PRODUCT INFORMATION

GM901
Carbon Monoxide Gas Analyzers

CO MEASUREMENT FOR EMISSION MONITORING AND PROCESS CONTROL

In-situ Gas Analyzers

SICK
Sensor Intelligence.

It is generally accepted that measuring carbon monxide levels is a crucial activity. SICK once again proves the supplier of choice in this field, thanks to the high-performance solution it offers as part of its product portfolio: the GM901 in-situ gas analyzer. With its wide range of applications, this represents a virtually indispensable component when it comes to emissions monitoring and process control – and for just some of the proof of its capabilities, look no further than the over 1,000 installations in which it features worldwide.

Functionality and areas of application

The GM901 gas analyzer operates with exceptional efficiency. Thanks to its innovative in-situ measuring technology, it can be installed directly at the measuring site in question. Its straightforward installation, commissioning, and project planning methods keep costs down and save time – as do its low maintenance requirements.

The GM901 in-situ gas analyzer's strengths come to the fore no matter where it is installed – power plants, coal processing facilities, cement industry systems, waste incineration plants, chemical industry systems, or even food industry facilities. And it is even designed primarily for difficult measuring tasks such as high dust loads, overpressure, critical flow profiles or high measuring gas concentrations.

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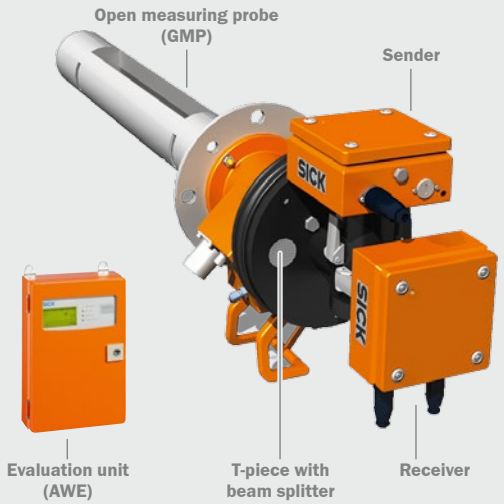
Product versions

The GM901 in-situ gas analyzer is available with a measuring probe and in a cross duct version:

GM901 – version with measuring probe

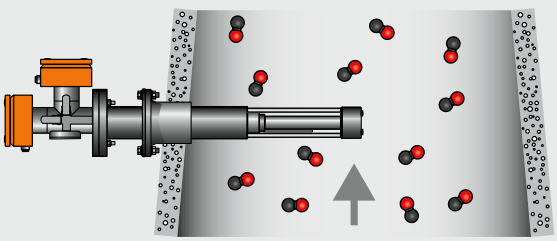


System components

- Sender and receiver
- T-piece with beam splitter
- GPP measuring probe (gas permeable probe, verifiable using test gases) or GMP measuring probe (open aperture, purge air unit necessary)
- Evaluation unit

Optional components

- PROFIBUS interface
- Optical alignment unit, CO test cells, flange plate, PT100 sensor
- Purge air unit for GMP probe, for protecting sender and receiver



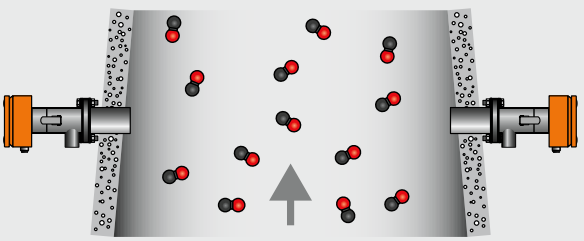
GM901 – cross duct version

System components

- Sender and receiver
- Evaluation unit

Optional components

- PROFIBUS interface
- Optical alignment unit, CO test cells, flange plate, PT100 sensor
- Purge air unit for protecting sender and receiver



CO MEASUREMENT FOR EMISSION MONITORING AND PROCESS CONTROL

Product description

The GM901 gas analyzer is available as a cross-duct or probe type. As a result, it is suited to a broad range of applications – even for difficult measuring tasks such as high dust loads, overpressure, critical flow profiles or high measuring gas concentrations.

At a glance

- Representative measurement across the duct
- Operation via evaluation unit
- Short response times
- Verifiable with gas-filled cuvette; gas testable probe with test gas

Your benefits

- Measurement results in real time due to in-situ measurement
- Fast and simple installation and commissioning
- Easy, user-friendly operation
- Economical due to low maintenance

CE

Additional information

→ www.mysick.com/en/GM901

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

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Fields of application

- Optimization of all kinds of combustion processes
- CO monitoring in coal mills
- Process monitoring in food industry
- Control of small boiler facilities
- Optimization of biomass combustion plants
- Roasting processes

Detailed technical data

The exact device specifications and performance data of the product may deviate from the information provided here, and depend on the application in which the product is being used and the relevant customer specifications.

GM901 Cross-duct system

Description	Cross-duct version
Measured values	CO
Maximum number of measurands	1
Measurement principles	Gas filter correlation
Length of measuring path	0.5 m ... 8 m
Measuring ranges	
CO	0 ... 500 ppm / 0 ... 20,000 ppm Relative to 1 m measuring path
Response time	5 s ... 360 s
Accuracy	± 5 % Of measuring range full scale
Process temperature	≤ +250 °C With extended calibration: ≤ +430 °C
Process pressure	≤ 30 hPa Depending on purge air supply
Process gas humidity	Non-condensing
Ambient temperature	–20 °C ... +55 °C
Conformities	TUEV type-examination
Electrical safety	CE
Enclosure rating	IP 65
Power supply	
Voltage	115 V / 230 V
Frequency	50 Hz / 60 Hz
Power consumption	≤ 75 W
Test functions	Manual span check with gas-filled cuvette

Sender

Description	Sender unit of the cross-duct measuring system
Dimensions (W x H x D)	150 mm x 169 m x 240 m
Weight	3 kg Including purge air fixture

Receiver

Description	Receiver unit of the cross-duct measuring system
Dimensions (W x H x D)	150 mm x 169 m x 404 m
Weight	3 kg Including purge air fixture

GM901 evaluation unit; steel sheet enclosure

Description	The evaluation unit serves as user interface and is responsible for data processing and output as well as control and monitoring functions
Enclosure rating	IP 65 / NEMA 4x
Analog outputs	1 output: 0/4 ... 20 mA, 500 Ω Electrically isolated
Analog inputs	1 input: 0 ... 20 mA, 100 Ω
Digital outputs	2 relay contacts: 150 V AC, 1 A, 60 W / 125 V DC, 1 A, 30 W
Digital inputs	1 input: 5 V, 2 mA
Interfaces	RS-232 (service interface)
Bus protocol	CAN (internal system bus) PROFIBUS DP (option)
Indication	LC display Status LEDs: “Operation”, “Service”, “Warning” and “Malfunction”
Input	Arrow keys Functional keys
Model	Steel sheet enclosure
Dimensions (W x H x D)	200 mm x 346 mm x 97.5 mm
Weight	4.3 kg
Power supply	
Voltage	115 V / 230 V
Frequency	50 Hz / 60 Hz
Power consumption	≤ 50 W

Connection unit

Description	To lengthen the internal CAN-Bus connection with cable provided by the customer
Bus protocol	CAN (internal system bus)
Dimensions (W x H x D)	175 mm x 110.5 mm x 175 mm
Weight	≤ ± 3 kg
Power supply	
Voltage	115 V / 230 V
Frequency	50 Hz / 60 Hz
Integrated components	Integrated 24 V power supply for sender/receiver unit

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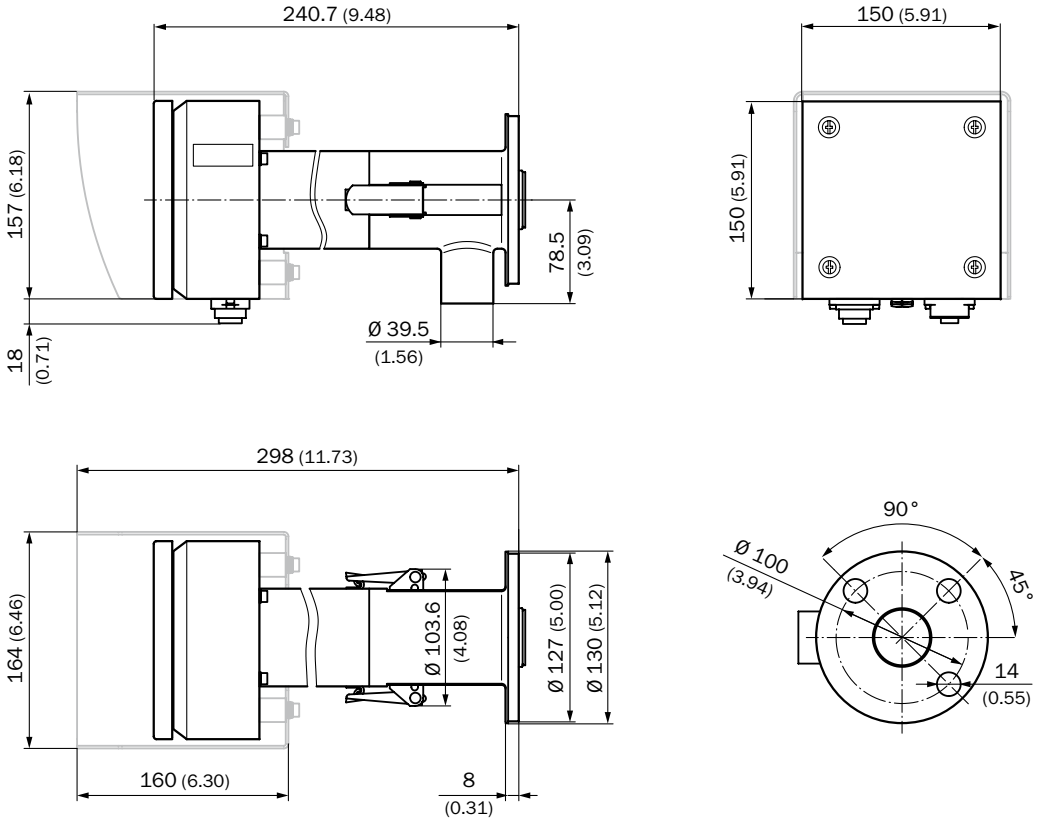
Ordering information

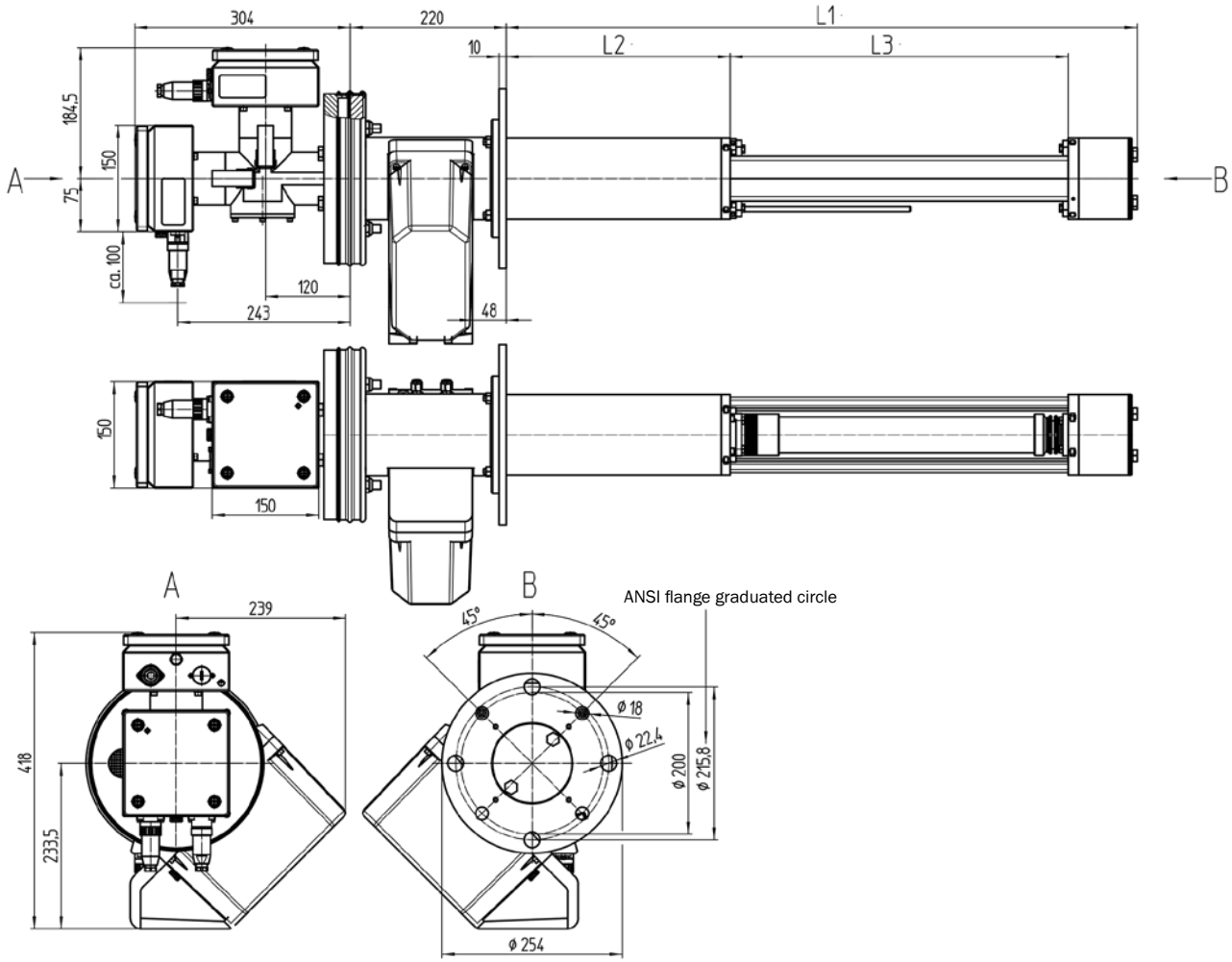
Our regional sales organization will help you to select the optimum device configuration.

Dimensional drawings (Dimensions in mm (inch))

GM901 sender and receiver unit



Sender receiver, T adapter piece and gas testable probe (GPP)



GPP measuring probes		Measuring gap L3 (active measuring path)	
		227	477
Probe length, nominal	L1	L2	
1,100	890	566	316
Application-specific lengths available on request			

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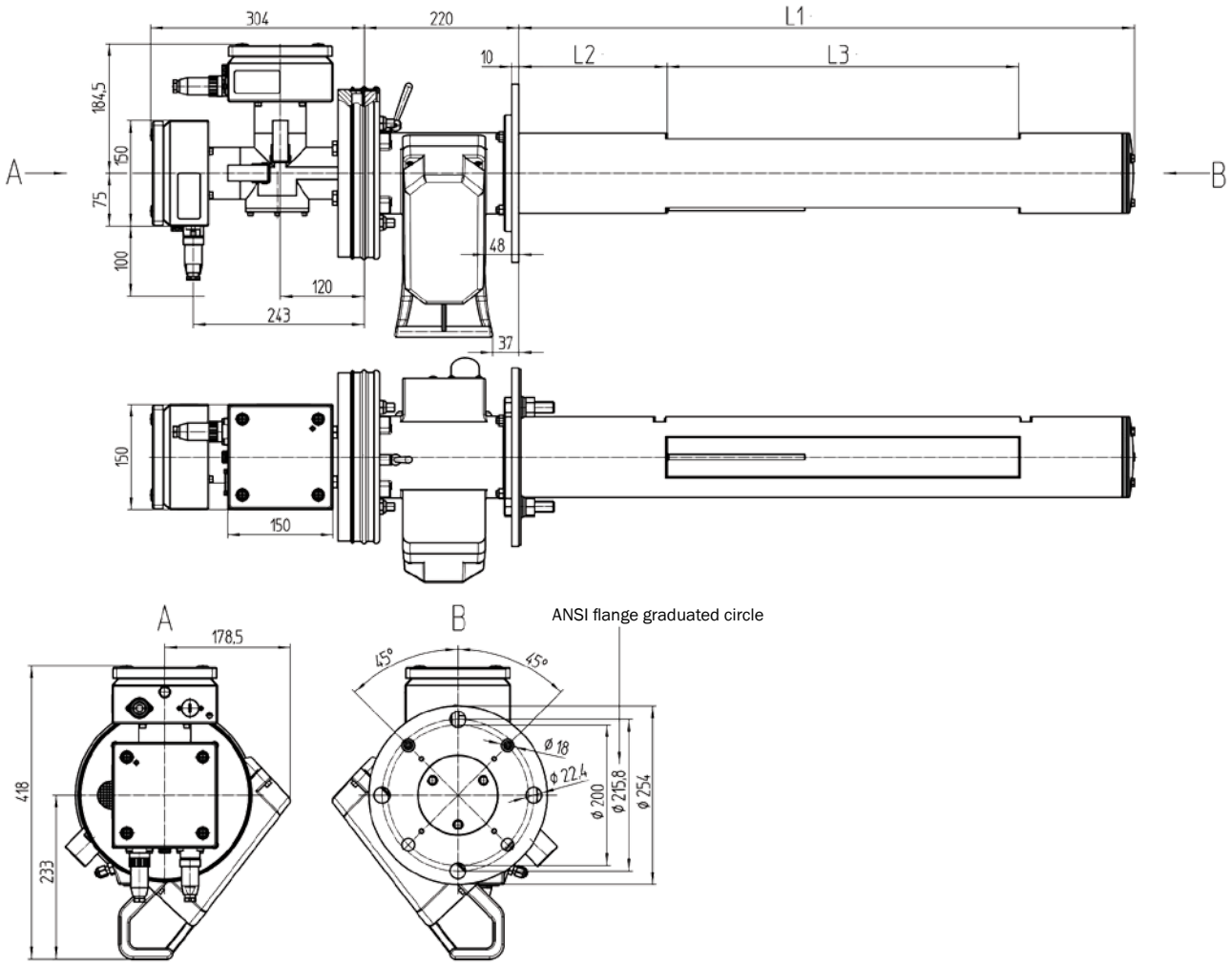
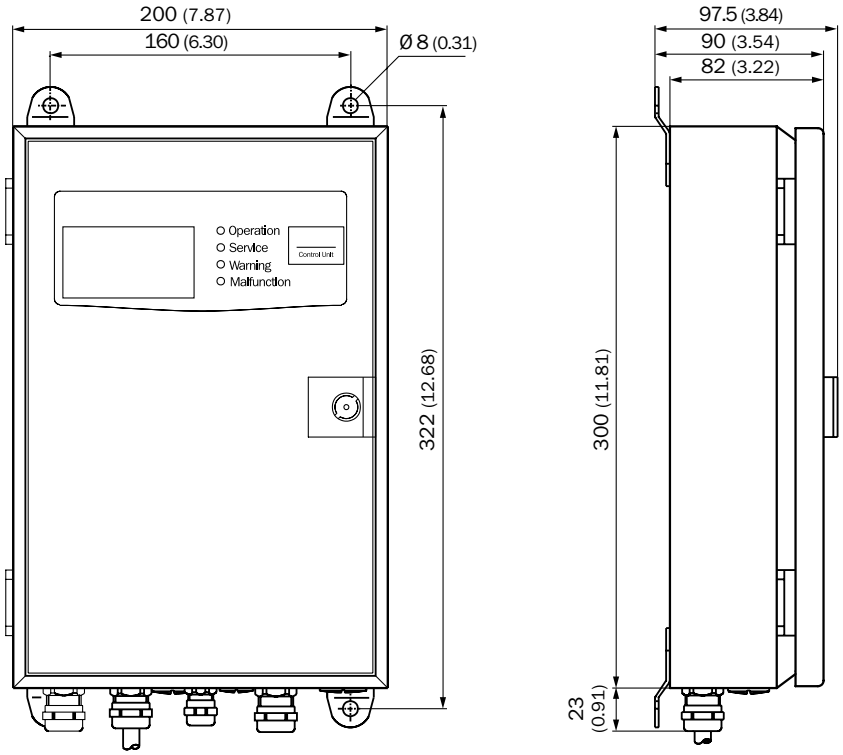
Sender, Empfänger, T-Stück und offene Messlanze (GMP)

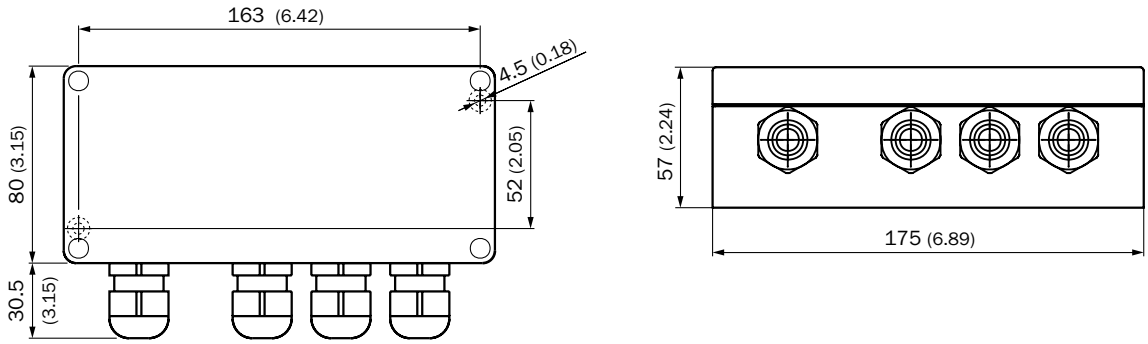


GMP measuring probes		Measuring gap L3 (active measuring path)	
		250	500
Probe length, nominal	L1	L2	
1,100	876	461	211
All dimensions in mm Application-specific lengths available on request			

Evaluation unit; steel sheet enclosure



Connection unit



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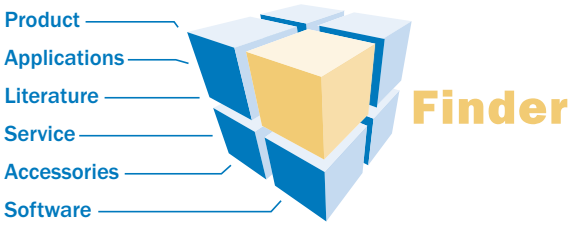
WWW.MYSICK.COM – SEARCH ONLINE AND ORDER

Search online quickly and safely – with the SICK "Finders"



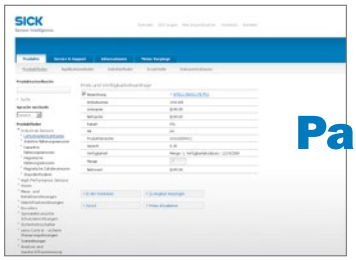
Product Finder: We can help you to quickly target the product that best matches your application.

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 products from SICK.

These and other "Finders" at ➜ www.mysick.com

Efficiency – with the e-commerce tools from SICK



Partner Portal
www.mysick.com

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.

SERVICES FOR MACHINES AND SYSTEMS: SICK LifeTime Services

Our comprehensive and versatile LifeTime Services are the perfect addition to the comprehensive range of products from SICK. The services range from product-independent consulting to traditional product services.

Consulting & Design
Safe and professional

Product & System Support
Reliable, fast and on-site

Verification & Optimization
Safe and regularly inspected

Upgrade & Retrofits
Easy, safe, economical

Training & Education
Practical, focused and professional

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SICK AT A GLANCE

SICK is a leading manufacturer of intelligent sensors and sensor solutions for industrial applications. With more than 6,500 employees and over 50 subsidiaries and equity investments as well as numerous representative offices 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, Austria, Belgium/Luxembourg, Brazil, Czech Republic, Canada, China, Denmark, Finland, France, Germany, Great Britain, Hungary, India, Israel, Italy, Japan, Mexico, Netherlands, Norway, Poland, Romania, Russia, Singapore, Slovenia, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Turkey, United Arab Emirates, USA

Detailed addresses and additional representatives → www.sick.com

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