

SBPBASEB



Carpark base holder



Benefits

- **Plug & Play** installation
- **One base holder** suitable for the SBPSUSxxx sensors and SBPILED indicator
- **On board chip** with the SIN code and detachable connector for Dupline® 3-wire

Description

The SBPBASEB is part of the Dupline® Carpark system.
It is a base holder for the SBPSUSxxx sensors and SBPILED indicator.
The base holder contains the wiring terminals, the chip with the SIN code and a RJ12 connector for the sensor / indicator.
It is designed for ceiling mounting where the cables or wires enter the base holder from the side.

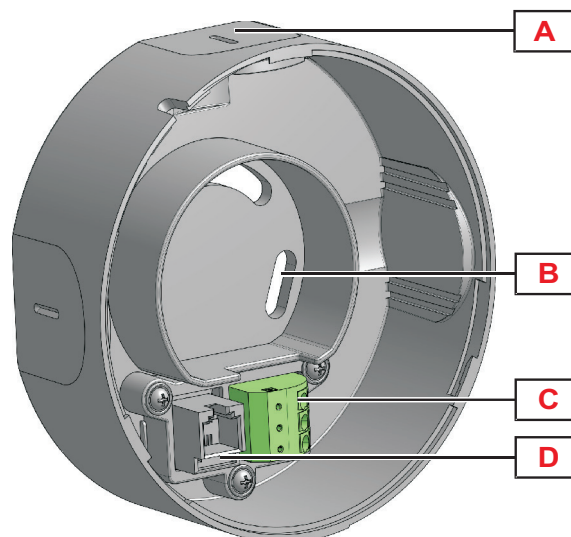
Applications

Parking Guidance Systems

Main functions

- Base holder for Dupline® carpark sensors and indicators.

Structure



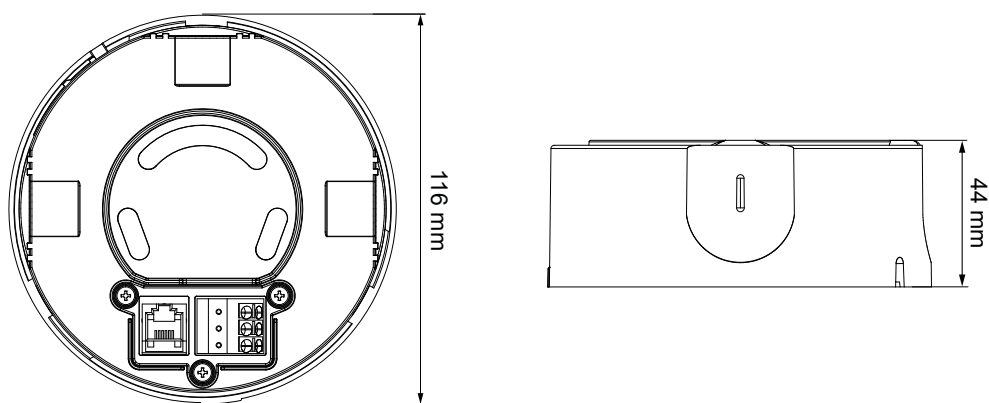
Element	Component	Function
A	Knockouts	The base holder has knockouts on three sides that can be removed by using a drill
B	Screw holes	The base holder can be mounted by means of selftapping screws by using the screw holes
C	2 x 3 PIN connector	Wiring terminals (POW, D+, D-) for power supply and communication (Smart Dupline®)
D	RJ12 female connector	It is used to connect the sensor (SBPSUxxx) or indicator (SBPILED) to the base holder



Features

General

Material	ABS
Housing colour	Light grey
Dimensions	44 x 116 mm
Weight	25 g



Environmental

Operating temperature	-40 to 70°C (-40 to 158°F)
Storage temperature	-40 to 80°C (-40 to 176°F)
Humidity	5-98% Relative humidity
Pollution degree	3 (IEC60664)

Compatibility and conformity

CE-marking	
Approvals	

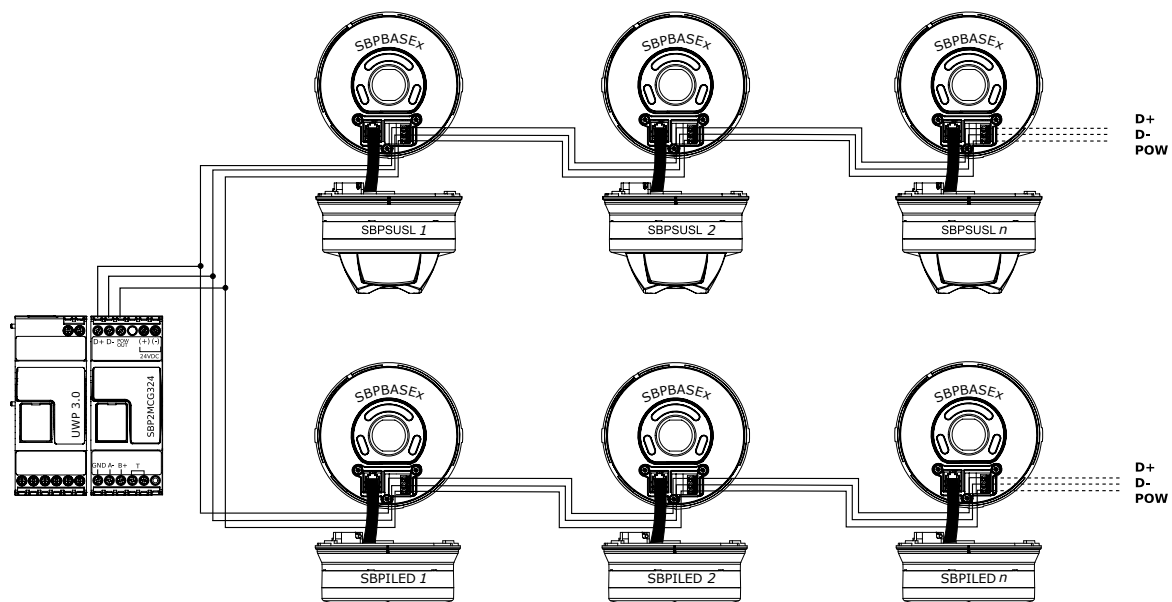
Power Supply

Power supply	By the Dupline® bus via the RJ12 connector
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Communication

Protocol	Smart-Dupline®
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Connection Diagrams



Mode of operation

The following mounting suggestions are the standard ones; for any type of application other than those shown below, please contact our technical assistance before installing the SBPBASEB and the SBPSUSxxx sensors and SBPILED indicator.

Installation of the SBPBASEB together with the SBPSUSL45

The SBPBASEB together with the SBPSUSL45 sensor should be placed at a height between 2.2 to 2.4m. The depth of detection is 1.5 m.

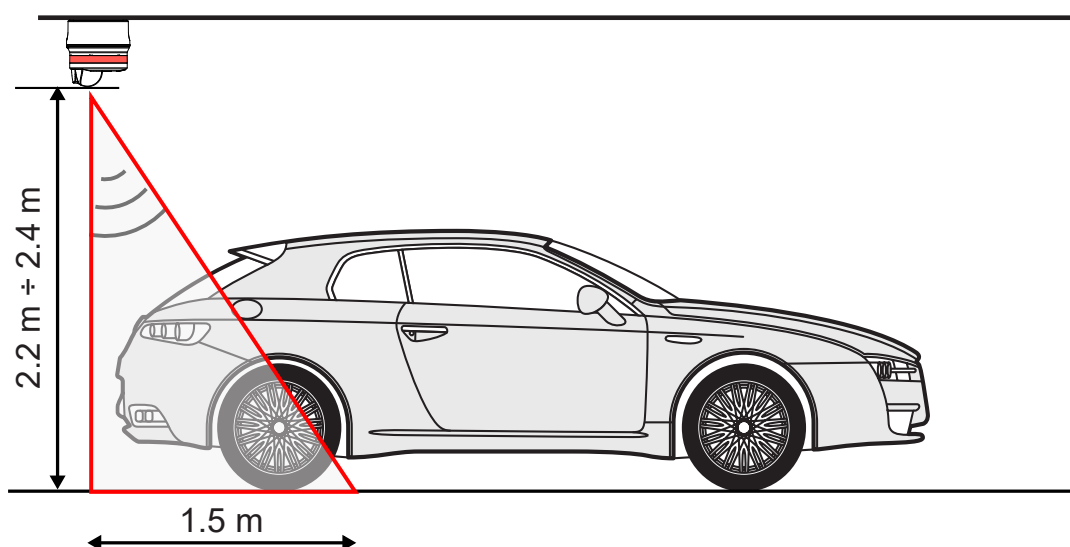
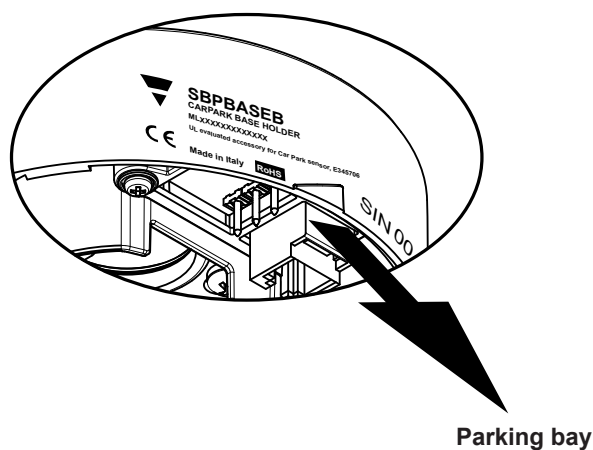


Fig. 1 Sensor height and distance

The SIN indication and connectors must face the parking bay (see picture below):





Example 1

In this example the SBPBASEB together with the sensor should have been installed closer to the parking bay:



The SBPBASEB is too far from the parking bay

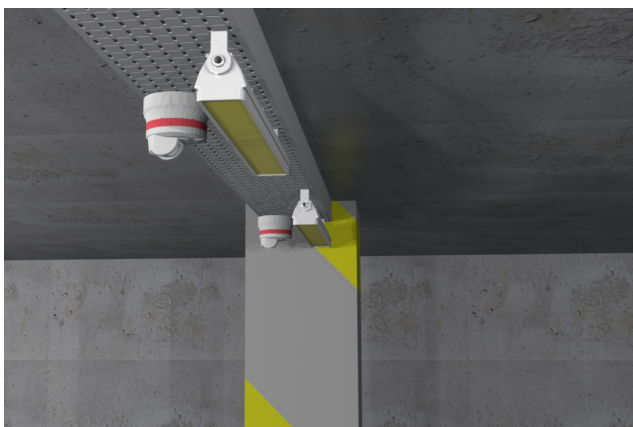


Put the SBPBASEB as close as possible to the parking bay



Example 2

In this example the LED lamp is too close to the sensor and wrongly mounted in front of the sensor, obstructing the visibility.



The LED lamp is wrongly mounted in front of the sensor



Put the SBPBASEB together with the sensor in front of the LED lamp



Note: if the distance between the obstacle and the sensor is less than 2.5 m, the SBPBASEA base has to be used instead of the SBPBASEB. Please refer to the SBPBASEA documentation.

Installation of the SBPBASEB together with the SBPSUSL

The SBPBASEB together with the SBPSUSL sensor should be placed in the middle of the parking bay at a height between 2.0 to 4.0 m.

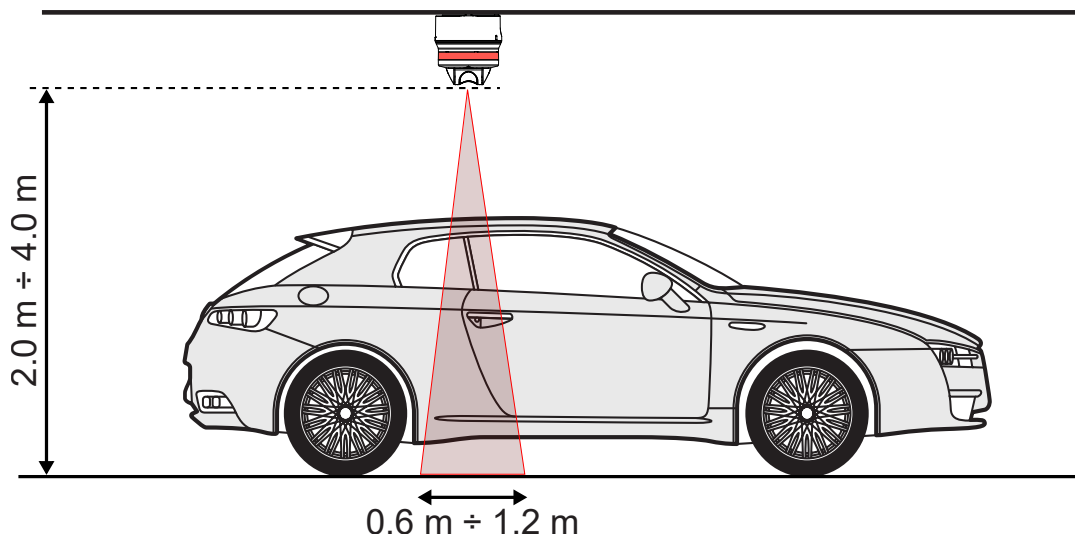
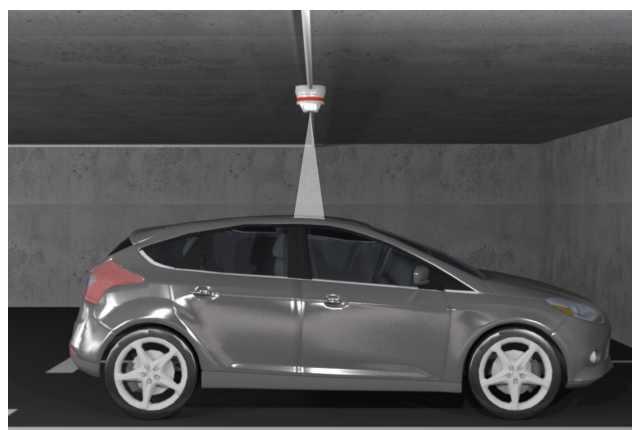


Fig. 2 Sensor height and distance

Example 3



The SBPBASEB is wrongly mounted in the lane



The SBPBASEB is properly mounted in the middle of the parking bay above the car



Installation of the SBPBASEB together with the SBPSUSCNT

The SBPBASEB together with the SBPSUSCNT sensors should be mounted in the driving lane at a height between 2.0 to 2.5 m.

For each detection point the system permits the usage of one sensor or multiple sensors. In order to avoid crosstalk and false detections two sensors should be used.

In this way, the system is also able to detect the direction of the cars.

Example 4

Please refer to the following table to place the two SBPBASEB bases together with the sensors at the proper distance.

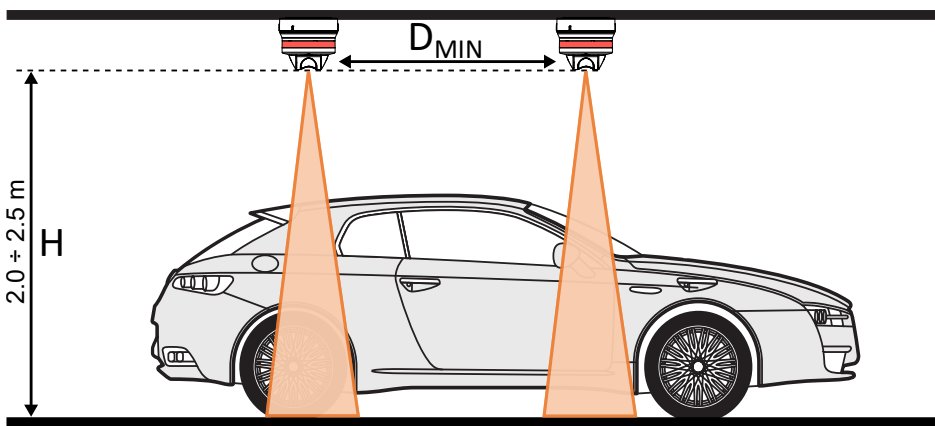


Fig. 3 Sensor height

Sensor height (m)	Min. distance (m)
2.5	0.91
2.4	0.88
2.3	0.84
2.2	0.80
2.1	0.77
2.0	0.73

Tab. 1 Minimum distance between sensors

Example 5

Should the driving lane be larger than the standard (2.5 to 3.25 m), please refer to table 2 to place the two SBPBASEB bases together with the sensors at the proper distance:

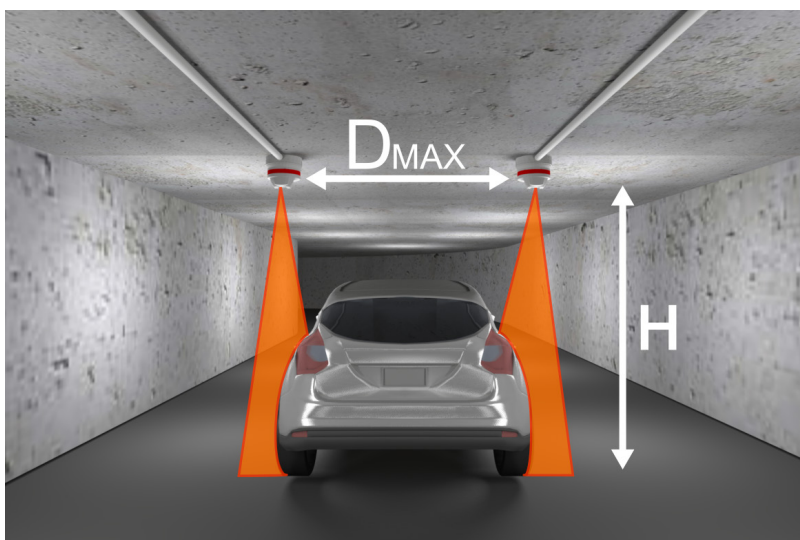


Fig. 4 Sensor height

Sensor height (m)	Max. distance (m)
2.5	2.53
2.4	2.45
2.3	2.38
2.2	2.31
2.1	2.23
2.0	2.16

Tab. 2 Maximum distance between sensors

Example 6

In a one-way lane larger than the standard (2.5 to 3.25 m), SBPBASEB bases together with the sensors is placed in the middle of the lane:



One of the SBPBASEB together with the sensor has been placed too far from the middle of the lane

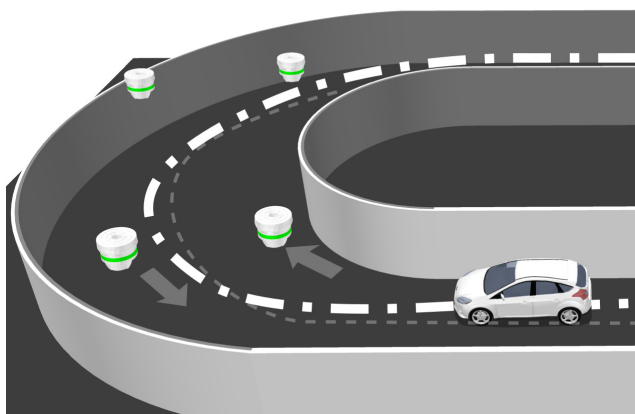


The SBPBASEB are placed in the middle of the driving lane where the car passes

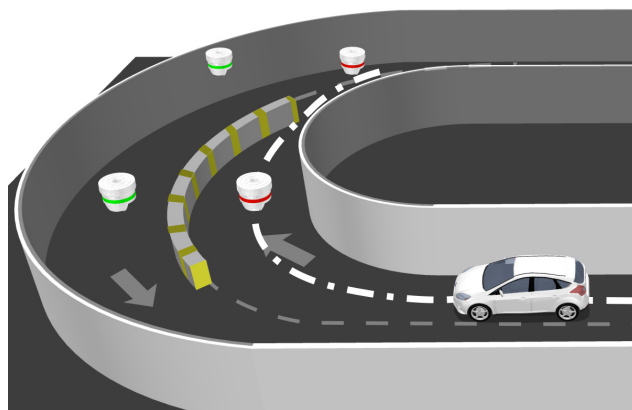


Example 7

In a two-way lane, a delineator should be placed between the lanes to prevent cars from passing in the middle and to permit the correct cars counting.



The car passes in the middle of the lane without activating any sensors



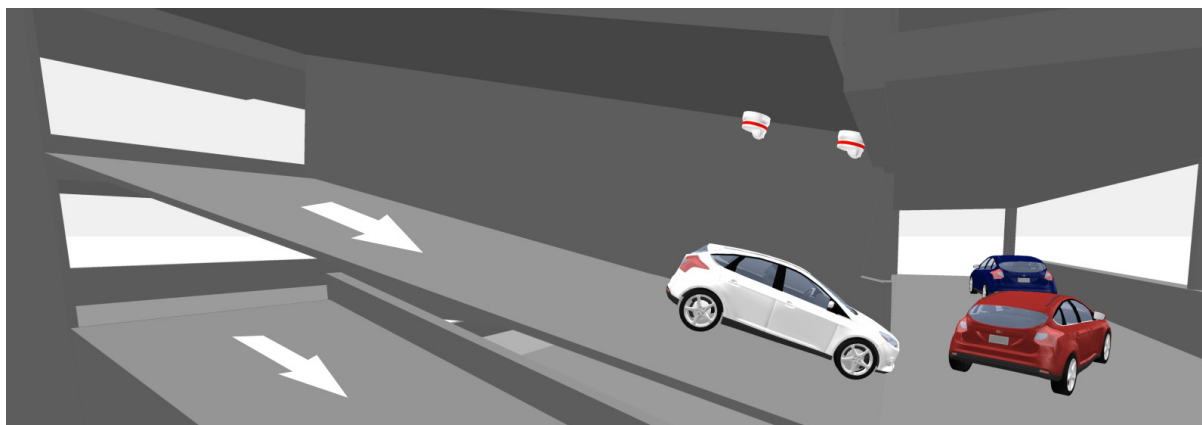
The delineator permits the correct counting for both the lanes



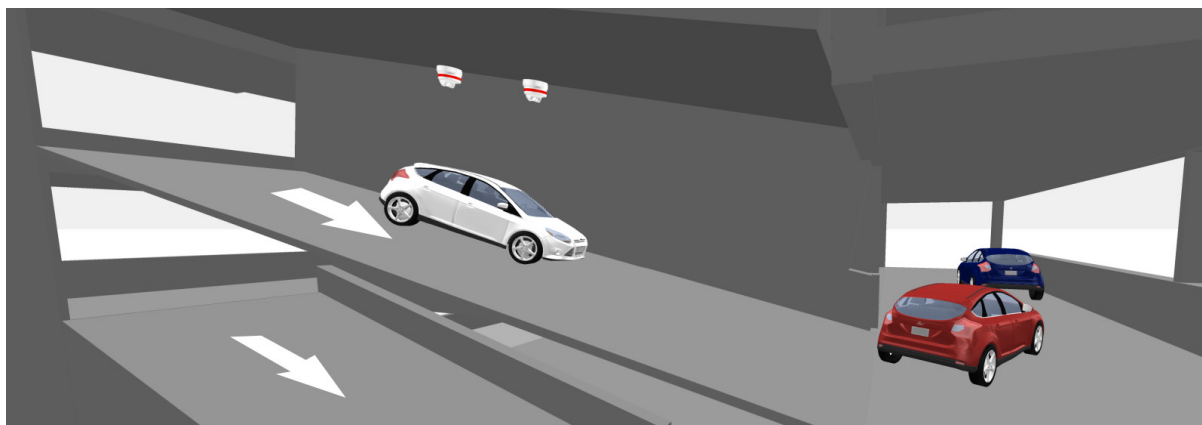
**Example 8**

To prevent queues from increasing/decreasing the counter wrongly, the base and sensors should be placed in the center of the ramp among the floors instead of at the beginning/end. In queue situations, due to slow speed or bumper-to-bumper driving, the sensors might not be able to distinguish one car from another and the counting might not be performed correctly.

Note: should queues be frequent in the areas where the SBPSUSCNT sensors are placed, a single-bay monitoring solution has to be considered by using the SBPSUSLxx sensors.



The SBPBASEB bases together with the SBPSUSCNT sensors have been placed at the end of the ramp



The SBPSUSCNT sensors work properly if placed in the middle of the ramp



SBPBASEB mounting

Place the sensor with the vertical mark at the tip of the triangle base.
Turn the sensor clockwise until the vertical mark is positioned at the rear end of the triangle. The sensor is now attached to the base.
Release the sensor by turning it anti-clockwise.

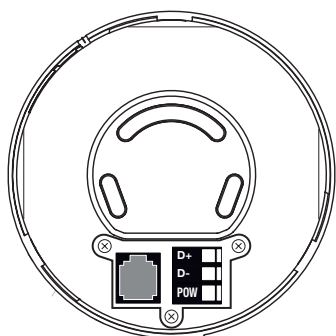


Fig. 5 Basepart: mounted on the ceiling

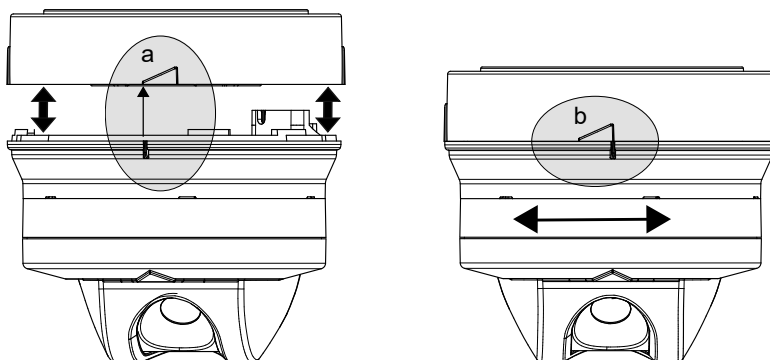


Fig. 6 Mount / Unmount

When mounting the SBPSUSxxx sensor on the ceiling, the sensor must be installed at an angle of maximum ± 5 degrees deviation from the ceiling surface.
Mount the SBPBASEB and the sensor (SBPSUSL45 only) with a maximum horizontal deviation of ± 2 degree to have the best performance in terms of signal reliability.
See drawing below.

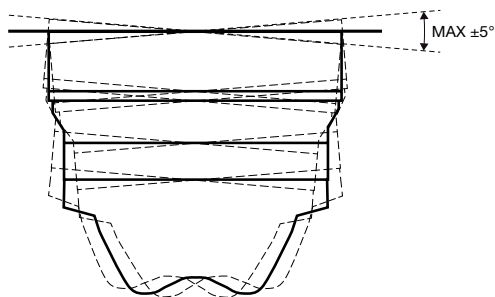


Fig. 7 Maximum $\pm 5^\circ$ vertical deviation

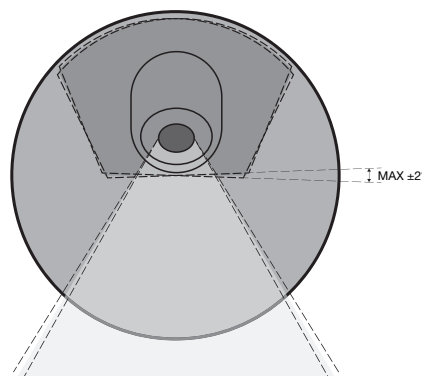


Fig. 8 Maximum $\pm 2^\circ$ horizontal deviation. Bottom view

Make sure that there is some extra wire for the sensor so that maintenance of the sensor/base in the future is enabled. Also place the wire correctly to avoid damage to the cable isolation.



Additional conventional warranty

This product is provided with a ten-year warranty. For further information, please refer to the ***Additional conventional warranty - Performances and proper functioning.***



References

Further reading

Information	Document	Where to find it
Carpark installation	CP3 manual	http://www.productselection.net/MANUALS/UK/cp3_manual.pdf
UWP 3.0 installation guide	System manual	www.productselection.net/MANUALS/UK/system_manual.pdf
UWP 3.0 software manual	UWP 3.0 tool manual	www.productselection.net/MANUALS/UK/uwp3.0_tool.pdf
CP3 troubleshooting guide	Troubleshooting guide	www.productselection.net/MANUALS/UK/troubleshooting_guide.pdf
Installation manual	IM_SBPBASEB	www.productselection.net/MANUALS/UK/IM_SBPBASEB.pdf
Carpark conventional warranty	Additional conventional warranty - Performances and proper functioning	www.gavazziautomation.com

Order code

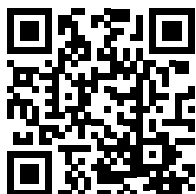


SBPBASEB

Note: The base is delivered without a sensor. Please order it separately.

CARLO GAVAZZI compatible components

Purpose	Component name/code	Notes
Controller	UWP30RSEXXX	
Bus generator	SBP2MCG324	
Lane sensor	SBPSUSL45	
Vertical sensor	SBPSUSL	
Counter	SBPSUSCNT	
LED indicator	SBPILED	



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