



deTec2 Core Set 30/300

deTec

SAFETY LIGHT CURTAINS

SICK
Sensor Intelligence.



Illustration may differ

Ordering information

deTec2 Core

| Resolution | Scanning range | Protective field height | System part | Type | Part no. |
|------------|----------------|-------------------------|-------------|------------------------|----------|
| 30 mm | 15 m | 300 mm | Set | deTec2 Core Set 30/300 | 1070781 |

Included in delivery: C2C-EA03030A10000 (1), C2C-SA03030A10000 (1), BEF-1SHABPKU4 (1), BEF-3SHABPKU4 (1), RLY3-OSSD200 (1), YF2A15-050UB5XLEAX (2)

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



Detailed technical data

Features

| | |
|--------------------------------|--|
| Sub product family | deTec2 Core |
| Application | Normal industrial environment |
| System part | Set |
| Resolution | 30 mm |
| Scanning range | 15 m |
| Protective field height | 300 mm |
| No blind zones | Yes |
| Synchronization | Optical synchronisation |
| Items supplied | Sender Receiver 4 FlexFix brackets 4 QuickFix brackets 2 connecting cables, 5 m Test rod with diameter corresponding to the resolution of the safety light curtain RLY3-OSSD2 safety relay Safety instruction Mounting instructions Operating instructions for download |

Safety-related parameters

| | |
|---|--|
| Type | Type 2 (IEC 61496-1) |
| Safety integrity level | SIL 1 (IEC 61508) |
| Category | Category 2 (ISO 13849-1) |
| Performance level | PL c (ISO 13849-1) |
| PFH_D (mean probability of a dangerous failure per hour) | 31 x 10 ⁻⁹ |
| T_M (mission time) | 20 years (ISO 13849-1) |
| Safe state in the event of a fault | At least one OSSD is in the OFF state. |

Functions

| | |
|-----------------------------|---|
| Protective operation | ✓ |
|-----------------------------|---|

| | |
|--|---|
| Automatic calibration of the protective field width | ✓ |
|--|---|

Interfaces

| | |
|--------------------------|---------------------------|
| System connection | Male connector M12, 5-pin |
| Length of cable | 150 mm |
| Cable diameter | 4.3 mm |
| Cable bend radius | |
| Stationary position | > 12 x cable diameter |
| Flexible use | > 15 x cable diameter |
| Display elements | LEDs |

Electrical data

| | |
|--|--|
| Protection class | III (IEC 61140) |
| Supply voltage V_S | 24 V DC (19.2 V ... 28.8 V) |
| Ripple | ≤ 10 % |
| Output signal switching devices (OSSDs) | |
| Type of output | 2 PNP semiconductors, short-circuit protected, cross-circuit monitored ¹⁾ |
| ON state, switching voltage HIGH | 24 V DC ($V_S - 2.25$ V DC ... V_S) |
| OFF state, switching voltage LOW | ≤ 2 V DC |
| Current-carrying capacity per OSSD | ≤ 300 mA |

¹⁾ Applies to the voltage range between -30 V and +30 V.

Mechanical data

| | |
|-------------------------|---------------------------|
| Dimensions | See dimensional drawing |
| Housing material | Aluminum extruded profile |

Ambient data

| | |
|--------------------------------------|--------------------------------------|
| Enclosure rating | IP65 (IEC 60529) IP67 (IEC 60529) |
| Ambient operating temperature | -30 °C ... +55 °C |
| Storage temperature | -30 °C ... +70 °C |
| Air humidity | 15 % ... 95 %, Non-condensing |
| Vibration resistance | 5 g, 10 Hz ... 55 Hz (IEC 60068-2-6) |
| Shock resistance | 10 g, 16 ms (IEC 60068-2-27) |

Other information

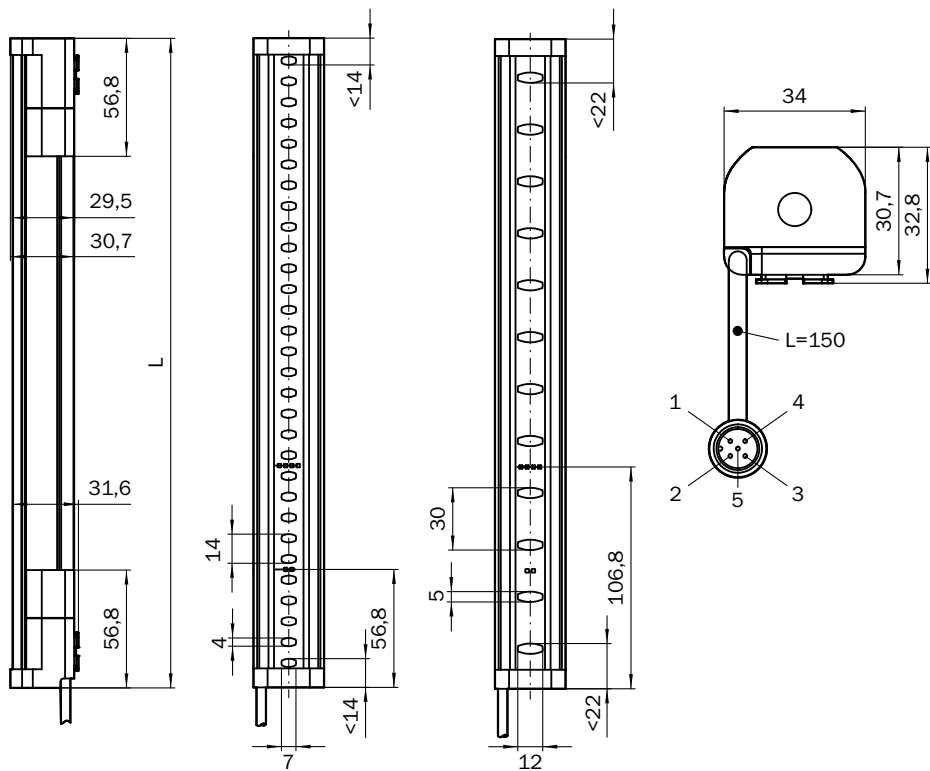
| | |
|----------------------|--------------------------------|
| Wave length | 850 nm |
| Type of light | Near-infrared (NIR), invisible |

Classifications

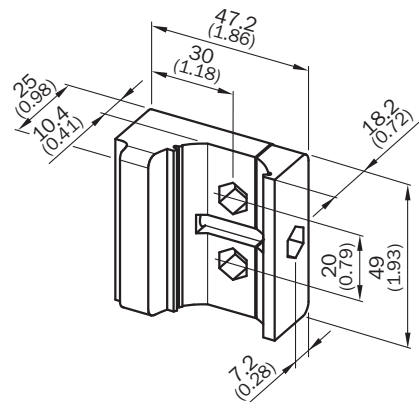
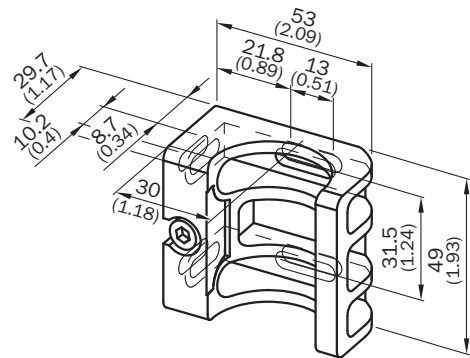
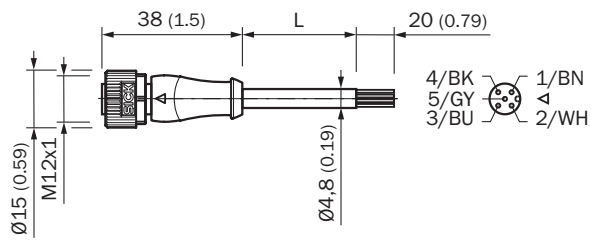
| | |
|---------------------|----------|
| ECLASS 5.0 | 27272704 |
| ECLASS 5.1.4 | 27272704 |
| ECLASS 6.0 | 27272704 |
| ECLASS 6.2 | 27272704 |
| ECLASS 7.0 | 27272704 |
| ECLASS 8.0 | 27272704 |

| | |
|-----------------------|----------|
| ECLASS 8.1 | 27272704 |
| ECLASS 9.0 | 27272704 |
| ECLASS 10.0 | 27272704 |
| ECLASS 11.0 | 27272704 |
| ECLASS 12.0 | 27272704 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |
| UNSPSC 16.0901 | 46171620 |

Dimensional drawing (Dimensions in mm (inch))




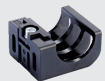



EMSS1, HAND1, OSSD1, OSSD2, TIME1



| Protective field height | L |
|-------------------------|---------------|
| 300 (11.81) | 313 (12.32) |
| 450 (17.72) | 463 (18.23) |
| 600 (23.62) | 613 (24.13) |
| 750 (29.53) | 763 (30.04) |
| 900 (35.43) | 913 (35.94) |
| 1,050 (41.34) | 1,063 (41.85) |
| 1,200 (47.24) | 1,213 (47.76) |
| 1,350 (53.15) | 1,362 (53.62) |
| 1,500 (59.06) | 1,512 (59.53) |
| 1,650 (64.96) | 1,662 (65.43) |
| 1,800 (70.87) | 1,812 (71.34) |
| 1,950 (76.77) | 1,962 (77.24) |
| 2,100 (82.68) | 2,112 (83.15) |

Recommended accessories

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

| Brief description | Type | Part no. |
|---|--------------------|----------|
| Distributors | | |
|  <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, A-coded • Connection type head B: Male connector, M12, 5-pin, A-coded • Connection type head C: Female connector, M12, 5-pin, A-coded • Description: T-piece for simultaneous connection to sender and receiver, splits the cable from the control cabinet to the sender and receiver • Note: 5-pin | DSC-1205T000025KM0 | 6030664 |
| Terminal and alignment brackets | | |
|  <p>4 pieces, FlexFix bracket for 2 devices (e.g. sender and receiver), can be aligned ± 15°, including M5 screw, plastic</p> | BEF-1SHABPKU4 | 2066614 |
|  <p>4 pieces, QuickFix bracket for 2 devices (e.g. sender and receiver), plastic</p> | BEF-3SHABPKU4 | 2098710 |
| Others | | |
|  <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 2 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-020UB5M2A15 | 2096009 |
|  <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 2 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-020UB5XLEAX | 2095617 |

| | Brief description | Type | Part no. |
|---|---|--------------------|----------|
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-050UB5M2A15 | 2096010 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 5 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-050UB5XLEAX | 2095618 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Male connector, M12, 5-pin, straight, A-coded • Signal type: Sensor/actuator cable • Cable: 10 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-100UB5M2A15 | 2096011 |
|  | <ul style="list-style-type: none"> • Connection type head A: Female connector, M12, 5-pin, straight, A-coded • Connection type head B: Flying leads • Signal type: Sensor/actuator cable • Cable: 10 m, 5-wire, PUR, halogen-free • Description: Sensor/actuator cable, unshielded • Application: Zones with oils and lubricants, Drag chain operation, Robot | YF2A15-100UB5XLEAX | 2095619 |
| Safety switching amplifier | | | |
|  | <ul style="list-style-type: none"> • Applications: Evaluation unit • Compatible sensor types: Safety sensors with OSSDs • Connection type: Front connector with spring terminals • Restart interlock: yes • External device monitoring (EDM): Integrated • Outputs: 2 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe) • Housing width: 18 mm | RLY3-OSSD200 | 1085344 |
|  | <ul style="list-style-type: none"> • Applications: Evaluation unit • Compatible sensor types: Safety sensors with OSSDs • Connection type: Front connector with spring terminals • Restart interlock: yes • External device monitoring (EDM): Integrated • Outputs: 3 enabling current paths (safe), 2 application diagnostic outputs (not safe), 1 test pulse output (not safe) • Housing width: 18 mm | RLY3-OSSD300 | 1099969 |

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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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