BBC BIRCHER Smart Access

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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

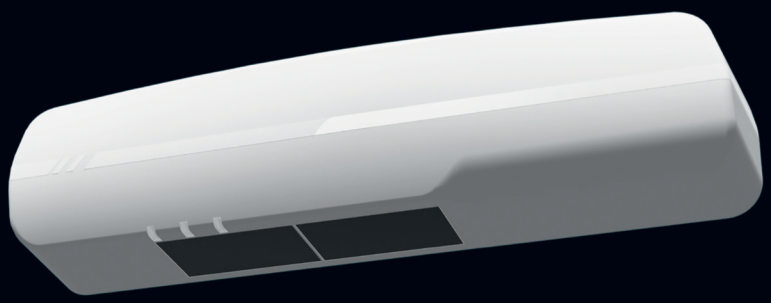
DualSense is designed for quick and easy installation. Effective tools support the installer from electrical and mechanical installation to configuration and service. A quick start menu guides the installer through the installation process.

Accessible configuration

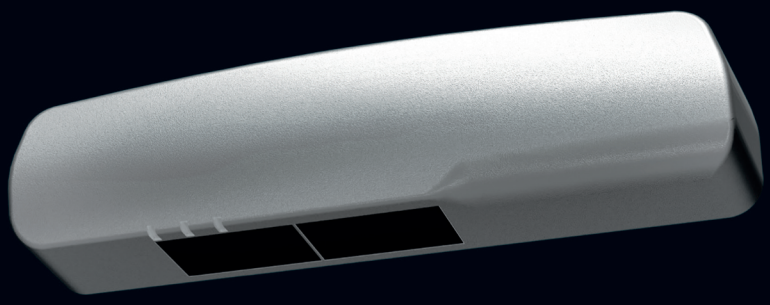
The large display can be controlled intuitively with a joystick, and pictograms offer additional user guidance. Service technicians also benefit from the Quickstart function and a QR code with direct access to online documentation.

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

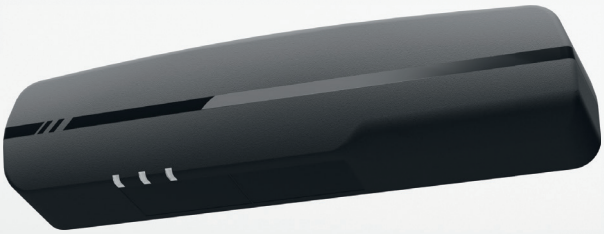
Universal sliding door sensor

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

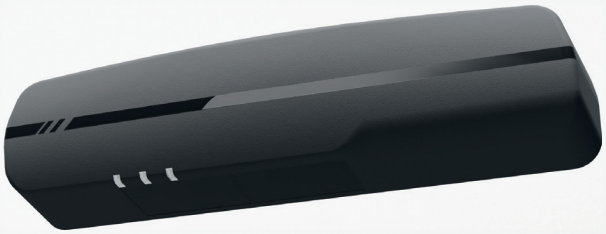


RADAR AIR

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.

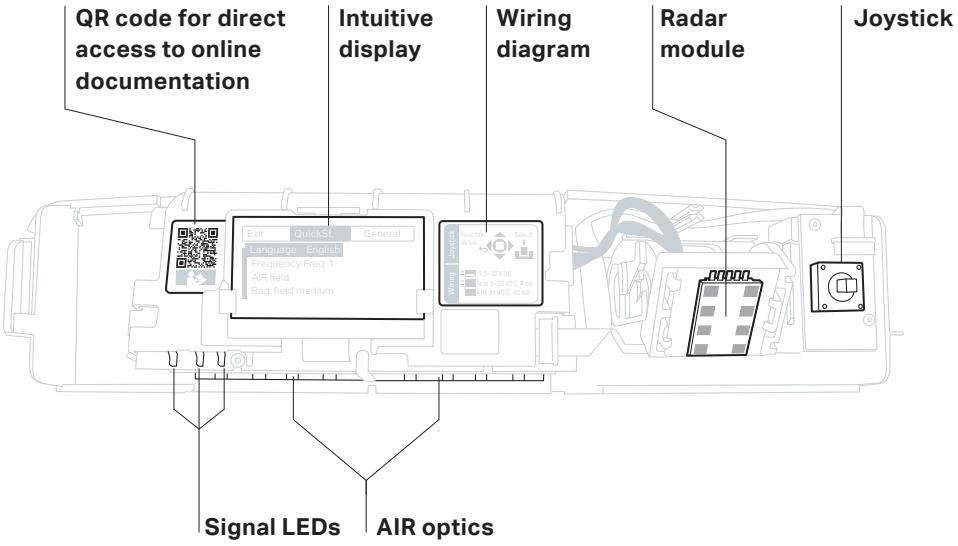
Guided set-up

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.

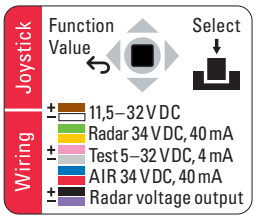
Clearly arranged interior



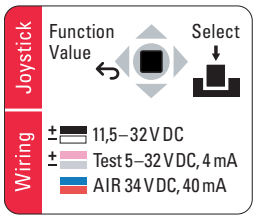
Online documentation
DualSense

Additional functions

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



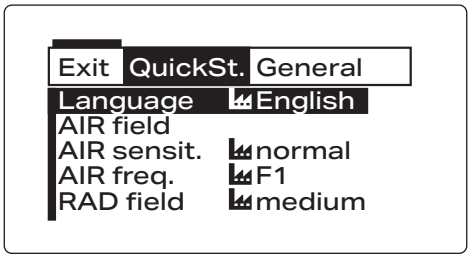
DualSense D



DualSense S

Wiring diagram

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



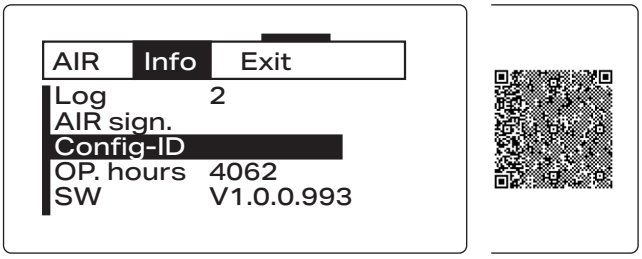
Quick start menu

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, min. 1.90 × 1.00 m
	narrow field	max. 2.00 × 4.00 m, 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) applicable for radar output in frequency mode and voltage 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, max. 34 V DC / 24 V AC, max. 40 mA
Radar	Output	Solid state relay, max. 34 V DC / 24 V AC, max. 40 mA
	Frequency output	pulsed signal 100 Hz ±10%
	Voltage output	Open-circuit voltage 4.5 V, min. 3.3 V @ 10 mA
Connection type		3 m cable with plug connector

For further details see manual

Surrounding conditions

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

Conformity

According	MD 2006 / 42 / EC, RED 2014 / 53 / EU, 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

DualSense S

Data sheet

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, max. 34 V DC / 24 V AC, max. 40 mA
Connection type		3 m cable with plug connector

Surrounding conditions

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

Conformity

According	MD 2006 / 42 / EC, RED 2014 / 53 / EU, 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 IP65 bk	●
473346	DualSense Ceiling Integration Set IP65 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



Ceiling Integration Set IP65
For integrating DualSense with protection class IP65 into the ceiling.
Article no. 473345



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.

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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**

BBC Bircher Smart Access
Wiesengasse 20
8222 Beringen / Switzerland

T +41 52 687 11 11
info@bircher.com

Smart Sensing Solutions

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