Online data sheet




# V3S153-1AAAAAAP03

## Visionary-B

3D VISION

SICK
Sensor Intelligence.



Illustration may differ

## Ordering information

| Type | Part no. |
|---|---|
| V3S153-1AAAAAAP03 | 1074002 |

Other models and accessories ➜ www.sick.com/Visionary-B

## Detailed technical data

### Features

| | |
|---|---|
| **Task** | 3D driver assistance system for collision awareness outdoors |
| **Technology** | 3D-snapshot, image analysis |
| **Working distance** | 0.5 m ... 6 m |
| **Detection angle** | 105° x 90° |
| **Definable detection area (W x L)** | 4 m x 6 m within specification |
| **Further functions** | Recording option integrated, 2D camera integrated |

### Performance

| | |
|---|---|
| **Detectable object shape** | See HMI and operating instruction |
| **On delay** | < 50 s |
| **Response time** | < 200 ms |
| **Integrated application** | 3D driver assistance system for collision awareness outdoors |

### Interfaces

| | |
|---|---|
| **Configuration software** | Via provided monitor |

### Mechanics/electronics

| | |
|---|---|
| **Connections** | 1 x USB<br>2 x sensor head, male/female<br>Monitor (VGA/sound)<br>Additional alarm output; two discrete outputs<br>Machine-to-machine interface (reserved)<br>Ethernet (reserved)<br>Evaluation unit supply |
| **Supply voltage** | 12 V DC, - 10 %<br>24 V DC, + 40 % |
| **Power consumption** | ≤ 80 W Kit C |
| **Enclosure rating** | IP69K sensor head<br>IP67 evaluation unit |
| **Weight** | 1.3 kg [1]<br>5 kg [2] |
| **Mounting** | Height 1 m ... 2.4 m, angle according to the detection zone (must be delimited by the ground) |

[1] Sensor head.
[2] Evaluation unit.

## Ambient data

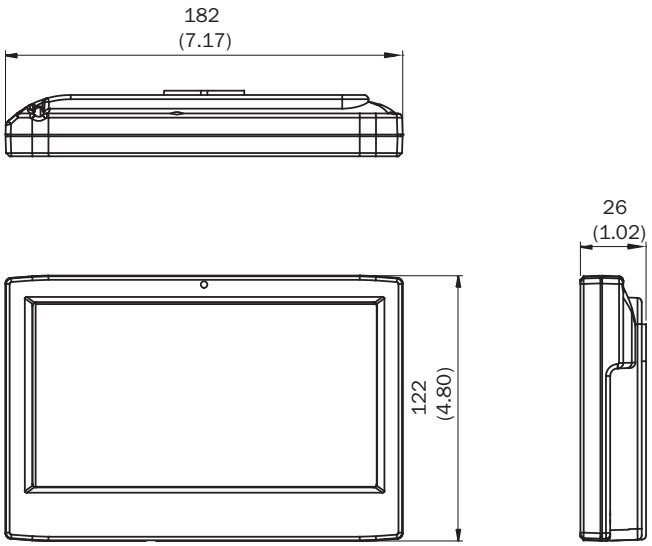
| | |
|---|---|
| **Electromagnetic compatibility (EMC)** | According to EN 61000-6-2:2006-03 (immunity for industrial environments)<br>As per EN 61000-6-3:2007-01+A1:2011-03 (radiated emission for residential areas)<br>EN 12895:2000-10 (industrial trucks)<br>EN 13309:2010-09 (Baumaschinen)<br>ISO 13766:2006-05 (earth-moving machinery)<br>ISO 14982:2014-12 (agricultural and forestry machinery)<br>DIN EN 55022:2012-06<br>FCC PART 15:2006-08 |
| **Fulfilled standards** | ISO 13766:2006-05 (earth-moving machinery), EN 12895:2015-09 (industrial trucks), EN 13309:2010-09 (construction machinery), ISO 14982:2014-12 (agricultural and forestry machinery), EN 55012:2008-06 + A1:2009,ISO 11452-2:2004-11, ISO 7637-2:2011-03, ISO 16750-2:2012-11, ISO16001:2017, EN 62311:2008 |
| **Shock load** | EN 60068-2-29:1994-01 (50 g / 6 MS) |
| **Vibration load** | EN 60068-2-64:2008-11 (5.9 g / 10 Hz – 2 kHz/ x-axis 16 h / y-axis 16 h / z-axis 32 h) |
| **Ambient operating temperature** | –40 °C ... +75 °C, sensor head<br>–20 °C ... +40 °C, evaluation unit |
| **Light sensitivity** | 200 lx ... 80,000 lx |

## Classifications

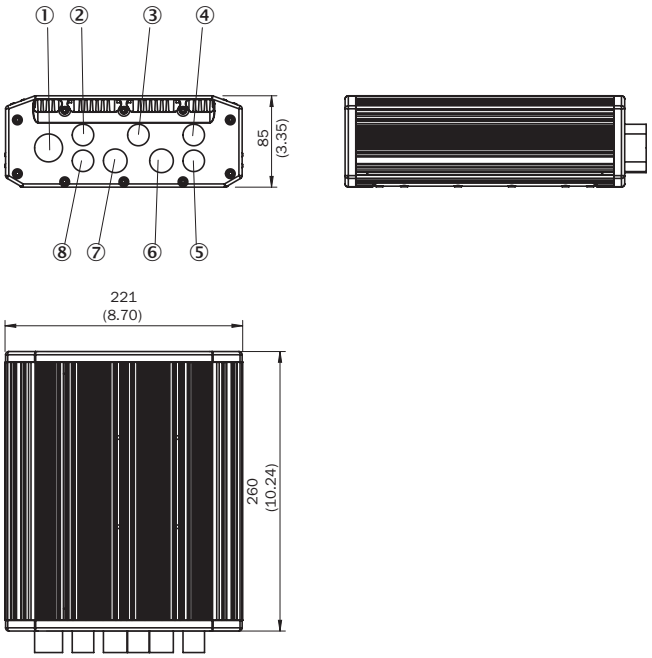
| | |
|---|---|
| **ECl@ss 5.0** | 27310205 |
| **ECl@ss 5.1.4** | 27310205 |
| **ECl@ss 6.0** | 27310205 |
| **ECl@ss 6.2** | 27310205 |
| **ECl@ss 7.0** | 27310205 |
| **ECl@ss 8.0** | 27310205 |
| **ECl@ss 8.1** | 27310205 |
| **ECl@ss 9.0** | 27310205 |
| **ETIM 5.0** | EC001820 |
| **ETIM 6.0** | EC001820 |
| **UNSPSC 16.0901** | 43211731 |

## Dimensional drawing (Dimensions in mm (inch))

Monitor

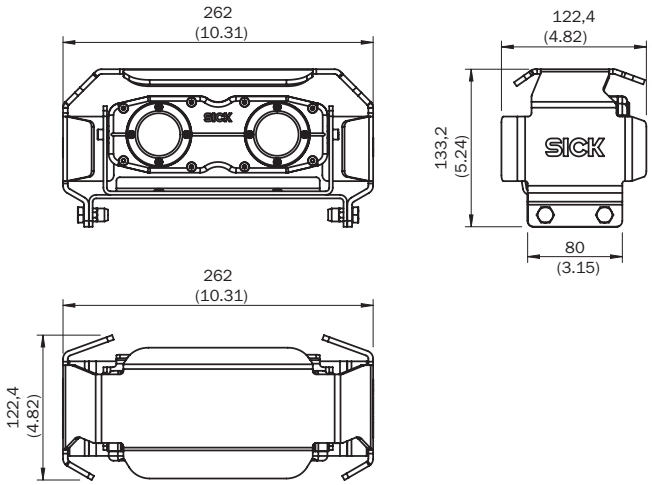



Evaluation unit

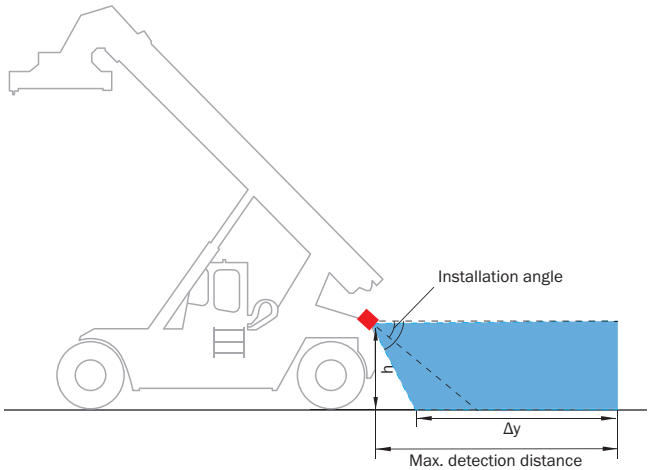


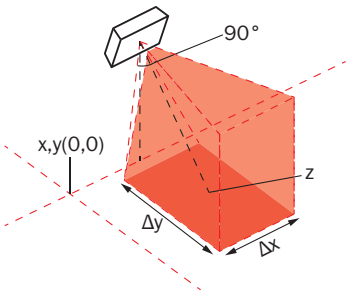

① M20, USB
② M14, 6-pin power supply EU,12/24 V
③ M14, 9-pin machine interface (Kit C)
④ M14, 2-pin external power supply (reserved, not implemented)
⑤ M14, 4-pin, additional alarm output
⑥ Bayonet, 10-pin sensor head, female
⑦ Bayonet, 10-pin sensor head, male
⑧ M14, 9-pin VGA/sound

Sensor head




## Field of view

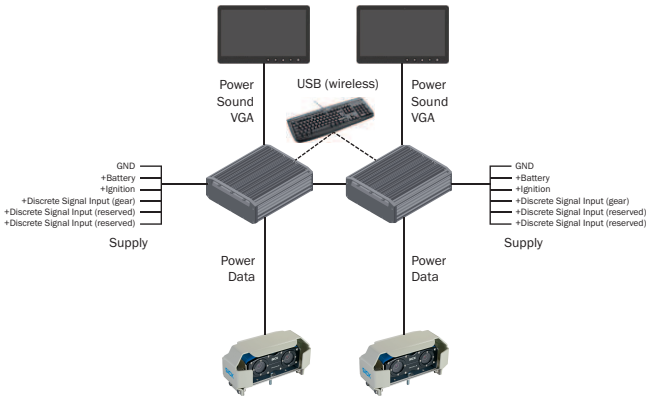



| Mounting height (m) | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 |
|---|---|---|---|---|---|---|---|---|
| Mounting angle (°) | 0 | -6 | -11 | -17 | -23 | -29 | -31 | -33 |

## Connection diagram

Kit C




For extended field of view. Keyboard and cable sets are not included in any kit.

| Mounting height (m) | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.0 | 2.2 | 2.4 |
|---|---|---|---|---|---|---|---|---|
| Mounting angle (°) | 0 | -6 | -11 | -17 | -23 | -29 | -31 | -33 |

# 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