



## DualSense

Intelligent sensors for interior and exterior sliding doors

The easy-to-install sensor for activating and protecting sliding doors, also for escape and rescue routes, meets the requirements of EN 16005.

**Smart  
Sensing  
Solutions**

# Smart and safe

**DualSense is the simple solution for activating and safeguarding automatic sliding door systems for people in accordance with EN 16005. Even the standard version of the sensor is suitable for all conceivable requirements, including escape and rescue routes. The sophisticated operating concept with intuitive menu navigation and a large display makes installation quick and easy. The sensor's configuration options also include functions for optimizing the building's energy efficiency.**



DualSense black



# Your benefits

**One sensor design for all requirements:** This ensures a high degree of flexibility in door construction with low stock levels. The sensor is quick to set up and easy to configure, which helps optimize installation times.

## Assembly and service

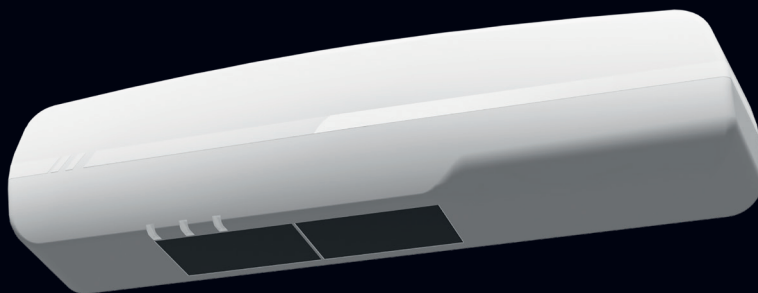
DualSense is designed for quick and easy installation. Effective tools support the installer from electrical and mechanical installation to configuration and service. A quick start menu guides the installer through the installation process.

## Accessible configuration

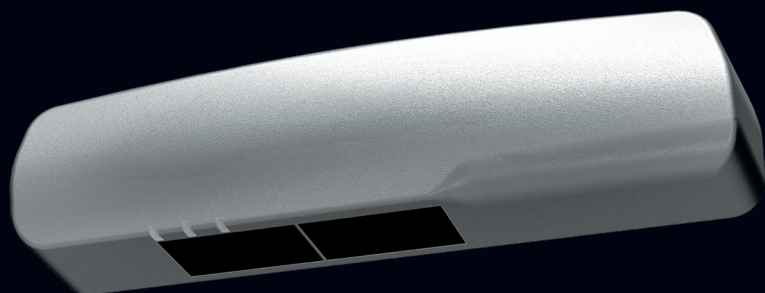
The large display can be controlled intuitively with a joystick, and pictograms offer additional user guidance. Service technicians also benefit from the Quickstart function and a QR code with direct access to online documentation.

## One sensor, many possibilities

As a complete solution for all types of interior and exterior sliding doors, DualSense is also suitable for use in escape and rescue routes. Three color options ensure a matching overall appearance.



DualSense white



DualSense silver

# Universal sliding door sensor

**DualSense D combines proven sophisticated technologies to create a safe and user-friendly solution. A radar motion sensor opens the door. An active infrared presence detector (AIR) protects people in the area where there may be door movement. Only the AIR presence detector is required to protect the secondary closing edges on the door system. The more basic sensor model DualSense S can be used here.**

The sensor is designed in accordance with the requirements of EN 16005 and fulfills performance level PLd, Cat. 2, as defined in EN ISO 13849-1. To comply with the standards, the installation height is between 180 and 300 cm. The sensor can be used outside the defined standards at installation

heights up to 400 cm. At a typical installation height of 220 cm for sliding doors, an area of 200 cm width is covered. Wide door systems can be safeguarded by using multiple sensors. Overlapping AIR fields are separated by differentiable frequency patterns.



# DualSense solutions



RADAR



AIR

## DualSense D

### **Radar module** (activation)

The radar module can be fully adjusted depending on the environment. Adjustments can be made to avoid interference from environmental factors by configuring the field dimensions and field alignment, direction sensing and filters. The ability to ignore passing traffic prevents unwanted door openings and reduces the building's energy consumption. DualSense D offers various radar outputs as standard, which can be used to set up a door system for escape and rescue routes.

### **AIR module** (protection)

In the DualSense D, the AIR module protects people at the main closing edges of the door. Adjustments to the field dimensions and field alignment are possible. The sensitivity can be set to suit the installation height and the floor finish. Specific requirements in particular environments can be met by increasing or decreasing the sensor teach-in time.



AIR

## DualSense S

### **AIR module** (protection)

DualSense S is a supplementary solution for places where only the AIR presence detector is required, for example if the secondary closing edges of a door may come into contact with people when opening. The operating concept and technical features of the AIR module correspond to those for the DualSense D.

### **Smart solution for escape and rescue routes**

For safe automatic doors in the event of fire: DualSense D offers a frequency output and a voltage output for the radar as standard.



# Intuitive operation, simple installation

**DualSense offers a comprehensive package of support from initial installation to service.**

## Clear information

The product comes with a printed quick start guide. Full online documentation can be accessed via a QR code on the device.

## Simple assembly

Thanks to the self-adhesive drilling template and colored wiring diagram on the sensor, it does not take long to mount and wire in the device. The input configuration is detected automatically.

## Intuitive configuration menu

The sensor offers an intuitive menu on a large display. Navigation is via a handy joystick. The configuration parameters and values are shown uncoded on the display and explained using pictograms.

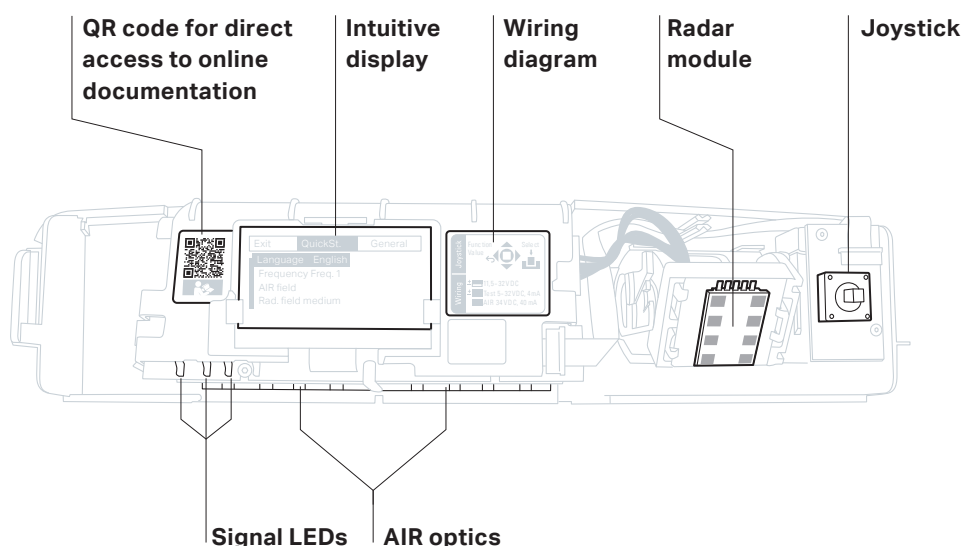
## Guided set-up

After switching on the power, the sensor guides you through the installation with a quick start menu. All the necessary installation steps are covered by executing the quick start menu. As an alternative to using the quick start menu, the sensor offers default settings for typical application and installation situations, at last single parameters can be changed for fine tuning.

## Service and support

In difficult environmental conditions, visualization of the AIR signal can help to find the right settings. Of course, manufacturer support is also available. The complete sensor configuration can be transmitted via QR code.

## Clearly arranged interior

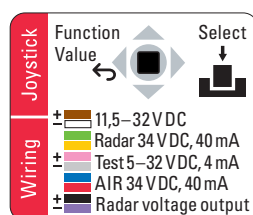


Online documentation  
**DualSense**

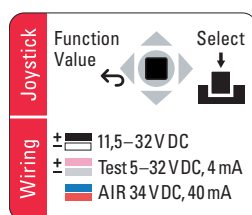


# Additional functions

**Developed for efficient activation and protection of sliding doors:  
Discover the innovative functionality offered by DualSense.**



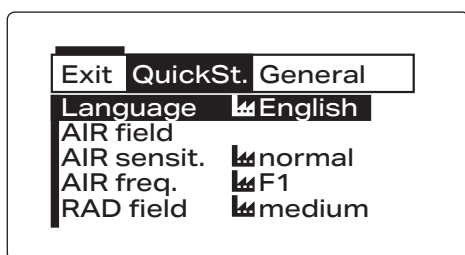
DualSense D



DualSense S

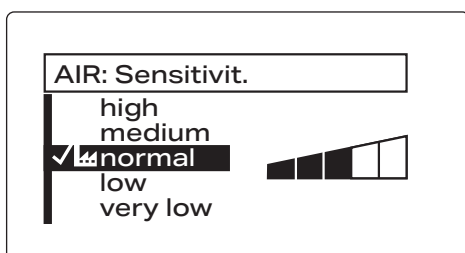
## Wiring diagram

A sticker on the sensor shows the wiring colors and explains the joystick operation.



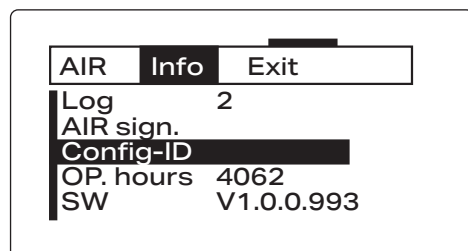
## Quick start menu

The menu offers a self-explanatory guide through the required parameters and mechanical settings.



## Parameters

The menu shows uncoded parameters with associated values and supports the configuration with explanatory pictograms.



## Configuration code

For support requests, the sensor generates a QR code that contains the entire configuration and can be photographed.

# DualSense D

## Data sheet

Sensor for activating and safeguarding automatic sliding doors in accordance with EN 16005 including emergency exits



### Mechanical data

|                        |                      |
|------------------------|----------------------|
| Housing material       | ABS / PA             |
| Housing colors         | black, white, silver |
| Dimensions (L × W × D) | 252 × 61 × 51 mm     |
| Weight                 | 250 g                |

### Technological data

|                                         |                                                                                                        |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------|
| Technology                              | Active infrared (AIR), radar                                                                           |
| Field and spot dimensions on the ground | for mounting height 2.20 m                                                                             |
| AIR Field dimensions                    | max. 2.00 × 0.20 m                                                                                     |
| Spot size                               | 30 × 30 mm                                                                                             |
| Number of spots                         | 2 rows of 12 spots each                                                                                |
| Performance Level AIR                   | PLd, Cat. 2 (EN ISO 13849-1)                                                                           |
| Radar wide field                        | max. 4.00 × 2.00 m,<br>min. 1.90 × 1.00 m                                                              |
| narrow field                            | max. 2.00 × 4.00 m,<br>min. 1.00 × 4.00 m                                                              |
| Transmission frequency                  | 24.2 GHz                                                                                               |
| Transmission power                      | < 13 dBm                                                                                               |
| Performance Level Radar                 | PLd, Cat. 2 (EN ISO 13849-1)<br>applicable for radar output in<br>frequency mode and voltage<br>output |

### Electrical data

|                  |                                                             |
|------------------|-------------------------------------------------------------|
| Supply           |                                                             |
| Voltage          | 11.5 ... 32 V DC                                            |
| Current          | max. 120 mA @ 24 V                                          |
| Inrush current   | max. 240 mA                                                 |
| Test input       | automatic detection                                         |
| Response time    | < 10 ms                                                     |
| High level       | 5 ... 32 V DC, max. 4 mA                                    |
| AIR Output       | Solid state relay,<br>max. 34 V DC / 24 V AC,<br>max. 40 mA |
| Radar Output     | Solid state relay,<br>max. 34 V DC / 24 V AC,<br>max. 40 mA |
| Frequency output | pulsed signal 100 Hz ±10%                                   |
| Voltage output   | Open-circuit voltage 4.5 V,<br>min. 3.3 V @ 10 mA           |
| Connection type  | 3 m cable with plug connector                               |

### Surrounding conditions

|                       |                                                |
|-----------------------|------------------------------------------------|
| Installation height   | min. 1.8 m, EN16005 up to 3.0 m,<br>max. 4.0 m |
| Operating temperature | min. -20 °C, max. +60 °C                       |
| Protection class      | IP54 (EN 60529)                                |
| Ambient humidity      | max. 95% relative,<br>non-condensing           |

### Conformity

|           |                                                             |
|-----------|-------------------------------------------------------------|
| According | MD 2006 / 42 / EC,<br>RED 2014 / 53 / EU<br>RoHS 2011/65/EU |
|-----------|-------------------------------------------------------------|



Sensor in housing, black  
Product no. 461072



Sensor in housing, silver  
Product no. 461074



Sensor in housing, white  
Product no. 461073

For further details see manual

# DualSense S

## Data sheet

Safeguarding for automatic sliding doors  
in accordance with EN 16005



### Mechanical data

|                        |                      |
|------------------------|----------------------|
| Housing material       | ABS / PA             |
| Housing colors         | black, white, silver |
| Dimensions (L × W × D) | 252 × 61 × 51 mm     |
| Weight                 | 250 g                |

### Technological data

|                                         |                       |                              |
|-----------------------------------------|-----------------------|------------------------------|
| Technology                              |                       | Active infrared (AIR)        |
| Field and spot dimensions on the ground |                       | for mounting height 2.20 m   |
| AIR                                     | Field dimensions      | max. 2.00 × 0.20 m           |
|                                         | Spot size             | 30 × 30 mm                   |
|                                         | Number of spots       | 2 rows of 12 spots each      |
|                                         | Performance Level AIR | PLd, Cat. 2 (EN ISO 13849-1) |

### Electrical data

|                 |                                                             |
|-----------------|-------------------------------------------------------------|
| Supply          |                                                             |
| Voltage         | 11.5 ... 32 V DC                                            |
| Current         | max. 120 mA @ 24 V                                          |
| Inrush current  | max. 240 mA                                                 |
| Test input      | automatic detection                                         |
| Response time   | < 10 ms                                                     |
| High level      | 5 ... 32 V DC, max. 4 mA                                    |
| Output          | Solid state relay,<br>max. 34 V DC / 24 V AC,<br>max. 40 mA |
| Connection type | 3 m cable with plug connector                               |

### Surrounding conditions

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### Conformity

|           |                                                             |
|-----------|-------------------------------------------------------------|
| According | MD 2006 / 42 / EC,<br>RED 2014 / 53 / EU<br>RoHS 2011/65/EU |
|-----------|-------------------------------------------------------------|



Sensor in housing, black  
Product no. 465973



Sensor in housing, silver  
Product no. 465975



Sensor in housing, white  
Product no. 465974

For further details see manual

# DualSense

## Order details

| Article no. | Description                          |   |
|-------------|--------------------------------------|---|
| 461072      | DualSense D.3. bk                    | ● |
| 461073      | DualSense D.3. wt                    | ○ |
| 461074      | DualSense D.3. si                    | ● |
| 465973      | DualSense S.3. bk                    | ● |
| 465974      | DualSense S.3. wt                    | ○ |
| 465975      | DualSense S.3. si                    | ● |
| 471023      | DualSense Hood bk                    | ● |
| 471101      | DualSense Hood wt                    | ○ |
| 471102      | DualSense Hood si                    | ● |
| 471013      | DualSense Raincover                  |   |
| 471011      | DualSense Ceiling Mounting Bracket   |   |
| 473323      | DualSense Round Arch Adapter         |   |
| 473345      | DualSense Ceiling Integration Set bk | ● |
| 473346      | DualSense Ceiling Integration Set wt | ○ |
| 473326      | DualSense Connection Cable 5 m       |   |
| 473325      | DualSense Connection Cable 3 m       |   |
| 471014      | DualSense Cover AIR / Screw Set      |   |

● black

○ white

● silver

## Compatible accessories

Compatible accessories for DualSense D and DualSense S



### Raincover

Robust protection for outdoor use.

Article no. 471013



### Ceiling Mounting Bracket

Enables ceiling installation of DualSense where the mounting surface is not vertical.

Article no. 471011



### Round Arch Adapter

Rounded door adapter made of rubber silicone for flexible use on curved walls.

Article no. 473323



### Connection Cable 3 m

Pre-fabricated, 10-pin

Article no. 473325

# Our areas of application

## Customized Smart Sensing Solutions

**We use our extensive technological expertise to develop individual customer solutions. Thanks to intelligent sensor technology for sliding doors, revolving doors and swing doors, BBC Bircher Smart Access offers reliable application-specific products.**



### Sliding doors

The DualSense product family features tried-and-tested radar technology and an active infrared curtain for use on internal and external sliding doors: to activate and safeguard sliding doors and to monitor the secondary closing edges.



### Swing doors

The reliable activation and safeguarding of swing doors is ensured by motion and presence sensors. Intelligent detection of movement in the detection area triggers an electrical signal that causes the swing doors to open.



### Revolving doors

One of the advantages of our sensor technology for revolving doors is a traveling collision guard that ensures smooth operation. Infrared or radar motion sensors detect moving objects and immediately trigger a signal to activate the revolving door.





We will find the right solution for your specific application and will help you ensure that your automatic access systems operate in a way that is energy efficient, secure and convenient.

Find out more about us: **[bircher.com](https://bircher.com)**