PRODUCT OVERVIEW

FLUID SENSORS

PRODUCTS AT A GLANCE

**Level sensors, pressure sensors,
temperature sensors, flow sensors**

SICK
Sensor Intelligence.

FLUID SENSORS AT SICK

Optimized control of process parameters is the main driver for increasing efficiency and reducing input of valuable resources. Whether it‘s pressure measurement, temperature measurement, level control or flow metering – SICK offers a wide range of solutions for measuring process variables for liquids, gases and bulk solids and protecting against overfill and dry run. SICK devices are rugged and easy to use. Innovative sensor technology enables accurate, universal measurement independent of material type.

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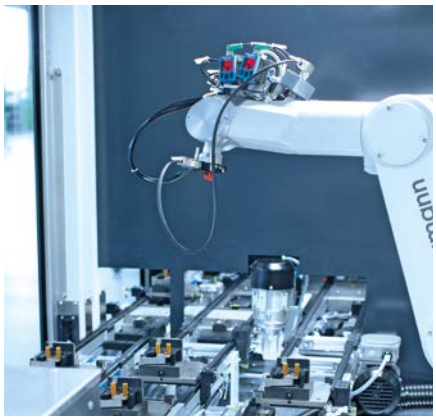
Intelligent solutions for level and point level measurement

Whether for continuous level measurement, point level measurement or both – SICK offers a wide range of solutions for process engineering, storage and protection. Depending on the installation, characteristics of the liquid or solid, and ambient conditions, SICK provides a comprehensive product portfolio and a high level of expertise for more efficient processing.



Universal pressure measurement for liquids and gases

SICK's portfolio of electronic pressure transmitters and switches can be optimally adapted to individual customer's requests thanks to its intelligent and versatile configuration possibilities. Typical of all solutions from SICK is the use of high-quality materials, robustness and precise measurement technology, in addition to being easy to operate and install.

Universal temperature measurement for liquids and gases

With its product portfolio of screw-in and insertion thermometers as well as temperature switches, SICK offers high-quality solutions for contact temperature measurement in liquids and gases. The devices can optimally be adapted to meet individual requirements due to their various insertion lengths and the flexible mechanical configuration possibilities.

Robust and precise – flow measurement technology from SICK

SICK provides innovative sensor solutions for flow measurement technology which combine flexible measuring methods and robust equipment design with cost-efficient connection concepts for higher-order systems. Whether you need to detect the current flow rate using analog values or find the quantity using pulse detection – SICK's flow sensors are always reliable and safe for a wide range of media and under difficult process and ambient conditions.

Efficient level and point level measurement technology

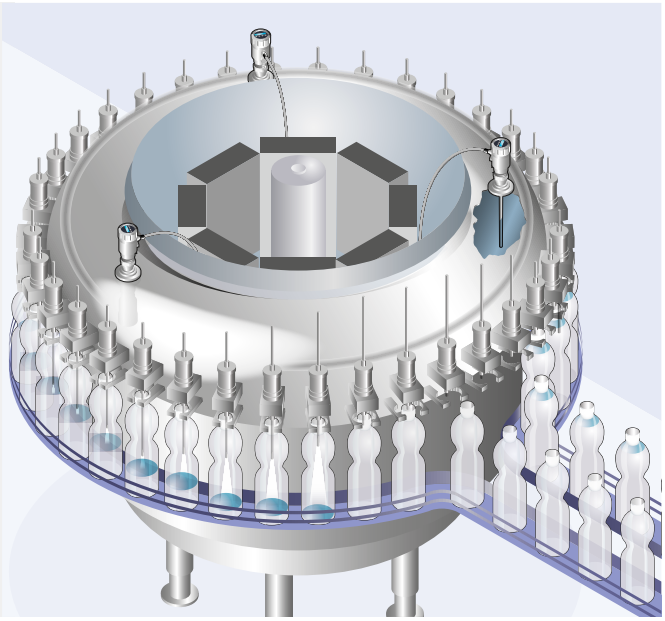
SICK's innovative offering includes guided radar sensors (TDR), ultrasonic equipment, capacitive sensors, vibration principle devices and various optical technologies. With SICK, the focus is on the optimum solution for your application. To do so, we offer a broad sensor portfolio.

Level measurement with LFP Inox

LFP Inox detects the level of storage containers to maintain the correct supply to the filling machine. Besides the aseptic design, the most important feature of this solution is fast, precise measurement.

Benefits:

- Quick response time
- High reproducibility
- Hygienic design
- High IP69 enclosure rating
- Simple installation



Pressure measurement in liquids and gases

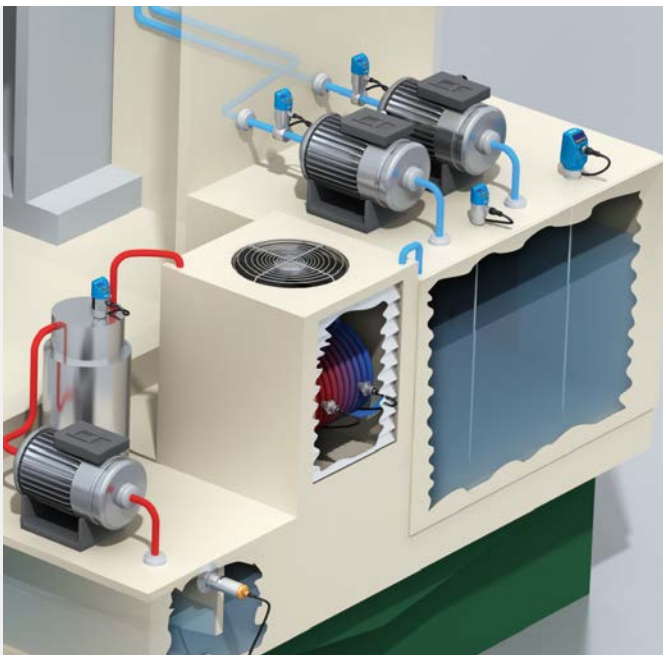
Measurement of pressure plays a central role in many areas of plant and mechanical engineering, the manufacturing industry, machine tooling, process engineering and the manufacture and processing of food and beverages.

Control of workpiece clamping pressure with PBS with IO-Link

In CNC machines, the workpieces are often clamped hydraulically. Electronic pressure switches such as the PBS make sure that the correct clamping pressure is applied.

Benefits:

- Pressure switch, pressure transmitter and display in one device
- Quick product changeover through setpoint adjustment via IO-Link
- Ergonomic: Legible display, large buttons and turnable housing
- Rugged and reliable
- Various installation options



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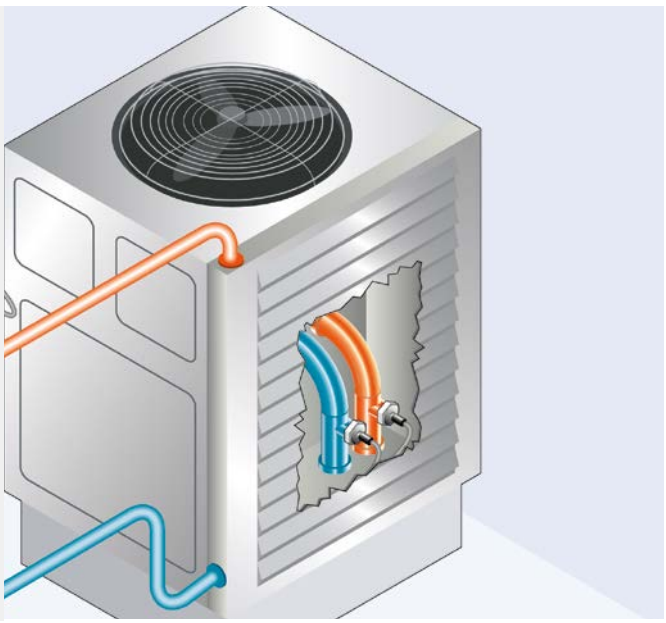
Universal temperature measurement

Whether monitoring operating conditions or controlling sensitive processes, the reliable and accurate measurement of the temperature is of vital importance in many industry segments.

Temperature control of cooling lubricants with TSP

Temperature sensors are employed in many areas. One example is the machine tool industry. Reliability and long-term stability of the thermometers is mandatory for reliable machine operation. To guarantee high quality machining of the work piece, the cooling lubricant is temperature-controlled. The SICK screw-in thermometer TSP is well-suited to measure the temperature of the cooling lubricant.

Benefits:
- Reliable
- Small dimensions
- Simple installation
- Cost-saving



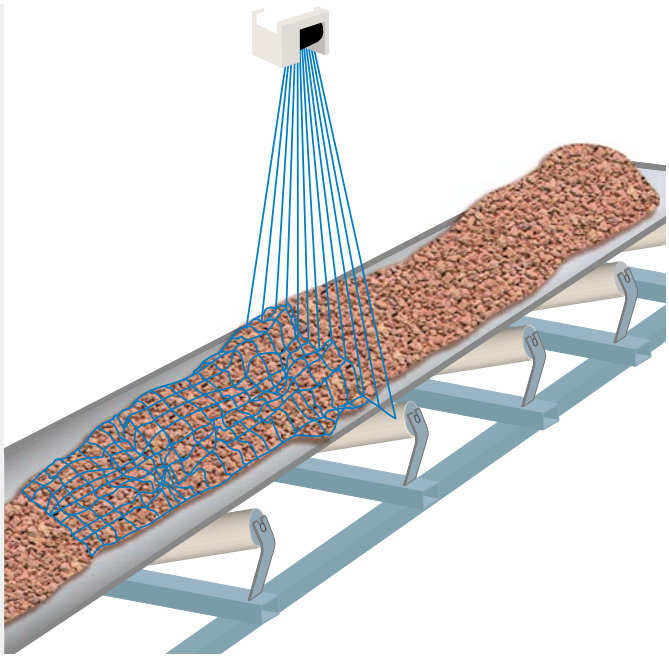
Flow and throughput measurement with modern technology

SICK's flow meters combine innovative, real-time measurements based on ultrasonic and laser technology. These non-contact technologies are particularly ideal for their flexibility in a wide range of applications.

Bulkscan®

The Bulkscan®, a non-contact measuring device that detects the profile of bulk material on the conveyor belt. The belt speed and the bulk material profile are then used to calculate a volume flow. This can be used to generate a rule for optimum belt speed to ensure economic belt usage.

Benefit:
- Low-maintenance throughput measurement
- Flexible use
- Optimum belt usage
- Belt monitoring to reduce belt wear (Bulkscan® LMS511)



			
	LFP Cubic	**LFP Inox**	**CFP Cubic**
	Flexible up to the probe tip	The clean solution	Multifunctional sensor for level and temperature measurement
Technical data overview			
Measurement principle	TDR sensor	TDR sensor	Capacitive sensor
Detection principle	Contact	Contact	Contact
Medium	Fluids	Fluids	Water and oil-based liquids
Measurement	Switch, continuous	Switch, continuous	Switch, continuous
Process temperature	–20 °C ... +100 °C	–20 °C ... +180 °C	–20 °C ... +80 °C
Process pressure	–1 bar ... +10 bar	–1 bar ... +16 bar	–0.5 bar ... +3 bar
Output signal	1 x PNP + 1 x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V / 1 x PNP + 3 x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V	1 x PNP + 1 x PNP/NPN + 4 mA ... 20 mA / 0 V ... 10 V	2 x PNP/NPN/Push-Pull 2 x PNP/NPN/Push-Pull + 4 mA ... 20 mA / 0 V ... 10 V 4 x PNP/NPN/Push-Pull + 2 x 4 mA ... 20 mA / 0 V ... 10 V
Accuracy of sensor element	± 5 mm	± 5 mm	± 15 mm
Measuring range	200 ... 2,000 mm (rod probe) 1,000, 2,000, 3,000, 4,000 mm (rope probe)	200 mm ... 4,000 mm	100 mm ... 1,000 mm
At a glance			
	• Level sensor for fluids • No mechanical moving parts • Manually cutable and exchangeable probe or rope probe • Resistant to deposit formation • 3 in 1: combined display, analog output (acc. NAMUR NE 43) and binary output • High enclosure rating of IP67, rotatable housing and remote amplifier version • IO-Link	• Level monitoring in hygienic applications • Manually cutable mono-probe with Ra ≤ 0.8 µm • CIP/SIP resistant • High enclosure rating IP67 and IP69, autoclavable • Interchangeable hygienic process connections • 3 in 1: combined display, analog output and binary output • Remote amplifier version with compact process connection • IO-Link	• Continuous level measurement and temperature measurement as well as level and temperature switches • Measurement irrespective of container material • Probe from 100 mm to 1,000 mm • Display and intuitive menu navigation • No mechanical moving parts • IP67 enclosure rating and IO-Link 1.1 • No dead zone along the measuring range
Detailed information	→ www.sick.com/LFP_Cubic	→ www.sick.com/LFP_Inox	→ www.sick.com/CFP_Cubic

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	UP56	UP56 Pure	MHF15
			
	Tough, non-contact, pressure-resistant	Pure reliability	Simple, compact and robust
	Ultrasonic sensor	Ultrasonic sensor	Optical level switch
	Non contact	Non contact	Contact
	Fluids	Fluids	Fluids
	Switch, continuous	Switch, continuous	Switch
	–25 °C ... +70 °C	–25 °C ... +85 °C	–25 °C ... +55 °C
	0 bar ... 6 bar, gauge pressure	0 bar ... 6 bar, gauge pressure, gauge pressure for mini	–0.5 bar ... +16 bar
	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V 2 x PNP 2 x NPN	1 x PNP + 4 mA ... 20 mA / 0 V ... 10 V / 4 mA ... 20 mA	1 x PNP / 1 x NPN
	–	–	–
	≤ 3.4 m	≤ 1,500 mm	–
	• 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 • IP67 enclosure rating • Easy to set parameters, also via connect+	• Ultrasonic level sensor with very high chemical resistance • Non-contact measurement in immersion pipe of up to 1,500 mm • PTFE-coated membrane and GF D40 process connection made of PTFE • Pressure resistant up to 6 bar, temperature resistant up to 85°C • Different sizes available • Analog output selectable between 4 mA to 20 mA and 0 V to 10 V • Switching output for monitoring the maximum and minimum limit	• Robust level monitoring in liquid without additional requirements • Small, compact design; no medium calibration required • Process temperature up to 55 °C, process pressure up to 16 bar • IP67 and IP69K enclosure rating • Process connection G ½ • Highly medium resistant due to stainless steel housing 1.4404, polysulfone apex • Output available as PNP or NPN transistor • FDA-compliant, UL
	→ www.sick.com/UP56	→ www.sick.com/UP56_Pure	→ www.sick.com/MHF15

			
	LFV200	**LFV300**	
	The Point Level Sensor for all kinds of liquids	Flexible and robust – Tuning Forks for all kinds of liquids	
Technical data overview			
Measurement principle	Vibrating level switch	Vibrating level switch	
Detection principle	Contact	Contact	
Medium	Fluids	Fluids	
Measurement	Switch	Switch	
Process temperature	–40 °C ... +150 °C	–50 °C ... +250 °C	
Process pressure	–1 bar ... +64 bar	–1 bar ... +64 bar	
Output signal	Contactless electronic switch 1 x PNP	Contactless electronic switch Double relay (DPDT) 1 x PNP/NPN NAMUR signal	
Accuracy of sensor element	± 2 mm	± 2 mm	
At a glance			
	• Housing made of 316L stainless steel • Two electrical output versions and IO-Link 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	• 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	
Detailed information	➜ www.sick.com/LFV200	➜ www.sick.com/LFV300	

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	LBV300	LBV301	LFH
			
	Tuning forks – tough and flexible in bulk solids	Rugged, flexible and cleanable	At a high level
	Vibrating level switch	Vibrating level switch	Level Probe
	Contact	Contact	Contact
	Bulk solids	Bulk solids	Fluids
	Switch	Switch	Continuous
	–50 °C ... +250 °C	–50 °C ... +150 °C	–10 °C ... +50 °C –10 °C ... +85 °C with FEP cable
	–1 bar ... +25 bar	–1 bar ... +16 bar	–
	Contactless electronic switch Double relay (DPDT) NAMUR signal 1 x PNP/NPN	Contactless electronic switch Double relay (DPDT) 1 x PNP/NPN NAMUR signal	Analog
	± 10 mm	± 10 mm	≤ ± 0.25 % of span for enhanced version p ≥ 0.25 bar ≤ ± 0.5 % of span for standard version and enhanced version p < 0.25 bar
	• 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- extended version (LBV320) up to 80 m available for vertical mounting	• Compact sensor from 1 in threaded • Monoprobe design prevents bulk materials from sticking and jamming • Polished monoprobe for food applications • Commissioning without filling • Process temperature up to 250 °C • ATEX versions (1D/2D/1G/2G) available • Tube-extended version (LBV331) up to 6 m and rope-extended version (LBV321) up to 80 m available for vertical mounting	• Immersion depth up to 100 m • Available with various cable lengths • Stainless steel membrane • Hermetically sealed stainless steel housing with PA protection cap • Cable made from PUR, FEP-cable for aggressive media optionally available • Optional temperature measurement with integrated Pt100 element • Optional surge protection
	➜ www.sick.com/LBV300	➜ www.sick.com/LBV301	➜ www.sick.com/LFH

				
	PBS	**PBS Hygienic**	**PAC50**	
	Universal pressure switch	The compact pressure switch for hygienic applications	Turns pressure into colors	
Technical data overview				
Device type	Pressure switch	Pressure switch	Pressure switch	
Process pressure				
Gauge pressure	0 bar ... 1 bar up to 0 bar ... 600 bar	0 bar ... 1 bar up to 0 bar ... 25 bar	0 bar ... 6 bar; 0 bar ... 10 bar	
Absolute pressure	0 bar ... 1 bar up to 0 bar ... 25 bar	0 bar ... 1 bar up to 0 bar ... 25 bar	–	
Compound pressure	–1 bar ... 0 bar up to –1 bar ... +24 bar	–1 bar ... 0 bar up to –1 bar ... +24 bar	–1 bar ... 0 bar; –1 bar ... +1 bar; 0 bar ... 6 bar; 0 bar ... 10 bar; –1 bar ... +10 bar	
Pressure unit	Bar, MPa, psi and kg/cm²	Bar, MPa, psi and kg/cm²	–	
Accuracy	≤ ± 1 % of span	≤ ± 1 % of span	≤ ± 1.5 % of span ≤ ± 2 % of span incl. temperature error	
Setting accuracy of switching outputs	≤ ± 0.5 % of span	≤ ± 0.5 % of span	≤ ± 0.2 % of span	
Output signal	Switching outputs PNP or NPN plus optional IO-Link and analog output signal	Switching outputs PNP or NPN, analog output signal plus optional IO-Link	Configurable switching outputs PNP, NPN or push-pull analog output signal plus optional IO-Link	
Electrical connection	Round connector M12 x 1	Round connector M12 x 1	Round connector M12 x 1	
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	• Hygienically-graded pressure switch with display for the food and beverage industry • Wetted parts are made from stainless steel 1.4435 • 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	• Electronic pressure switch for pneumatic applications • Large display shows system pressure, output states and set switching points • Three large function keys and intuitive menu navigation • Installation on a mounting rail, wall or in a control panel
Detailed information	➜ www.sick.com/PBS	➜ www.sick.com/PBS_Hygienic	➜ www.sick.com/PAC50	

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	PBT	PFT	PHT	PET
				
	All-around pressure transmitter	The flexible solution	A clean solution	If one is not enough
	Pressure transmitter	Pressure transmitter	Pressure transmitter	Pressure transmitter
	0 bar ... 1 bar up to bar ... 600 bar	0 bar ... 0.1 bar up to 0 bar ... 600 bar	0 bar ... 0.25 bar up to 0 bar ... 25 bar	0 bar ... 6 bar up to 0 bar ... 600 bar
	0 bar ... 1 bar up to 0 bar ... 25 bar	0 bar ... 0.25 bar up to 0 bar ... 25 bar	0 bar ... 0,25 bar up to 0 bar ... 16 bar	–
	–1 bar ... 0 bar up to –1 bar ... +24 bar	–1 bar ... 0 bar up to –1 bar ... +30 bar	–1 bar ... 0 bar up to –1 bar ... +15 bar	–1 bar ... +5 bar up to –1 bar ... +59 bar
	Bar, MPa, psi and kg/cm²	Bar, MPa, psi and kg/cm²	Bar, MPa, psi and kg/cm²	Bar, psi, kg/cm², kPa and Mpa
	≤ ± 1 % of span ≤ ± 0.5 % of span ≤ ± 0.6 % of span	≤ ± 0.5 % of span ≤ ± 0.25 % of span	≤ ± 0.5 % of span ≤ ± 0.25 % of span	≤ ± 1.2 % of span (at room temperature) ≤ ± 1.2 % of span
	–	–	–	–
	Analog	Analog	Analog	Analog
	Round connector M12 x 1, L-connector, flying leads	Round connector M12 x 1, L-connector, flying leads	Round connector M12 x 1, L-connector, flying leads, field housing	Round connector M12 x 1, 4-pin, for L-connector according to DIN EN 175301-803 A (without plug)
	• A large variety of available process connections • No moving parts: No mechanical wear, fatigue-proof, maintenance-free • Circularly welded, hermetically sealed stainless steel membrane • Electrical connection M12 x 1, L-connector acc. to DIN 175301-803 A or flying leads	• Variant with flush-mounted membrane available • Process temperature up to 150 °C (optional) • Large variety of commonly used process connections • High shock and vibration resistance • Accuracy 0.5 % or 0.25 % • Zero and span adjustable • Electrical connection M12 x 1, L-connector according to DIN 175301-803 A or flying leads	• 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/SIP resistant • Large range of hygienic process connectors • Stainless steel housing with enclosure rating of up to IP68	• Various output signals and electrical connections available • Common process connections available • High overpressure safety. Pressure peak protection available upon request for selected process connections. • Circularly welded, hermetically sealed stainless steel membrane • Stainless steel housing with enclosure rating up to IP67
	➜ www.sick.com/PBT	➜ www.sick.com/PFT	➜ www.sick.com/PHT	➜ www.sick.com/PET

			
	Bulkscan®	**T-Easic® FTS**	
	Non-contact and maintenance-free measurement of volume flow	Clever dry-run protection in pumps	
Technical data overview			
Measurement principle	Laser run time technology	Calorimetric measurement process	
Medium	Bulk solids	Water and oil-based liquids	
Output signal	Ethernet TCP/IP Switching inputs and outputs USB auxiliary interface RS-232/RS-422 (depending on type)	2 x push-pull digital outputs for flow and temperature (Q2 can be selected as digital input)	
Max. conveyor speed	≤ 20 m/s / ≤ 30 m/s	–	
Nominal width measuring tube	–	–	
Maximum adjustable measuring range	–	–	
At a glance			
	• Efficient and cost-effective non-contact measurement of volume and mass flow of bulk materials • Laser pulses with high angular resolution ensure outstanding image resolution • Multi-echo pulse evaluation produces highly reliable measurements • Integrated function for determining the center-of-gravity of the bulk material • Rugged design for harsh ambient conditions • Integrated heater allows measurement even at low temperatures • Compact IP67 rated housing	• Flow monitoring and temperature measurement in one sensor • Optimized for water and oil; teach-in option of other liquids • IP 67/IP 69 enclosure rating and IO-Link 1.1 • Industrial design in VISTAL® housing with 180°-rotatable OLED display • Stainless steel hygienic variant, completely CIP-/SIP-capable, process temperatures up to 150 °C	
Detailed information	➜ www.sick.com/Bulkscan	➜ www.sick.com/T-Easic_FTS	

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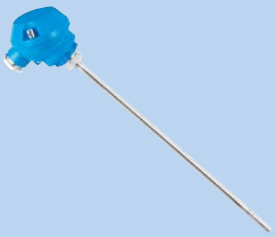
	FFU	DOSIC®
		
	Non-contact flow measurement	The compact stainless-steel sensor for flexible flow measurement
	Ultrasonic sensor	Ultrasonic sensor
	Fluids	Conductive and non-conductive liquids
	Analog output: 4 mA ... 20 mA, 0 mA ... 20 mA 1 pulse/status output	1 x analog output: 4 mA ... 20 mA, 2 x digital input or output (configurable)
	Analog output: 4 mA ... 20 mA, 0 mA ... 20 mA 2 pulse/status output 1 switching input	2 x analog output: 4 mA ... 20 mA, 2 x digital input or output (configurable)
	–	–
	NW 10 NW 15 NW 20 NW 25	DN 15 / DN 25
	0 l/min ... 240 l/min	0 l/min ... 250 l/min
	• 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	• Flow measurement for water and oil-based liquids • Seal-free stainless-steel 316L sensor with Ra ≤ 0.8 • Straight, self-draining measuring tube • Compact design with short installation lengths • Configurable digital outputs • Temperature measurement • IP67/69 enclosure rating, CIP/SIP-compatible, IO-Link version 1.1
	➜ www.sick.com/FFU	➜ www.sick.com/DOSIC

	 **TBS**	 **TBT**	 **TCT**	
	Temperature monitoring made easy	Well-proven temperature measurement	Compact, rugged, precise	
Technical data overview				
Process temperature	–20 °C ... +80 °C	–50 °C ... +150 °C –50 °C ... +250 °C	–50 °C ... +150 °C –50 °C ... +250 °C	
Accuracy of sensor element	≤ ± (0.15 °C + 0.002 |t|)	Class A according to IEC 60751	Class A according to IEC 60751	
Accuracy of optional transmitter	–	≤ ± 0.1 % of span	≤ ± 0.2 % of span	
Signal outputs and maximum ohmic load R_A	Transistor outputs PNP/NPN, optional analog output 4 mA ... 20 mA or 0 V ... 10 V	Pt100, 4-wire, 4 mA ... 20 mA, 2-wire ($R_A \leq (L^+ - 10\ V) / 0.028\ A$ [Ohm])	Pt100, 4-wire, 4 mA ... 20 mA, 2-wire ($R_A \leq (L^+ - 9\ V) / 0.023\ A$ [Ohm])	
Electrical connection	Round connector M12 x 1, 4-pin Round connector M12 x 1, 5-pin	Cable gland M16 x 1.5, IP65 Cable gland M16 x 1.5, IP67	Round connector M12 x 1, 4-pin, IP67, L-connector (DIN EN 175301-803 A), 4 pin, IP65	
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 IP65 and IP67 • IO-Link	• 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 • Pt100 (4-wire) or 4 mA ... 20 mA (2-wire) • Cable gland M16 x 1.5	• 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 (IP67) or L-connector according to DIN EN 175301-803 A (IP65)	
Detailed information	➜ www.sick.com/TBS	➜ www.sick.com/TBT	➜ www.sick.com/TCT	

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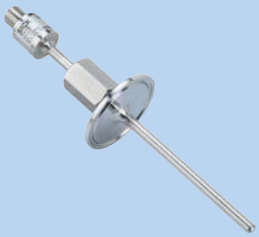
	TSP	THTS	THTE	THTL
				
	Efficient and space saving temperature measurement	Simple, hygienic temperature measurement	Hygienic and flexible: Temperature sensor with protection tube	Perfect fit: Hygienic temperature measurement in pipes
	–30 °C ... +130 °C	–50 °C ... +150 °C –50 °C ... +250 °C	–50 °C ... +150 °C –50 °C ... +250 °C	–50 °C ... +150 °C
	Class B according to IEC 60751	Class A according to IEC 60751	Class A according to IEC 60751	Class A according to IEC 60751
	–	≤ ± 0.2 % of span	≤ ± 0.2 % of span	≤ ± 0.2 % of span
	Pt100, 2-wire or Pt1000, 2-wire Pt100, 3-wire or Pt1000, 3-wire	Pt100, 4-wire, 4 mA ... 20 mA, 2-wire (R_A ≤ (L^+ – 10 V) / 0.023 A [Ohm])	Pt100, 4-wire, 4 mA ... 20 mA, 2-wire (R_A ≤ (L^+ – 10 V) / 0.023 A [Ohm])	Pt100, 4-wire, 4 mA ... 20 mA, 2-wire (R_A ≤ (L^+ – 10 V) / 0.023 A [Ohm])
	Round connector M12 x 1, 4-pin, IP67	Round connector M12 x 1, 4-pin	Round connector M12 x 1, 4-pin	Round connector M12 x 1, 4-pin
	• Platinum element (Pt100 or Pt1000, 2-wire or 3-wire), accuracy class B according to IEC 60751 • Measuring range –30 °C ... +130 °C • Various connection threads and insertion lengths • Wetted parts made from stainless steel 1.4305 • Circular connector M12 x 1 (IP67)	• Pt100 element, accuracy class A (IEC 60751) • Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C • Wetted parts: Corrosion-resistant stainless steel 316L/1.4435, R_a ≤ 0.8 µm • Various hygienic process connections and insertion lengths • Pt100 (4-wire) or 4 mA ... 20 mA (2-wire) • Round connector M12 x 1	• 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 ≤ 0.8 µm • Hygienic process connections • Pt100 (4-wire) or 4 mA ... 20 mA (2-wire) • Round connector M12 x 1	• Pt100, accuracy class A (IEC 60751) • Measuring ranges –50 °C ... +150 °C and –50 °C ... +250 °C • In-line housing for orbital welding in pipe • Sensor probe spring-loaded in thermowell • Wetted parts: Corrosion-resistant • Stainless steel 316L/1.4435, R_a ≤ 0.8 µm • Pt100 (4-wire) or 4 mA ... 20 mA (2-wire) • Round connector M12 x 1
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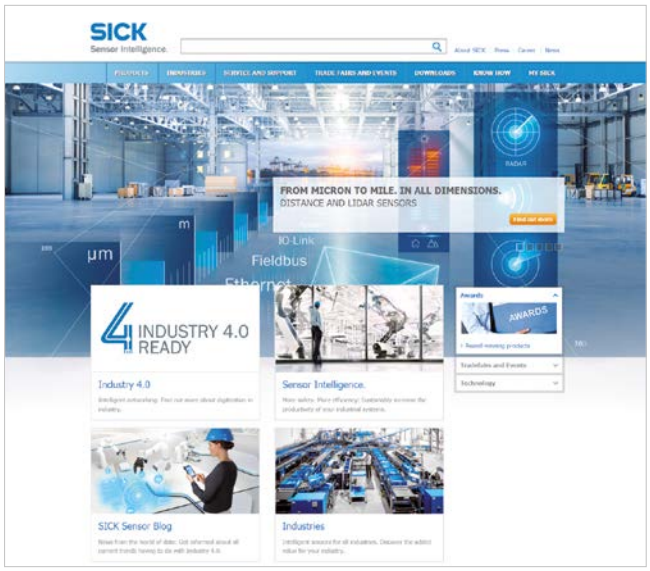

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