



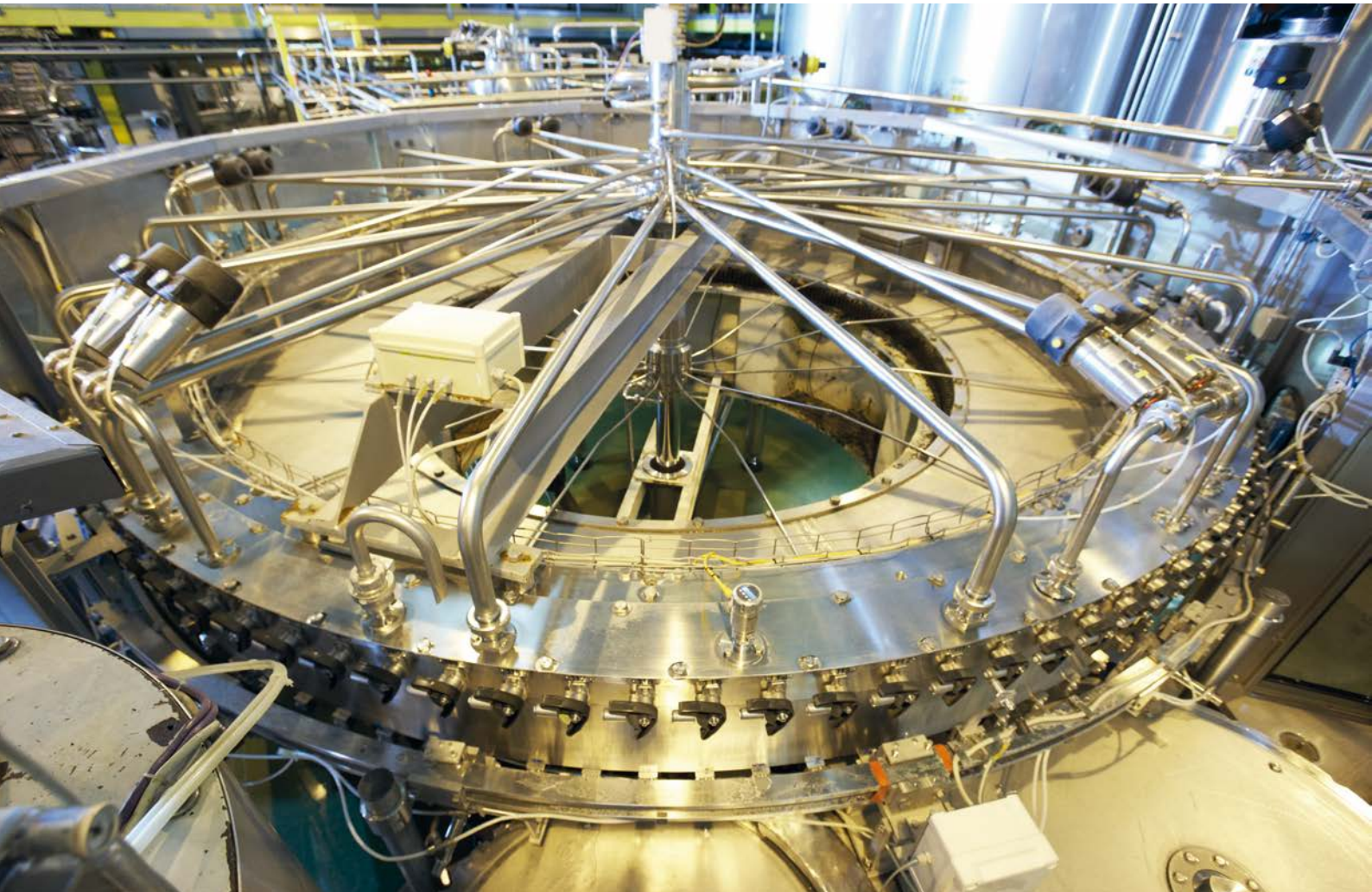
HYGIENIC SOLUTIONS

SENSORS IN HYGIENIC CONDITIONS

Food and beverage industry

SICK
Sensor Intelligence.

UNDER PRESSURE: SENSORS IN HYGIENIC CONDITIONS



Achieving reliable results even under difficult conditions is particularly important in food production and processing because supplying contaminated or inedible food can result in considerable financial losses and serious damage to your reputation. The demand for longer shelf lives for packaged foods is one of the biggest challenges faced in the industry, which in turn has a direct impact on packaging and cleaning processes as well as the design of machinery.

Rugged, precise and intelligent

When it comes to the development of efficient sensor solutions for the hygiene sector, the standard requirements of process and factory automation must be taken into account. Process automation demands the use of rugged materials and the capacity

for thorough cleaning, while rapid response times, minimal housing, straightforward commissioning, and remote sensor parameter adjustment are key factors within factory automation. Together this results in synergies and benefits that are relevant for

the development of efficient sensor solutions, and can be implemented in the construction, commissioning and day-to-day operation of machines. SICK offers a wide range of corresponding solutions which are tested and certified for use in the food industry.





The aim: To manufacture and process food safely

Organizations such as the EHEDG (European Hygienic Engineering & Design Group) and 3-A Sanitary Standards, Inc. in the US develop guidelines for the construction of hygienic machines, systems, and system components, with the aim of ensuring that food is manufactured safely. In this era of globalization, we

rely more and more on harmonization between such guidelines and certification criteria.

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All data without guarantee → www.sick.com/products

Task	Product group		Follows the recommendations of the hygiene industry				Enclosure rating IP 69K		Compliant with Regulation (EC) No 1935/2004	Page
Measuring Monitoring Positioning	Level sensors	X		X			X	X	X	→ 15
	Pressure sensors	X		X				X	X	→ 16
	Temperature sensors	X					X	X	X	→ 14
	Incremental encoders		X							→ 13
	3D vision				X					→ 14
Detecting	Photoelectric sensors				X		X	X ^{*)}		→ 10
	Photoelectric sensors, hygienic design		X		X		X	X ^{*)}		→ 10
	Inductive proximity sensors				X		X	X ^{*)}		→ 11
	Contrast sensors				X		X	X ^{*)}		→ 12
Identifying	Bar code scanners ^{**)}						X			→ 13
Protecting	Safety light curtains ^{**)}				X	X	X			→ 12
	Single and multiple light beam safety devices ^{**)}				X	X	X			→ 12
Accessories	Chemically resistant reflectors							X ^{*)}		→ 17
	Reflectors, IP 69K						X	X ^{*)}		→ 17
	Mounting ^{**)}						X	X ^{*)}		→ 17
	Mounting, hygienic design		X					X ^{*)}		→ 17
	Plug connectors and cables				X		X			→ 17

^{*)} The coating on the front screen and the adhesives used are not FDA-approved materials.
^{**)} With IP 69K housing.

- EHEDG:** The European Hygienic Engineering & Design Group (EHEDG) is a consortium made up of machine and component manufacturers and experts from the food industry, research institutes, and public health authorities that compiles directives for the hygienic processing and packaging of food, and develops tests used to check hygiene standards. The EHEDG's main task is to help guarantee hygienic engineering and design in all aspects of food manufacture.
- 3-A:** 3-A Sanitary Standards, Inc. (3-A) is an association that performs a similar role to the EHEDG but for the US market, drafting directives for the hygienic processing and packaging of dairy products and other foodstuffs. 3-A issues certificates for machine components that comply with their standards.
- Ecoblab:** Ecoblab, Inc. is a leading global supplier of products and services within the field of industrial cleaning and hygiene, including the food processing sector. The company certifies long-term resistance to conventional cleaning agents and disinfectants.
- Diversey:** Materials used for (machine) components are tested for resistance to cleaning agents and disinfectants produced by Diversey, and the relevant certificates are issued for individual components.
- FDA:** The Food and Drug Administration (FDA) is the US supervisory body for drugs and foodstuffs whose responsibilities include decreeing regulations on the use of substances in hygienic environments.



WASHDOWN AND HYGIENIC DESIGN: AN INVESTMENT THAT REALLY PAYS OFF

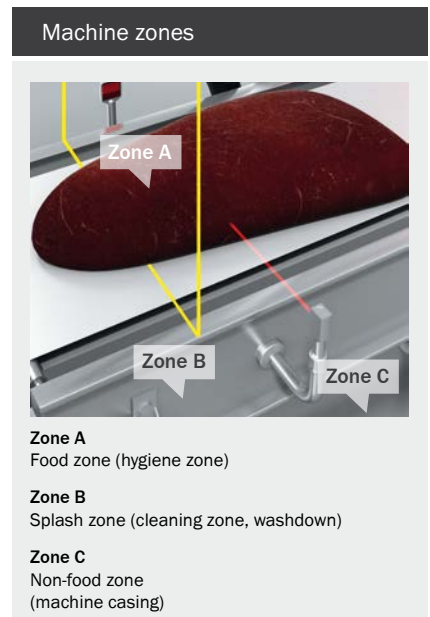
One common method of fulfilling strict hygiene standards is to subject the systems to high-pressure cleaning every day – this means that the individual components are exposed to strong thermal and mechanical loads as well as chemically aggressive cleaning agents, which poses a real challenge to the sensors in place. Machines and systems used to process food are arranged in different zones in accordance with the relevant hygiene requirements:

Zone A: Food zone (hygiene zone).

Certain additional standards apply to “hygienically designed” machines and the sensors used in these machines. A machine is considered to be hygienically designed if it remains free from product residue during use, as these form an ideal breeding ground for germs. This is why it is important to avoid dead space and open joints when designing components. Sensors that are designed in accordance with hygiene standards are constructed

in such a way that they can be used directly in the food zone (hygiene zone) of a machine. This really is an investment that pays off – after all, machines and systems designed hygienically do not provide any scope for the buildups of product deposits. A reduced buildup of product deposits means less cleaning, in turn reducing the amount of cleaning agents, water, and energy required. The system throughput is increased as a result of shorter cleaning intervals – this is a real economic benefit, particularly if products are changed frequently.

Zone B: Splash zone (cleaning zone, washdown). Washdown indicates that the splash zone of a machine can be subjected to wet cleaning quickly and effectively – and with this type of cleaning, there will be very little, if any, residue (food, cleaning agents, or water) left on the surfaces. Sensors in the splash zone must therefore be rugged when exposed to cleaning agents and high-pressure cleaning.



Division of machine into zones: Only hygienically designed sensors may be used directly in the food zone.



The material makes all the difference

The requirements for sensors are clearly defined – chemical resistance to alkaline, chlorinated, and oxidative cleaning agents and disinfectants; thermal resistance, even given dramatic changes in temperature (e.g. cleaning with water at approx. 80 °C in a cold environment at 5 °C); and the required level of impermeability guaranteed. To guarantee the reliability of its sensors even in these particular conditions, SICK offers suitable variants in a huge range of (housing) materials.

Stainless steel: Sensors enclosed in a stainless steel housing are extremely resistant, rust-proof, and durable. They guarantee chemical material resistance and absolute impermeability during intensive cleaning and disinfection. SICK supplies stainless steel sensors with a hygienic design as well as versions suitable for washdown processes.

VISTAL™: A high-strength, fiberglass-reinforced plastic boasting mechanical properties which far exceed those of conventional plastics. The VISTAL™ housing reaches an unprecedented level of mechanical strength and impermeability for plastic housing, which is reflected in its high enclosure rating of IP 69K.

PTFE: A PTFE coating ensures all-round protection for sensors and cables. The PTFE plastic is not affected by solvents or other aggressive chemicals. Its surface is so smooth and slippery that hardly any external substances can stick to it – ideal for use in hygienic and wet areas.

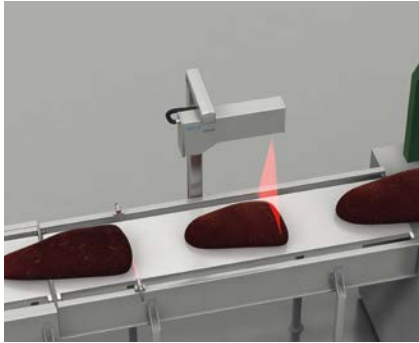
Housing with IP 69K enclosure rating: Housing with an enclosure rating of IP 69K guarantees that sensors and their accessories can withstand intensive cleaning processes, regardless of whether these involve a high-pressure jet of up to 100 bar or water temperatures of up to 80 °C.

No chance of germs, even in the accessories

What use are hygienic sensors if the mounting components provide a breeding ground for germs? The “hygienic design” mounting system fully complies with the EHEDG's recommendations. Depending on the requirements, straight and compact angled telescopic tubes, each with an integrated bayonet catch, and a laser-welded stainless steel flange are available for mounting the sensors. The mounting systems are supplied pre-assembled. SICK has developed special connecting cables made of PVC with M12 plug connectors for use in the food and beverage industry. With Ecolab certification and an enclosure rating of IP 69K, resistance to the tested cleaning agents and disinfectants is guaranteed.

FOOD

Optimization of the cutting process using 3D vision



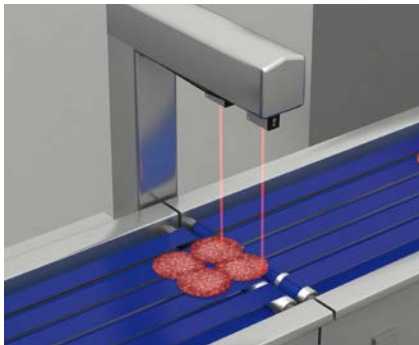
Form and volume measurements optimize cutting processes in the case of foods such as meat. This reduces waste and cuts costs. An exact, three-dimensional measurement of any product shapes ensures optimal cutting. The IVC-3D vision sensor is ideal for meeting the stringent requirements.

Its stainless steel housing meets the hygiene requirements of the food industry and can withstand aggressive cleaning. The compact housing of the 3D vision sensor combines the functions of image processing, illumination, and evaluation.

Recommended products

IVC-3D 14

Reliable detection in harsh and hygienic environments



Foods such as cuts of meat should follow each other on the conveyor belt correctly. Reliable detection of missing cuts prevents problems in the production process. Often the sensor must be able to see through a narrow gap between two conveyor belts. This can be done by the small light spot of the W4-3 Inox photoelectric sensor. The smooth, virtually corner-free and joint-free stainless steel housing fulfills the hygiene require-

ments with a teach-in button that can be sterilized. It has a resistance up to 70 °C and an enclosure rating of IP 69K, enabling long-term use. The sensors are certified under Ecolab, FDA, and HACCP.

Recommended products

W4S-3 Inox 10

Reliable print mark detection



Reference marks help to determine packaging materials safely in automated production processes and position them correctly. The KTM contrast sensor detects these marks reliably in order to control machine functionality, such as ensuring the film is cut.

The stainless steel variant is used if hygiene requirements must be met. The associated hygienic design mounting system also minimizes the risk of contamination.

Recommended products

KTM Prime..... 12

Precise speed measurement for CIP processes



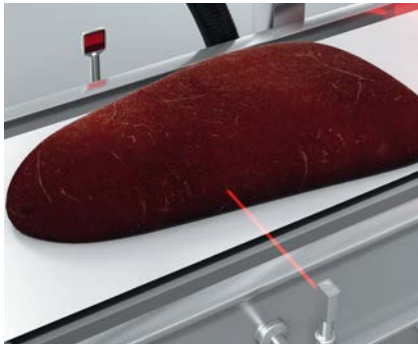
An essential part of process control involves synchronizing the speed at the meat slicer outlet with downstream machines. Incremental encoders are used to measure this speed.

The DFS60 incremental encoder with enclosure rating IP 67 is particularly suitable for use in hygienic areas and wet zones.

Recommended products

DFS60 13

System solution for use in hygienic environments



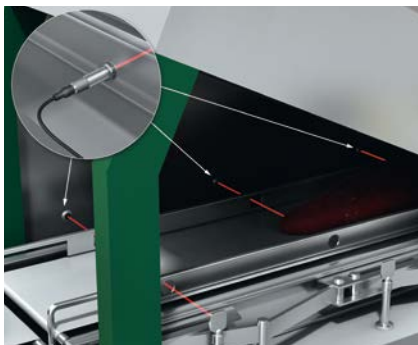
For hygienic environments such as those in the meat-processing industry, it is important to have the appropriate sensors and mounting systems in place. The hygienic design mounting system minimizes the risk of microbacterial contamination of the product during the manufacturing process.

All thanks to the rotatable and height-adjustable telescopic tube. The flexible mounting system is easy to use. Together with the W4S-3 Inox Hygiene photoelectric sensor and reflector, this is a highly efficient system solution.

Recommended products

W4S-3 Inox Hygiene 11

Product detection at a meat slicer inlet



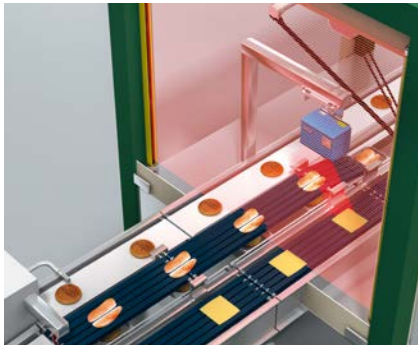
An essential part of process control involves reliable product detection at a meat slicer inlet. Cylindrical photoelectric sensors such as the V18V cylindrical photoelectric sensor are ideally suited to this task.

Their shape also makes them suitable for use in areas where space is limited.

Recommended products

V18V. 10

Hazardous point protection in hygienic environments



Safety light curtains with enclosure rating IP 69K are used to provide hazardous point protection in hygienic environments. Durable material, smooth surfaces, and resistance to high-

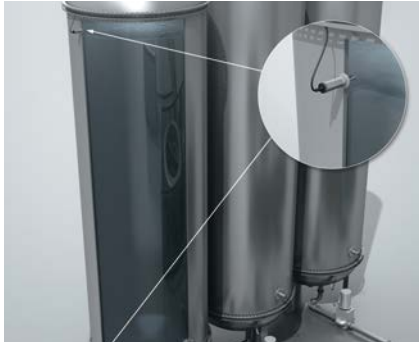
pressure cleaning techniques help to avoid bacterial contamination, which is absolutely essential in hygienic environments.

Recommended products

C2000 Standard in IP69K Housing 12

BEVERAGE

Point level measurement in storage tanks



Point level measurement in storage tanks provides overflow protection, an empty signal, and dry-run protection for pumps, to name just a few examples. With its wear-resistant and maintenance-free functionality, not to mention its ability to be used in all kinds of liquids, the LFB200 vibrating level switch is clearly the ideal choice for this type of application.

Its hygienic design includes a high-quality housing finish and aseptic process connections.

Recommended products

LFB200 15

Level measurement in storage tanks



Pressure sensors are used within the beverage industry for constant monitoring of the fill level in storage tanks. They must be suitable for use in hygienic applications due to their close contact with liquids.

With its highly resistant, flush-mounted, stainless-steel membrane and hygienic process connections, the PBS Hygienic pressure sensor offers reliable and sanitary operation, as well as high availability of CIP and SIP systems.

Recommended products

PBS Hygienic 16

Query of coupling bend position



Coupling panels are used in storage tanks for the beverage industry to control product flow. The coupling panels connect pipes. The coupling bend position can be queried using the IMF inductive proximity sensor.

Its watertight housing and resistance to aggressive cleaning agents make the IMF particularly suitable for use in hygienic areas and wet zones.

Recommended products

IMF 11

Measurement of temperature in supply tanks for bottling systems



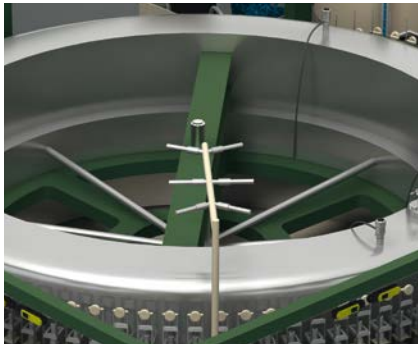
In beverage production, the temperature in the supply tanks for bottling systems is to be monitored constantly. As the temperature sensor comes into contact with the product, stringent hygiene requirements must be met. The THTE temperature sensor is a Pt100 resistance thermometer that complies with hygiene requirements. Thanks to high-quality stainless steel and a gapless design for all parts which come into contact with

the product, the strict hygiene requirements are met. This allows for safe, hygienic operation and optimized availability of the bottling system.

Recommended products

THTE 14

Level measurement in the buffer tanks of bottling systems and machines



The level measurement in buffer tanks is a key application in bottling machines. The correct level must be measured in order to ensure the liquid supply to the bottling systems. The LFP Inox level sensor reliably distinguishes between liquid media and foaming.

Using FDA-compliant materials, EHEDG-certified design, and providing CIP and SIP resistance, the LFP Inox is suitable for applications with stringent hygiene requirements.

Recommended products

LFP Inox 15

Pressure measurement in buffer tanks of bottling machines



Bottling carbonated beverages requires the bottles or cans to be pressurized so that no foam forms. For smooth bottling at high throughput, the pressure must be precisely controlled. The PHT pressure sensor is a pressure transmitter that complies with hygiene requirements.

Thanks to flush-mounted, hermetically sealed stainless steel membranes and sterile process connections, the PHT is ideal for hygienically demanding applications in the beverage industry.

Recommended products

PHT 16



V18V – At a glance

- IP 69K-rated cylindrical photoelectric sensors in M18 stainless steel housing
- Resistant to all common cleaning agents and certified by independent institutes
- Extended temperature range: +85 °C (long-term), +100 °C / 15 min. (short-term)
- Touch (smart) teach-in adjustment
- All sensor materials, including the housing, LED and lens are resistant to chemicals
- IP 69K and IP 68 according to DIN 40050
- Laser-etched part numbers
- Ecolab and Diversey certified for chemical resistance

Your benefits

- Simple, time-saving design ensures easy mounting, alignment and replacement
- IP 69K-rated stainless steel housing has a long service life that withstands washdown environments, reducing maintenance time and costs
- Unique touch-teach feature and lock/unlock functionality allow users to control who can change the sensor setting, which reduces the chances of disturbing a proven process and saves commissioning and maintenance time
- Laser-etched part numbers ensures the part numbers will not be washed off, saving maintenance time

→ www.mysick.com/en/V18V

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.



W4S-3 Inox – At a glance

- Washdown rated for fluid tightness (IP 66, IP 67, IP 68 and IP 69K) and Ecolab certified
- Tough stainless steel housing (316L/1.4404)
- Resistant to a variety of common cleaning and disinfection agents
- Highly visible laser-like light spot due to PinPoint LED
- Teach-in via stainless steel button with a metal membrane
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Quick and easy alignment due to highly visible PinPoint LED
- Easy adjustment via a stainless steel teach-in button with metal membrane
- 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/W4S-3_Inox

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.





W4S-3 Inox Hygiene – At a glance

- Smooth stainless steel housing (316L/1.4404)
- Hygienic mounting using M12-adaptor thread or D12-adaptor shaft
- IP 66, IP 67, IP 68 and IP 69K enclosure rating and Ecolab certified
- Resistant to a variety of common cleaning and disinfection agents
- Highly visible laser-like light spot due to PinPoint LED
- Teach-in via stainless steel pushbutton with a metal membrane
- Flexible sensor settings, monitoring, advanced diagnostics, and visualization thanks to IO-Link

Your benefits

- Smooth hygienic housing and accessories with no grooves or crevices eliminates the potential for bacteria to grow, providing a more hygienic solution.
- Long service life in harsh conditions ensures less downtime and fewer replacement costs
- Easy adjustment via a stainless steel metal membrane teach-in pushbutton
- Quick and easy alignment due to highly visible PinPoint LED
- IO-Link provides easy data access from the PLC
- Quick and easy configuration
- Quick and easy integration using function blocks

→ www.mysick.com/en/W4S-3_Inox_Hygiene

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IMF – At a glance

- Extremely watertight (IP 68/IP 69K) for washdown environments
- Stainless steel housing (316L/1.4404)
- Front cap made of PPS (FDA-certified material)
- Extended temperature range (-40 to +80 °C). Tolerates short-term temperature increases up to 100 °C
- Resistant to industrial cleaning agents, Ecolab and Diversey certified
- Laser-etched part number

Your benefits

- Reduced machine downtime
- Hygienic process due to FDA approved material and hygienic design
- Reduced maintenance costs due to sensor's resistance to aggressive cleaning cycles
- No restrictions on cleaning agents or processes, ensuring reliable operation

→ www.mysick.com/en/IMF

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KTM Prime – At a glance

- Small, tried-and-tested housing, also available in stainless steel
- High grayscale resolution
- Very large dynamic range means reliable detection of contrasts on glossy materials
- Static and dynamic teach-in in one variant
- Switching frequency: 15 kHz
- KTM Prime with IO-Link functions

Your benefits

- Small housing allows installation even where space is limited
- Powerful, fast contrast sensor ensures high machine throughput
- Three-color LED technology allows a reliable process, with contrast marks detected even in conditions with weak contrast ratios
- Good contrast resolution and a very large dynamic range ensure good detection performance on glossy materials, thus increasing the range of application possibilities
- Various teach-in methods enable more flexible commissioning
- Long service life, even in harsh environments, thanks to stainless steel housing; as a result, excellent system throughput and low spare parts costs
- Enhanced diagnostics and visualization of sensor parameters, as well as quick and easy format changes, since parameter settings can be downloaded via IO-Link

→ www.mysick.com/en/KTM_Prime

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C2000 Standard in IP69K Housing – At a glance

- Type 2 (IEC 61496), SIL1 (IEC 61508), PL c (EN ISO 13849)
- IP 69K, IP 67, IP 66 and IP 65 enclosure ratings incl. connection cable
- Withstands washdown pressure up to 100 bar and water temperature up to 80 °C
- Ecolab and Diversey certified
- Resistant steel materials
- Ventilation valve prevents fogging of the front screen
- Smooth surfaces prevent accumulation of bacteria
- Compact design

Your benefits

- IP 69K-rated housing and connection cables provide a longer service life, which saves costs
- As an alternative to physical guards, personnel can quickly access and service protected areas, keeping productivity high
- Resistance to high pressure cleaners saves time in the cleaning process
- Reliable protection, even when temperatures fluctuate

→ www.mysick.com/en/C2000_Standard_in_IP69K_Housing

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.





DFS60 – At a glance

- Housing, flange and shaft made from stainless steel
- Square or face mount flange with 10 mm solid shaft
- Enclosure rating: IP 67
- High resolution: up to 65,536 pulses
- Connection: radial cable outlet or M12 male connector
- Electrical interfaces: 5 V and 24 V TTL/RS-422, 24 V HTL/push-pull, 24 V Open Collector
- Can be optionally programmed by the user: output voltage, number of pulses, zero pulse position and width

Your benefits

- High resistance to environmental influences due to stainless steel housing
- IP 67 enclosure rating and shaft sealing ring for optimum tightness
- Simple mounting thanks to compact dimensions, even with limited installation space in the machine
- Wide range of electrical interfaces allows an optimal match between the encoder and the specific application installation situation
- High resolution up to 16 bits makes possible applications with demanding requirements on measurement accuracy
- Reduces storage costs and downtimes since the customer can program the encoder himself with programming devices PGT-08-S and PGT-10-P (in progress)
- Programmable zero pulse position simplifies installation

→ www.mysick.com/en/DFS60I

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.



CLV631 – At a glance

- Integrated pushbuttons for auto setup and reading diagnostics
- Integrated LED bar graph
- 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
- Advanced, easy-to-use SOPAS configuration software
- High scanning frequency of up to 1,200 Hz
- Advanced remote diagnostics and network monitoring capabilities available over Ethernet

Your benefits

- Intelligent auto setup and multi-function pushbuttons save time during commissioning
- Easily execute firmware updates using the microSD 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
- Real-time decoding at very high speeds
- Increased reading reliability due to high-performance computing power and a high scanning frequency

→ www.mysick.com/en/CLV631

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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

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THTE – At a glance

- Pt100, accuracy class A (IEC 60751)
- Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C
- Sensor probe spring-loaded in thermowell
- Wetted parts: Corrosion-resistant stainless steel 316L/1.4435, $R_a \leq 0.8 \mu\text{m}$
- Hygienic process connections
- Pt100 (4-wire) or 4 mA ... 20 mA (2-wire)
- Round connector M12 x 1

Your benefits

- The sensor can be exchanged without opening the process, providing high equipment availability and minimizing hygienic risks
- Safe hygienic operation: Wetted parts are made from high-grade stainless steel, hygienically-graded surface finish, and a gap- and crevice-free design
- Rugged: Connection housing is easy to clean and splash water proof
- Quick and safe installation
- Very good long-term stability, accuracy and linearity
- Quick response time
- Optimal solutions for individual requirements due to versatile configurability

→ www.mysick.com/en/THTE

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 Inox – At a glance

- Level monitoring in hygienic applications
- Manually cuttable monoprobe up to 4,000 mm long with $Ra \leq 0.8 \mu m$
- Process temperature up to 180 °C, process pressure up to 16 bar
- CIP/SIP resistant
- High enclosure rating IP 67 and IP 69K, autoclavable
- Interchangeable hygienic process connections
- 3 in 1: combined display, analog output and binary output
- Remote amplifier version with compact process connection

Your benefits

- Robust design increases service life
- High flexibility due to cuttable probe and interchangeable connection concept
- 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 without any calibration and quick commissioning
- Remote display of the measured value and space savings

→ www.mysick.com/en/LFP_Inox

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.



LFV200 – At a glance

- Housing made of 316L stainless steel
- Two electrical output versions available
- Commissioning without filling
- Process temperature up to 150 °C
- Immune to deposit formation
- Very high repeatability
- Aseptic versions with polished surface, CIP and SIP resistant
- Tube extension up to 1,200 mm

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 robust system for a multitude of applications
- Universal technology works in all kinds of liquids
- Economical solution for vertical mounting
- Can be used in containers and pipes regardless of the mounting situation

→ www.mysick.com/en/LFV200

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.





PHT – At a glance

- Robust and precise pressure measurement technology
- Flush-mounted, hermetically sealed stainless steel membrane with roughness Ra < 0.4 µm
- Wetted parts stainless steel 1.4435, housing stainless steel 1.4571
- CIP and SIP resistant
- Large range of hygienic process connectors
- Stainless steel housing with enclosure rating of up to IP 68
- Field housing available (IP 67)

Your benefits

- Perfectly suited for demanding hygienic applications in the food and beverage, pharmaceutical and cosmetics industries
- Safe hygienic operation through EHEDG and 3-A certifications
- High reliability due to robust design and use of high-grade materials
- Withstands CIP and SIP, ensuring high system availability and reliability
- Transmitter housing is easily cleaned
- Versatile configurability optimizes solutions

→ www.mysick.com/en/PHT

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 Hygienic – At a glance

- Hygienically-graded pressure switch with display for the food and beverage industry
- Wetted parts are made from stainless steel 1.4435
- Individually programmable switching outputs and analog output
- Pressure values are indicated on the display
- Unit of pressure value in the display can be switched
- Output states are indicated separately via large LEDs

Your benefits

- Safe hygienic operation due to flush-mounted, highly resistant stainless steel membrane and hygienic process connections
- Suitability for CIP and SIP ensures high system availability
- Safe and easy setup with three large pushbuttons and legible, rotatable display
- Rotatable housing for optimum cable routing
- Wide range of available configurations enable customer-specific solutions
- High reliability: Corrosion-resistant design of wetted parts and housing with IP 65 and IP 67 enclosure ratings
- Ultimate system availability: IO-Link enables fast, reliable parameter setting when changing over products

→ www.mysick.com/en/PBS_Hygienic

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.





Hygienic design mounting system: because a hygienic design is just safer!

- Hygienic design according to EHEDG guidelines
- Optimal chemical resistance (through the use of silicone seals and V4A stainless steel [grade 1.4404/316L])
- FDA approved materials
- Quicker and safer sensor installation thanks to the bayonet mount
- Bayonet mount guarantees retention of optical alignment when sensors are replaced
- Flexible system for customized height and rotation alignment

→ www.sick.en/beftecHD

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M12 PVC connection cables: nothing gets past them!

- The double active innovative sealing technology guarantees perfect tightness (enclosure rating: IP 65, IP 67 and IP 69K)
- Achieving the specified tightening torque of 0,6 Nm ensures the activation of the mechanical vibration protection. This double-acting snap-in lock ensures high shock and vibration strength up to 50 G.
- Integrated fixed stop prevents the plug connector from being screwed too tight
- High-quality material: durability and corrosion resistance verified by Eco-lab certification

→ www.sick.en/F+B_M12

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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.

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