Data sheet


# WTM12L-1H161120A00

W12

PHOTOELECTRIC SENSORS

SICK
Sensor Intelligence.

Illustration may differ

## Ordering information

| Type | part no. |
|---|---|
| WTM12L-1H161120A00 | 1126071 |

Other models and accessories ➜ www.sick.com/W12

## Detailed technical data

### Features

| | |
|---|---|
| **Functional principle** | Photoelectric proximity sensor |
| **Functional principle detail** | Background suppression, Foreground suppression, MultiMode, distance value |
| **MultiMode** | 1 Background suppression<br>2 Foreground suppression<br>3 Two Value Teach-in<br>4 Two independent switching points<br>5 Window<br>6 ApplicationSelect<br>M manual / measurement |
| **Sensing range** | |
| Sensing range min. | 80 mm (mode 1, 3, 4, 5) |
| | 0 mm (mode 2) |
| | 80 mm (mode 1 and 6 combined) |
| Sensing range max. | 850 mm (mode 1, 3, 4, 5) |
| | 350 mm (mode 2) |
| | 1,200 mm (mode 1 and 6 combined) |
| Adjustable switching threshold for background suppression | 90 mm ... 850 mm (mode 1, 3, 4, 5) |

[1] 90% remission factor.
[2] Equivalent to 1 σ.
[3] See repeatability characteristic lines.
[4] Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

| | |
|---|---|
| | 90 mm ... 1,200 mm (mode 1 and 6 combined) |
| Adjustable switching threshold for foreground suppression | 100 mm ... 350 mm (mode 2) |
| Reference object | Object with 90% remission factor (complies with standard white according to DIN 5033) |
| Minimum distance between set sensing range and background (black 6% / white 90%) | 6 mm, at a distance of 250 mm (mode 1, 3, 4, 5) |
| | 6 mm, at a distance of 650 mm (mode 1 and 6 combined) |
| Minimum object height at set sensing range in front of black background (6% remission factor) | 2.2 mm, at a distance of 150 mm (mode 2) |
| Recommended sensing range for the best performance | 100 mm ... 300 mm (mode 1, 3, 4, 5) |
| | 100 mm ... 200 mm (mode 2) |
| | 100 mm ... 700 mm (mode 1 and 6 combined) |
| **Distance value** | |
| Measuring range | 100 mm ... 850 mm |
| Resolution | 1 mm |
| Repeatability | 0,1 mm ... 6 mm [1) 2) 3)] |
| Accuracy | Typ. 6.0 mm at 100 ... 200 mm distance [1)] |
| | Typ. 12 mm at 200 ... 400 mm distance [1)] |
| | Typ. 30 mm at 400 ... 800 mm distance [1)] |
| Distance value output | Via IO-Link |
| Update rate of the distance value | 20 ms |
| **Emitted beam** | |
| Light source | Laser |
| Type of light | Visible red light |
| Shape of light spot | Ellipse shape |
| Light spot size (distance) | 2.2 mm x 1.2 mm (300 mm) |
| Maximum dispersion of the emitted beam around the standardized transmission axis (squint angle) | < +/- 1.0° (at $T_U$ = +23 °C) |
| **Key laser figures** | |
| Normative reference | EN 60825-1:2014, IEC 60825-1:2014 |
| Laser class | 1 [4)] |
| Wave length | 655 nm |
| Pulse duration | 4 µs |
| Maximum pulse power | < 6.74 mW |
| Average service life | 50,000 h at $T_U$ = +25 °C |
| **Smallest detectable object (MDO) typ.** | |
| | 2.5 mm, at a distance of 300 mm, mode 1, 3, 4, 5 |
| | 2.5 mm, at a distance of 200 mm, mode 2 |
| | 1.3 mm, at a distance of 650 mm, mode 1 and 6 combined |

[1)] 90% remission factor.

[2)] Equivalent to 1 σ.

[3)] See repeatability characteristic lines.

[4)] Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

| | |
|---|---|
| | Object with 90% remission factor (complies with standard white according to DIN 5033) |
| **Adjustment** | |
| Teach-Turn adjustment | BluePilot<br>For adjusting the sensing range with mode selection |
| IO-Link | For configuring the sensor parameters and Smart Task functions |
| **Display** | |
| LED blue | BluePilot: Display of mode, display of output states $Q_{L1}$ (LED 3 permanently on) and $Q_{L2}$ (LED 5 permanently on) |
| LED green | Operating indicator<br>Static on: power on<br>Flashing: IO-Link mode |
| LED yellow | Status of received light beam<br>Static on: object present<br>Static off: object not present |
| **Special features** | MultiMode |
| **Special applications** | Detecting small objects, Detection of objects moving at high speeds, Detecting flat objects, Detecting uneven, shiny objects, Detection of poorly remitting and tilted objects, Detecting perforated objects |

[1] 90% remission factor.
[2] Equivalent to 1 σ.
[3] See repeatability characteristic lines.
[4] Do not intentionally look into the laser beam. Never point the laser beam at people's eyes.

## Safety-related parameters

| | |
|---|---|
| **$MTTF_D$** | 280 years |
| **$DC_{avg}$** | 0 % |
| **$T_M$ (mission time)** | 10 years |

## Communication interface

| | |
|---|---|
| **IO-Link** | ✓ , IO-Link V1.1 |
| Data transmission rate | COM2 (38,4 kBaud) |
| Cycle time | 2.3 ms |
| Process data length | 16 Bit |
| Process data structure | Bit 0 = switching signal $Q_{L1}$ |
| | Bit 1 = switching signal $Q_{L2}$ |
| | Bit 2 ... 15 = Current receiver level (live) |
| VendorID | 26 |
| DeviceID HEX | 0x8002CC |
| DeviceID DEC | 8389324 |
| Compatible master port type | A |
| SIO mode support | Yes |

## Electronics

| | |
|---|---|
| **Supply voltage $U_B$** | 10 V DC ... 30 V DC [1] |
| **Ripple** | ≤ 5 V |
| **Usage category** | DC-12 (According to EN 60947-5-2)<br>DC-13 (According to EN 60947-5-2) |
| **Current consumption** | ≤ 14 mA, without load. At $U_B$ = 24 V |
| **Protection class** | III |
| **Digital output** | |
| Number | 2 (Complementary) |
| Type | Push-pull: PNP/NPN |
| Switching mode | Light/dark switching |
| Signal voltage PNP HIGH/LOW | Approx. $U_B$-2.5 V / 0 V |
| Signal voltage NPN HIGH/LOW | Approx. $U_B$ / < 2.5 V |
| Output current $I_{max.}$ | ≤ 100 mA |
| Circuit protection outputs | Reverse polarity protected |
| | Overcurrent protected |
| | Short-circuit protected |
| Response time | ≤ 500 µs [2] [3] |
| | ≤ 1,000 µs [2] [4] |
| | ≤ 15 ms [2] [5] |
| Repeatability (response time) | 150 µs (mode 1, 2, 3) [2] |
| | 350 µs (mode 4, 5) [2] |
| | 5 ms (mode 1 and 6 combined) [2] |
| Switching frequency | 1,000 Hz (mode 1, 2, 3) [6] |
| | 500 Hz (mode 4, 5) [6] |
| | 30 Hz (mode 1 and 6 combined) [6] |
| **Pin/Wire assignment** | |
| BN | + (L+) |
| WH | $\bar{Q}_{L1}$/MF<br>Digital output, dark switching, object present → output $\bar{Q}$L1 LOW (Mode 1, 3, 5, 6) [7]<br>The pin 2 function of the sensor can be configured |
| | Digital output, light switching, object present → output QL1 LOW (Mode 2) [7]<br>Additional possible settings via IO-Link |
| | Digital output, light switching, object present → output QL2 HIGH (Mode 4) [7] |
| BU | - (M) |
| BK | QL1/C<br>Digital output, light switching, object present → output QL1 HIGH (Mode 1, 3, 4, 5, 6) [7] |

[1] Limit values.
[2] Signal transit time with resistive load in switching mode.
[3] Mode 1, 2, 3.
[4] Mode 4, 5.
[5] Mode 1 and 6 combined.
[6] With light/dark ratio 1:1.
[7] This switching output must not be connected to another output.

| | |
|---|---|
| | The pin 4 function of the sensor can be configured |
| | Digital output, dark switching, object present → output Q̄L1 HIGH (Mode 2) [7]<br>Additional possible settings via IO-Link |
| | IO-Link communication C |

[1] Limit values.
[2] Signal transit time with resistive load in switching mode.
[3] Mode 1, 2, 3.
[4] Mode 4, 5.
[5] Mode 1 and 6 combined.
[6] With light/dark ratio 1:1.
[7] This switching output must not be connected to another output.

## Mechanics

| | |
|---|---|
| **Housing** | Rectangular |
| **Dimensions (W x H x D)** | 15.6 mm x 49.5 mm x 43.1 mm |
| **Connection** | Cable, 4-wire, 2 m |
| **Connection detail** | |
| Deep-freeze property | Do not bend below 0 °C |
| Conductor size | 0.14 mm² |
| Cable diameter | Ø 3.4 mm |
| Length of cable (L) | 2 m |
| Bending radius | For flexible use > 12 x cable diameter |
| Bending cycles | 1,000,000 |
| **Material** | |
| Housing | Metal, zinc diecast |
| Front screen | Plastic, PMMA |
| Cable | Plastic, PVC |
| **Weight** | Approx. 132 g |
| **Maximum tightening torque of the fixing screws** | 1.4 Nm |

## Ambient data

| | |
|---|---|
| **Enclosure rating** | IP66 (EN 60529)<br>IP67 (EN 60529)<br>IP69 (EN 60529) |
| **Ambient operating temperature** | –20 °C ... +55 °C |
| **Ambient temperature, storage** | –40 °C ... +70 °C |
| **Warm-up time** | < 15 min, Where $T_u$ is under –10 °C |
| **Typ. Ambient light immunity** | Artificial light: ≤ 50,000 lx<br>Sunlight: ≤ 50,000 lx |
| **Shock resistance** | 50 g, 11 ms (25 positive and 25 negative shocks along X, Y, Z axes, 150 total shocks (EN60068-2-27)) |
| **Vibration resistance** | 10 Hz ... 2,000 Hz (Amplitude 0.5 mm / 10 g, 20 sweeps per axis, for X, Y, Z axes, 1 octave/min, (EN60068-2-6)) |
| **Air humidity** | 35 % ... 95 %, relative humidity (no condensation) |
| **Electromagnetic compatibility (EMC)** | EN 60947-5-2 |
| **Resistance to cleaning agent** | ECOLAB |
| **UL File No.** | NRKH.E181493 & NRKH7.E181493 |

## Smart Task

| | |
|---|---|
| **Smart Task name** | Base logics |
| **Logic function** | Direct<br>AND<br>OR |
| **Timer function** | Deactivated<br>Switch-on delay<br>Off delay<br>ON and OFF delay<br>Impulse (one shot) |
| **Inverter** | Yes |
| **Switching frequency** | SIO Logic: 900 Hz (mode 1, 2, 3) [1]<br>SIO Logic: 450 Hz (mode 4, 5) [1]<br>SIO Logic: 30 Hz (mode 1 and 6 combined) [1]<br>IOL: 800 Hz (mode 1, 2, 3) [2]<br>IOL: 450 Hz (mode 4, 5) [2]<br>IOL: 30 Hz (mode 1 and 6 combined) [2] |
| **Response time** | SIO logic: 550 µs (mode 1, 2, 3) [1]<br>SIO Logic: 1100 µs (mode 4, 5) [1]<br>SIO Logic: 15 ms (mode 1 and 6 combined) [1]<br>IOL: 600 µs (mode 1, 2, 3) [2]<br>IOL: 1100 µs (mode 4, 5) [2]<br>IOL: 15 ms (mode 1 and 6 combined) [2] |
| **Repeatability** | SIO Logic: 200 µs (mode 1, 2, 3) [1]<br>SIO Logic: 400 µs (mode 4, 5) [1]<br>SIO Logic: 5 ms (mode 1 and 6 combined) [1]<br>IOL: 250 µs (mode 1, 2, 3) [2]<br>IOL: 450 µs (mode 4, 5) [2]<br>IOL: 5 ms (mode 1 and 6 combined) [2] |
| **Switching signal** | |
| Switching signal $Q_{L1}$ | Switching output |
| Switching signal $\bar{Q}_{L1}$ | Switching output |

[1] Use of Smart Task functions without IO-Link communication (SIO mode).
[2] Use of Smart Task functions with IO-Link communication function.

## Diagnosis

| | |
|---|---|
| **Device temperature** | |
| Measuring range | Very cold, cold, moderate, warm, hot |
| **Device status** | Yes |
| **Detailed device status** | Yes |
| **Operating hour counter** | Yes |
| **Operating hours counter with reset function** | Yes |
| **Quality of teach** | Yes |

## Classifications

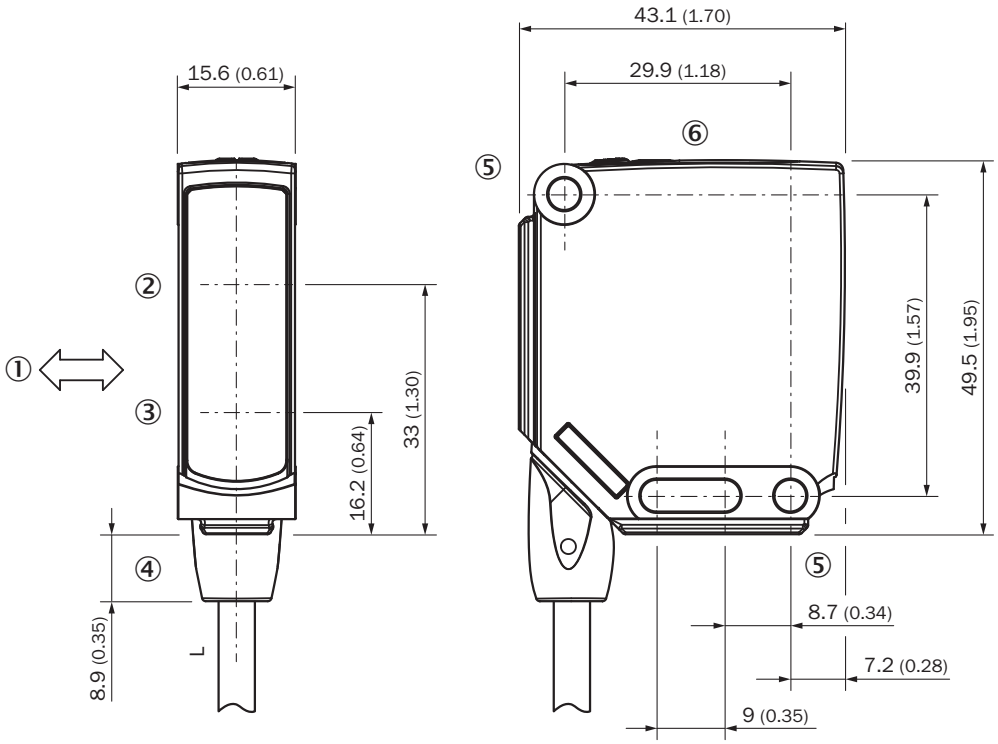
| | |
|---|---|
| **ECLASS 5.0** | 27270904 |
| **ECLASS 5.1.4** | 27270904 |
| **ECLASS 6.0** | 27270904 |
| **ECLASS 6.2** | 27270904 |

| | |
|---|---|
| **ECLASS 7.0** | 27270904 |
| **ECLASS 8.0** | 27270904 |
| **ECLASS 8.1** | 27270904 |
| **ECLASS 9.0** | 27270904 |
| **ECLASS 10.0** | 27270904 |
| **ECLASS 11.0** | 27270904 |
| **ECLASS 12.0** | 27270903 |
| **ETIM 5.0** | EC002719 |
| **ETIM 6.0** | EC002719 |
| **ETIM 7.0** | EC002719 |
| **ETIM 8.0** | EC002719 |
| **UNSPSC 16.0901** | 39121528 |

## Certificates

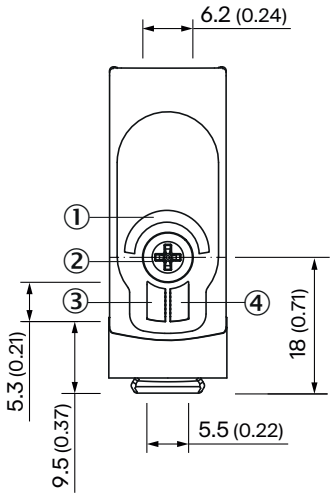
| | |
|---|---|
| **EU declaration of conformity** | ✓ |
| **UK declaration of conformity** | ✓ |
| **ACMA declaration of conformity** | ✓ |
| **Moroccan declaration of conformity** | ✓ |
| **China RoHS** | ✓ |
| **ECOLAB certificate** | ✓ |
| **cULus certificate** | ✓ |
| **IO-Link certificate** | ✓ |
| **Laser safety (IEC 60825-1) declaration of manufacturer** | ✓ |
| **Information according to Art. 3 of Data Act (Regulation EU 2023/2854)** | ✓ |

## Dimensional drawing




Dimensions in mm (inch)
For length of cable (L), see technical data
① Standard direction of the material being detected
② Center of optical axis, receiver
③ Center of optical axis, sender
④ Connection
⑤ Mounting hole, Ø 4.2 mm
⑥ display and adjustment elements

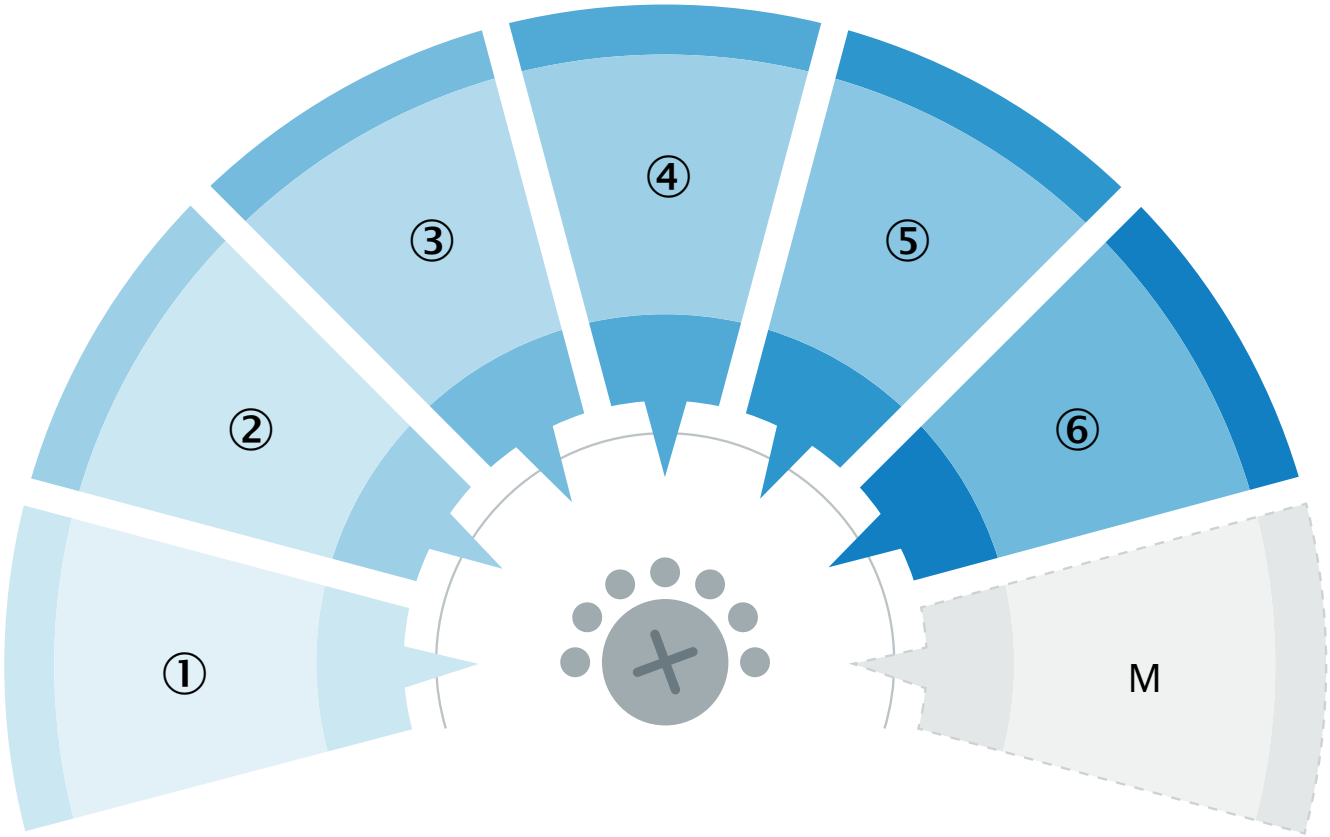
## display and adjustment elements




① LED blue
② Teach-Turn adjustment

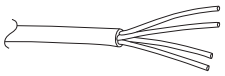
③ LED green
④ LED yellow

## Display and setting detail

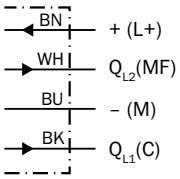



| MultiMode settings | |
|---|---|
| 1 | Background suppression |
| 2 | Foreground suppression |
| 3 | Two Value Teach-in |
| 4 | Two independent switching points |
| 5 | Window |
| 6 | ApplicationSelect |
| M | Manual / measurement |

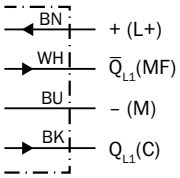
## Connection type Cable, 4-wire



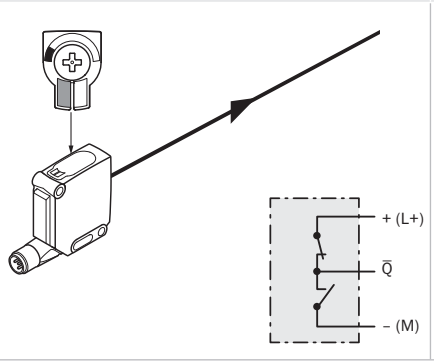
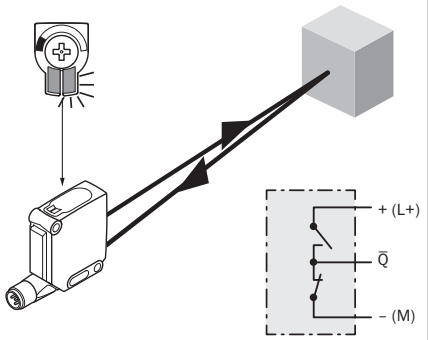
## Connection diagram Cd-599 (Mode 4)



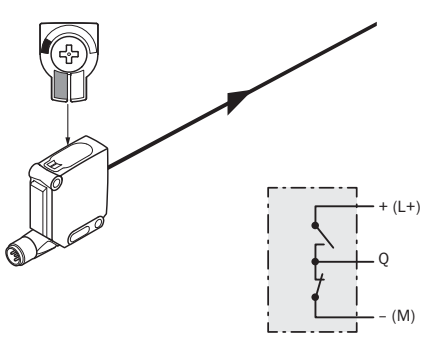
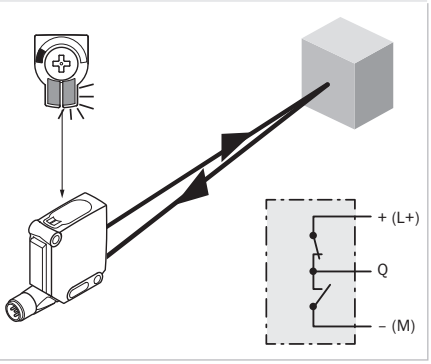

## Connection diagram Cd-600 (Mode 1, 2, 3, 5, 6)



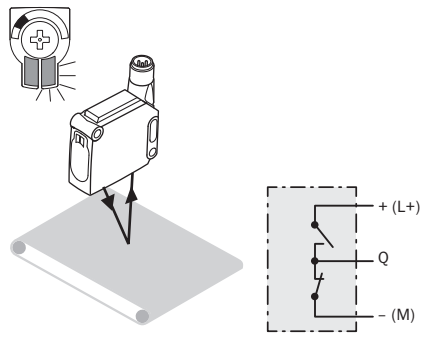
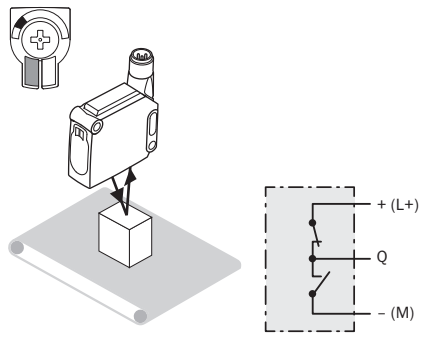

## Truth table Push-pull: PNP/NPN – dark switching $\overline{Q}$ (MultiMode 1, 3, 5, 6)

| | Dark switching $\overline{Q}$ (normally closed (upper switch), normally open (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output HIGH | Object present ➜ Output LOW |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⊗ | ⚠ |
| Load resistance to M | ⚠ | ⊗ |
| |  |  |

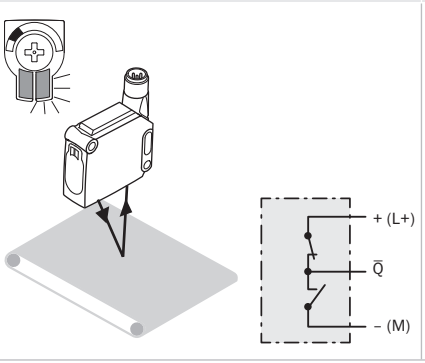
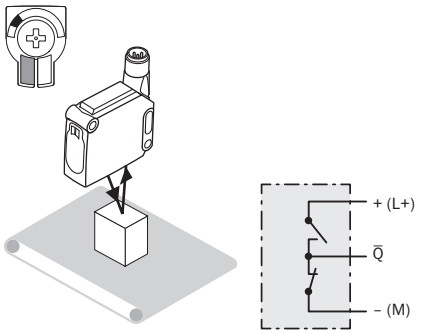
## Truth table Push-pull: PNP/NPN – light switching Q (MultiMode 1, 3, 5, 6)

| | Light switching Q (normally open (upper switch), normally closed (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output LOW | Object present ➜ Output HIGH |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⚠ | ⊗ |
| Load resistance to M | ⊗ | ⚠ |
| |  |  |

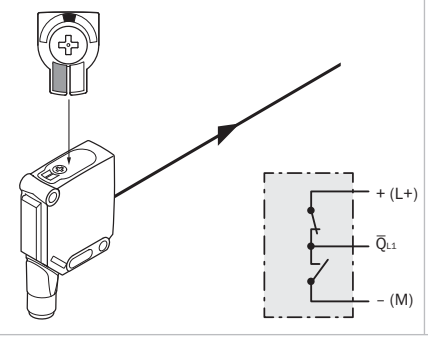
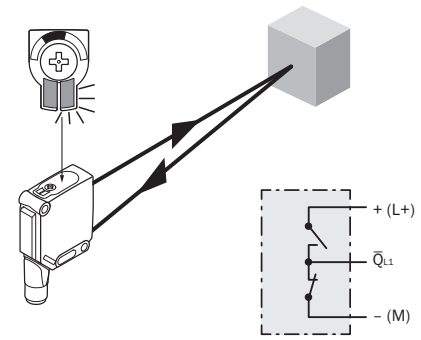
## Truth table Push-pull: PNP/NPN – light switching Q (MultiMode 2)

| | Light switching Q (normally open (upper switch), normally closed (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output LOW | Object present ➜ Output HIGH |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⚠ | ⊗ |
| Load resistance to M | ⊗ | ⚠ |
| |  |  |

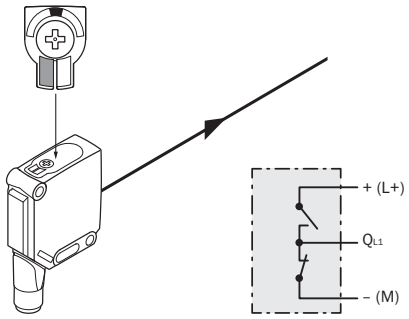
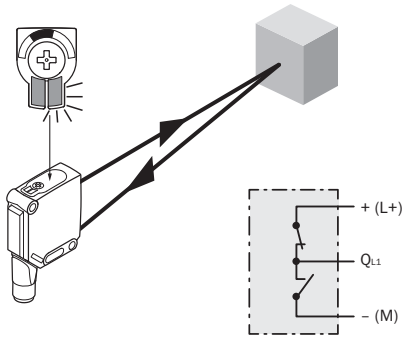
## Truth table Push-pull: PNP/NPN – dark switching $\bar{Q}$ (MultiMode 2)

| | Dark switching $\bar{Q}$ (normally closed (upper switch), normally open (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output HIGH | Object present ➜ Output LOW |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⊗ | ⚠ |
| Load resistance to M | ⚠ | ⊗ |
| |  |  |

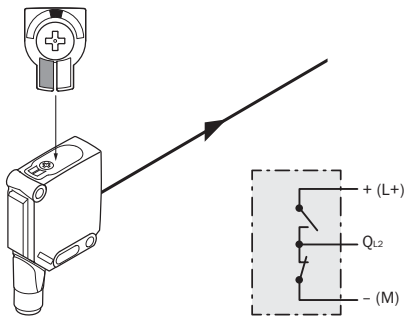
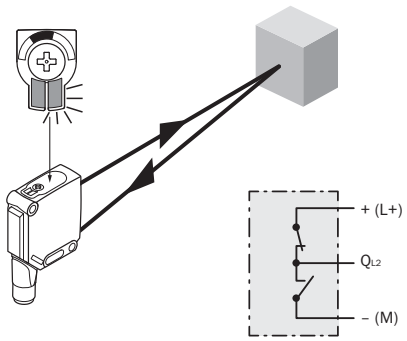
## Truth table Push-pull: PNP/NPN – dark switching $\bar{Q}$L1 (MultiMode 4)

| | Dark switching $\bar{Q}_{L1}$ (normally closed (upper switch), normally open (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output HIGH | Object present ➜ Output LOW |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⊗ | ⚠ |
| Load resistance to M | ⚠ | ⊗ |
| |  |  |

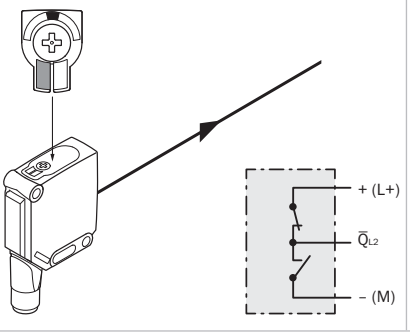
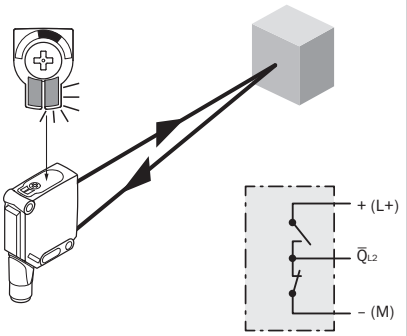
## Truth table Push-pull: PNP/NPN – light switching QL1 (MultiMode 4)

| | Light switching $Q_{L1}$ (normally open (upper switch), normally closed (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output LOW | Object present ➜ Output HIGH |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⚠ | ⊗ |
| Load resistance to M | ⊗ | ⚠ |
| |  |  |

## Truth table Push-pull: PNP/NPN – light switching QL2 (MultiMode 4)

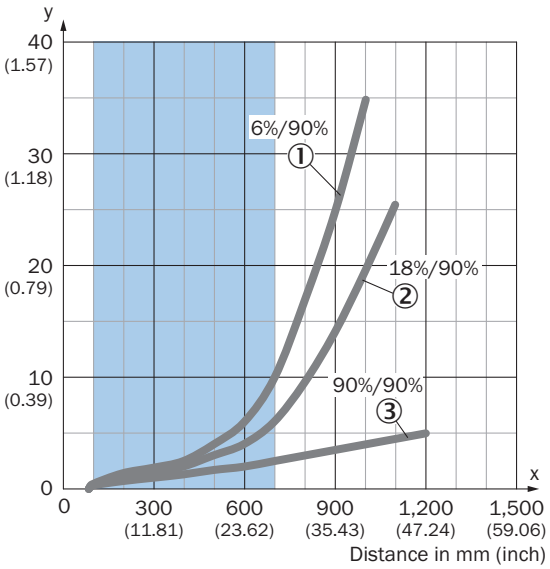
| | Light switching $Q_{L2}$ (normally open (upper switch), normally closed (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output LOW | Object present ➜ Output HIGH |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ☀ |
| Load resistance to L+ | ⚠ | ⊗ |
| Load resistance to M | ⊗ | ⚠ |
| |  |  |

## Truth table Push-pull: PNP/NPN – dark switching $\bar{Q}_{L2}$ (MultiMode 4)

| | Dark switching $\bar{Q}_{L2}$ (normally closed (upper switch), normally open (lower switch)) | |
|---|---|---|
| | Object not present ➜ Output HIGH | Object present ➜ Output LOW |
| Light receive | ⊗ | ✓ |
| Light receive indicator | ⊗ | ● |
| Load resistance to L+ | ⊗ | ⚠ |
| Load resistance to M | ⚠ | ⊗ |
| |  |  |

## Characteristic curve Mode 1 and 6 combined

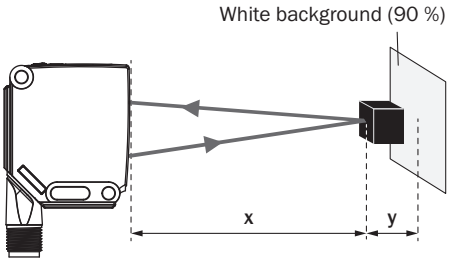
Minimum distance in mm (y) between the set sensing range and white background (90 % remission)




Recommended sensing range for the best performance

① Black object, 6% remission factor
② Gray object, 18% remission factor
③ White object, 90% remission factor

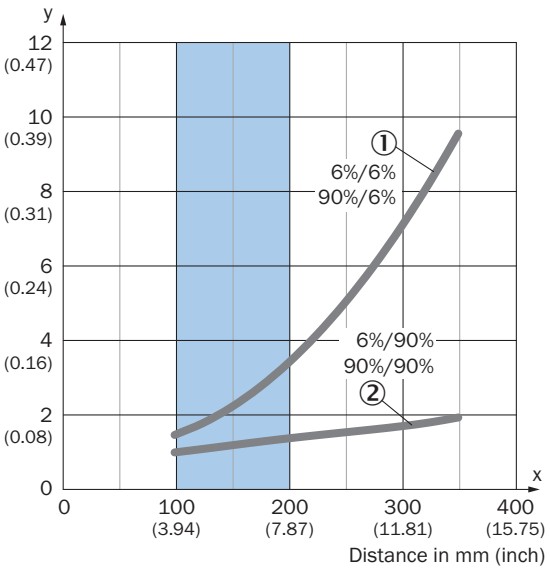
Example:
Safe suppression of the background




Black object (6 % remission)
Set sensing range x = 650 mm
Needed minimum distance to white background y = 6 mm

## Characteristic curve Mode 2

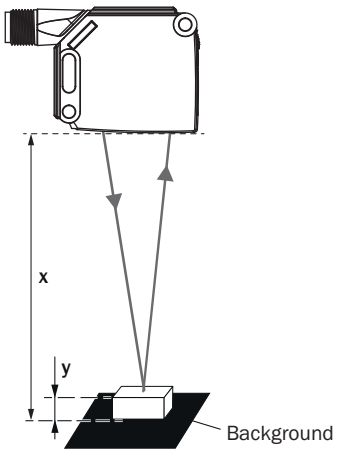
Minimum object height in mm (inch)




Recommended sensing range for the best performance

① Black background, 6% remission factor
② White background, 90% remission factor

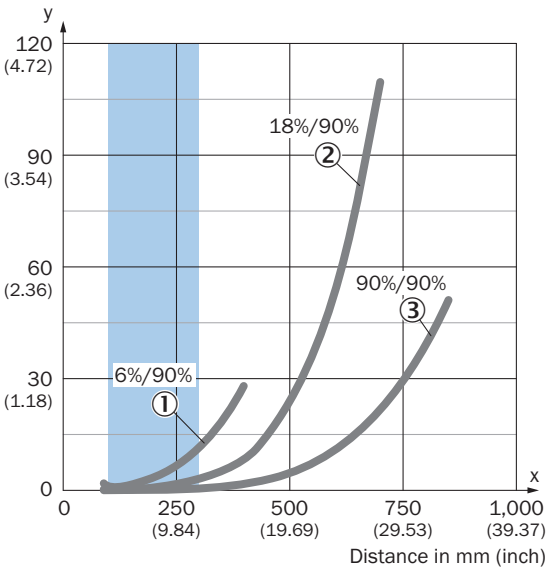
Example:
Reliable detection of the object




Black background (6 % remission factor)
Distance of sensor to background x = 150 mm
Required minimum object height y = 2.2 mm
For all objects regardless of their colors

## Characteristic curve Mode 1, 3, 4, 5

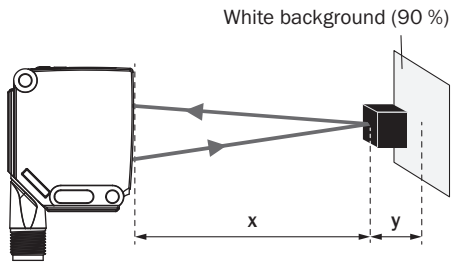
Minimum distance in mm (y) between the set sensing range and white background (90 % remission)




Recommended sensing range for the best performance

① Black object, 6% remission factor
② Gray object, 18% remission factor
③ White object, 90% remission factor

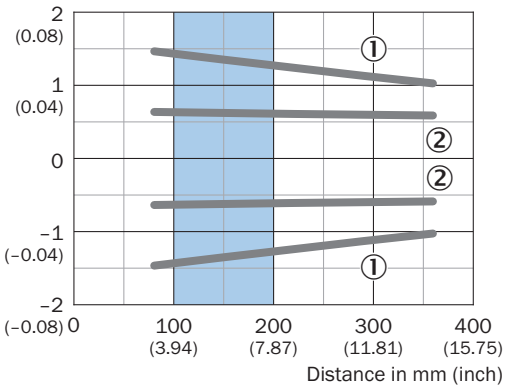
Example:
Safe suppression of the background

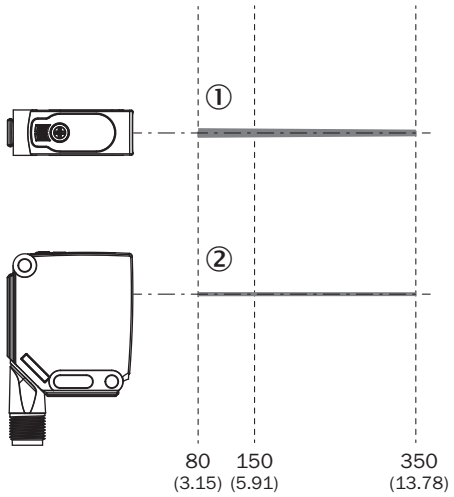



Black object (6 % remission)
Set sensing range x = 250 mm
Needed minimum distance to white background y = 6 mm

## Light spot size Mode 2

Dimensions in mm (inch)



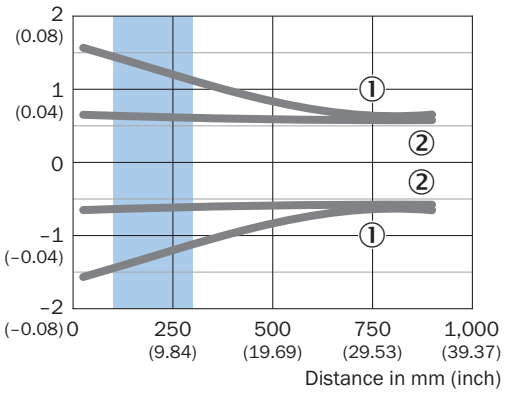



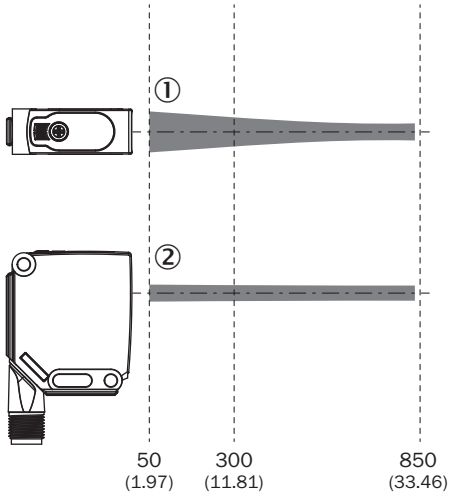

Recommended sensing range for the best performance

① Light spot horizontal
② Light spot vertical

## Light spot size Mode 1, 3, 4, 5

Dimensions in mm (inch)



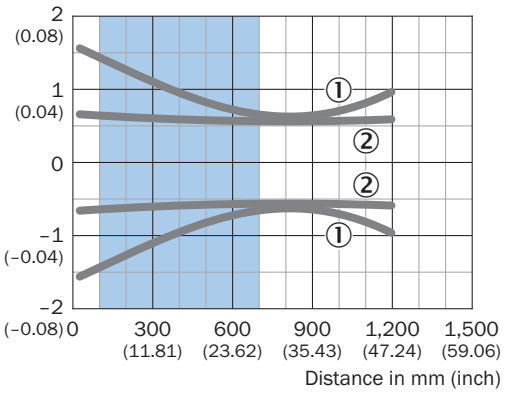




Recommended sensing range for the best performance

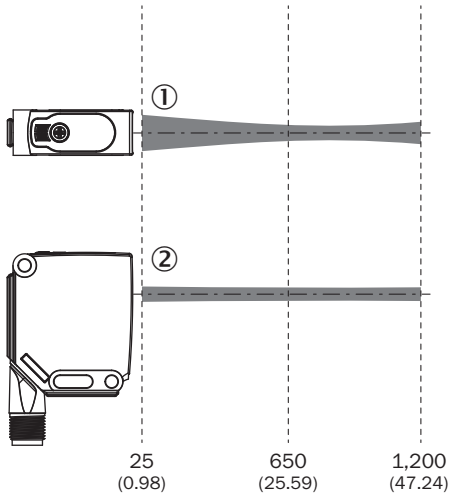
① Light spot horizontal
② Light spot vertical

## Light spot size Mode 1 and 6 combined

Dimensions in mm (inch)

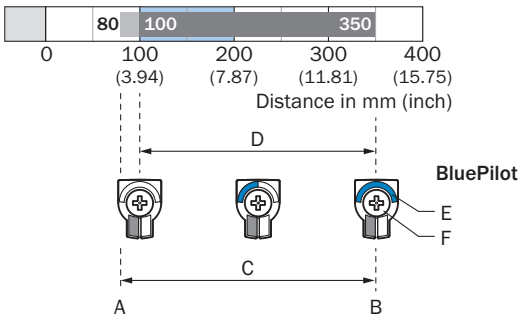



Recommended sensing range for the best performance




① Light spot horizontal
② Light spot vertical

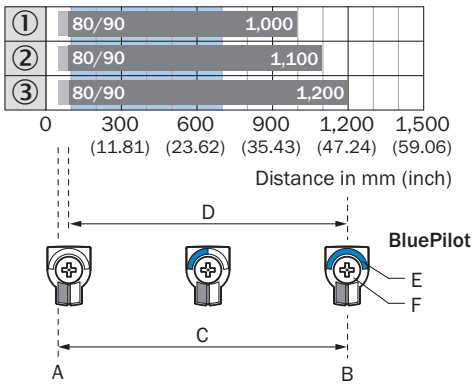
## Sensing range diagram Mode 2




Recommended sensing range for the best performance

| | |
|---|---|
| A | Sensing range min. in mm |
| B | Sensing range max. in mm |
| C | Field of view |
| D | Adjustable switching threshold for background suppression |
| E | Sensing range indicator |
| F | Teach-Turn adjustment |

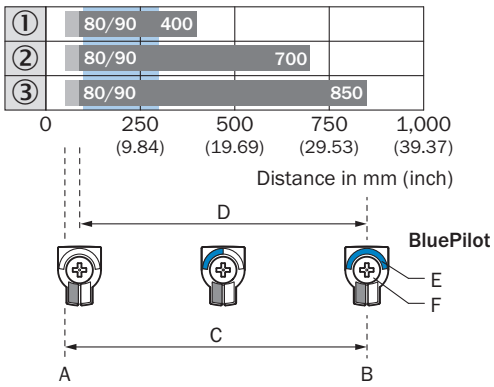
## Sensing range diagram Mode 1 and 6 combined




Recommended sensing range for the best performance

| | |
|---|---|
| 1 | Black object, 6% remission factor |
| 2 | Gray object, 18% remission factor |
| 3 | White object, 90% remission factor |
| A | Sensing range min. in mm |
| B | Sensing range max. in mm |
| C | Field of view |
| D | Adjustable switching threshold for background suppression |
| E | Sensing range indicator |
| F | Teach-Turn adjustment |

## Sensing range diagram Mode 1, 3, 4, 5




Recommended sensing range for the best performance

| | |
|---|---|
| 1 | Black object, 6% remission factor |
| 2 | Gray object, 18% remission factor |
| 3 | White object, 90% remission factor |
| A | Sensing range min. in mm |

| | |
|---|---|
| B | Sensing range max. in mm |
| C | Field of view |
| D | Adjustable switching threshold for background suppression |
| E | Sensing range indicator |
| F | Teach-Turn adjustment |

## Recommended accessories

Other models and accessories ➜ www.sick.com/W12

| | Brief description | Type | part no. |
|---|---|---|---|
| Mounting systems | | | |
|  | • **Description:** Plate N03 for universal clamp bracket, zinc coated<br>• **Material:** Steel, zinc diecast<br>• **Details:** Zinc plated steel (sheet), Zinc die cast (clamping bracket)<br>• **Items supplied:** Universal clamp (5322626), mounting hardware<br>• **Usable for:** UC12, W14-2, W18-2, W18-3, W11-2, W12-3, W12-2 Laser, W12G, W12 Teflon, W16, W24-2 Ex, PowerProx, W11G-2, TranspaTect, W18-3 Ex, W24-2, PL50A, PL80A, PL40A, P250 | BEF-KHS-N03 | 2051609 |
|  | • **Description:** Clamping block for dovetail mounting<br>• **Material:** Aluminum<br>• **Details:** Aluminum (anodised)<br>• **Items supplied:** Mounting hardware included<br>• **Suitable for:** W11-2, W12-3 | BEF-KH-W12 | 2013285 |
|  | • **Description:** Mounting bracket, large<br>• **Material:** Stainless steel<br>• **Details:** Stainless steel<br>• **Items supplied:** Mounting hardware included<br>• **Suitable for:** W11-2, W12-3, W16 | BEF-WG-W12 | 2013942 |
| | • **Material:** Aluminum<br>• **Details:** Aluminum<br>• **Items supplied:** Including mounting material (sensor) and mounting material (bracket)<br>• **Usable for:** Adapter plate for W23L/W27L to W12L | BEF-AP-W12 | 2127742 |
| connectors and cables | | | |
|  | • **Connection type head A:** Male connector, M12, 4-pin, straight, A-coded<br>• **Description:** Unshielded<br>• **Connection systems:** Screw-type terminals<br>• **Permitted cross-section:** ≤ 0.75 mm² | STE-1204-G | 6009932 |

| | Brief description | Type | part no. |
|---|---|---|---|
| network devices | | | |
|  | | SIG300-0A0GAA100 | 1131014 |
|  | | SIG300-0A04AA100 | 1131011 |
|  | | SIG300-0A05AA100 | 1131012 |
|  | | SIG300-0A06AA100 | 1131013 |

# SICK AT A GLANCE

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.”**

# WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com