and soup sachets on conveyor belts
- Maximum sensing range 120 mm
- Simple adjustment via teach-in button

Your benefits

- The MultiLine sensor facilitates faster production sequences since the distances between objects can be reduced
- The sensor position no longer needs to be modified for format changes since the sensor is able to detect objects independently of their position. This saves time and money
- The reliable signal of the sensor from the arriving to the departing edge places less demands on the control software since it no longer needs to be debounced or evaluated
- The MultiLine sensor offers high process reliability because all objects are detected independently of their structure, geometry and surface properties
- And placing the sensor into operation is as easy as pressing a button. A fast and reliable commissioning without complicated operating algorithms is thus given

→ www.mysick.com/en/MultiLine_Sensor

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



IM Miniature – At a glance

- Small housing sizes and light weight
- Integrated LED indicator
- Rugged stainless steel housing
- M4 and M5 thread sizes available

Your benefits

- Trouble-free installation in space-critical applications provides a high degree of design freedom, saving machine space
- Reliable detection of rapid handling and assembly processes increases throughput
- High-visibility indicator LED for simple monitoring of operational state reduces commissioning time
- High positioning accuracy increases machine throughput
- High resistance to shock and vibrations reduces maintenance costs

→ www.mysick.com/en/IM_Miniature

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





IM Standard – At a glance

- Precise operating distances due to ASIC technology
- Extra tough thanks to high fastener torque and hot melt adhesive filling
- M8 to M30 sizes available
- Operating distance from 1.5 mm to 20 mm
- IP 67 enclosure rating
- Operating temperature from -25°C to $+70^{\circ}\text{C}$
- DC, AC and AC/DC versions available
- Customer-specific models available

Your benefits

- Reduced machine downtime
- Reduced mechanical damage
- Fewer maintenance costs due to longer service life
- High resistance to shock and vibrations

→ www.mysick.com/en/IM_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



IMP High Pressure – At a glance

- Pressure resistant up to 500 bar
- Expected service life of up to 1 million pressure cycles
- Models M5, M8, M12 and M14
- Sensing ranges of up to 3 mm flush
- IP 68
- Stainless steel housing with active surface made from stable high-performance ceramic
- 3 and 4-wire versions
- Gas-tight at the sensor face

Your benefits

- Reduced maintenance costs
- Extremely resilient and durable
- Up to 50 times longer service life compared to conventional sensors under pressure cycles
- Simple compensation of cylinder tolerances
- Simple integration due to small design
- Controlled piston deceleration
- Increased piston service life due to collision prevention at the end of the work cycle

→ www.mysick.com/en/IMP_High_Pressure

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





IQ Miniature – At a glance

- Long sensing distance
- Rugged metal and plastic housings
- Narrow design: 5 x 5 or 8 x 8 mm
- Compact, space-saving design

Your benefits

- Trouble-free installation in space-critical applications
- Reliable detection of fast processes
- Quick installation without any fine adjustments
- Long sensing distance reduces mechanical damage
- Maintenance cost reduction due to increased sensor life
- High resistance to shock and vibrations

→ www.mysick.com/en/IQ_Miniature

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



IQ Standard – At a glance

- Long sensing distance up to 60 mm
- DC, AC and AC/DC versions available
- Wide range of housing and mounting options
- Variety of connection options including terminal, cable (flying leads) and connector types
- Customer-specific models and value add options are available

Your benefits

- Increased machine throughput with less machine downtime
- Maintenance cost reduction and reduced mechanical damage due to long sensing range
- Reduced maintenance cost due to longer service life
- Time-saving quick and easy installation

→ www.mysick.com/en/IQ_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





CM – At a glance

- Cylindrical housing
- Detects powders, granulates, liquids and solids.
- Best-in-class electromagnetic compatibility
- 4-wire DC (CM18 and CM30) and 2-wire AC versions (CM30)
- Supply voltage: 10 ... 40 VDC (CM18 and CM30), 20 V... 250 VAC (CM30)
- Short-circuit reverse polarity and power-up pulse suppression protection
- LED status indicator
- IP 67 enclosure rating

Your benefits

- Durable housing withstands harsh industrial applications, reducing maintenance costs and downtime
- Quick and easy adjustment of the switching point saves installation and setup time
- Application flexibility
- Solves applications where other sensing technologies cannot provide a solution
- High shock and vibration resistance increases sensor life and reduces maintenance costs
- Non-contact level measurement, even through container or tank walls, reduces installation and setup time

→ www.mysick.com/en/CM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



CQ – At a glance

- Rectangular housing
- Detects powders, granulates, liquids and solids.
- Best-in-class high electromagnetic compatibility
- Electrical design: DC 4-wire
- Supply voltage: CQ35 10 ... 40 VDC and CQ28 10...30 VDC
- Short-circuit, reverse polarity and power-up pulse suppression protection

Your benefits

- Non-contact level measurement, even through container or tank walls, which eliminates drilling holes and thus reduces installation time
- Durable housing withstands harsh industrial applications, reducing maintenance costs
- Quick and easy adjustment of the switching point - via pushbutton, remote teach for the CQ28 and via potentiometer for CQ35 - saves time
- Simple and safe detection alternative to photoelectric and inductive sensors in applications such as detecting product in a sealed box, container or tank

→ www.mysick.com/en/CQ

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





MPS – At a glance

- Magnetic position sensor for pneumatic and hydraulic cylinders with T-slot
- Output signal: analog, 4 – 20 mA current and 0 – 10 V (in one sensor)
- Superior precision: 0.05 mm resolution, 0.1 mm repeatability, 0.3 mm linearity, 1 ms measurement rate
- Electric setting of zero point and end point via teach-in button (optional)
- Various lengths available from 32 – 256 mm
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Maximum flexibility with several different measuring ranges from 32 to 256 mm
- Easy analog output setup: adjustable zero and end point can be taught via single button
- Drop-in T-slot mounting from above makes assembly easy
- Selectable installation direction to optimize cabling
- Efficient measurement of stroke due to minimal blind zones, increasing machine throughput
- Simple commissioning due to „in-range“ indicator
- IO-Link provides easy data access from the PLC
- Quick and easy configuration

→ www.mysick.com/en/MPS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MPA – At a glance

- Measured lengths from 107 to 1007 mm in 36 mm steps
- Output signals 4 to 20 mA as well as 0 to 10 V in a single sensor
- Can be mounted on various cylinders thanks to its universal housing with adapters, e.g., cylinders with T-slot, round and tie rod cylinders
- Linearity of 0.5 mm at a sample rate of 1.15 ms
- Accuracy of 0.03 % as well as reproducibility of 0.06 %
- IP 67 enclosure rating
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- High flexibility through measuring ranges from 107 to 1007 mm
- Increased machine performance thanks to the sensor's minimal blind zone
- Saves time due to configurable start and end points via intelligent Teach Pad
- A rugged aluminum housing, the capacitive Teach Pad and the anti-kink cable guarantees a long operational lifetime of the sensor and reduces maintenance costs
- Time savings through simple commissioning and diagnostics thanks to a 4-color LED display
- Analog power, voltage signal and IO-Link in a single sensor reduces the range of variants and thereby lowers warehousing costs
- IO-Link provides easy data access from the PLC
- Quick and easy configuration

→ www.mysick.com/en/MPA

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





MZ2Q-T – At a glance

- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with T-slot
- Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in T-slot mounting from above makes assembly easy
- Sensor fully recessed in slot
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- One sensor with two adjustable switching points reduces installation time and cost
- Detection zone up to 50 mm stroke provides maximum application flexibility
- Ideal for precise pneumatic applications due to the definition of two switching points
- Drop-in T-slot mounting from above makes assembly easy
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification

→ www.mysick.com/en/MZ2Q-T

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MZT8 – At a glance

- Magnetic piston detection for all conventional pneumatic cylinders with T-slots
- Short sensor housing length – only 24 mm
- Sensor element at the tip of the housing
- Proprietary GMR-ASIC technology ensures precise switching and low hysteresis
- Enclosure rating: IP 68 / IP 69K (PUR) respectively IP 67 / IP 69K (PVC)
- Captive screw
- LED function indicator
- For all commonly used cylinders with T-slots, e.g., Festo or SMC and it can be applied to multiple cylinders types such as round, tie-rod, integrated profile or dove-tail cylinders with mounting brackets

Your benefits

- Shortest sensor on the market, making it ideal for short stroke cylinders
- Sensor element at the tip of the sensor – piston detection possible without stroke loss
- Captive installation screw enables reliable and optimized installation
- Time saving „single-handed mounting“ with 1/4 turn
- Flexible installation via Allen wrench or flathead screwdriver
- Extremely rugged housing - rated for IP67 respectively IP 68 and IP 69K, enlarging sensor life time

→ www.mysick.com/en/MZT8

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





MZ2Q-C – At a glance

- Magnetic cylinder sensor for pneumatic and hydraulic cylinders with C-slot
- Simple 2-point teach-in procedure
- Detection zone up to 50 mm stroke
- Drop-in mounting from above
- Sensor fully recessed in slot
- Two versions available for Festo and SMC C-slots
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- One sensor with two programmable switching points reduces installation time
- Fewer mounting and cabling requirements – saves installation time, mounting space, and money
- Maximum flexibility: programmable detection zone up to 50 mm stroke
- Suitable for precise pneumatic applications due to simple and precise definition of two switching points
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks
- Easy device replacement and identification

→ www.mysick.com/en/MZ2Q-C

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



RZC1 – At a glance

- Fits into all commonly used cylinders, linear slides and grippers with C-slots, such as, Festo or SMC
- Complete range with Reed 3-wire, Reed 2-wire, and Reed 120V version
- Combined Allen and flathead installation screw
- Very short sensor housing, making it easier to install on short stroke cylinders
- Operating display LED
- IP 67 / IP 68 / IP 69K enclosure rating (depending on type)

Your benefits

- Reduced maintenance cost as the sensor keeps its position under shock and vibration and does not move out
- Flexible installation via Allen wrench or flathead screwdriver
- Time saving single-hand mounting with ¼-turn installation
- Convenient installation and sensor replacement due to drop-in installation – installer does not need to disassemble the cylinder from the machine for sensor replacement

→ www.mysick.com/en/RZC1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





KTM – At a glance

- Established mini housing
- High grayscale resolution
- Increased dynamic range means reliable detection of contrasts on shiny materials
- Static and dynamic teach-in in one variant
- Switching frequency 15 kHz (type-dependent)
- KTM Core for standard applications
- KTM Prime with IO-Link function

Your benefits

- For use in all contrast detection applications, particularly the packaging industry
- Print mark detection on continuous materials for controlling the cutting process
- Positioning of tubes
- Label alignment on bottles

→ www.mysick.com/en/KTM

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



KT5 – At a glance

- Best contrast resolution thanks to RGB LED technology
- Intuitive 10-segment bar display indicates the detection reliability
- Dynamic or static teach-in method or manual potentiometer
- Switching frequency of 10 kHz
- Automatic gloss adjustment for highly reflective materials
- Various sensing distances and light spot directions
- M12 plug can be rotated 90°

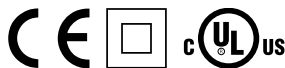
Your benefits

- Able to process all packaging materials (yellow mark/white background), resulting in high machine throughput
- Reliable operation, even with jittering and high gloss materials
- High positioning accuracy improves packaging quality
- Simple teach-in and highly visible light spot ensure easy setup
- A range of sensing distances, light spot directions and 180° rotatable plug enables optimal integration
- Interchangeable lenses for maximum mounting flexibility
- Application-specific teach-in processes

→ www.mysick.com/en/KT5

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





KT10 – At a glance

- Very low jitter ($< 10 \mu\text{s}$)
- Precise light spot
- Best contrast resolution thanks to RGB LED technology
- Two interchangeable light exits
- Five storage banks for settings
- Automatic drift correction
- Fast switching frequency of 25 kHz
- Easy-to-read bar graph display

Your benefits

- Very precise detection of print marks enables optimal results for packaging and printing applications
- All contrast marks, even pale yellow on white paper, can be reliably detected thanks to RGB LED technology
- Automatic drift correction helps detect difficult to see marks, such as faded print marks, enabling higher production reliability
- Reliable operation, even with high-gloss reflective surfaces, increasing throughput
- Simple teach-in via an external signal can be performed while the material is moving, enabling shorter setup time
- Long-lasting, tough metal housing

→ www.mysick.com/en/KT10

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



WFL – At a glance

- Very precise laser beam (Class 1 laser)
- Simple and accurate adjustment via teach-in
- Fast response time (max. 100 μs)
- Minimum detectable object size of 0.05 mm
- PNP and NPN switching output
- Light/dark switching function
- 21 different models with different fork widths and depths
- Rugged, IP 65 aluminum housing

Your benefits

- A highly precise laser beam ensures consistent measurement accuracy along the entire measuring range and reliable detection of the smallest objects
- A visible laser light spot enables easy alignment and fast adjustment
- Reliable and simple setting via teach-in ensures high process reliability
- A wide range of different fork sizes increases installation flexibility
- The aluminum housing meets all requirements for use in harsh industrial conditions

→ www.mysick.com/en/WFL

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





Ax20 – At a glance

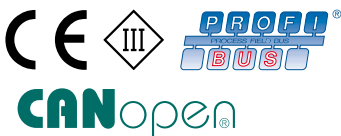
- Proximity contrast line sensor in a compact housing
- Application-specific sensor functions
- Detect position of edge of material
- Diameter, width and gap detection of different objects
- Very high reproducibility of 0.03 mm
- Large measurement range: 30 mm
- Visible white LED light spot to enable accurate alignment
- Simple setup, no teach-in necessary

Your benefits

- Cost-effective solution to reliably determine edge position and width measurement
- Easy-to-integrate, compact housing can be mounted over the web so less downtime is required for maintenance
- No reflector is required, reducing maintenance and providing greater product reliability. Reduces downtime. Only array sensors available in diffuse mode, making them ideal for environments where dirt and dust can interfere with other types of solutions that require a reflector.
- High reproducibility of 0.03 mm and industry-leading resolution enable greater accuracy and quality control
- Highly visible white LED light spot ensures fast and accurate alignment, reducing time-consuming fine adjustment
- No teach, program or menu activities make setup virtually hassle free

→ www.mysick.com/en/Ax20

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



MLG – At a glance

- User-programmable and factory-pre-set versions available
- Sensing range up to 8.5 m
- Monitoring heights of over 3 m and up to 240 beams possible
- Resolutions of 10 / 20 / 30 / 50 mm and customer-specific resolutions possible
- External teach-in for optimal sensitivity settings
- Short response time < 3 ms
- Up to 6 PNP or NPN switching outputs and two switching inputs
- PROFIBUS, CANopen, analog outputs, RS-485

Your benefits

- MLG light grids are robust, resistant, and powerful
- Light grid status information to avoid interrupting operation
- Customer-oriented solution based on modular beam separations improves operational safety
- Integrated PROFIBUS, CANopen bus systems, analog outputs, and RS-485 interfaces reduce cabling time and costs
- A fully modular system guarantees the optimum solution for the customer
- With the MLG, the system integrator can offer a solution with the end customer in mind
- Robust metal housing can cope with harsh environments and reduces downtime
- Integrated software program minimizes mounting work, since no additional connection box is required

→ www.mysick.com/en/MLG

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





FLG – At a glance

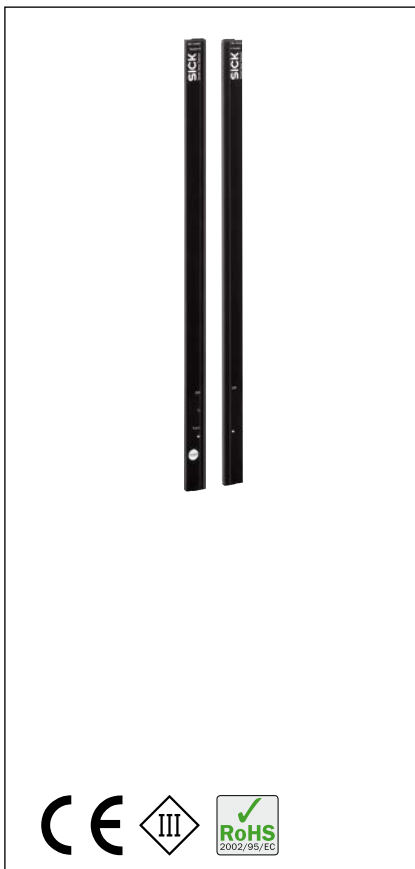
- Dynamic or static operating mode, switchable
- Simple adjustment
- Adjustable sensitivity
- Adjustable pushbutton lock
- Rugged metal housing
- Adjustable pulse lengthening
- Switchable NO/NC

Your benefits

- Simple installation and alignment due to sender and receiver in one housing
- The adjustable pushbutton lock protects against unwanted changes to parameters and manipulation during operation
- The device's adjustable sensitivity, operating mode and pulse lengthening features enable individual parameter changes to fit the requirements of your application
- Also available as an one side open version for simple integration into your application environment
- Large monitoring area, so only one device is required for monitoring small and large parts
- Using the sensitivity setting, it is possible to hide falling debris and only recognize objects that are relevant to detect

→ www.mysick.com/en/FLG

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



SGS – At a glance

- Variable detection lengths from 600 mm up to 1,400 mm (in 160 mm increments)
- Simple teach-in setup via cable
- Optional parameter setting with teach-in button, no PC required
- Maximum range 10 m
- Response time 18 ms
- 25 mm or 45 mm MDO possible
- Highly immune to sunlight at 150,000 lx
- Small blind zone < 11 mm

Your benefits

- Small, slim and sleek design enables easy integration into applications
- Slim and flat models offer flexible mounting options and optimize shelf/bin space while reducing damage
- Customized preset configurations or set parameters via one-touch teach-in with no PC
- Optical synchronization eliminates the need to lay cables, saving time
- Optional: Capacitive teach-in button and LEDs make commissioning easier for complex solutions
- Auto-teach and auto-muting enable Plug & Play. And, an alignment aid and "Click & Go" provide faster installation.

→ www.mysick.com/en/SGS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





S300 Mini Standard – At a glance

- Very compact design
- 2 m or 3 m protective field range
- 270° scan angle
- One field set (one protective field, two warning fields)
- Selectable resolution for hand, leg or body detection
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)
- Easy-to-configure fields and functions

Your benefits

- Simple integration due to ultracompact design
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Safety engineering – with no loss of productivity
- Decades of proven safety technology guarantee maximum reliability and availability – even under difficult conditions
- Easy to manage, reducing costs and work time
- Reduction of downtime and brake wear thanks to triple field function
- Simple alignment and safe operation in vertical mode

→ www.mysick.com/en/S300_Mini_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



S300 Expert – At a glance

- Compact design
- 2 m or 3 m protective field range
- 270° scan angle
- 16 switchable field sets (16 protective fields, 32 warning fields)
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Incremental encoder inputs for speed-dependent field switching
- Extended measured data output via RS-422 with landmark recognition

Your benefits

- Simple integration due to compact design
- Unbeatable cost-effectiveness – 270° scan angle allows complete application protection with only two scanners
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Variety of field sets ensures safety and productivity when protecting vehicles or moving machine parts
- Quick recommissioning via configuration memory
- Easy modular expansions, simple cabling and additional functions using SICK safety controllers with EFI
- The correct protective field at any speed avoids unnecessary stops.
- Personnel protection and navigation support in one device

→ www.mysick.com/en/S300_Expert

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





S3000 Standard – At a glance

- 4 m, 5.5 m or 7 m protective field range
- One field set (one protective fields, two warning fields)
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Simultaneous monitoring of up to four protective fields
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)

Your benefits

- Largest protective field range in the market increases the variety of application possibilities
- Safety engineering – with no loss of productivity.
- Quick recommissioning via configuration memory
- Expandable modular system, simple cabling and additional functions such as the simultaneous monitoring of up to four protective fields using SICK safety controllers with EFI
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and productivity – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ www.mysick.com/en/S3000_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



S3000 Advanced – At a glance

- 4 m, 5.5 m or 7 m protective field range
- Four switchable field sets (four protective fields, eight warning fields)
- Configuration memory integrated in the system plug
- EFI interface for safe SICK device communication
- Selectable resolution for hand, leg or body detection
- Simultaneous monitoring of up to four protective fields
- Contour as reference for vertical applications
- Integrated external device monitoring (EDM)

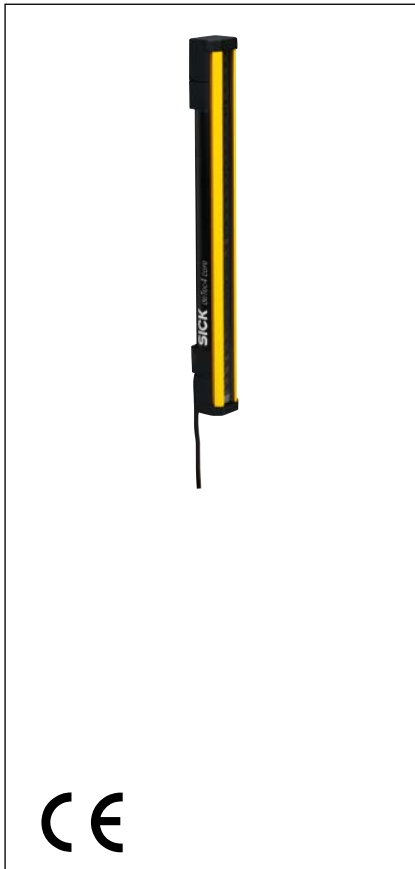
Your benefits

- Largest protective field range in the market increases the variety of application possibilities
- Safety engineering – with no loss of productivity
- Quick recommissioning via configuration memory
- Expandable modular system, simple cabling and additional functions such as the simultaneous monitoring of up to four protective fields using SICK safety controllers with EFI
- Easy installation, commissioning and maintenance for stationary and mobile applications
- Decades of proven safety technology guarantee maximum reliability and productivity – even under difficult conditions
- Simple alignment and safe operation in vertical mode

→ www.mysick.com/en/S3000_Advanced

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





deTec4 Core – At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Protective operation
- Absence of blind zones
- Resolution of 14 mm or 30 mm
- Protective field height of 300 mm to 2,100 mm
- Automatic range measurement of up to 10 m
- Ambient operating temperature of -30 °C to +55 °C
- Enclosure rating IP 65 / IP 67

Your benefits

- Simple assembly with innovative mounting and no blind zones
- Quick commissioning thanks to integrated LED display and automatic range measurement of up to 10 m
- Simply safe: rugged and reliable thanks to enclosure rating IP 67 and an ambient operating temperature down to -30 °C, enabling use in harsh ambient conditions
- Intelligently standardized: M12, 5-pin provide cost reductions
- Basic function without configuration effort enables quick replacement when servicing is required

→ www.mysick.com/en/deTec4_Core

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



C4000 Palletizer – At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Self-teaching, dynamic blanking detects goods and pallets
- Direction recognition
- Multiple sampling
- Reduced resolution
- Muting alternative
- Beam coding
- Object gap suppression

Your benefits

- Cost-effective: No additional muting sensors or protective measures are required.
- A compact sensor pair reduces the mounting requirements considerably – additional muting sensors are not required
- With the dynamic and self-teaching blanking function, the system can reliably differentiate between people and material – this provides maximum safety
- The assorted feasibility of pallets allows the passage of mesh boxes, Euro pallets and half pallets, increasing plant availability
- Saves storage space: pallets can be parked permanently in the protective field
- One system monitors several conveyor belts, reducing sensor costs
- Quick commissioning: Euro pallets, mesh boxes etc. are detected without any programming

→ www.mysick.com/en/C4000_Palletizer

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





miniTwin4 – At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Compact cross section (15 mm x 32 mm) with no dead zones
- Cascadable twin stick design – sender and receiver in a single housing
- Customized protective field heights in 60-mm increments from 120 mm to 1200 mm
- Typical scanning ranges 0 m ... 5 m
- Intelligent, software-free configuration of external device monitoring (EDM) and reset function (RES)
- M12, 5-pin device connection

Your benefits

- Cost-effective machine integration: its small design, cascadable features and incremental protective field heights enable a flexible adjustment to the machine design
- Standardization saves time and resources because of more straightforward logistics, order entry and service
- Simplified handling and setup: Software-free, almost fully automatic commissioning and intuitive operation with sustainable optics
- Bright LED display provides fast alignment, easy start up and clear protective field visualization ensure quick diagnostics
- End-to-end coverage in cascadable applications eliminates dead zones and shortens the safety distance, increasing productivity
- Application-specific brackets provide increased flexibility and reduce installation time

→ www.mysick.com/en/miniTwin4

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



V300 Work Station Extended – At a glance

- SIL2 (IEC 61508, EN 62061) and PL d (EN ISO 13849)
- Protective field size from 0.4 m x 0.4 m to 1.5 m x 1.5 m
- Resolution 20 mm, 24 mm, and 30 mm
- One device only: integrated sender and receiver
- Intuitive one-button operation
- Automatic alignment
- Synchronization of 2 systems
- Restart/Reset, EDM integrated

Your benefits

- Flexible and individual definition of protective fields
- Quick commissioning without additional software
- Intuitive, time-saving operation
- No variants: one-device concept for all aperture sizes
- Reduced storage, logistics and commissioning costs
- No expert knowledge for commissioning required
- High machine availability and simple maintenance

→ www.mysick.com/en/V300_Work_Station_Extended

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





M4000 Standard – At a glance

- Type 4 (IEC 61496), PL e (EN ISO 13849)
- Robust housing with three mounting grooves
- 7-segment display
- Wide scanning range, up to 70 m
- External device monitoring (EDM), restart interlock (RES) and application diagnostic output (ADO)
- Standardized M12 connectivity
- Optional integration features: laser alignment aid, LED or AS-i interface
- Configuration keys located directly on the device

Your benefits

- The wide scanning range allows the device to be customized according to the application
- Robust design with a high level of resistance to environmental changes ensures high machine availability, even under special ambient conditions
- Customized protection field adaption with deflection mirror reduces installation costs
- Customer-friendly interfaces and status display simplify commissioning and maintenance
- Mounting grooves on three housing sides ensure more flexibility during mounting and simplify machine integration
- Fast start-up times due to easy alignment, using the optional laser alignment aid and performing configuration directly on the device
- Reduced downtime through 360° visible LED and diagnostics displays

→ www.mysick.com/en/M4000_Standard

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



i10 Lock – At a glance

- Narrow plastic housing
- Rigid or mobile actuators
- Available with M20 X 1.5 cable entry glands
- Locked by spring force and magnetic force
- Lock and door monitoring
- IP 67 enclosure rating

Your benefits

- Small design simplifies installation and makes it easy to mount directly on the guard door frame
- Flexible electrical connectivity due to three cable entry glands
- Improved diagnostics due to additional signaling contacts
- Practical, simple adjustment due to various actuators that are suitable for any door
- Different switching elements offer the appropriate solution for electrical installation

→ www.mysick.com/en/i10_Lock

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





i10R – At a glance

- Standardized plastic housing
- Turning lever with plastic roller
- 1 M20 x 1.5 cable entry gland
- Slow-action switching element with three contacts

Your benefits

- Standard device design provides quick and easy mounting
- Cost-effective solution for all standard safety applications

→ www.mysick.com/en/i10R

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



i110P – At a glance

- Standardized metal housing
- Roller plunger with stainless steel roller
- 1 M20 x 1.5 cable entry gland
- Slow-action or snap-action switching element with up to four contacts

Your benefits

- Standard device design provides quick and easy mounting
- High availability due to rugged metal housing
- Different switching elements offer the appropriate solution for electrical installation
- Improved diagnostics due to additional signaling contacts

→ www.mysick.com/en/i110P

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





i110R – At a glance

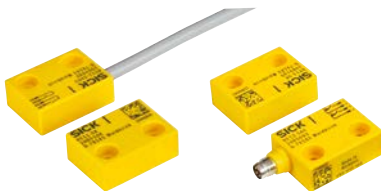
- Standardized metal housing
- Metal turning lever with plastic roller
- 1 M20 x 1.5 cable entry gland
- Slow-action or snap-action switching element with up to four contacts

Your benefits

- Standard device design provides quick and easy mounting
- High availability due to rugged metal housing
- Different switching elements offer the appropriate solution for electrical installation
- Improved diagnostics due to additional signaling contacts

→ www.mysick.com/en/i110R

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



RE1 – At a glance

- Response range of up to 7 mm
- 1 NO/1 NC or 2 NO contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with plug connector or connected cable

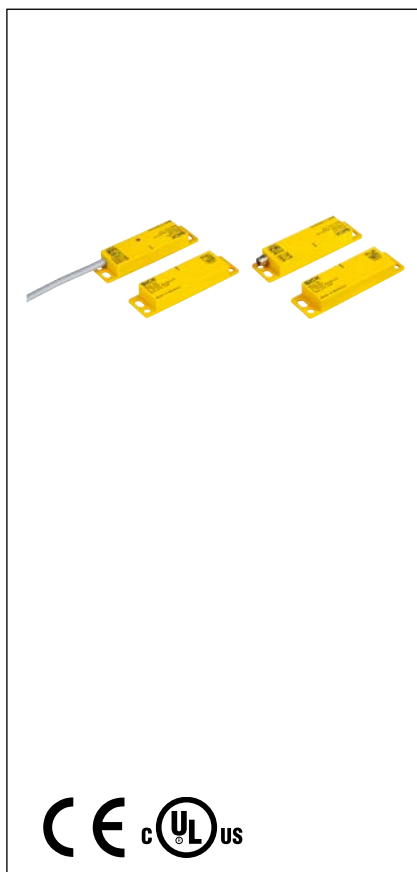
Your benefits

- Long service life due to durable and low-maintenance design
- Space-saving mounting due to compact housing design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- High level of machine availability due to high tolerances for door misalignment
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ www.mysick.com/en/RE1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





RE2 – At a glance

- Response range of up to 9 mm
- 1 NO/1 NC, 2 NO contacts or 3 NO contacts
- Up to performance level PL e / Cat. 4 (EN ISO 13849)
- Sensors with plug connector or connected cable
- LED status indicator (RE27)

Your benefits

- Long service life due to durable and low-maintenance design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- High level of machine availability due to high tolerances for door misalignment
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards
- Fast diagnostics via LED status indicator (RE27)

→ www.mysick.com/en/RE2

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



TR4 Direct – At a glance

- Response range of up to 25 mm
- Multicoded and unique coded sensors up to enclosure rating IP 69K
- Up to performance level PL e (EN ISO 13849)
- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Safe series connection of up to 30 sensors possible
- LED status indicator
- Boundary area indication and magnetic retaining force (both optional)

Your benefits

- High level of prevention against tampering due to individually coded actuator (depending on type)
- High level of machine availability due to high tolerances for door misalignment and boundary area indication
- High level of machine reliability due to resistance to shocks and vibrations
- Cascadability of up to 30 sensors saves costs
- Long service life due to durable and low-maintenance design
- Fast diagnostics via LED status indicator
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ www.mysick.com/en/TR4_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





IN4000 Direct – At a glance

- Two OSSD safety outputs for direct connection of sensors to a single safety controller
- Response range of up to 20 mm
- LED status indicator
- Up to performance level PL e / Cat. 4 (EN ISO 13849)

Your benefits

- Direct connection to the safe control solution eliminates any additional wiring and reduces installation time
- Fast diagnostics via LED status indicator
- Long service life due to durable and low-maintenance design
- Just one safety switch in conjunction with a suitable safety module makes it possible to solve applications up to PL e and Cat. 4 (EN ISO 13849)
- The devices are easy to clean, making them suitable for contaminated areas or environments with strict hygiene standards

→ www.mysick.com/en/IN4000_Direct

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



ES21 – At a glance

- Either as surface-mounted version with housing or as built-in version (Ø 22 mm)
- Built-in version for machine control panels with self-monitoring contacts between the pushbutton and switching element
- Surface-mounted version for direct mounting on different machines and systems
- Rotational or key unlocking
- Variants with LED ring lighting
- Available with protective collar to prevent inadvertent actuation

Your benefits

- Increased safety due to self-monitoring contacts
- Reduction in accidental faults due to variants with a protective collar
- User-friendly status indicator identified by a colored mark or LED ring around the pushbutton simplifies diagnostics
- Successful down to the last detail: award-winning and appealing design

→ www.mysick.com/en/ES21

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





i150RP – At a glance

- Rope lengths up to 75 m, with rope break and rope pull function
- Metal housing with integrated emergency stop push button and fault display
- Rotary unlocking lever
- Available with M20 X 1.5 cable entry gland
- Slow-action switching elements with four contacts

Your benefits

- The emergency stop function can be triggered at any point along the rope
- The long rope length reduces the number of rope pull switches, which saves costs
- Simple adjustment of the rope tension
- Rugged metal housing offers a high level of protection for the rope pull switch
- Integrated emergency stop push-button allows users to trigger the emergency stop function at the end of the rope
- User-friendly systems available with many rope lengths
- Additional contacts provide quick and easy diagnostics

→ www.mysick.com/en/i150RP

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



E100 – At a glance

- Plastic housing with connected cable
- 3-stage functional structure (off-on-off)
- Slow-action switching elements with four contacts
- Variant with additional plus/minus buttons
- Complies to the standard IEC/EN 60947-5-8

Your benefits

- Personal protection with enabling switches: increased safety in setup mode when protective devices are deactivated
- Plus/minus buttons for additional control of direction of movement
- Different cable lengths available to meet customer application requirements

→ www.mysick.com/en/E100

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





UE10-30S – At a glance

- Ideal for applications with opto-electronic protective devices and safety controllers with OSSD outputs
- Output expansion for a safe processing of OSSD output signals
- 3 safety outputs, 1 application diagnostic output
- Feedback path for external device monitoring (EDM)
- Coded plugs for all slots

Your benefits

- Offers all needed contact paths in a compact form
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE10-30S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



UE45-3S1 – At a glance

- Ideal for the evaluation of emergency stop pushbuttons and safety switches
- Cross circuit detection and sequence monitoring for dual-channel actuation
- 2 N/O contacts for a direct integration into a machine environment
- 1 N/O contact for stop category 1 applications, time delayed up to 30 s
- Manual or automatic reset
- External device monitoring (EDM)
- Coded plugs for all slots

Your benefits

- Complete monitoring and evaluation of sensors
- Time delay provides optimal protection of brake applications
- Adjustable time delay at the front of the device (up to 30 s) makes it easy for the user to change settings
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE45-3S1

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





UE48-20S – At a glance

- Ideal for the evaluation of emergency stop pushbuttons, safety switches, safety light curtains, safety laser scanners and safety pressure sensitive mats
- Cross circuit detection and sequence monitoring for dual-channel actuation
- 2 safety outputs, 1 application diagnostic output
- Manual or automatic reset
- External device monitoring (EDM)
- Coded plugs for all slots

Your benefits

- One module for all common applications simplifies machine integration
- Complete monitoring and evaluation of sensors
- The sequence monitoring takes over the evaluation of non-contact safety switches
- Fast diagnostics via status information reduces downtime
- Fast, tool-free exchange via coded, plug-in screw-type terminals
- Combines the advantages of classic relays and easy circuitry

→ www.mysick.com/en/UE48-20S

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Flexi Soft – At a glance

- Modularly expandable (12 ... 144 inputs/outputs)
- Intuitive configuration software: easy operation, simulation mode, wiring diagrams, freely downloadable
- Safely link up to four Flexi Soft safety controllers via EFI
- Integration into all common fieldbus systems
- Enhanced sensor functionalities via EFI interface
- 48 TÜV certified function blocks

Your benefits

- Prevention of redundant inputs and outputs saves money
- Less downtimes due to gateways, e.g., PROFINET IO, PROFIBUS-DP, EtherCAT, CANopen, Modbus TCP, Ethernet (TCP/IP), DeviceNet
- Standard RS-232 diagnosis via the main module enables real-time diagnostics for quick commissioning, faster troubleshooting and reduced downtime
- Fast electronic installation via complete wiring diagram
- Simulation mode allows a user to verify the safety functions before installation
- Via Automatic Configuration Recovery (ACR) easy change of EFI sensors without the help of any tools

→ www.mysick.com/en/Flexi_Soft

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





Flexi Classic – At a glance

- Rotary DIP switch for easy adjustment
- Modularly expandable
- Direct wiring for all types of sensors
- Logic functions (AND/ OR/ Muting/ Bypass/ Reset/ EDM)
- Integration into all common networks (PROFIBUS-DP, DeviceNet, CANopen, Modbus TCP, Ethernet (TCP/IP), EtherNet/IP and PROFINET IO)

Your benefits

- Optimal scalability prevents extra inputs and outputs, reducing unnecessary hardware
- Configuration via rotary DIP switch reduces wiring and simplifies logic configuration
- The Flexi Classic Configurator tool offers easy logic configuration and wiring help
- Complete diagnostics of the system reduces downtime
- Its compact design makes it possible to save space in the control cabinet

→ www.mysick.com/en/Flexi_Classic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



Motion Control – At a glance

- Standstill, speed and direction monitoring as well as safe stop functions
- PL e (EN ISO 13849), SIL3 (IEC 61508), SILCL 3 (EN 62061)
- Variants with interfaces for all current encoder and motor feedback systems
- Can be integrated into the modular design of the Flexi Soft safety controller
- Variants with standstill monitoring by means of residual voltage measurement

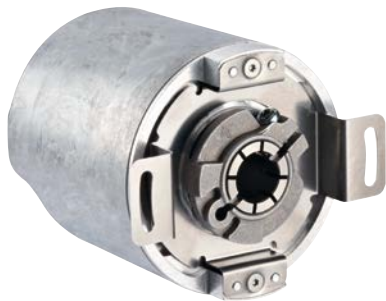
Your benefits

- High machine availability
- New concepts resulting from safe interaction between man and machine
- Reliable protection against dangerous machine movements
- Increased efficiency and productivity
- Strict separation between automation technology and safety applications provides protection from manipulation

→ www.mysick.com/en/Motion_Control

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





EtherCAT® is registered trademark and patent technology licensed by Beckhoff Automation GmbH, Germany.

AFS/AFM60 EtherCAT – At a glance

- High-resolution 30-bit absolute encoder (18-bit singleturn and 12-bit multiturn)
- Face mount flange, servo flange and blind hollow shaft
- Connection type: 3 x M12 axial connector
- Up to 125 µs on-the-fly data transfer speed
- EtherCAT® interface CoE (CiA DS-301) Device profile (CiA DS-406)
- Round axis functionality
- Alarms, warnings and diagnostics functions for speed, position, temperature, operating time, etc.
- Status display via 5 LEDs
- Up to 16 adjustable electronic cam switches

Your benefits

- Increased productivity as a result of intelligent diagnostics functions and rapid data transfer
- Increase in network reliability due to early error detection
- Simple installation with various configuration options
- Flexible, easy setup and high resolutions for various applications with binary, integer and „decimal point“ values based on round axis functionality
- Maximum system availability through embedded switch technology
- Compact and cost-efficient design

→ www.mysick.com/en/AFS_AFM60_EtherCAT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



DBS36 – At a glance

- Connection with universal cable outlet
- Versions with blind hollow shaft or face mount flange with solid shaft
- Face mount flange with 3 mounting hole patterns and servo groove
- Hollow shaft with universal stator coupling
- Compact diameter of 37 mm
- Electrical interfaces: TTL/RS-422, HTL/push pull and Open Collector NPN
- Available PPR: 100 to 2,500
- Temperature range: -20 °C ... +85 °C
- Enclosure rating: IP 65

Your benefits

- The universal cable outlet allows use in tight spaces and makes flexible cable routing possible
- Face mount flange with various mounting hole patterns provides flexibility when mounting in new or existing applications
- Face mount flange with servo groove makes mounting with servo clamps possible
- The DBS36E's universal stator coupling ensures easy device replacement without changing the application
- The high flexibility of the encoders' mechanical interface and the available accessories make it possible to use one design in many applications
- Compatibility with the DDS36E series makes it easy to replace this series in existing applications

→ www.mysick.com/en/DBS36

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





UL certification not valid for all types.

DFS60 – At a glance

- Compact installation depth
- High resolution up to 16 bits
- Optionally programmable: Output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: Radial or axial cable outlet, M23 or M12 connector, axial or radial
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Mechanical interfaces: face mount or servo flange, blind or through hollow shaft
- Remote zero set possible

Your benefits

- Reduced storage costs and downtime due to customer-specific programming
- Variety of different mechanical and electrical interfaces enable the encoder to be optimally adjusted to fit the installation situation
- Excellent concentricity even at high speeds
- High resolution of up to 16 bits ensures precise measurements
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation

→ www.mysick.com/en/DFS60

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



DFV60 measuring wheel encoder – At a glance

- Rotatable spring arm for universal use
- 300 mm wheel circumference with o-ring made from NBR70
- Mounting arm and measurement wheels made from aluminum
- Programmable output voltage, zero pulse position, zero pulse width and number of pulses
- Connection: radial M12 connector outlet or radial/axial cable outlet
- Electrical interfaces: 5V & 24V TTL/RS-422, 24 V HTL/push pull
- Remote zero setting possible

Your benefits

- Universal-use spring arm ensures fast and simple mounting
- The high level of spring tension enables use in harsh environmental conditions
- Reduced storage costs and downtime due to programmability
- Connector-in cable outlet in radial or axial direction enables customer-specific cable solutions
- Excellent concentricity even at high speeds
- Permanent and safe operation due to a high enclosure rating, temperature resistance and a long bearing lifetime
- Programmability via the PGT-08 programming software and the PGT-10-S display programming tool allow the encoder to be adapted flexibly and quickly according to customer needs
- Programmable zero pulse position simplifies installation

→ www.mysick.com/en/DFV60_measuring_wheel_encoder

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





EcoLine – At a glance

- Measuring lengths: 1.25 m ... 10 m
- Modular measurement system with a wide range of interfaces / measuring lengths
- Analog interface with push-button teach
- Very small housing (55 ... 190 mm)
- Slim housing with spring integrated in the measuring drum
- Light yet shock-proof and temperature-resistant plastic housing

Your benefits

- Space- and cost-saving design thanks to slim mechanics
- The absolute analog output allows for the use of a cost-effective interface card
- Easy to install
- Numerous combinations of interfaces and measuring lengths
- Advanced programming options lead to a reduction in the amount of variants, save costs, and reduce storage

→ www.mysick.com/en/EcoLine

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



CLV65x – At a glance

- Huge depth of field due to auto focus
- Integrated pushbuttons for auto setup and reading diagnostics
- CAN, Ethernet TCP/IP, PROFINET, and EtherNet/IP available on board, no additional gateway needed (depending on variant)
- Enhanced SMART code reconstruction technology
- Flexible sorting, filtering, and logical functions
- Integrated web server provides remote diagnostics and monitoring
- Advanced, easy-to-use SOPAS configuration software
- Integrated LED bar graph

Your benefits

- Economical, as auto focus means no versions or additional light barriers are required for focus adjustment
- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Easily execute firmware updates using the SD memory card: no need for a PC
- Enhanced SMART technology reads damaged and partially obscured codes, increasing read rates
- Increased scanner intelligence enables sophisticated configuration of logical operations, reducing the control system programming effort. Data is then delivered in the desired format
- Integrated web server provides remote diagnostics and monitoring, no additional software required

→ www.mysick.com/en/CLV65x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





LECTOR® 62x – At a glance

- Decoding of most popular code types: 1D, 2D, direct part marking
- Easy integration with industrial networks: serial, USB, several fieldbus technologies
- Auto setup with function buttons, aiming laser, focus adjustment and green feedback LED – for quick setup without PC
- Compact design and industrial housing
- Analysis tools include live image capturing, code verification and read rate view

Your benefits

- Intelligent decoding algorithms provide reliable reading performance for improved read rates and throughput
- IDpro facilitates integration with most popular industrial networks
- Intuitive setup with function buttons, auto setup, aiming laser, focus adjustment and green feedback LED reduces training and installation time and costs
- Compact design and flexible interface connections make it easy to install in reduced spaces
- Quick analysis of read rate performance and code quality allows for efficient control
- Cloning back-up systems ensure low machine downtime in the event of unexpected incidents
- SICK LifeTime Services give you peace of mind

→ www.mysick.com/en/LECTOR62x

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



IDM140 – At a glance

- Reading distance up to 320 mm
- Identifies all popular linear bar codes
- Scan rate up to 500 scans/second
- Withstands 25 drops from 1.6 m height
- Highly visible scan line
- IP 41 enclosure rating

Your benefits

- Increased productivity thanks to high scan rate
- Reliable identification reduces the need to manually input data
- Lightweight, ergonomic design ensures user comfort
- Highly dependable thanks to rugged housing and non-moving parts
- Easy targeting with highly visible scan line for correct aiming

→ www.mysick.com/en/IDM140

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





IDM160 – At a glance

- Identification of all popular 1D codes, with PDF version also stacked codes
- Compact housing with up to IP 65 withstanding 50 drops from 2 m on concrete
- Good read feedback via LED, beeper and vibrator
- Supports all popular corded and cordless interfaces as well as industrial fieldbuses via SICK connectivity
- Tool-free exchange of cable and battery
- Corded and cordless versions available

Your benefits

- Increased productivity and throughput thanks to fast and reliable identification
- Reduced costs thanks to 2-in-1 scan engine: covering standard and high-density codes with a single device
- High reliability thanks to industrial grade and rugged housing
- Intuitive good read feedback for noisy industrial environment via vibration, beeper and LED
- Higher user comfort through ergonomic housing design, well balanced and light weight
- High flexibility and operator mobility with corded and cordless versions
- Quick integration in most corded and cordless PC or industrial networks

→ www.mysick.com/en/IDM160

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



RFH6xx – At a glance

- 13.56 MHz RFID interrogator for ranges up to 240 mm
- Transponder communication according to ISO/IEC 15693 standard
- Compact, industrial design with integrated antenna
- Embedded protocols allow interfacing with standard industrial fieldbus technologies
- Powerful micro-processor executes internally configurable logic
- Flexible trigger control
- Supports parameter cloning via microSD memory card
- Built-in diagnostics

Your benefits

- Reliable identification ensures maximum throughput
- Adapts to changing needs, ensures investment over the long term
- Simple integration saves installation time
- A wide range of functionality ensures flexible solutions
- Maintenance-free
- Uses same connectivity and configuration software as SICK's bar code scanners and image-based code readers – compatible through standardized IDpro platform

→ www.mysick.com/en/RFH6xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





Inspector – At a glance

- High-speed positioning, inspection and measurement
- Powerful “object locator” tool, independent of position, rotation and scale
- Unique, interchangeable housing design supporting dome and various optical accessories
- Simple step-by-step configuration in PC including emulator
- Easy-to-use operator interfaces
- Flexible machine and HMI design interfaces

Your benefits

- The multi-functional vision toolbox offers smart camera-level performance but with sensor ease-of-use
- Unique, interchangeable housing design provides the easiest way to improve image quality
- The simple configuration in SOPAS, including emulator for offline configuration and testing, will reduce down-times in production to a minimum
- The easy-to-use operator interfaces are optimized to make it easier for the operator to oversee daily work more efficiently
- Ethernet communication and web API gives excellent connectivity and freedom to customize user's HMI

→ www.mysick.com/en/Inspector

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



IVC-3D – At a glance

- Easy 3D measurement – provides information about object height, shape and volume
- Independent of contrast and color
- Easy-to-use graphical user interface for fast application development
- Simple connection of PLCs, robots, and other control systems, e.g., via EtherNet/IP or OPC
- Scans up to 5,000 profiles per second
- Industrial, robust metal housing

Your benefits

- The IVC-3D makes advanced 3D shape inspections easy, enabling cost-efficient solutions
- Contrast-independent measurement provides greater reliability even at varying object color and when the object color is the same as the background
- Factory calibrated – instantly providing true metric dimensions at production speed
- The camera's OPC server and EtherNet/IP interface enables simple communication with PLCs, robots and control systems, making integration easy
- Stand-alone operation – no PC is needed after configuration

→ www.mysick.com/en/IVC-3D

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





Ranger – At a glance

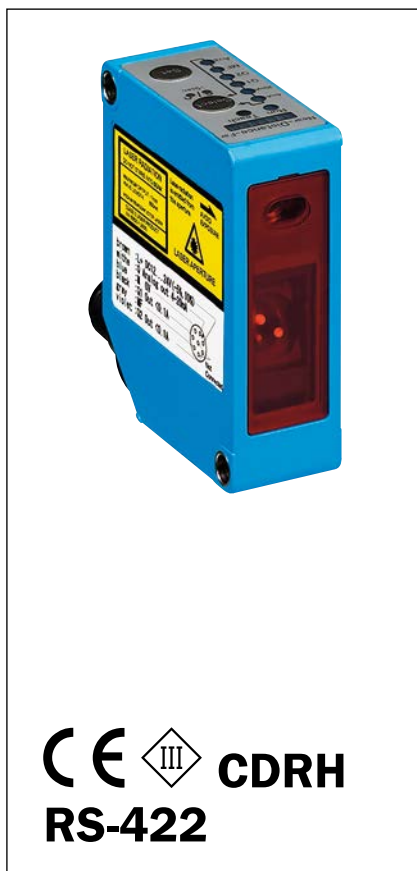
- High speed 3D at unmatched speed and quality
- MultiScan technology to measure 3D, contrast, color and scatter at the same time
- Sensor resolutions of up to 1,536 pixels in 3D and 3,072 pixels in gray-scale and color
- Full flexibility in configuration, working distance, and field of view
- In-machine 3D calibration tool
- Gigabit Ethernet and CameraLink interfaces

Your benefits

- High-speed and high-resolution measurement allow you to increase production throughput and still ensure product quality
- Get accurate size and position measurements in 3D regardless of an object's height or color, ensuring reliable solutions
- Fully flexible field of view in combination with in-machine 3D calibration, provides dimensions in millimeters
- Unique MultiScan technology lets one camera do the job of many, reducing costs for integration, maintenance, and accessories, creating cost-efficient solutions
- The high level of flexibility and versatility of Ranger makes it an ideal choice for the most challenging tasks

→ www.mysick.com/en/Ranger

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



OD Value – At a glance

- Several measurement ranges from 26 mm ... 34 mm to 100 mm ... 500 mm
- CMOS receiving element for measurement independent of surface
- Easy, LED-based user and teach-in concept
- Wide range of models and a wide range of standard interfaces
- Laser technology for precise measurement of very small objects
- Compact stand-alone device
- Excellent price-performance ratio

Your benefits

- Reliable measurement independent of surface, minimizes machine downtime
- Extremely simple sensor teach-in makes setup faster and more cost-effective
- Minimal space requirements and less wiring due to its compact, standalone design
- Many measurement ranges and output interfaces make it ideal for cost-effective integration into any production environment
- Low investment costs make consistent, regular quality inspection possible
- Non-contact measurement technology from a safe distance allows the inspection to be carried out directly during the production process
- Wear and damage-free inspection, due to non-contact measurement

→ www.mysick.com/en/OD_Value

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





CE III C **UL** US
RS-422 USB
RS-232

OD Precision – At a glance

- Many measurement ranges from 24 mm ... 26 mm up to 300 mm ... 700 mm
- CMOS receiving element for measurement independent of surface
- High measuring accuracy and frequency
- Glass thickness measurement with just one sensor head
- Different light spot sizes
- Integrated calculations for up to three sensors
- Stand alone use via RS-422

Your benefits

- Non-contact measurement improves quality inspection during production
- Surface-independent measurement algorithms ensure minimum machine downtime, regardless of surface gloss or color
- Reduced processing times as a result of the high measuring frequency of up to 10 kHz
- Simple, cost-effective solution for challenging measuring tasks due to a variety of sensor models
- Optional stand-alone operation via RS-422 means the OD Precision offers maximum performance at lower investment costs
- High visibility LC display enables simple, cost-effective setup
- Many interfaces for simple integration into an existing production environment

→ www.mysick.com/en/OD_Precision

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



CE III C **UL** US
CDRH
IO-Link

Dx35 – At a glance

- Maximum reliability, immunity to ambient light, and best price/performance ratio thanks to HDDM™ technology
- Measuring range of 0.05 m to 12 m for natural objects or 0.2 m to 35 m on reflective tape
- Devices with analog and switching output, or just switching
- Infrared or red laser in class 1 or class 2
- Repeatability: 0.5 mm to 5 mm
- Small housing size
- IO-Link

Your benefits

- Precise and reliable measurement regardless of object color extends run time and process quality
- A small size and blind zone make flexible mounting possible when space is limited
- Optimum solution thanks to flexible settings for speed, range and repeatability
- Flexible interface use: 4 mA to 20 mA, 0 V to 10 V, PNP output, NPN output, or IO-Link – making machine integration simple
- Offering easy alignment, optimal performance or inconspicuous measurement, versatile light senders make it an ideal solution for all scenarios
- Low investment costs and high performance levels guarantee a quick return on investment
- IO-Link offers full process control, from commissioning to service
- A wide variety of control options ensures rapid commissioning and fast batch changes

→ www.mysick.com/en/Dx35

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





Dx50 – At a glance

- HDDM™ technology offers best reliability, immunity to ambient light and price/performance ratio
- Measurement ranges of 10 or 20 m directly onto the object or even 50 m on reflector
- Different performance levels depending on product and laser class chosen
- Different interfaces: switching, analog or serial interface
- Display with intuitive and consistent operating concept
- Robust die-cast zinc metal housing
- Operating temperature from –30 °C to +65 °C

Your benefits

- Wide measurement ranges up to 10, 20 or 50 m in combination with different interfaces allow an easy and fast integration in any production environment
- Highly reliable and precise measurement helps to increase process quality and stability
- High measurement or switching frequencies enable a fast material flow
- Dx50 product family is based on a common platform, offering multiple performance levels, making it easy to accommodate future changes
- Intuitive setup via display or remote teach reduces installation time and costs
- Temperature range from –30 °C to +65 °C allows for outdoor use without additional cooling or heating
- Up to 40 klx ambient light immunity – allows for use in optically challenging environments

→ www.mysick.com/en/Dx50

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



UM30 – At a glance

- Integrated time-of-flight technology detects objects such as glass, liquids and transparent foils, independent of color
- Range up to 8,000 mm
- Display enables fast and flexible sensor adjustment
- Immune to dust, dirt and fog
- Available with combined analog and digital outputs
- Synchronization and multiplexing
- Adjustable sensitivity
- Three operation modes: Distance to Object (DtO), Window (Wnd) or Object between sensor and background (ObSB)

Your benefits

- Easy machine integration due to compact size
- Various setup options ensure flexible adaptation to applications
- Multiplex mode eliminates cross-talk interference for consistent and reliable detection and high measurement reliability
- Synchronization mode allows multiple sensors to work as one large sensor, providing a low-cost solution for area detection
- Display enables setup prior to installation, reducing on-site installation time
- Integrated temperature compensation and time-of-flight technology ensure high measurement accuracy
- ObSB-mode enables detection of any object between the sensor and a taught background

→ www.mysick.com/en/UM30

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





UM18 – At a glance

- Reliable measurement independent of material color, transparency, gloss and ambient light
- Four ranges up to 1,300 mm
- Short metal or plastic M18 housing with a length of 41 mm
- Straight or right-angle version
- High immunity to dirt, dust, humidity and fog
- PNP/NPN switching output, analog output or push-pull switching output with IO-Link
- Synchronization and multiplex modes are available

Your benefits

- Four sensing ranges up to 1,300 mm provide a range of flexible mounting options
- Easy machine integration due to short M18 housing available in straight or right-angle versions
- Intelligent measurement filters and versions with temperature compensation guarantee reliable measurement results for maximum process reliability
- Solid, one-piece metal housing secures highest machine availability
- Synchronization or multiplex mode enables simultaneous operation of up to 10 sensors, improving application flexibility and process reliability
- Easy system integration due to a wide range of available output signals
- Unintentional adjustments to sensor settings are eliminated since teach-in process is done with an external wire
- Variety of application solutions due to insensitivity and reliability of ultrasound technology

→ www.mysick.com/en/UM18

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



UM18 Double Sheet Detector – At a glance

- Double-sheet detection of foils, metal sheets and corrugated cardboard with F, N and G flute sizes
- Installation distance 37 mm ... 43 mm
- Automatic adjustment, plug and play operation
- Color-independent detection
- Two switching outputs for double and miss-fed sheets

Your benefits

- Increased quality and productivity through reliable double sheet detection
- Fast commissioning since sensor does not require calibration or teaching
- Reliable detection of transparent foils, various paper types and thin metal sheets provide application flexibility

→ www.mysick.com/en/UM18_Double_Sheet_Detector

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





TiM3xx – At a glance

- Configure without a PC using “touch and teach”
- Small, lightweight and economical measurement sensor
- Field evaluation using intelligent algorithms
- Set parameter interface is accessible while device is mounted
- One of the smallest laser scanners on the market
- Proven industrial design
- Low power consumption (typ. 3 W)

Your benefits

- Low cost of ownership
- Easily hidden from view due to small dimensions
- Low installation costs and exchange time due to M12 x 12 or D-Sub connector
- Long operation for battery-driven vehicles
- Preconfigured fields ensure short installation time
- Reduced hardware costs since one sensor can be used for large anti-collision fields
- No wiring necessary between sender and receiver

→ www.mysick.com/en/TiM3xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



TiM5xx – At a glance

- Monitoring area of up to 235 m² with just one sensor
- High ambient light tolerance due to HDDM technology
- Rugged housing with an IP 67 enclosure rating
- Low power consumption of just 3 W
- Compact design with a housing height of just 86 mm
- Integrated Ethernet interface
- Long sensing range of up to max. 10 m
- Industry-standard design and M12 male connector

Your benefits

- Reliable object detection independent of the surface and ambient light
- Rugged IP 67 housing withstands both indoor and outdoor conditions
- Easy integration into compact automated guided vehicles (AGV) due to small size
- Ethernet interface makes easy implementation and remote maintenance possible
- Can determine additional information such as object size, shape, etc. due to measured data output
- Low implementation costs due to scalability: Sensor telegram is identical to sensor telegrams for laser measurement sensors in the SICK portfolio

→ www.mysick.com/en/TiM5xx

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





LFP Cubic – At a glance

- No mechanical moving parts
- Manually cuttable and exchangeable monoprobe with lengths from 200 mm up to 2,000 mm
- Immune to deposit formation
- Process temperature up to 100 °C; process pressure up to 10 bar
- Small inactive areas, ideal for small containers
- Accurate measurement, even when liquid type changes
- 3 in 1: combined display, analog output (acc. NAMUR NE 43) and binary output
- High enclosure rating of IP 67, rotatable housing

Your benefits

- Rugged design increases service life
- High flexibility due to cuttable and exchangeable monoprobe
- Cost savings due to multiple output signals: one system for both level detection and continuous level monitoring
- Time and cost savings due to low maintenance and quick commissioning
- No calibration or recalibration required for commissioning, thus saving time and costs
- Compact and rotatable housing ensures flexible installation
- No crosstalk when several sensors are mounted next to each other
- Advanced technology enables adjustment-free measurement of oil- and water-based liquids

→ www.mysick.com/en/LFP_Cubic

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



LFP300 – At a glance

- Several housing materials and electrical outputs available
- Commissioning without filling
- Process temperature up to 250 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions according to EHEDG and FDA available, CIP and SIP resistant
- ATEX certification available
- Tube extension up to 6 m

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Universal technology works in all kinds of liquids

→ www.mysick.com/en/LFP300

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





LBV300 – At a glance

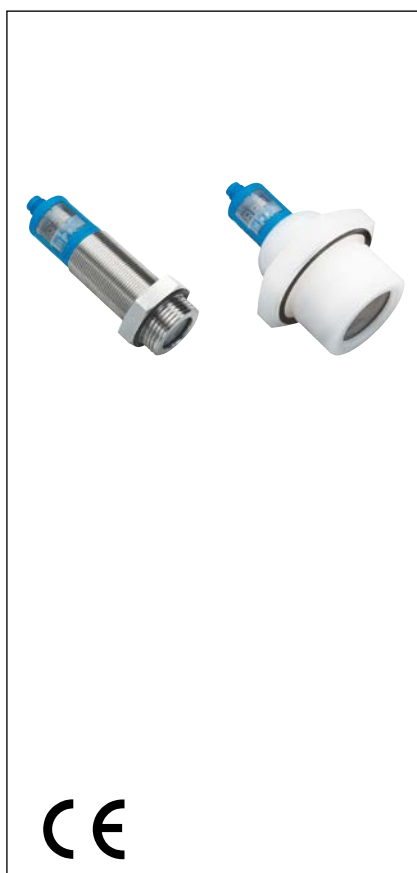
- Tough device design
- Several housing materials and electrical outputs available
- Immune to deposit formation
- Commissioning without filling
- Process temperature up to 250 °C
- Very high repeatability
- ATEX versions (1D/2D/1G/2G) available
- Tube-extended version (LBV330) up to 6 m and rope extensions version (LBV320) up to 80 m available for vertical mounting

Your benefits

- Easy installation and commissioning, no calibration necessary
- Easy operation and integration, saves time
- Maintenance-free sensor, reduces downtime
- Testing in place possible – no mounting required, which reduces installation time
- Flexible and tough system for a multitude of applications
- Solutions for vertically mounted switches in difficult installation conditions and surroundings

→ www.mysick.com/en/LBV300

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



UP56 – At a glance

- Non-contact level measurement up to 3.4 m operating distance / 8.0 m limit scanning distance
- Pressure resistant up to 6 bar (87 psi)
- Transducer protected by PVDF cover for increased resistance
- 3 in 1: continuous level measurement, level switch and display
- Analog output switchable between 4 mA ... 20 mA and 0 V ... 10 V
- Process connector thread G 1 and G 2
- IP 67 enclosure rating
- Easy to set parameters, also via connect+

Your benefits

- Non-contact measurement in pressurized containers – no wear over time
- Easy to set parameters, saving time
- Flexible measurement system for different container sizes – standardization and stock reduction
- One product for point level and continuous applications, reduces the number of sensors required

→ www.mysick.com/en/UP56

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





PBS – At a glance

- Electronic pressure switch with display for monitoring pressure in liquids and gases
- Precise sensor technology with stainless steel membrane
- Integrated process connections manufactured from high-quality stainless steel
- Pressure values indicated on display. Output states are indicated separately via wide-angle LEDs.
- Unit of pressure value in display can be switched
- Min/max memory
- Password protection

Your benefits

- Quick and easy setup and operation due to three large pushbuttons and clear display
- Perfect display readability and optimal cable routing due to rotatable housing
- No compromises: Individual solutions through a variety of configurations
- Universal application due to fully welded, highly durable stainless steel membrane
- Saves space and costs: no adapters required due to broad range of standard process connections
- Highly reliable due to application of proven technologies and high-quality materials, water resistance according to IP 65 and IP 67 as well as excellent overpressure safety
- Ultimate system availability: IO-Link enables fast, reliable parameter setting when changing over products

→ www.mysick.com/en/PBS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



PBT – At a glance

- Pressure measurement ranges from 0 bar ... 1 bar up to 0 bar ... 600 bar
- Gauge, absolute, and compound measurement ranges
- A large variety of available process connections
- No moving parts: No mechanical wear, fatigue-proof, maintenance-free
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 mA ... 20 mA, 0 V ... 5 V or 0 V ... 10 V
- Electrical connection M12 x 1, L-connector acc. to DIN 175301-803 A or flying leads

Your benefits

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio

→ www.mysick.com/en/PBT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





FFU – At a glance

- Flow sensor for conductive and non-conductive liquids
- Compact design with no moving parts
- Process temperature up to 80 °C, process pressure up to 16 bar
- High chemical resistance due to seal-free sensor design
- Large display with membrane keyboard
- Integrated teaching tube detection

Your benefits

- Reduced maintenance costs
- Adjustable measuring ranges reduces the number of variants
- Ability to be used with conductive and non-conductive liquids reduces variants and lowers storage costs
- Straight measuring tube reduces pressure loss, thus reducing energy costs
- Sensor without seals increases process reliability and availability
- Flexible measurement system for all industries

→ www.mysick.com/en/FFU

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



TCT – At a glance

- Pt100 element, accuracy class A according to IEC 60751
- Measuring ranges -50 °C ... +150 °C and -50 °C ... +250 °C
- Wetted parts made from corrosion resistant stainless steel 1.4571
- Various mechanical adaptations and insertion lengths, also available with thermowell
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Circular connector M12 x 1 (IP 67) or L-connector according to DIN EN 175301-803 A (IP 65)

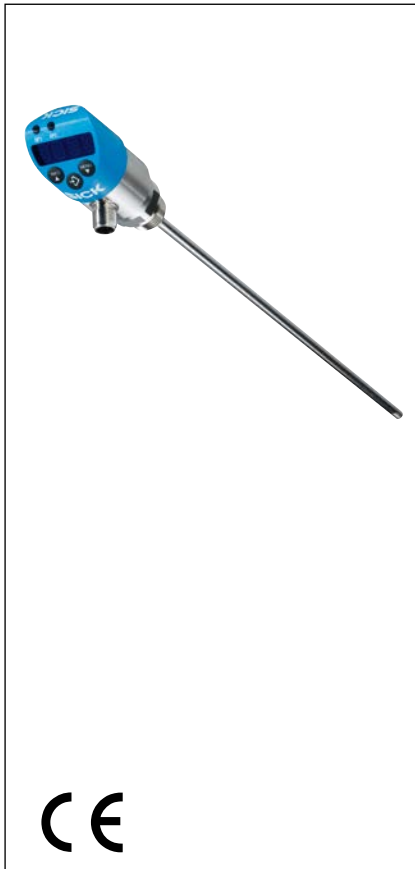
Your benefits

- Reliable operation through rugged design and high-quality materials
- Good long-term stability, accuracy and linearity
- Quick and safe installation
- Convenient system integration through compact dimensions and industry-standard output signals
- Optimal solutions for individual requirements

→ www.mysick.com/en/TCT

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.





TBS – At a glance

- Large display
- Individually programmable transistor outputs PNP or NPN, optional analog output 4 mA ... 20 mA or 0 V ... 10 V
- Round connector M12 x 1
- Measuring ranges -20 °C ... +80 °C
- Pt1000 element, accuracy class A (IEC 60751)
- Various insertion lengths and connection threads
- Wetted parts made from corrosion-resistant stainless steel 1.4571
- Enclosure rating IP 65 and IP 67

Your benefits

- Quick and safe set-up through superior ease of use
- Compact dimensions and rotatable housing facilitate integration
- Very reliable: splash-proof housing, high-grade materials, rugged design, and field-proven technology
- Very good long-term stability, accuracy and linearity
- Quick response time
- Versatile configuration allows for optimal solutions for specific requirements

→ www.mysick.com/en/TBS

For more information, just enter the link or scan the QR code and get direct access to technical data, CAD design models, operating instructions, software, application examples and much more.



An intelligent vision solution in an easy-to-use sensor package!

The Inspector is an intelligent vision solution in an easy-to-use sensor package. No matter what orientation your product comes down the line, the Inspector is up to the challenge. Verify completeness and quality or find a part's position – you'll increase throughput with SICK's family of Inspectors. The sensors' robust design and IP 67 metal housing makes them ideal for tough environments and intelligent processing technology is perfect for high-speed applications. Solving vision applications is all about getting top-quality images – even with tough targets, such as highly reflective metal parts and multi-colored labels. The Inspector's unique housing design and variants with interchangeable lenses will optimize the optical needs of your application. The Inspector family offers a pre-defined package for production control within the SICK SOPAS user interface. It includes image viewing, recording and off-line support. In addition, there are variants that support PLC control over Ethernet and unlimited image storing using FTP.



Inspector I-series

High-performance part inspection made easy

- High-speed part inspection
- Robust pattern match to locate part independent of position, rotation and scale
- Multi-reference object teaching and multi-feature inspections
- Unique, homogeneous dome illumination or high power ring light
- Easy-to-use step-by-step configuration in PC including emulator
- Log, statistics and record
- Industrial Ethernet
- Large selection of adjustments and accessories



Inspector PI-series

Position – Inspect – Connect

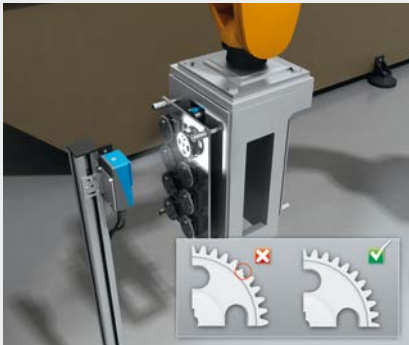
- High-speed positioning and inspection
- Expanded toolbox for locating taught-in and free-form objects
- Multiple, simultaneous inspection of blobs, patterns, edges and pixel counting
- Easy device cloning via the web interface
- Image calibration, including mm output
- Configurable communication through EtherNet/IP and TCP/IP
- HMI integration via web API
- Simple, out-of-the-box web server



Inspector PIM-series

Easy positioning, inspection and measurement

- High-speed positioning, inspection and measurement
- Expanded toolbox for diameter, angle and flexible distance measurement
- Multiple, simultaneous inspection of blobs, patterns, edges and pixel counting
- Image calibration, including mm output
- Configurable communication through EtherNet/IP and TCP/IP
- Simple, out-of-the-box web server
- Import of customized web pages



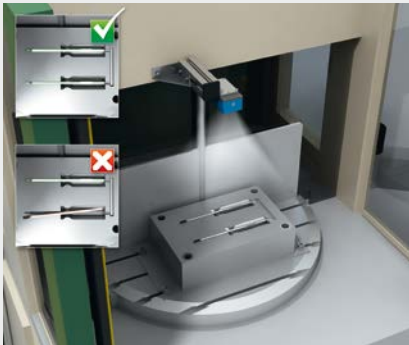
In-line quality control of injection-molded parts

Parts inspection for:

- Overmolding (burr formation)
- Undermolding (surface defects)
- Inclusions (transparent material)
- Burns (black spots)
- Cutting-off sprues
- Features, geometries (through holes, angles, ...)

Your benefits:

- Reliable separation of NOK parts due to reliable defect detection
- Traceable 100% in-line quality inspection thanks to image storage on FTP server
- Improvement of your quality assurance management



Protection of tools thanks to optical process control

Tool checking for:

- All finished parts demolded or removed
- All components present
- All components positioned correctly

Your benefits:

- Prevention of tool damage and thus saving of damage costs
- Minimization of machine downtimes and increasing of machine availability



In-line quality control of extruded plates and films

Plate, film inspection for:

- Defects (cracks, disruptions,...)
- Inclusions (transparent material)
- Burns (black spots)

Your benefits:

- Reliable detection of defects for control of the defect cut-out with minimal offcuts
- 100% in-line quality inspection



In-line quality control of blown containers, bottles

Container, bottle inspection for:

- Defects (cracks, ruptures, break-outs,...)
- Inclusions (transparent material)
- Burns (black spots)
- Material, bottle neck separation
- Geometries

Your benefits:

- Reliable separation of NOK parts based on reliable error detection
- Traceable 100% in-line quality inspection thanks to image memory on FTP server
- Improvement of your quality assurance management

From your safety application to a complete solution

Our range of safety components and services provides the optimal safety solution for a wide range of your machine or system requirements. Control and monitor your processes in a flexible manner: The interaction between man and machine during commissioning, operation, or servicing means that fast diagnosis is consistently supported throughout our control and sensor solutions. Increase both safety and productivity at the same time.



Opto-electronic protective devices

- Safety laser scanners
- Safety camera systems
- Safety light curtains
- Multiple light beam safety devices with mirror columns and device columns
- Single-beam photoelectric safety switches



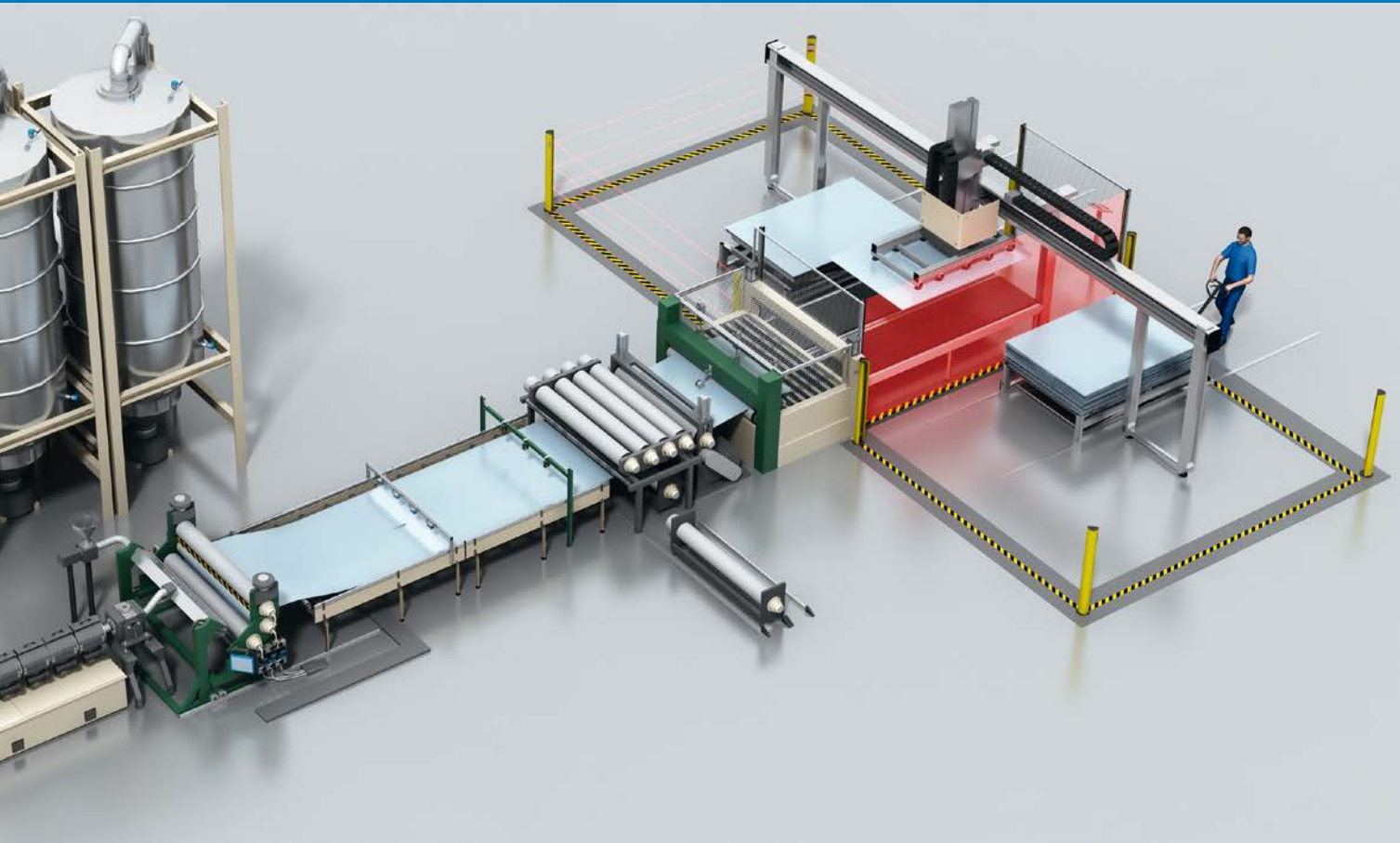
Safety switches

- Electro-mechanical safety switches
- Non-contact safety switches
- Safety command devices



sens:Control – safe control solutions

- Safety relays
- Safety controllers
- Advanced Flexi Soft functions with Flexi Line safe networking and Flexi Loop safe sensor cascade
- Safe Drive Monitor drive monitoring



SICK - Your partner for machine safety

When it comes to international business, safety officers and decision makers are faced with a complex network of laws, regulations, labeling measures, and guidelines. SICK can help deal with this challenge. We have experience with the details and know exactly how to fulfill the numerous requirements. Both in terms of current machinery and in planning and purchasing new systems:



Consulting & Design

- Risk assessment
- Safety concept
- Hardware- and software design
- Installation and commissioning
- Functional safety assessment
- CE-conformance check
- CE certification
- Plant walk-through



Training & Education

- User training
- Seminars
- WebTraining



Verification & Optimization

- Inspection
- Machine safety inspection
- Electrical equipment check
- Accident investigation
- Stoptime measurement

More information → www.senscontrol.com

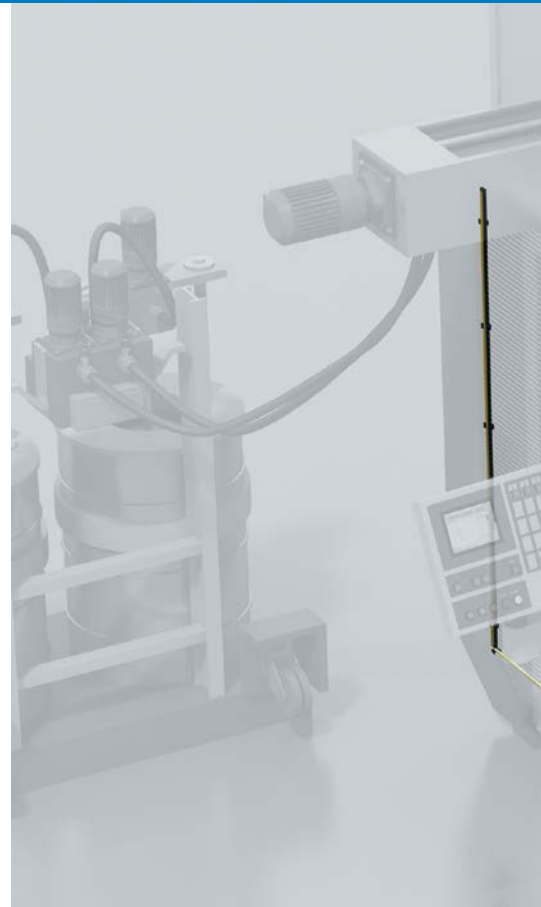
Software-programmable safety controller

The Flexi Soft is a powerful, modular, easy-to-commission, and highly scalable safety controller that can be efficiently adapted to meet the requirements of a range of safety applications. This modular hardware platform allows the controller to grow module by module with the task at hand – up to the highest level of safety.

In the Flexi Soft Designer configuration software, the creation of safety designs with simulation mode and the complete wiring plan is as easy as never before.

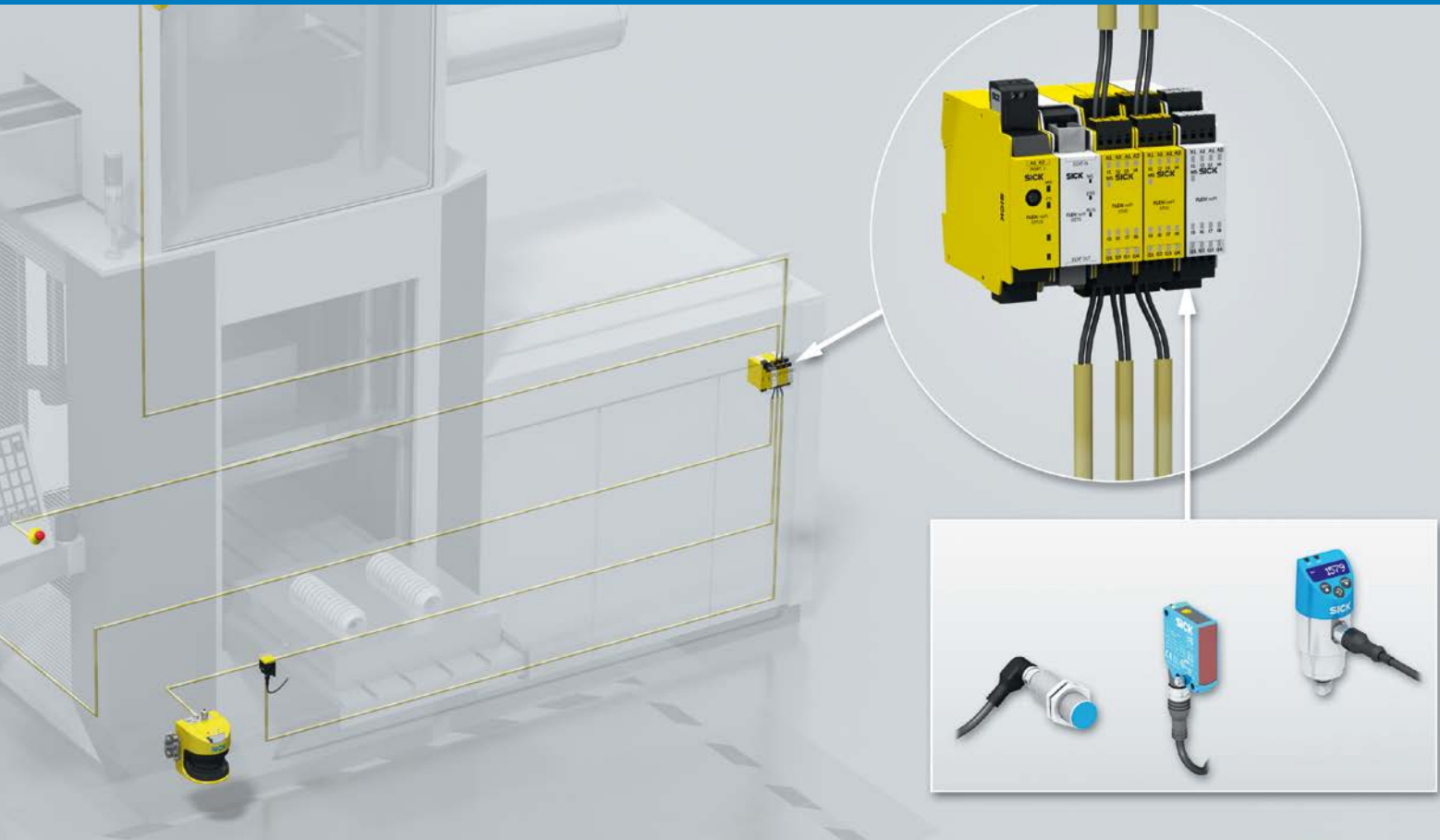
Integration into all common fieldbus environments and the safe networking of Flexi Soft stations with one another are additional advantages.

The design of safe system solutions for rubber and plastic-processing machines is thus greatly simplified.



Product characteristics:

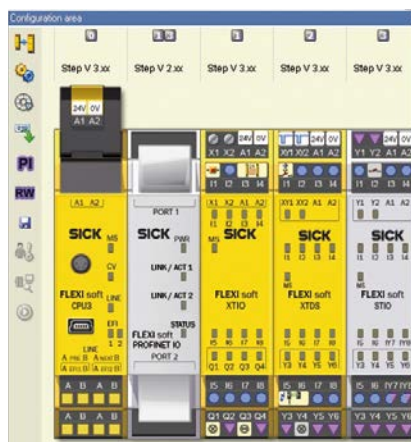
- Modular expandable inputs and outputs
- Configuration memory in system plug
- RS-232 and USB interfaces for configuration and real-time diagnosis
- Integration into all common bus systems:
 - PROFINET IO, PROFIBUS-DP, EtherCAT, CANopen, Modbus TCP, Ethernet (TCP/IP), DeviceNet
- Short switch-off time of just 8ms
- Intuitive configuration software:
 - Easy operation (Drag & Drop), simulation mode, Wiring plan, multilingual documentation can be downloaded free of charge
- 48 TÜV-certified function modules
- Safe networking of up to 32 Flexi Soft stations without addressing and additional hardware
- Cascading of up to 32 sensors including full diagnostic capability
- Motion control module for safe shutdown, speed and direction monitoring as well as safe stop functions
- Standard inputs/outputs, e.g. for the activation of a bolt, signal lamp or signal processing for other automation sensors



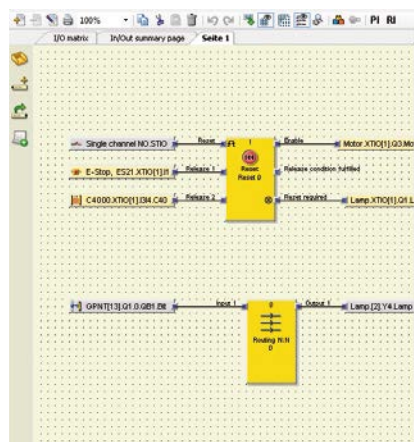
Flexi Soft Designer

The strength of the Flexi Soft Designer configuration tool is that it enables users to create easy and straightforward configurations for the Flexi Soft safety controller. Only three steps are needed (hardware configuration, logic creation and transfer) to produce the configuration. The easy-to-follow user guide in the configuration tool provides information on the modules and elements, as well as a graphical wiring diagram for quick commissioning, plus full documentation. Configuring a Flexi Line project (safe networking of up to 32 Flexi Soft stations) with the Flexi Soft Designer is also easy. Each station is configured separately; however, the actual Flexi Line project is saved in a single project file.

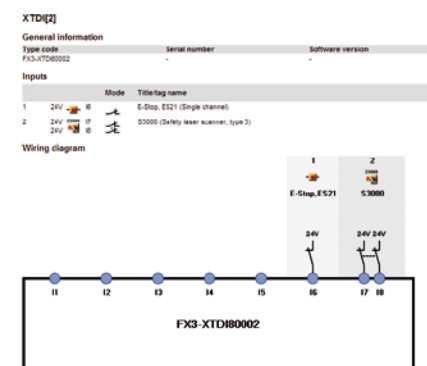
Hardware configuration



Logic creation



Documentation



Modular machine designs & easy connectivity

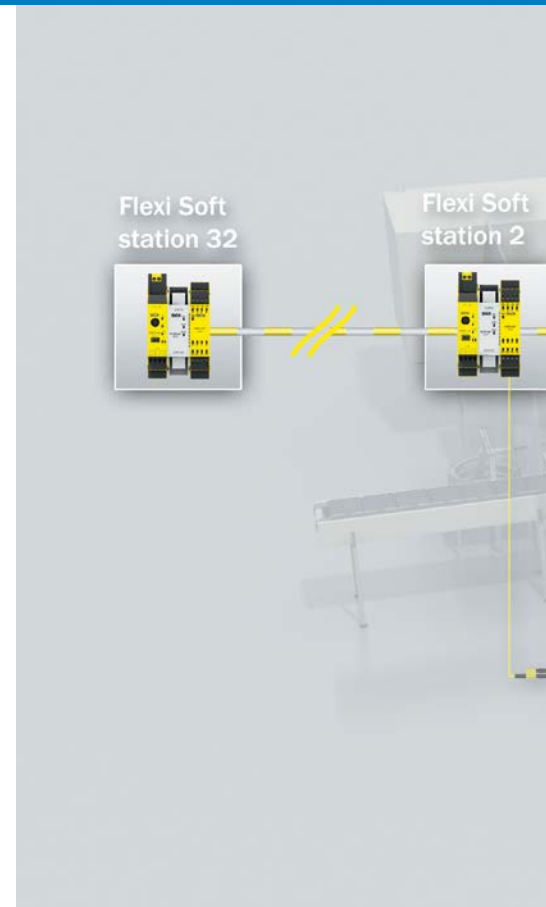
Flexi Line - network safety controllers safely without addressing:

Flexi Line enables the networking of up to 32 Flexi Soft stations and this with a 2-wire standard cable without additional hardware expenditures. Thanks to the unique global definition of the process map (96-bit data transfer rate), specific addressing of the individual stations is no longer necessary. This allows easy modification or expansion of the whole system at any time. When Flexi Soft stations are added or removed, users simply need to confirm the new topology.

Flexi Loop - cost-saving safe sensor cascade with diagnosis:

Flexi Loop allows the cascading of up to 32 safety sensors. Safety switches and safety sensors with OSSD output can be used in the mix regardless of the manufacturer. For each sensor or switch, detailed diagnostic information is also available. - Which sensor was switched and why?

Integrated switching signals allow for the use of interlocks, switches and lamps. All sensors are supplied with voltage directly from the Flexi Loop. Unscreened standard cables are used with M12 plugs. The safe sensor cascade reduces the amount of wiring and the number of safety inputs in the control cabinet. - The result is a cost-optimized solution.

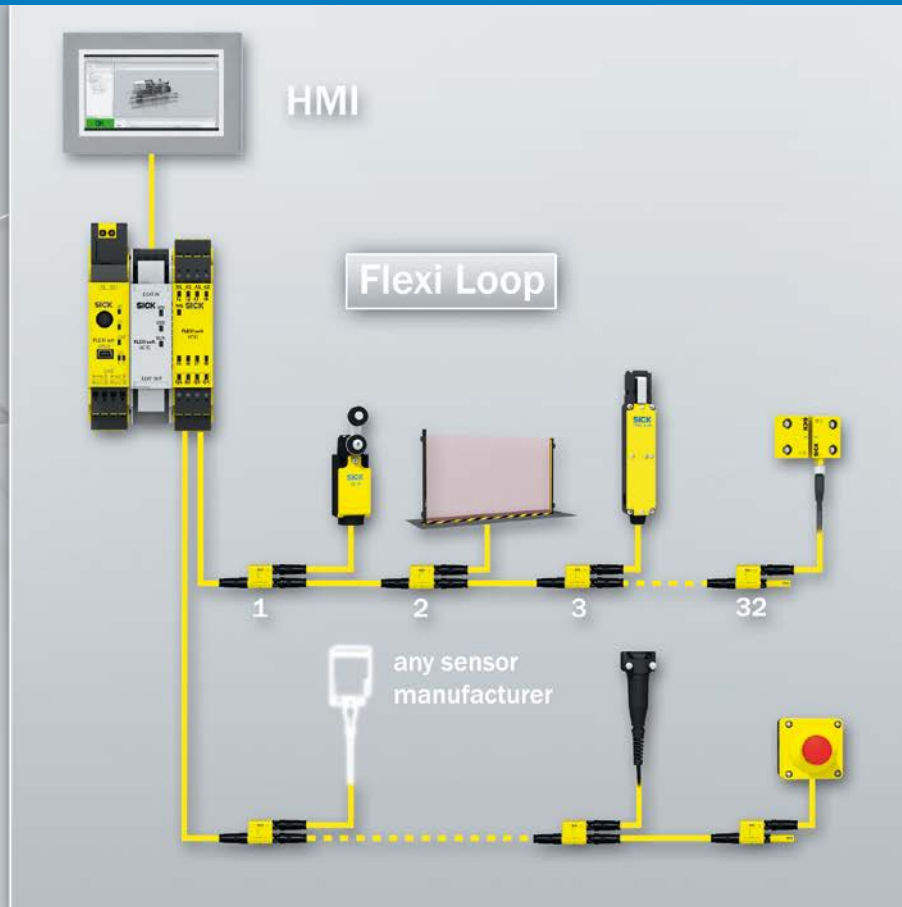
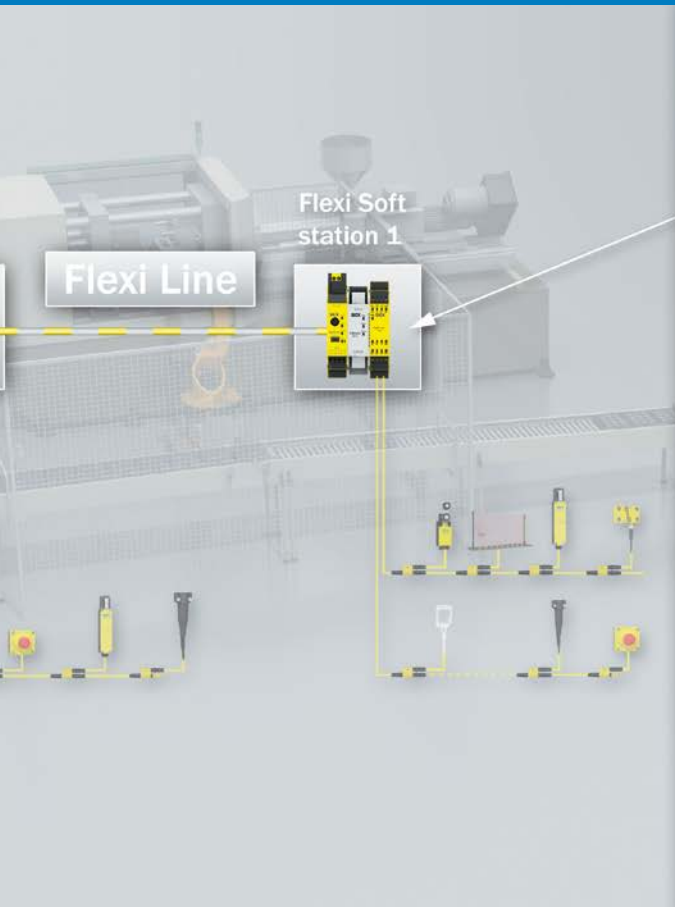


Flexi Line System Characteristics:

- Interface for the safe networking of up to 32 Flexi Soft stations
- Global definition of the process map (96-bit data transfer rate)
- Individual configuration of the Flexi Soft stations
- No addressing necessary – after changes to the controller network, the new topology must simply be confirmed with a teach-in button
- Up to 1,000 m distance between two Flexi Soft stations
- Additional integration of Flexi Link and EFI sensors
- No additional module or additional hardware required for the safe networking of Flexi Soft stations

Your benefits:

- Safe networking of safety functions across several machines and modular machine elements
- Easy system expansion thanks to quick and easy insertion of Flexi Soft stations
- Service-friendly replacement of machines since no address changing is required when changing the sequence of Flexi Soft stations
- Simple planning, since the signals that must be processed by all Flexi Soft stations must only be defined once for the entire Flexi-Soft system (global process map)
- More efficient communication and shorter addressing time thanks to separation of local and global information



Flexi Loop System Characteristics:

- Cascading of 32 sensors with adherence to the PL e performance level (also with REED switches)
- Connection of the sensors via non-screened standard cable with M12 plug, 5-wire, IP67 protection
 - 3 pins on Flexi Soft IO module (Test Out, Safe In, Standard In)
 - 2 pins on power supply (24V)
- Power supply to the sensors, including, if necessary, additional power supply
- Cascading of safety switches and safety sensors with OSSD outputs in the mix
- Complete diagnosis of the individual nodes - Which sensor was switched and why?
- 2-loop loops per Flexi Soft input/output module, max. 8 loops on a Flexi Soft station
- Adding and removal of sensors and switches without subsequent software change
- Loop length up to 960m, node to node 30m, node to sensor 10m
- Compatible with other manufacturers' sensors

Your benefits:

- Cost savings thanks to minimization of wiring work and the inputs of the safety controller
- Easy retrofitting of existing machines
- Simplest calculation of the performance level
- User-friendly thanks to quick and easy configuration
- Can be used across great distances
- Minimal system downtimes due to detailed diagnosis – who switched and why?

Sensor Intelligence is a promise

At SICK, sensor solutions are developed for industrial automation with commitment and experience. From development to service provision: Every employee is completely committed to ensuring that sensors and application solutions from SICK optimally fulfill their versatile functions.

Company with a culture of success

With a variety of products and services, approximately 5,800 employees help SICK sensor technology users to increase their productivity and reduce their costs. Founded in 1946, the company has its headquarters in Waldkirch, Germany, and with nearly 50 subsidiaries and interests, in addition to numerous representatives, it is globally active.

People like working at SICK. This is evident from the fact that SICK has regularly been named "Employer of the Year". This lively workplace culture has a strong appeal for qualified and skilled persons. At SICK, they are part of a company that offers a balance between career progression and quality of life.



Innovation creates competitive advantage

SICK sensors simplify procedures and optimize processes to achieve sustainable production. To do this, SICK has researched and developed facilities in many locations across the globe. In discussion with its customers and in cooperation with higher education institutions, innovative sensor products and solutions are developed. These form the basis for reliable process control, personal protection and environmentally friendly production.



Model with a far-reaching effect

SICK builds upon an established corporate culture, pursuing financial independence and technological transparency. Innovation has made SICK into a technological and market leader. Because it is only with targeted modernization and improvement that universally applicable sensors can be successful in the long term.



Sensor Intelligence for all requirements

SICK has representation in numerous fields and is therefore familiar with the processes used in a wide range of industries. Fundamental requirements such as precision, speed and availability apply globally, but must be implemented differently according to the industry in question.

For applications all over the world

Hundreds of thousands of installations and implemented applications prove it: SICK is familiar with the industries and their processes. And that is not going to change – in the application centers in Europe, Asia and North America, sensors and system

solutions are designed, tested and optimized in accordance with customer specifications. This contributes to the company's position as a reliable supplier and development partner.



For industries with specific dynamics

Where the demands for quality and productivity rise in parallel, industries profit from SICK's profound knowledge and expertise in the relevant sectors. In addition to the automotive and pharmaceutical industries, this also applies to the electronics and solar sectors. SICK provides productive solutions for accident prevention in automated guided vehicles and increases the throughput speed and traceability in warehouses and distribution centers. For protection of the environment and process optimization in cement production, waste incineration or in power stations, SICK provides system solutions for gas analysis and flow measurement. Natural gas distribution networks use the high-precision gas meters manufactured by SICK.

For better results in all fields

Every field has special procedures. And yet the tasks of the sensors is identical in principle: To measure, detect, control and monitor, protect, connect and integrate, identify, position. This puts the SICK specialists in the position to provide successful solutions industry-wide for other industrial automation applications.

www.sick.com/industries



For safety and productivity: SICK LifeTime Services

From system planning to upgrade services, SICK LifeTime Services provide a high quality of service all over the world. These services enhance personal safety and increase machine productivity to produce a solid foundation for sustainable operation.



Benefit from SICK services

Personal safety and machine and system productivity are largely dependent on the availability of the services required in each phase of a product's life cycle, i.e. the services that enable and sustain the functional integrity and reliability of a sensor, system

or safety device. At SICK, this is possible thanks to comprehensive industry know-how and more than 60 years of practical experience!





Consulting & Design

- Plant walk-through
- Risk assessment
- Safety concept
- Feasibility studies
- Software and hardware design



Verification & Optimization

- Inspections
- Maintenance
- Barcode testing
- Accident investigation
- Stoptime measurement
- Machine safety inspection



Training & Education

- User training
- Seminars
- WebTraining



Product & System Support

- Commissioning
- Exchange units and spare parts
- Remote support
- Hotline



Upgrade & Retrofits

- Machine retrofitting
- Sensor upgrades
- Technology retrofitting

www.sick.com/service



Versatile product range for industrial automation

From the simple acquisition task to the key sensor technology in a complex production process: With every product from its broad portfolio, SICK offers a sensor solution that best combines cost effectiveness and safety.

www.sick.com/products

Photoelectric sensors



- Miniature photoelectric sensors
- Small photoelectric sensors
- Compact photoelectric sensors
- Fiber-optic sensors and fibers
- Cylindrical photoelectric sensors
- MultiTask photoelectric sensors

Proximity sensors



- Inductive proximity sensors
- Capacitive proximity sensors
- Magnetic proximity sensors

Magnetic cylinder sensors



- Analog positioning sensors
- Sensors for T-slot cylinders
- Sensors for C-slot cylinders
- Sensor adapters for other cylinder types

Identification solutions



- Bar code scanners
- Image-based code readers
- Hand-held scanners
- RFID

Detection and ranging solutions



- Laser measurement technology

System solutions



- Volume measurement systems
- Code reading systems
- Dimension weighing scanning systems
- Vision systems

Fluid sensors



- Level sensors
- Pressure sensors
- Flow sensors
- Temperature sensors

Registration sensors



- Contrast sensors
- Color sensors
- Luminescence sensors
- Fork sensors
- Array sensors
- Register sensors
- Markless sensors

Distance sensors



- Short range distance sensors (displacement)
- Mid range distance sensors
- Long range distance sensors
- Linear measurement sensors
- Ultrasonic sensors
- Double sheet detector
- Optical data transmission
- Position finders

Automation light grids



- Advanced automation light grids
- Smart light grids
- Standard automation light grids

Vision



- Vision sensors
- Smart cameras
- 3D cameras

Opto-electronic protective devices



- Safety laser scanners
- Safety camera systems
- Safety light curtains
- Multiple light beam safety devices
- Single-beam photoelectric safety switches
- Mirror and device columns
- Upgrade kits

Safety switches



- Electro-mechanical safety switches
- Non-contact safety switches
- Safety command devices

sens:Control – safe control solutions



- Safety relays
- Safety controllers
- Network solutions

Motor feedback systems



- Interfaces: incremental, HIPERFACE® and HIPERFACE DSL®
- Safety motor feedback systems
- Rotary and linear motor feedback systems for asynchronous, synchronous motors and linear motors

Encoders



- Absolute encoders
- Incremental encoders
- Linear encoders
- Wire draw encoders

Analyzers and systems



- Gas analyzers
- Dust measuring devices
- Analyzer systems
- Liquid analyzers
- Data acquisition systems
- Tunnel sensors

Gas flow measuring devices



- Gas flow meters
- Mass flow meters
- Volume flow measuring devices

Software



- Safexpert® safety software

Simple integration into your automation world

Our intelligent sensor solutions and safety controllers make available different integration technologies that allow easy access – from HMI, PLC, and engineering tools – to data from our sensors. In this way, we support you towards solving your application rapidly and easily and increase machine availability with a continuous diagnostic concept.

Industrial communication



SICK's fieldbus and network solutions allow sensors and safety controllers from SICK to be connected to all common automation systems. This guarantees simple and fast access to all available data and information.



PLC and engineering tool integration



Whether the issue is generic integration using device description files, standardized interfaces (e.g. TCI, FDT/DTM) for diagnosis or integration into the PLC program via function blocks – the user-friendly tools from SICK support you in implementation.

HMI integration



SICK offers a wide range of means to integrate process, status, and diagnostic data from SICK sensors into a visualization system. Tools such as OPC servers, web servers, or SCL allow simple and fast integration into your individual HMI solution – independent of the technology used.

Software and tools

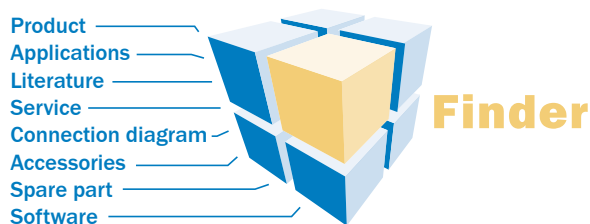


Our software tools support you in establishing connections, parameterizing and diagnosing sensors and safety controllers from SICK. The intuitive user interface permits simple and fast designing and realization of the application required.

www.sick.com/industrial-communication

www.mysick.com – search online and order

Search online quickly and safely – with the SICK “Finders”

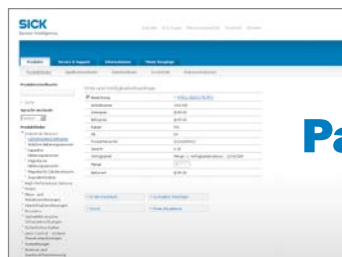


Product Finder: We can help you to quickly target the product that best matches your application.

Applications Finder: Select the application description on the basis of the challenge posed, industrial sector, or product group.

Literature Finder: Go directly to the operating instructions, technical information, and other literature on all aspects of SICK products.

Efficiency – with the e-commerce tools from SICK



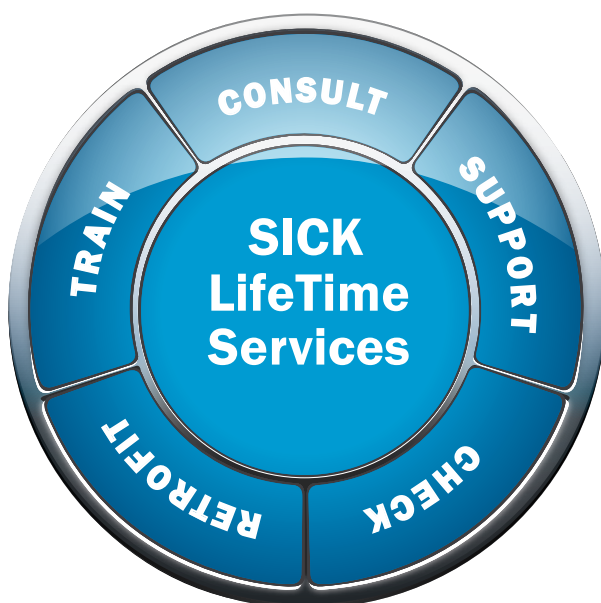
Find out prices and availability: Determine the price and possible delivery date of your desired product simply and quickly at any time.

Request or view a quote: You can have a quote generated online here. Every quote is confirmed to you via e-mail.

Order online: You can go through the ordering process in just a few steps.

For safety and productivity: SICK LifeTime Services

SICK LifeTime Services is a comprehensive set of high-quality services provided to support the entire life cycle of products and applications from system design all the way to upgrades. These services increase the safety of people, boost the productivity of machines and serve as the basis for our customers' sustainable business success.



Consulting & Design

Globally available experts for cost-effective solutions



Product & System Support

Fast and reliable, by telephone or on location



Verification & Optimization

Checks and recommendations for increased availability



Upgrade & Retrofits

Uncovers new potential for machines and systems



Training & Education

Employee qualification for increased competitiveness

SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for factory, logistics, and process automation. With more than 6,000 employees and over 40 subsidiaries worldwide, we are always close to our customers. 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 various 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 round out 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:

Australia, Belgium/Luxembourg, Brasil, Česká republika, Canada, China, Danmark, Deutschland, España, France, Great Britain, India, Israel, Italia, Japan, México, Nederland, Norge, Österreich, Polska, România, Russia, Schweiz, Singapore, Slovenija, South Africa, South Korea, Suomi, Sverige, Taiwan, Türkiye, United Arab Emirates, USA.

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