



V2D632P-2MXCXB0

InspectorP63x

2D MACHINE VISION

SICK
Sensor Intelligence.



Ordering information

| Type | Part no. |
|-----------------|----------|
| V2D632P-2MXCXB0 | 1082300 |

Other models and accessories → www.sick.com/InspectorP63x



Detailed technical data

Features

| | |
|---------------------------|---|
| Task | Classification Identifying Position determination 1D code 2D code Presence inspection Quality check Measuring, 2D OCR |
| Technology | 2D snapshot |
| Product category | Programmable |
| SensorApp | Nova InspectorP |
| License included | Quality Inspection License Optional upgrade with the Intelligent Inspection Upgrade License, which enables productive use of the complete toolset. |
| Toolkit | HALCON |
| Sensor | CMOS matrix sensor, grayscale values |
| Shutter technology | Global-Shutter |
| Optical focus | Adjustable focus |
| Illumination | To be ordered separately as accessories |
| Alignment aid | Laser, Red, 630 nm ... 680 nm |
| Laser class | 1, complies with 21 CFR 1040.10 except for the conformance according to "Laser Notice No. 50" from June 24, 2007 (IEC 60825-1:2014, EN 60825-1:2014) |
| Spectral range | Approx. 400 nm ... 900 nm |
| Lens | C-mount |

| | |
|----------------|---|
| Optical format | 1/1.8" |
| Note | To be ordered separately as accessories |

Mechanics/electronics

| | |
|-------------------------------|---|
| Connection type | 1 x M12, 17-pin male connector (serial, I/Os, voltage supply) 1 x M8, 4-pin female connector (USB, not used) 1 x M12, 8-pin female connector (gigabit Ethernet) 1 x M8, 4-pin female connector (external illumination) |
| Supply voltage | 12 V DC ... 24 V DC, ± 20 % |
| Power consumption | Typ. 10 W, ± 20 % |
| Enclosure rating | IP67 (EN 60529 (1991-10), EN 60529/A2 (2002-02)) |
| Protection class | III (EN 60950-1 (2014-08)) |
| Housing material | Aluminum die cast |
| Window material | PMMA |
| Weight | 430 g |
| Dimensions (L x W x H) | 108 mm x 63 mm x 46 mm ¹⁾ |

¹⁾ Housing only, without lens and optics protection hood.

Performance

| | |
|--------------------------|----------------------------------|
| Sensor resolution | 1,600 px x 1,200 px (1.9 Mpixel) |
| Scan/frame rate | 50 Hz |

Interfaces

| | |
|-----------------------------------|---|
| Serial | ✓, RS-232, RS-422 |
| Data transmission rate | 300 Baud ... 115.2 kBaud |
| Ethernet | ✓, TCP/IP |
| Function | FTP, HTTP |
| Data transmission rate | 10/100/1,000 Mbit/s |
| CAN | ✓ |
| Function | SICK CAN sensor network (CAN controller/CAN device) |
| EtherNet/IP™ | ✓ |
| Data transmission rate | 10/100/1,000 Mbit/s |
| PROFINET | ✓ |
| Function | PROFINET Single Port, PROFINET Dual Port (optional via external connection module CDF600-2) |
| Data transmission rate | 10/100 MBit/s |
| Operator interfaces | Web server |
| Configuration software | SICK AppStudio |
| Data storage and retrieval | Image and data logging via microSD memory card and external FTP |
| Inputs/outputs | 2 opto-decoupled inputs, 4 inputs/outputs, configurable |
| Output current | ≤ 100 mA |
| Maximum encoder frequency | 1 kHz |
| External illumination | Via digital output (max. 24 V trigger) or external illumination connection |
| Control elements | 2 buttons |
| Optical indicators | 11 LEDs (5 x status display, 5 x LED bar graph, 1 green/red feedback spot) |

| | |
|----------------------------|--------|
| Acoustic indicators | Beeper |
|----------------------------|--------|

Ambient data

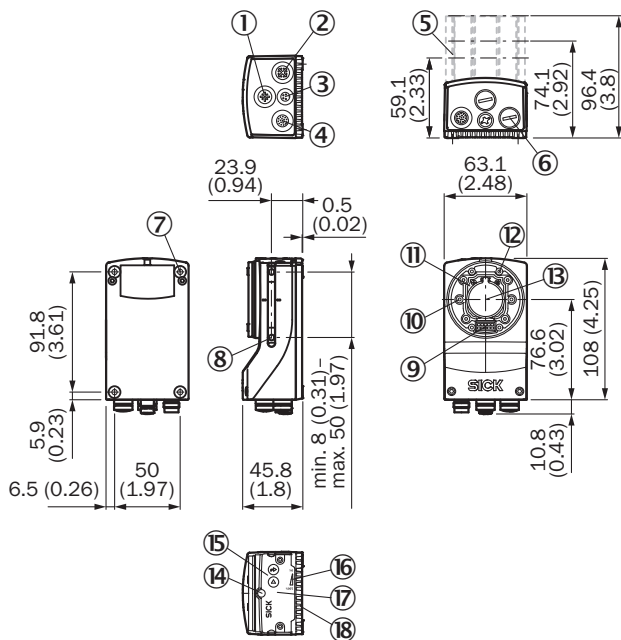
| | |
|--------------------------------------|---------------------------------|
| Shock load | EN 60068-2-27:2009-05 |
| Vibration load | EN 60068-2-6:2008-02 |
| Ambient operating temperature | 0 °C ... +50 °C ¹⁾ |
| Storage temperature | -20 °C ... +70 °C ¹⁾ |

¹⁾ Permissible relative air humidity: 0 % ... 90 % (non-condensing).

Classifications

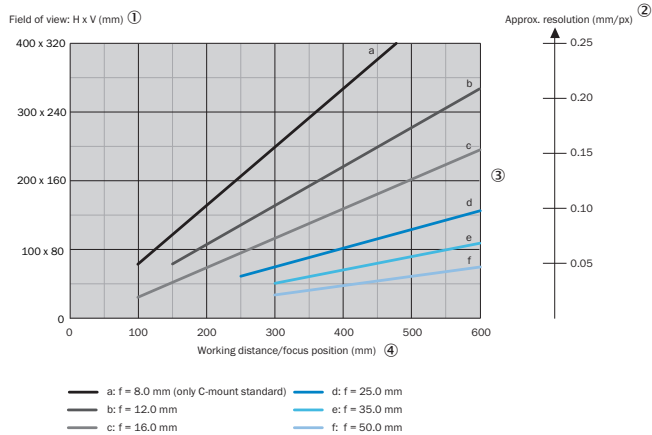
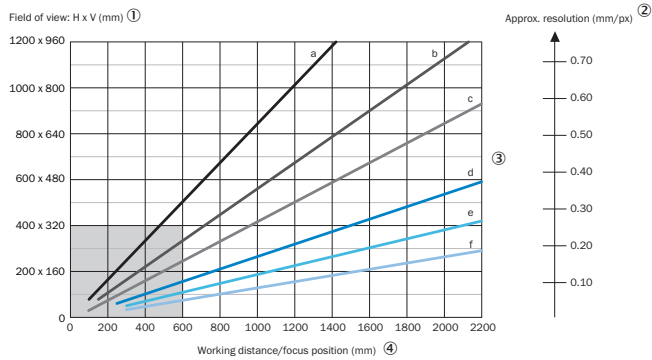
| | |
|-----------------------|----------|
| ECLASS 5.0 | 27310205 |
| ECLASS 5.1.4 | 27310205 |
| ECLASS 6.0 | 27310205 |
| ECLASS 6.2 | 27310205 |
| ECLASS 7.0 | 27310205 |
| ECLASS 8.0 | 27310205 |
| ECLASS 8.1 | 27310205 |
| ECLASS 9.0 | 27310205 |
| ECLASS 10.0 | 27310205 |
| ECLASS 11.0 | 27310205 |
| ECLASS 12.0 | 27310205 |
| ETIM 5.0 | EC001820 |
| ETIM 6.0 | EC001820 |
| ETIM 7.0 | EC001820 |
| ETIM 8.0 | EC001820 |
| UNSPSC 16.0901 | 43211731 |

Dimensional drawing (Dimensions in mm (inch))



- ① "External light" connection (external illumination unit, female connector, M12, 4-pin, A-coded)
- ② "Ethernet" connection (Gigabit Ethernet, female connector, M12, 8-pin, X-coded)
- ③ "USB" connection (female connector, type M8, 4-pin), for temporary use as a service interface only
- ④ "Power/Serial Data/CAN/I/O" connection (male connector, M12, 17-pin, A-coded)
- ⑤ Optics protection hood (length: 22.7 mm, 37.7 mm or 60 mm)
- ⑥ 4 protective caps for sealing off the electrical connections as required for enclosure rating IP67 (delivery condition)
- ⑦ 4 tapped blind holes, M5, 5.5 mm deep for mounting the device
- ⑧ 2 sliding nuts, M5, 5.5 mm deep, as an alternative method of mounting the device
- ⑨ Connection for an integrable illumination unit (VI55I ring illumination unit)
- ⑩ 2 laser alignment aids
- ⑪ S-mount or C-mount optics module
- ⑫ 4 blind tapped holes, 2.5 mm for mounting the spacers for the integrable illumination (VI55I ring illumination unit)
- ⑬ Optical axis and center of the image sensor
- ⑭ Basic device: Manual focus screw for an S-mount lens, accessible via the round opening in the housing cover. To secure the focus setting, cover the round opening with a self-adhesive label. Complete device: The opening is already covered by a label.
- ⑮ 2 function keys
- ⑯ 5 bar graph LEDs
- ⑰ Hinged cover on the top side of the device, access to the microSD memory card and the manual focus screw (S-mount)
- ⑱ 5 status LEDs (2 levels)

Field of view



For S-mount and standard C-mount lenses, spacer rings are needed for working distances shorter than approximately 10 times the focal length. For compact C-mount lenses, spacer rings are not needed, but the built-in illumination cannot be used for distances shorter than 300 mm.

- ① Field of view: Horizontal x vertical in mm
- ② Approximate resolution in mm/px
- ③ Lens focal length
- ④ Working distance/Focus position in mm

Selection Guide



Body, incl. C-mount module

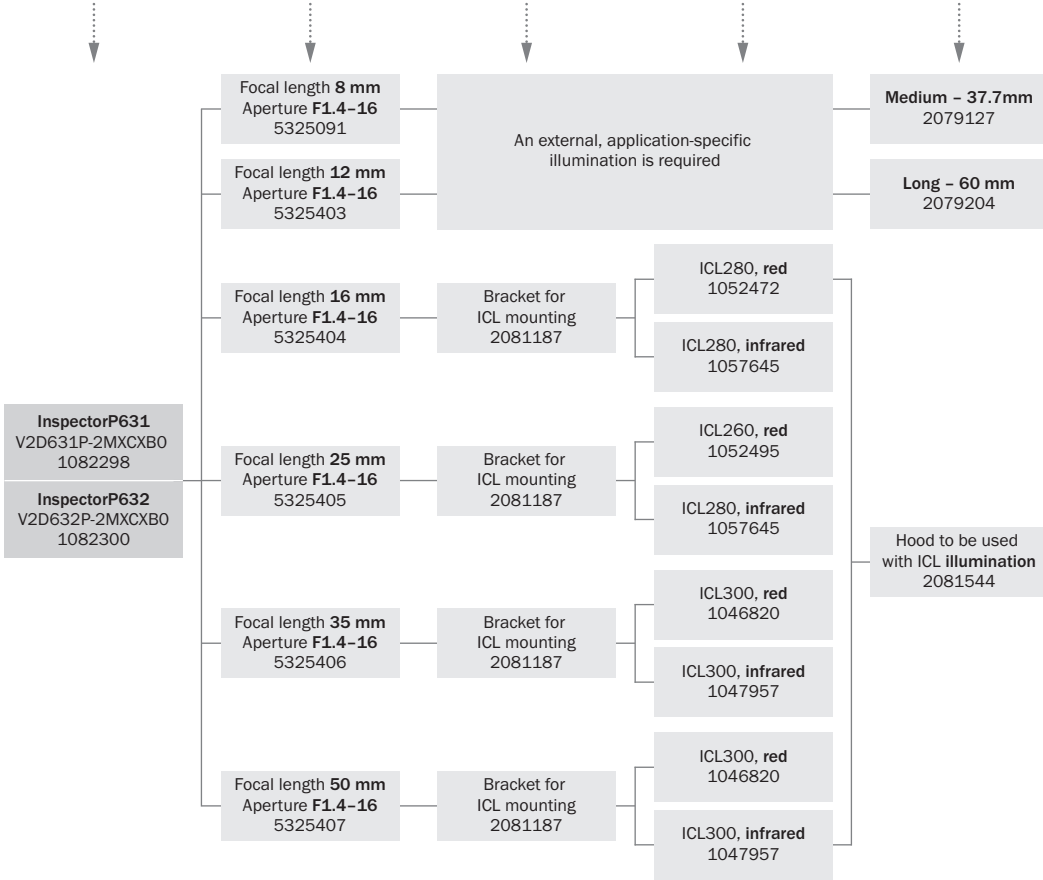
C-mount lens

Mounting bracket

External illumination

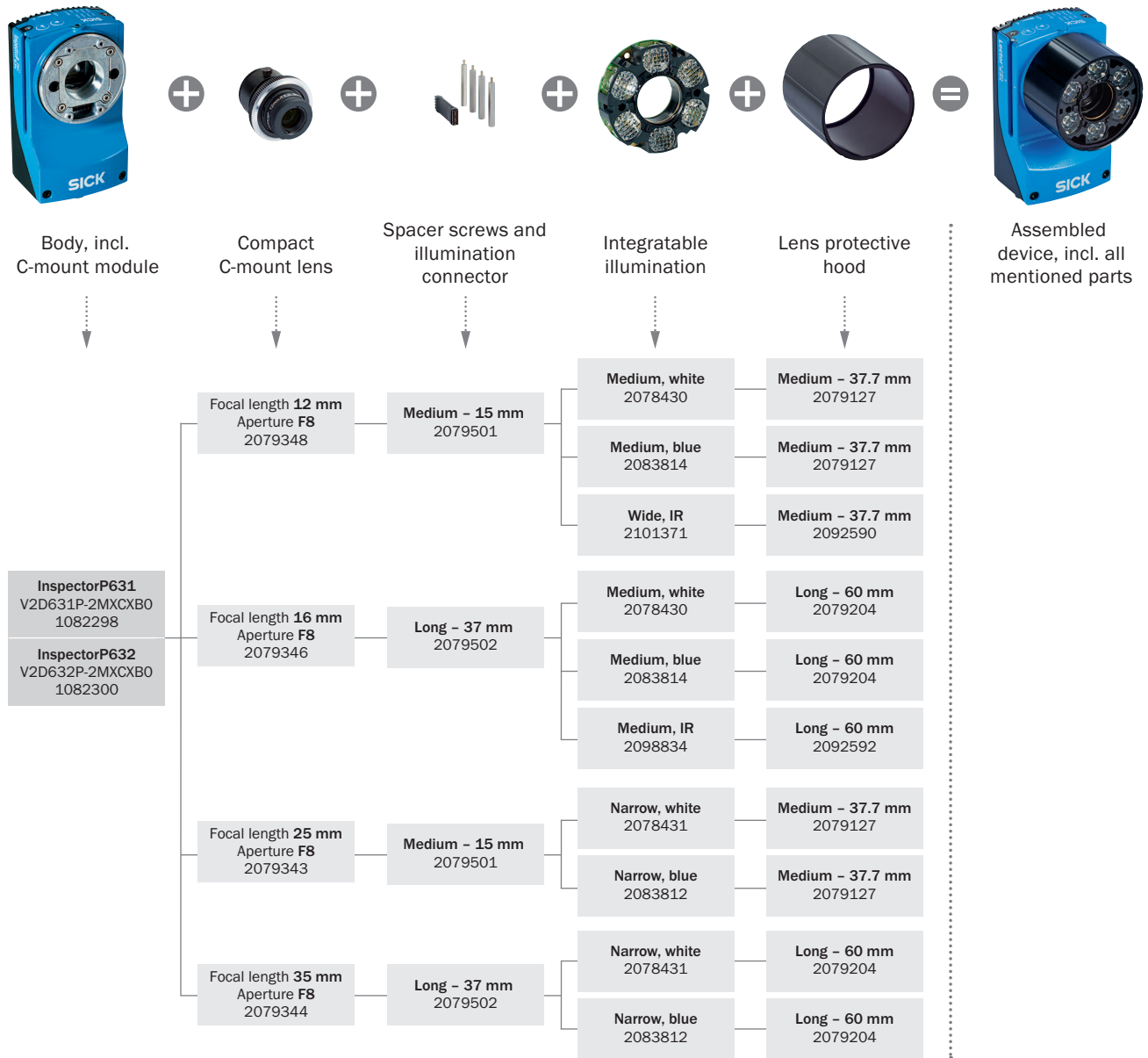
Lens protective hood

Assembled device, incl. all ICL parts



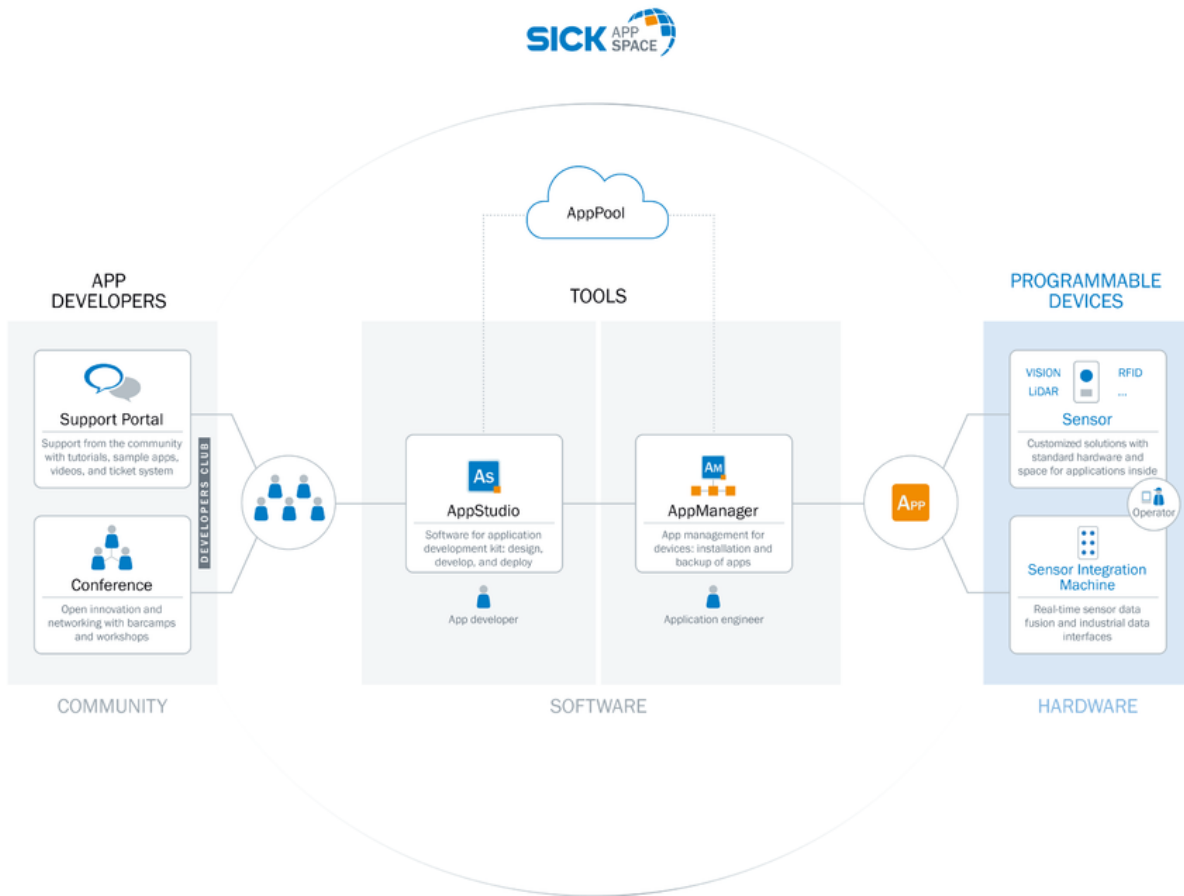
V2D632P-2MXCB0 | InspectorP63x

2D MACHINE VISION






Overview







SICK AppSpace



Recommended accessories

Other models and accessories → www.sick.com/InspectorP63x

| | Brief description | Type | Part no. |
|---|--|-------------------------------|----------|
| Lenses and accessories | | | |
|  | Compact C-mount 2/3", focal length 12 mm, aperture 8 | C-mount lens | 2079348 |
|  | Distance bracket and light extension connector (medium) for mounting integratable lighting, length 15 mm, used with compact C-mount lenses with focal length of 12 mm or 25 mm and S-mount lens with focal length 25mm | Distance bracket | 2079501 |
|  | Optics protection hood, medium, enclosure rating IP 67, length: 37.7 mm, PMMA, for use with compact C-mount lens with focal length 12 mm or 25 mm and S-mount lens with focal length 25 mm | Optics protection hood (PMMA) | 2079127 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
| Illuminations | | | |
|  | Integratable lighting, lighting color white, medium, suitable for S-mount and compact C-mount lenses with a focal length of 12 mm, 16 mm and 17.5 mm | VI55I-WH1441M0 | 2078430 |
| Mounting brackets and plates | | | |
|  | Mounting bracket set consisting of mounting bracket, cooling plate, includes angle display for setting the tilt angle | Mounting bracket | 2076735 |
| Other mounting accessories | | | |
|  | Sliding nut, M5, short | Sliding nut | 5324896 |
| Plug connectors and cables | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Male connector, M12, 8-pin, straight, X-coded • Connection type head B: Male connector, RJ45, 8-pin, straight • Signal type: Ethernet, Gigabit Ethernet • Cable: 2 m, 8-wire, PUR, halogen-free • Description: Ethernet, Gigabit Ethernet, shielded • Application: Zones with oils and lubricants | YM2X18-020EG1MRJA8 | 2106258 |
| Others | | | |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 17-pin, straight, A-coded • Connection type head B: Male connector, M12, 17-pin, straight, A-coded • Signal type: Power, serial, CAN, digital I/Os • Cable: 3 m, 17-wire • Description: Power, serial, CAN, digital I/Os, suitable for 2 A, shielded, to connection module CDB650 • Application: Drag chain operation | YM2A8D-030XXXF2A8D | 6051194 |
| Modules | | | |
|  | <ul style="list-style-type: none"> • Sub product family: CDB650 • Supported products: Lector[®] series, CLV62x - CLV64x (depending on type), CLV69x, RFID read/write device, InspectorP series • Brief description: Connection device basic for connecting one sensor with 2 A fuse, 5 cable glands and RS-232 interface to sensor via M12, 17-pin female connector, all outputs available on screw/spring-loaded terminals. | CDB650-204 | 1064114 |

Recommended services

Additional services → www.sick.com/InspectorP63x

| | Type | Part no. |
|--|--|----------|
| Extended warranty | | |
| <ul style="list-style-type: none"> • Product area: Identification solutions, machine vision, Detection and ranging solutions, safety camera sensors, Safety laser scanners, Safety radar sensors • Range of services: The services correspond to the scope of the statutory manufacturer warranty (SICK general terms of delivery). • Duration: Five-year warranty from delivery date. | Extended warranty for a total of five years from delivery date | 1680671 |

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SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. 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 a wide range of 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 complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

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