BAS3501-E

Backup Assistance System

OBJECT DETECTION SYSTEMS

SICK
Sensor Intelligence.

BAS3501-E | Backup Assistance System

OBJECT DETECTION SYSTEMS

Ordering information

Type	part no.
BAS3501-E	1117895

Included in delivery: DSL-1212-G05MAS02 (1), Mounting kit (1), Sensor mount (1" Ball) (1), Signal Light bar (1), TIM351-2134001 (1), YF2A28-050UA6M2A28 (1), 6" socket arm (1" Ball) (1), BAS3500-E Control unit (1), YF2A2B-050VH2M2A2B (1)

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

Detailed technical data

Features

Areas of application	Indoor and outdoor areas (8 m)
Number of sensors	1
Vehicles	Electric forklifts

Mechanics/electronics

Weight	1,530 g, without connecting cables
Power consumption	10 W (≤ 13 W)
Machine reverse signal voltage	24 V 36 V 48 V 60 V 72 V
Machine operating voltage	24 V 36 V 48 V 60 V 72 V
Enclosure rating	IP65 / IP67
Laser class	1 (IEC 60825-1:2014, EN 60825-1:2014)

Performance

Functions	Visual and acoustic collision warning
Number of laserscanners	1
Monitored area	Vehicle rear end
Warning zones	2
GPS	–
WebInterface	–

Interfaces

USB		✓ , micro USB
	Function	Parameterization
		Machine reverse

HMI	✓ , For signal light bar
Function	For visual and acoustic warning

Ambient data

Ambient operating temperature	–20 °C … +50 °C
Ambient temperature, storage	–25 °C … +55 °C

General notes

Items supplied	2D LiDAR sensor TiM351 Control module assembly with power and reverse cable, 3m Signal light bar with tri-color visual and configurable audible alarm levels up to 98 dB Mounting kit for sensor and light stack Connection cables for sensor and light stack, 5m

Certificates

EU declaration of conformity	✓
UK declaration of conformity	✓
ACMA declaration of conformity	✓
China RoHS	✓
cULus certificate	✓

Classifications

| ECLASS 5.0	27339090
ECLASS 5.1.4	27339090
ECLASS 6.0	27339090
ECLASS 6.2	27339090
ECLASS 7.0	27339090
ECLASS 8.0	27339090
ECLASS 8.1	27339090
ECLASS 9.0	27330190
ECLASS 10.0	27330190
ECLASS 11.0	27330190
UNSPSC 16.0901	25172105

Dimensional drawing Signal light bar with buzzer
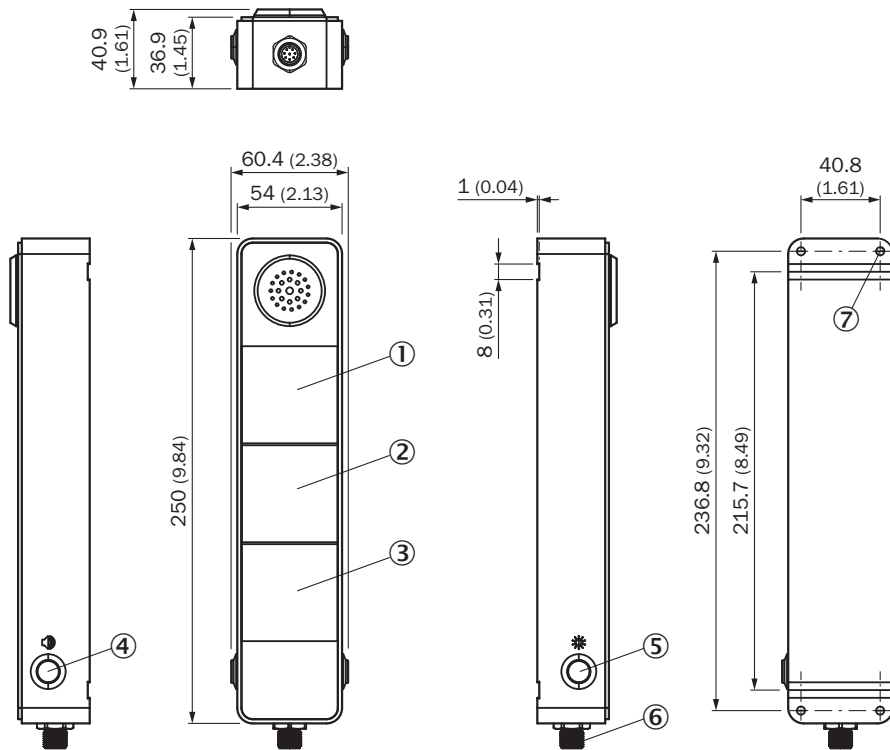
Dimensions in mm (inch)
① Red LED segment (visual signal display)
② Yellow LED segment
③ Green LED segment
④ Function button for volume control
⑤ Function button for light intensity levels
⑥ "Power & I/O signal" connection, 8-pin, M12 male connector
⑦ 4 x mounting holes, M5

Dimensional drawing BAS control unit
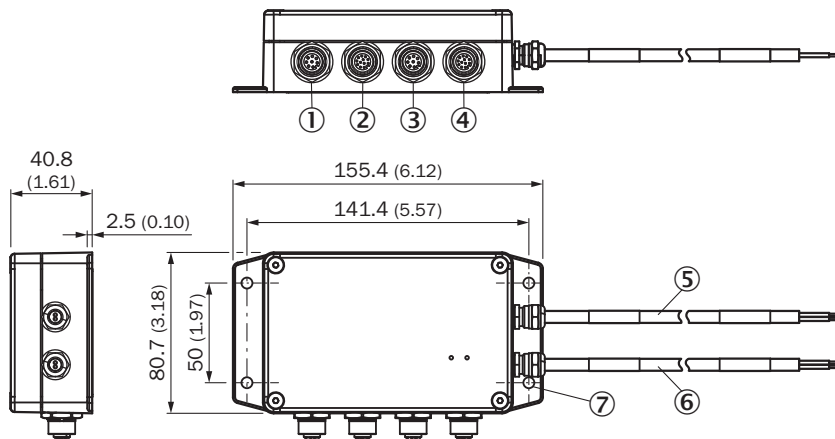
Dimensions in mm (inch)
① signal light bar 1 connection, 8-pin M12 male connector
② sensor 1 connection, 12-pin M12 male connector
③ signal light bar 2 connection, 8-pin M12 male connector

④ sensor 2 connection, 12-pin M12 male connector
⑤ "voltage supply" connection, 2-pin cable with open ends
⑥ "Reverse from vehicle" connection, 2-pin cable with open ends
⑦ Mounting plate with 4x holes, M5

Dimensional drawing Mounting kit notes
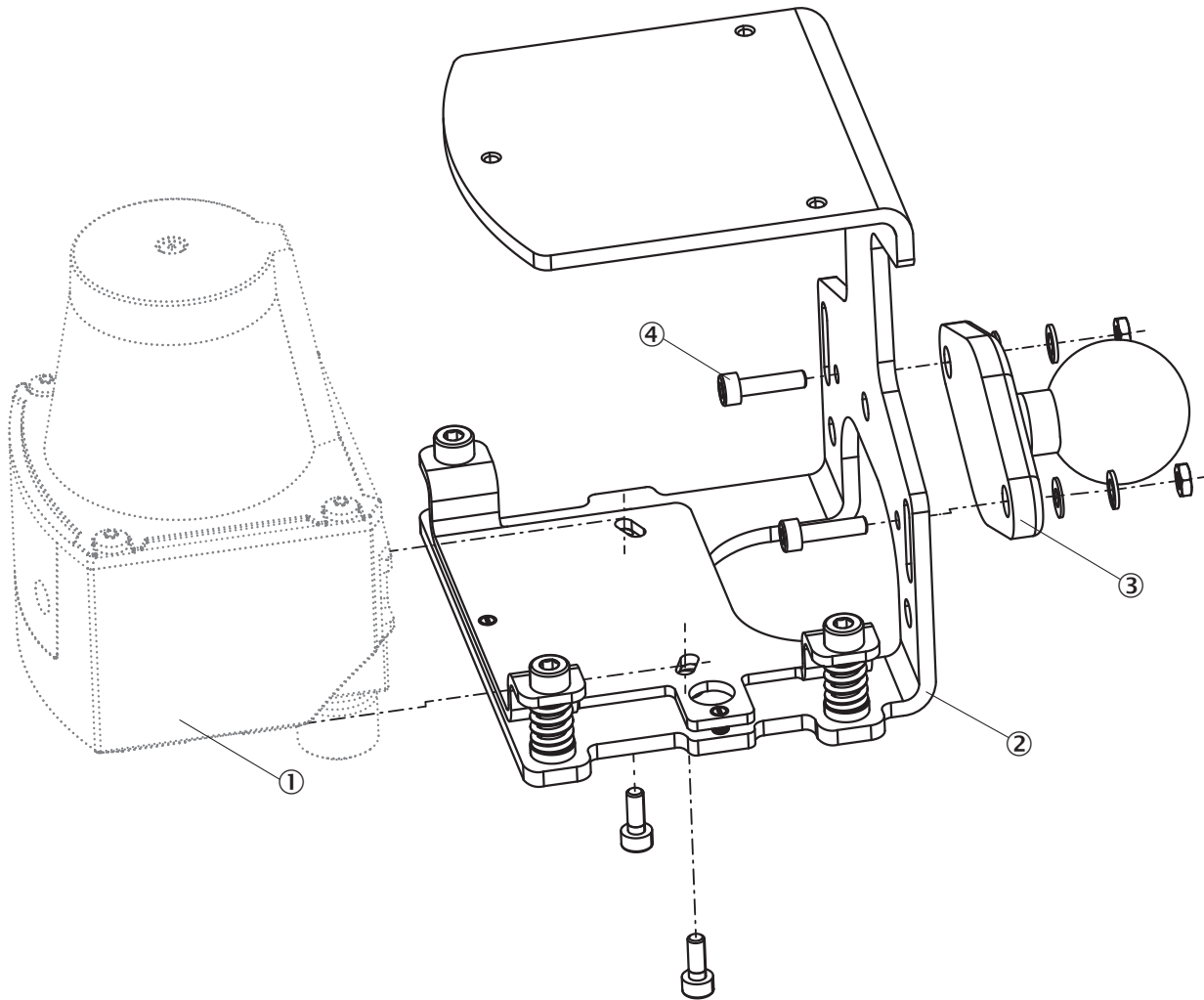
Dimensions in mm (inch)
① TiM3xx 2D LiDAR sensor (included with delivery)
② TiM3xx mounting kit, part no. 2061776 (included with delivery)
③ RAM mount bracket, part no. 5333533 (included with delivery)
④ 2x screws each, nuts, washers (included with delivery)

Recommended accessories

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

Brief description	Type	part no.
Mounting systems		
• **Description:** 4" post clamp, 3" bolt (1" Ball) to connect socket arm and overhead guard	4" post clamp, 3" bolt (1" Ball)	5333539
• **Description:** 3" post clamp, 3" bolt (1" Ball) to connect socket arm and overhead guard	3" post clamp, 3" bolt (1" Ball)	5333540
• **Description:** 2.5" post clamp, 3" bolt (1" Ball) to connect socket arm and overhead guard	2.5" post clamp, 3" bolt (1" Ball)	5333541
• **Description:** 2" post clamp, 3" bolt (1" Ball) to connect socket arm and overhead guard	2" post clamp, 3" bolt (1" Ball)	5333542
• **Description:** 1/2" to 2" circular post clamp to connect socket arm and overhead guard	1/2" to 2" circular post clamp	5333545
connectors and cables		
• **Connection type head A:** Male connector, Micro-B, 4-pin, straight • **Connection type head B:** Male connector, USB-A, 4-pin, straight • **Signal type:** USB 2.0 • **Cable:** 2 m, 4-wire • **Description:** USB 2.0, unshielded	USB cable	6036106

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."

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