



record FlowControl

User manual

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1 Safety

1.1 Presentation of warning signs

Various symbols are used in this guide for easier understanding:



NOTICE

Useful advice and information to ensure correct and efficient workflow of the system.



IMPORTANT

Specific details which are essential for trouble-free operation of the system.



IMPORTANT

Important details which must be read for proper function of the system.



CAUTION

Against a potential hazardous situation that can lead to minor personal injury and property damage.



WARNING

Against a latent hazardous situation that can lead to severe injuries or death and cause substantial property damage.



DANGER

Against an imminent hazardous situation that can lead to severe injury or death.



DANGER

Against an imminent or latent hazardous situation that could lead to electric shock and cause serious injury or death.

1.2 Intended purpose of use

The system is designed exclusively for use as a pedestrian passage. The installation must only occur in dry areas. If there are deviations then proper waterproofing and water drains will be required on site.

Any other application or use beyond this purpose is not considered to be an intended purpose. The manufacturer bears no liability for any resulting damage; the operator alone shall bear the associated risk.

The intended purpose also includes observation of the operating conditions specified by the manufacturer, in addition to regular care, maintenance and repair.

Interventions in or alterations to the installation performed by non-authorized maintenance technicians exclude the manufacturer's liability for consequential damages.



NOTICE

The operation of an automatic door in combination with a wicket door may only take place if the latter is in a secured position.

1 Safety

1.3 General hazards

The following section lists hazards that can be caused by the system even when used as intended. To reduce the risk of malfunction, damage to property or injury to persons and to avoid dangerous situations, the safety instructions listed here must be observed.

The specific safety instructions in the other sections of this manual must also be observed.



IMPORTANT

The country-specific regulations must be observed and complied with!



WARNING

Serious injuries and major property damage.

Incorrect mounting can lead to serious injuries and/or cause major damage to property.

- a) Observe and comply with all important instructions regarding safe assembly.



IMPORTANT

To avoid malfunctions, moving objects such as flags or parts of plants must not be allowed to enter the detection range of the sensors.



NOTICE

The installation must be inspected during the function and safety check for imbalance and signs of wear or damage to cables, springs and fastening parts.

The equipment must NOT be used if repair or adjustment work needs to be carried out.



NOTICE

Checking, repairs, service, maintenance and cleaning may only be carried out when the system is at a standstill and switched off. Before work can be started, persons must be barred from the system and the danger area.



CAUTION

Risk of malfunctions, material damage or injury due to improper settings!

- a) Improper settings can lead to malfunctions, material damage or personal injury.
 - ⇒ Do not disconnect the system from the power supply overnight.
 - ⇒ Settings should only be made by personnel qualified to do so.
 - ⇒ Do not disassemble, put out of operation or manipulate safety devices.
 - ⇒ Have faults rectified by specialist personnel or by personnel qualified to do so.
 - ⇒ Have service and maintenance carried out according to locally applicable regulations or according to a maintenance contract.



CAUTION

Risk of malfunctions, material damage or injuries due to insufficient or missing cleaning or care!

- a) Insufficient or inattentive cleaning or care of the system can lead to malfunctions, damage to property or injury to persons.
 - ⇒ Check the sensors regularly for dirt and clean them if necessary.
 - ⇒ Regularly remove dirt accumulations in the floor rail or under the floor mat.
 - ⇒ Keep the system free from snow and ice.
 - ⇒ Do not use aggressive or caustic cleaning agents.
 - ⇒ Use road salt or loose chippings only conditionally.
 - ⇒ Lay the floor mat without folds and flush with the floor.
 - ⇒ Equipment required for cleaning purposes such as ladders or similar must not be leaned on or attached to the system.



CAUTION

Risk of material damage or injury due to unforeseen opening, closing or turning of the door!

- a) The door can open, close or turn unexpectedly. This may result in damage to property or injury to persons.
 - ⇒ No persons may be present in the opening area of the system.
 - ⇒ Ensure that moving objects such as flags or parts of plants do not enter the detection range of the sensors.
 - ⇒ Do not make any settings on the control unit when the system is in use.
 - ⇒ Have faults rectified immediately by specialist or personnel qualified to do so.
 - ⇒ Remove objects from the opening area.
 - ⇒ Do not disassemble, put out of operation or manipulate safety devices.
 - ⇒ Do not rush through a closing system.



CAUTION

Risk of bruising and severing of limbs!

- a) If the system moves, careless behaviour can lead to serious injuries to limbs or severance of limbs.
 - ⇒ Do not reach in when parts of the system are moving.
 - ⇒ Keep a distance when parts of the system move.
 - ⇒ Do not bump into or touch the system when it is moving.
 - ⇒ Do not open or remove protective covers during operation.
 - ⇒ Do not permanently remove covers from the system.
 - ⇒ Only carry out inspection, service, maintenance and cleaning when the system is stationary and switched off.



CAUTION

Danger of material damage or injury due to non-functioning safety devices!

- a) If safety devices are not functioning, manipulated or put out of operation, there is a risk of damage to property or injuries that can lead to death.
 - ⇒ Never disable or manipulate safety devices.
 - ⇒ Have inspection, service and maintenance of the safety devices carried out according to local regulations or according to a maintenance contract.



CAUTION

Danger of malfunctions, damage to property or risk of injury if used by unauthorised persons!

- a) If unauthorised persons use the system, there is a risk of malfunction, damage to property or injury to persons.
 - ⇒ Children under 8 years of age may only use the system under supervision.
 - ⇒ Children must not play, clean or maintain the system.
 - ⇒ Persons with limited physical, sensory or mental abilities as well as persons with insufficient knowledge or experience may only use the system under supervision or must have received and understood instructions to do so.



DANGER

Danger to life due to electric current!

- a) In case of contact with live parts, there is an immediate danger to life due to electric shock. Damage to or removal of the insulation or individual components can be life-threatening.
 - ⇒ Before starting work (cleaning, maintenance, replacement) on active parts of electrical systems and equipment, ensure that all poles are voltage free and that this is maintained for the duration of the work.
 - ⇒ Keep moisture away from live parts. This can lead to a short circuit.
 - ⇒ Never bridge fuses or put them out of operation.
 - ⇒ Do not connect the power supply until all work has been completed.
 - ⇒ Have work on the electrical system performed by qualified personnel only.



DANGER

Danger to life due to non-functioning safety devices of the fire protection system!

- a) If safety devices of the fire protection system do not function properly, there is a risk of serious or fatal injuries.
 - ⇒ Never disconnect the fire protection system from the power supply overnight.
 - ⇒ Do not disassemble, put out of operation or manipulate safety devices.
 - ⇒ Do not remove safety instructions on the system.
 - ⇒ Never block, hold open or otherwise prevent fire doors from closing.
 - ⇒ Have inspection, service and maintenance of the fire protection system carried out in accordance with locally applicable regulations or according to a maintenance contract.
 - ⇒ Have the fire protection system checked and maintained according to the state of the art.

1.4 State of technology

This system was developed using state of the art technology and officially recognized technical safety regulations. The system, depending on its options and diameter, comply with the requirements of the Machine Guidelines 2006/42/EG as well as EN 16005 and DIN 18650 (D).

Nevertheless, danger may arise if not used as intended.



IMPORTANT

Installation, commissioning, inspection, maintenance and repair work may only be conducted by qualified, trained and authorized technicians.

After commissioning or repair work, fill in the check list and give it to the customer for safe keeping.

We recommend obtaining a service agreement.

1.5 Personal protective equipment

Personal protective equipment is used to protect persons from adverse effects on health. Personnel must wear personal protective equipment during the various work activities on and with the system.

Personal protective equipment is explained below:



Hearing protection is used to protect the hearing from noise. As a rule of thumb, hearing protection is compulsory from when normal conversation with other people is no longer possible.



The head protection serves to protect against falling and flying parts and materials. It also protects the head from bumping into hard objects.



Protective goggles protect the eyes from flying parts, dust, splinters or splashes.



Protective gloves are designed to protect hands from friction, abrasions, punctures or serious injury and from burning caused by contacting hot surfaces.



Safety shoes protect the feet from crushing, falling parts and slipping on surfaces. The puncture resistance of the shoes ensures, that pointy objects do not penetrate the foot.



The high-visibility vest is used to make the personnel stand out and therefore to be seen. With improved visibility and attention, the high-visibility vest protects personnel in busy work areas from collisions with vehicles.

Depending on the place of work and the working environment, the protective equipment varies and must be adapted accordingly. In addition to protective equipment for specific work, the work site may require other protective equipment (for example a harness).

In hygiene-protected areas, special or additional requirements of personal protective equipment may be required. These requirements must be considered when choosing personal protective equipment. If there is any uncertainty regarding the choice of personal protective equipment, the safety officer must be consulted at the place of work.

1.6 Spare parts and liability

Reliable and trouble free operation of the door is only guaranteed when using parts that were recommended by the manufacturer. The manufacturer declines any liability for damages resulting from unauthorized modifications to the door or the use of parts that are not permitted.

2 General information

2 General information

2.1 Purpose and use of the instructions

These instructions are an integral part of the system and enable efficient and safe handling of the system. In order to ensure proper functioning, the instructions must be accessible at all times and kept in the immediate area of the system.

Although only the male form has been chosen for reasons of better legibility, the information refers to members of both sexes.

The operator must have read and understood the manual before starting any work. The basic requirement for safe working is to follow the safety instructions and the handling instructions. In addition, the local regulations and safety rules apply.

The manual can be handed over in extracts to instructed personnel who are familiar with the operation of the system.

The illustrations are for basic understanding and may differ from the actual presentation. Specific representations are contained in the drawings.

2.2 Copyright

The copyright of the instructions remain at:

BLASI GmbH

Carl-Benz-Str. 5-15

D – 77972 Mahlberg

It is prohibited to reproduce, distribute or use the manuals for purpose of competition without the written authorization of BLASI GmbH.

Violation of the here stated copyrights will be prosecuted and fined with compensation of damage.

Subject can change without prior notice.

Differences between product and manual are thereby possible.

2.3 Product identification

The nameplate located on the door provides accurate identification of the product.

2.4 Manufacturer BLASI GmbH

BLASI GmbH Automatic Door Systems

Carl-Benz-Str. 5-15

D-77972 Mahlberg

Germany

Telephone: +49 7822-893-0

Fax: +49 7822-893-119

2.5 Target groups



CAUTION

Risk of injury if personnel are insufficiently qualified!

If unqualified personnel work on the system or are in the danger zone of the system, dangers may arise which can cause serious injuries and considerable damage to property.

- a) All work must be carried out by qualified personnel only.
- b) Keep unqualified personnel away from danger areas.

This operating manual is intended for the target groups listed below:

- Operating entity of the system:
the person who is responsible for the technical maintenance of this system
- Operator of the system:
the person who operates the system every day and has been suitably instructed

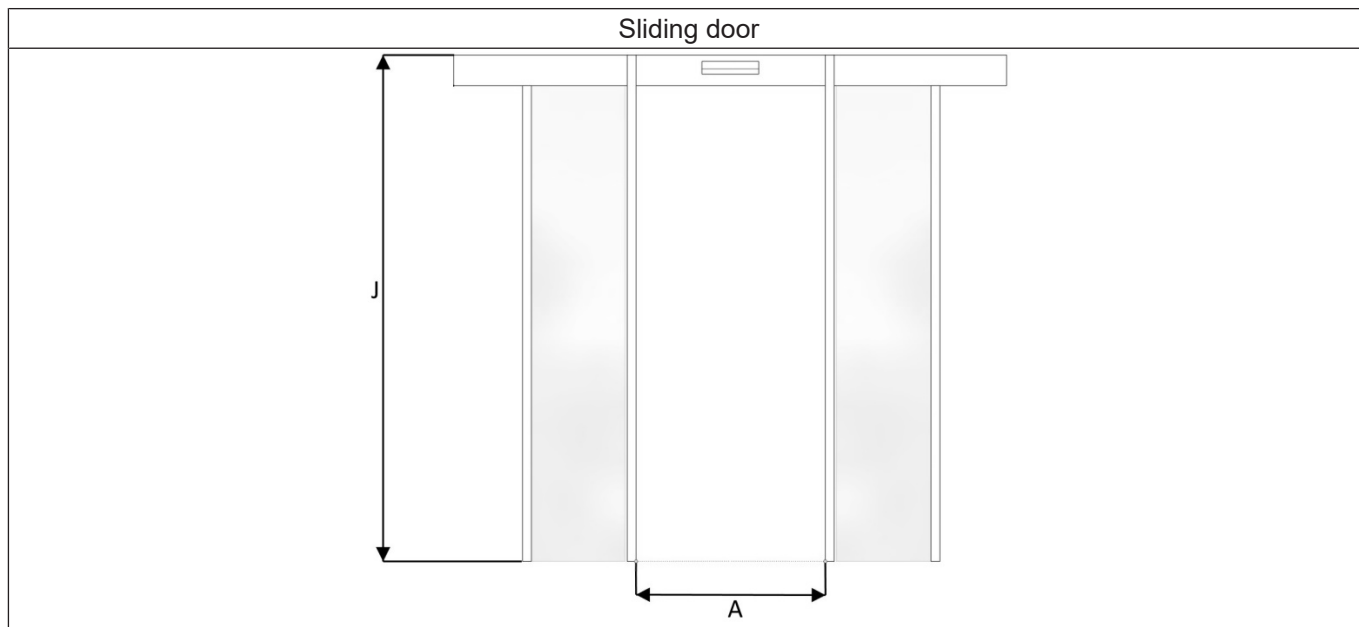
2.6 Definition of terms

Term:	Explanation:
System	<p>The term is also used in these instructions as a synonym for the product. Door operators, revolving doors, sliding doors, etc. are referred to as a system.</p> <p>If information in these instructions refers to a specific type, this is shown accordingly in the text.</p>
User	Users are all persons who use the system.
System operator	The respective owner is referred to as the system operator, regardless of whether they operate the system as the owner or pass it on to third parties.
Authorized representative	The authorized representative takes over certain parts of the manufacturer's obligations with regard to fulfilling the requirements of the Machinery Directive. In particular, the authorized representative may also place the system on the market and/or sign EC declarations of incorporation.
Qualified personnel	<p>Qualified personnel are authorized and appropriately trained to perform the following work:</p> <ul style="list-style-type: none"> – Disassembly, Assembly, Commissioning, Operation, Audit, Maintenance, Troubleshooting, Decommissioning <p>The qualified personnel have several years of professional experience in the technical field, e.g. as mechanics or machine fitters.</p> <p>The qualified personnel are aware of the residual risks arising from the installation site and, due to their professional training, knowledge and experience, are able to carry out the work assigned to them and to independently identify and avoid possible danger points.</p>
Manufacturer	The manufacturer is whoever designs and/or builds machinery or incomplete machinery under the scope of the Machinery Directive.
Life phases	All phases of the system's condition and use are referred to as life phases. This applies from the time the system leaves the factory until it is disposed of.
Personnel	All persons who carry out activities on and with the system are referred to as personnel. Personnel can be, for example, the operator, the cleaning staff, or the security staff. The personnel meet the personnel qualifications required by the manufacturer.
Service technician	Experts and specialists or representative authorized by the manufacturer to perform commissioning, maintenance and servicing.

3 Description

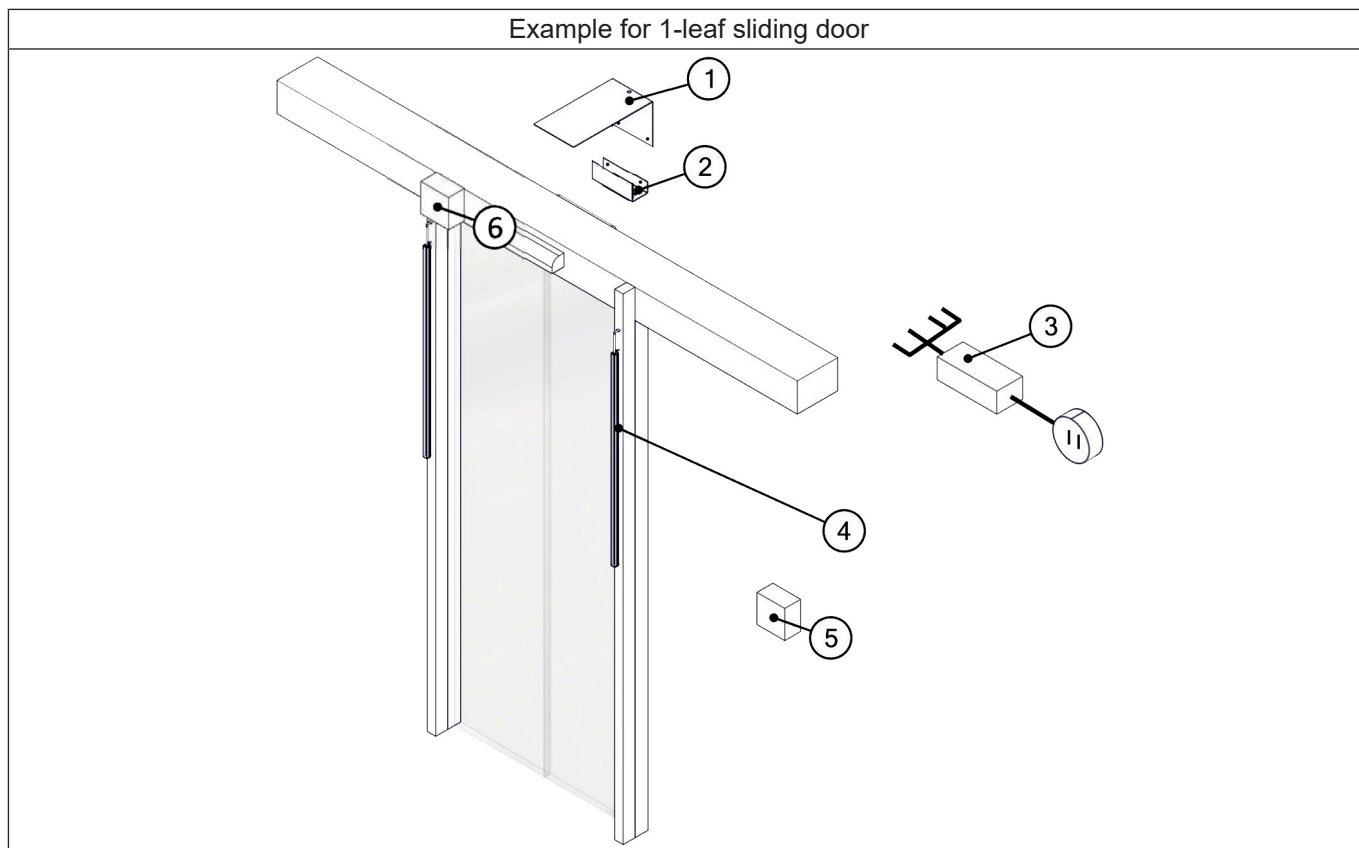
3 Description

3.1 Graphical presentation



Abbreviation	Description	Abbreviation	Description
A	Passage width	J	Total height

3.2 Overall view



Pos.	Components	Pos.	Components
1	Sensor bracket	2	Sensor
3	Control box	4	LED-Strips
5	Operating unit	6	Speaker (optional)

3.3 Function

record FlowControl is an automatic people screening system for retail stores and shops. The system reliably counts all persons in both directions. If the pre-defined maximum number of people is reached or exceeded, the entrance door is automatically deactivated to prevent further intrusion of people. This enables active control and limitation of the flow of people into a building.

Several door configurations (multiple door solution) are also possible. A surface-mounted LED strip indicates the availability of the door for people.

Advantages:

- Savings in security and personnel costs
- Automatic stop of the flow of people when the predefined maximum number of people is reached
- Active control of the entrance door only in entry direction (escape direction not affected)
- Manually adjustable counter values (+ / -) and intuitive operation
- Only 2-4 hours installation work
- Clear signalisation with green/red LED strips (IP54), safe against vandalism

3.4 Master / slave sensors (optional)

For non-standard sizes (extra-wide passageways), the use of two sensors per passageway is required. Only in this way can a reliable count be made over the entire width of the passage. Double counting is impossible due to the corresponding master / slave configuration.

3.5 Authorization levels



NOTICE

The scope of the settings depends on the corresponding authorization level.

Manager – Available settings

- | |
|--|
| – Max allowable people in store (Used to trigger customer traffic lights going red, disable of door opening and triggering of audio alerts – see below) |
| – Pre-alert trigger for Customer Service Desk message as % of Max count (Staff alert is both custom audio message and halo LED visual indicator around speaker. Can be set above 100% if needed) |
| – Delay time before “Please Wait Here” customer message will be retriggered |
| – Delay time before “Please Enter” customer message will retriggered |
| – System ON / OFF |
| – Exit only ON / OFF |
| – Voice alerts for customers ON / OFF. (“Please Wait Here” message plays every time count changes when above MAX. “Please Enter” message plays whenever count drops below MAX count) |
| – Door interaction deactivation at MAX count ON / OFF |
| – Traffic light function ON / OFF (counting only function) |
| – Red Traffic Lights STEADY / FLASH / FAST FLASH |
| – + / - manual addition or reduction to total people count in store |
| – FlowControl BDE display brightness |
| – View last 15 total counts (Days if the system was powered off each night) + total overall count |

Additional module Staff (option) – Available settings

- | |
|---|
| – Push button override switch outside store to permit staff entry |
| – Volume adjustment for Customer Service audio alerts |
| – Temporary muting of Customer Service announcements for fixed period |
| – Disable of visual LED Halo Customer Service alert |

3 Description

Engineer - Available settings
– Number of doors being monitored
– Sensor CAN bus addresses
– Sensor settings (Sensitivity, Sensor field boundaries, Object height, Sensor height)
– Language
– Show software version

3.6 Count data analysis and data transfer (optional)

Data-Box (optional) - Available settings
– With optional 2G/3G/4G/Wi-Fi interface
– Current number of people in store
– Current setting for MAX allowable people in store
– Total number of people who entered store (incl. and excl. manual adjustments made to count)
– Total number of people who left store (incl. and excl. manual adjustments made to count))
– + Manual adjustments made to count
– - Manual adjustments made to count



NOTICE

Remote Data: All data is live, currently updated once every 30 seconds

3.7 Operating modes

Display	Operating mode	Function	Status
	OFF	Counting	– Inactive
		LED displays	– Inactive
		Interaction with door	– Inactive
		Current counter value	– Current counter value is set to zero
	EXIT ONLY	Counting	– Active
		LED displays	– Red
		Interaction with door	– Exit only. Entrance radar inactive
	COUNTING	Counting	– Active
		LED displays	– Green, when the maximum number of persons is reached: Red.
		Interaction with door	– When max. number of persons reached: Only exit, entrance radar inactive.



NOTICE

During system start-up, the counting is inactive, the LED displays are off and there is no interaction with the door. After initialization, the OFF mode is activated and the system is ready for operation.

4 Technical data

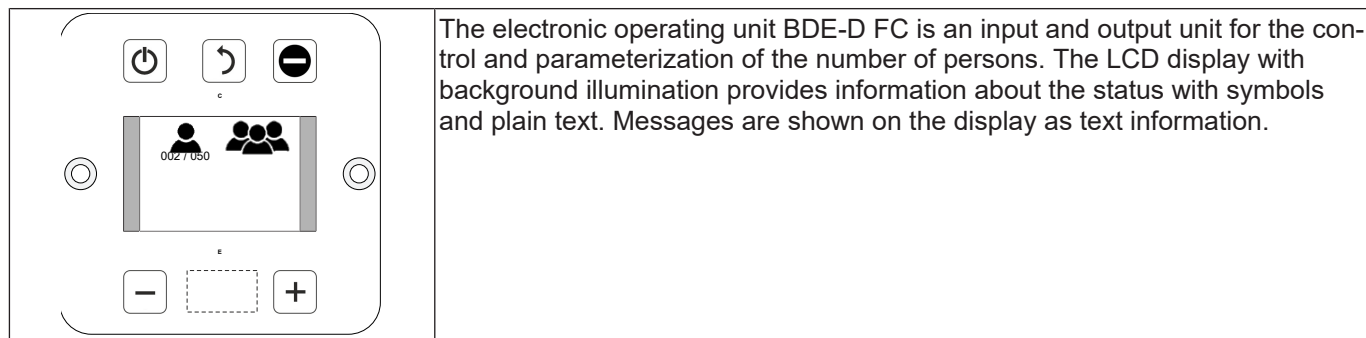
System Specifications	
Counting accuracy:	> 99%
Counting technology:	Time-of-Flight 3D
Counting statistics:	Total Counter Operation counter (15 entries)
Maximum number of sensors (combined):	4
Configuration layouts for several entrance/exit doors:	Yes
Configurable count values:	Yes (Actual and maximum number of persons is adjustable)
On/Off button:	Yes
Operating unit:	BDE-D FC
Interaction with sliding doors:	Yes, all record doors plus third-party doors with radar sensors (relay contacts) Check compatibility with bus-connected radar sensors on third-party doors
Mounting position LED strips:	Exterior
Mounting position electronics:	Interior
Mounting position sensor:	Interior
Dimensions	
Opening width A:	max. 2200 mm at 3000 mm installation height
Passage height G:	variable
Total height J:	variable
Installation height of sensor:	2100 - 3000 mm
Min. object height to be counted:	1300 mm
Electrical connection data	
Mains voltage (input):	110 - 230 V AC, 50-60 Hz
System voltage Peripherals:	24 V DC
Power consumption	
System	Max. 60 W
LED Strips	5 W per meter
Sensor	6 W per sensor
Control box	3 W
Cable length, -extensions	
Recommended cross-section LED strips	4 x 0.5mm ²
Max. Cable length LED-strips	100 m
Max. Cable length BDE-D FC	80 m
Max. Cable length between first and last sensor:	
With 2 sensors	120 m
With 3 sensors	100 m
With 4 sensors	60 m
VoiceBox (optional)	
Mains voltage:	12 - 24 V
Power rating sound module:	10 W at 2 – 16 Ω
Potential-free inputs (voice output):	4
Speaker Output power:	25 W

4 Technical data

VoiceBox (optional)	
Speaker Intendance:	4 – 8 Ω
Speaker volume:	86 dB
Speaker frequency range:	90 – 17 000 Hz
Environmental conditions	
Temperature range:	-15°C to +50°C
Moisture range:	up to 85% rel. humidity, non-condensing
Protection class:	LED Strips IP65 Miscellaneous IP44

5 Operation

5.1 BDE-D FC and key functions



The electronic operating unit BDE-D FC is an input and output unit for the control and parameterization of the number of persons. The LCD display with background illumination provides information about the status with symbols and plain text. Messages are shown on the display as text information.

Button	Designation	Function
	ON / OFF	– Switch system on / off
	BACK	– Exit menu item and change to the previous menu item
	EXIT ONLY	– Door opens only by activating the triggering device on the inside of the door (radar).
	MINUS	– Navigation up when selecting the menu items
	INFO	– The INFO button is the access to the settings. Different settings are displayed depending on the authorization level (see chapter "Select Permission Level")
	PLUS	– Navigation down when selecting menu items



NOTICE

Menu display: In this area, the keys have the function printed above or below the keys (navigation information).

Example: The INFO button has the function "E" (Enter / confirm input).

E



Button	Designation	Function
	ENTER	– Select menu item – Confirm entries within the menu display
	CANCEL	– Cancel entries within the menu display without saving
	Designation	Function
	CURRENT	– Current number of people inside the building.
	MAXIMUM	– Maximum number of persons allowed inside the building.

5 Operation

5.2 Instructional symbols



NOTICE

If an information or an error message occurs, the display of the set operating mode remains active. A corresponding symbol is also displayed.

It is also possible to display both symbols at the same time.

Instructional symbol	Type
	– Information
	– Error

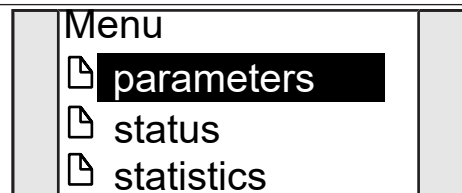
5.3 Menu display



NOTICE

You can switch to the menu display by briefly pressing the INFO Button 2x (double-click).

The menu display is used to select the defined event groups (information and errors) or the system information to call up the corresponding submenu.
The display is as a list, the currently selected entry is inverted (light text on dark background).



5.4 Status display

The status display shows information with status number and message in plain text. If there is more than one piece of information, the number and the current entry number is also displayed.
The next entry is called up by pressing the info key.




5.5 Select Permission Level





Select authorization level Manager		Description
Press key sequence (double click)		
		– Settings for the manager e.g. setting the maximum number of persons allowed




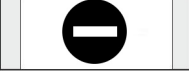
5.6 Restart via keyboard

Restart the controller			Description
Press key sequence	Display icon		
E 		E 	– Press the INFO button for 5 seconds. – Press the corresponding key to confirm. – Restart of the controller is performed.
	No	Yes	

Restart Hardware BDE-D FC		
Press key sequence	Display icon	Description
<p style="text-align: center;">E</p> 	<p>Welcome</p>	<ul style="list-style-type: none"> – Press the INFO 12 button for 12 seconds. – Restart of the hardware is performed.



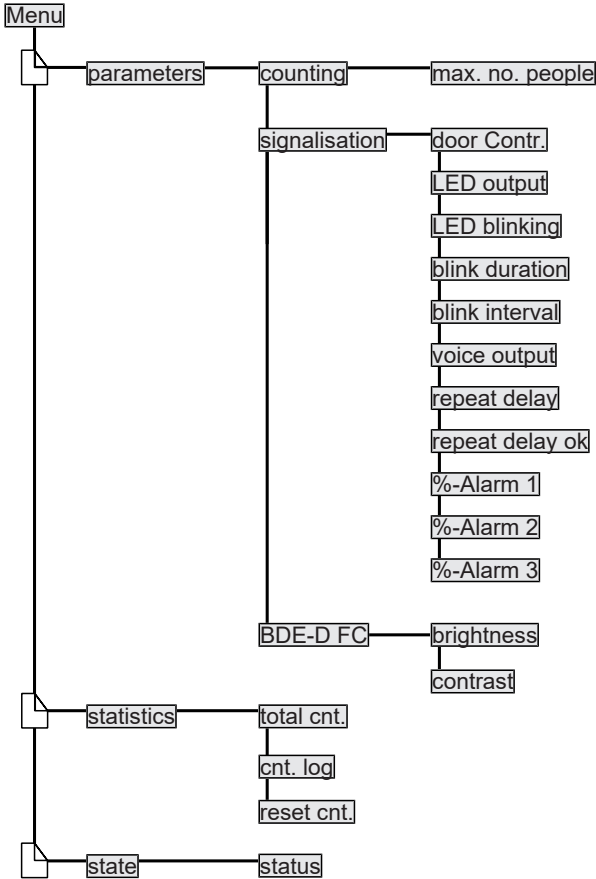
5.7 Operating lock via the keyboard

Locking the control unit				
Press key sequence	Display symbol		Description	
<p style="text-align: center;">E</p> 	 <p style="text-align: center;">C</p>			<ul style="list-style-type: none"> – The control panel keys are locked. – Unwanted manipulation of the control unit is made more difficult. – The locked state of BDE-D FC control unit is displayed on the screen with a key symbol (bottom left).

Unlocking the control unit				
Press key sequence	Display symbol		Description	
<p style="text-align: center;">E</p> 	 <p style="text-align: center;">C</p>			<ul style="list-style-type: none"> – The control panel keys are activated. – Free selection of operating modes and special functions is again guaranteed.

5 Operation

5.8 BDE-D FC Menu

BDE-D FC Menu		Menu item	Default	Description		
Select the Manager authorisation level		Parameters > Counting				
Press key sequence (double-click)		Max. no people	10	Setting the maximum number of persons allowed		
E	E	Parameters > Signalisation				
		Door control	ON	ON = door is automatically deactivated when the person limit is reached		
From Software version 2.3.0		LED output	ON	ON = LED on in counting mode OFF = LED off in counting mode		
		LED blinking	OFF	ON = LEDs flash red when the counter reaches the set limit.		
		Blink duration	5 s	Duration of how long the LEDs flash. After that, continuous light.		
		Blink Interval	500 ms	Flashing frequency (speed of flashing)		
		Voice output	ON	ON/OFF Voice output		
		Repeat Pause	30 s	Pause time of voice output message 1 (if max. pers. reached)		
		Repeat Pause OK	0 s	Pause time for voice output message 2 (if max. pers. is underrun)		
		% Alarm X	100%	Output switches depending on the current counter reading to max. number of persons		
		Parameters > BDE-D FC		Brightness	60%	Adjusting the brightness of the display
				Contrast	40%	Setting the display contrast
		Statistics		Total counter	n/a	Continuously detects all passes in the direction of entry
				Counter log	n/a	Records all counts in the direction of entry per usage (max. 15 entries), switching off the machine creates a new entry
				Reset counter	n/a	Total counter and log counter are reset to 0
		Status		Status	n/a	Display of active status information

5.9 Viewing and resetting counting statistics



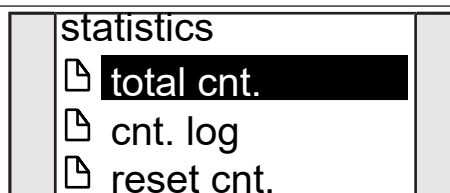
NOTICE

Switching with the ON / OFF key , creates a new entry in the system (In-operation Count).



A maximum of 15 entries are possible, after which a new entry replaces the oldest counter value.

The user can retrieve and reset various counting statistics via the BDE-D FC.



Viewing count statistics Total Count		
Path	Selection	Description
Statistics	n/a	– The Total Count continuously records all the passages in the entrance direction.
→ Total cnt.		

View Count Statistics In-operation Count		
Path	Selection	Description
Statistics	n/a	– The In-operation Count records all counts in entrance direction per usage. – Maximum 15 entries possible, the 16th entry automatically overwrites the 1st entry.
→ Cnt. Log		

Reset counting statistics		
Path	Selection	Description
Statistics	Yes	– The Total Count is reset. – All entries in In-operation Count are reset.
→ Reset cnt.	No	

5.10 Setting the door control

In the menu Parameter / Signalling the door control can be activated / deactivated when the person limit is reached.



Activate / deactivate flashing function		
Path	Selection	Description
Parameter	off	– If the function is activated, the door is automatically deactivated when the person limit is reached. – If the function is deactivated, the door is not deactivated when the person limit is reached.
→ Signalisation	on	
→ → Door control		

5 Operation

5.11 Setting the LED Strips

The flashing of the LED strips can be activated and adjusted in the Parameter / Signalisation menu. The blinking occurs when the counter reaches the set limit.

signalisation
LED blinking
blink duration
blink interval

Activate / deactivate door control

Path	Selection	Description
Parameter	off	<ul style="list-style-type: none"> – If the function is activated, the door is automatically deactivated when the person limit is reached. – If the function is deactivated, the door is not deactivated when the person limit is reached.
→ Signalisation	on	
→ → Door control		

Activate / deactivate LED display

Path	Selection	Description
Parameter	off	<ul style="list-style-type: none"> – When the function is activated, the LED strips and the counting function are active. – If the function is deactivated, only the counting function is active.
→ Signalisation	on	
→ → LED output		

Activate / deactivate flashing function

Path	Selection	Description
Parameter	off	<ul style="list-style-type: none"> – If the flashing function is activated, the LED strips flash when the counter reaches the set limit.
→ Signalisation	on	
→ → LED blinking		

Setting the flashing time of the LED strips

Path	Selection	Description
Parameter	n/a	<ul style="list-style-type: none"> – Duration, how long the LEDs blink until the next constant illumination – Unit seconds.
→ Signalisation		
→ → Blink duration		

Set flashing interval of LED strips

Path	Selection	Description
Parameter	n/a	<ul style="list-style-type: none"> – Setting the blinking frequency (speed of blinking). – Unit Milliseconds.
→ Signalisation		
→ → Blink Interval		

5.12 Setting the Voice Box (Option)

In the menu Parameter / Signalisation the voice output can be activated / deactivated and adjusted.

When the set personal limit is reached, a voice message is output.

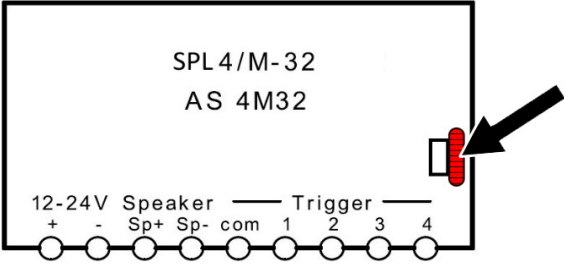
Example: „Please wait here“

signalisation
voice output
repeat delay
repeat delay ok

Activate / deactivate voice output		
Path	Selection	Description
Parameter	off	– As long as the current counter reading is above the set limit, each counting process will result in a further output of the voice message.
→ Signalisation	on	
→ → Voice output		

Set interval between speech output		
Path	Selection	Description
Parameter	n/a	– Duration between each language output set in seconds. – The parameter "Repeat delay" is triggered by reaching the maximum number of persons.
→ Signalisation		
→ → Repeat delay		

Set interval between speech output		
Path	Selection	Description
Parameter	n/a	– Duration between each language output set in seconds. – The parameter "Repeat delay OK" is triggered when the maximum number of persons is steps below.
→ Signalisation		
→ → Repeat delay ok		

Setting the volume of the voice output	
Rotary wheel on the sound card	Description
 <p>SPL 4/M-32 AS 4M32</p> <p>12-24V Speaker Trigger + - Sp+ Sp- com 1 2 3 4</p>	<ul style="list-style-type: none"> – The volume of the voice output can be adjusted on the rotary wheel of the sound card. – The sound card is located inside the Flow-Control Box.

6 Servicing and maintenance

6.1 General remarks

According to the legal provision in force, the operating entity of the automatic door is responsible for its maintenance and for the user's safety, as soon as the installation has been handed over.

The regular inspection of single elements by the operator requires little time investment and reinforces the prevention of accidents caused by an inappropriate use of the door.

Testing

As part of testing, visual and functional tests are conducted, ranging in particular over door leaves, guides, bearings, limiting devices, sensors as well as over safety at danger points due to crushing, shearing or drawing-in.

In addition, with door systems installed on escape routes, all the safety devices of the escape route function are controlled.

To provide the operator with documentation and information, the test result is recorded on a check list and must be kept in the logbook by the operator for at least **one year**.

Maintenance

During maintenance, bearings, sliding points and power transmission are cleaned and adjusted. Relevant fixing screws are controlled and retightened if necessary.

Then, functional testing is carried out for switching devices, drives, control units, force or energy storing devices or command controllers. The safety devices are adjusted and all the motion sequences including the final points are set.

A test run with final overall control of the door system is executed.

To provide the operator with documentation and information, the state of the door installation is recorded on a check list and must be kept in the logbook by the operator for at least **one year** until the next test / maintenance.



IMPORTANT

The test frequency is at least once a year according to the manufacturer's stipulations. The maintenance frequency is at least twice a year according to the manufacturer's recommendations.



IMPORTANT

A listing of recommended spare parts is supplied in the annex and is also available on request at your service department.



IMPORTANT

Tests and maintenance should only be carried out by a specialist or a person specifically trained for that. The authorisation of these persons exclusively lies with the manufacturer. Extent, results and time of the periodical inspection must be recorded in the logbook. These records must be kept by the operator.

6.2 Monthly inspection work to be carried out by the operating company

The monthly inspection and maintenance of individual components by the operator requires little time and serves the reliable function, increased service life and operational safety of the installation.

Test / inspection	Procedure	Expected result
Sensors and LED strips	<ul style="list-style-type: none"> – Walk towards the door at normal speed (from the inside and outside). – If necessary, clean the sensors and LED strips. – Please note: Moisture condensation on the sensor, due to the escape of warm, moist internal air and condensation on the colder external motion sensor, can prevent the door from closing. Dehumidify the interior air or wipe the outer sensor dry if necessary. 	<ul style="list-style-type: none"> – The sensor must cover the entire passage width. – LED strips indicate the correct status. – The door is opened at an early stage and at an appropriate speed to allow unhindered passage.

7 Malfunctions

7 Malfunctions

7.1 Behavior in event of faults

In the event of an irregularity or malfunction, different displays are shown depending on the connected control unit.



IMPORTANT

If malfunctions that endanger the safety of individuals occur, the system must be turned off. It may not be turned back on until the problem has been resolved by a professional and the danger no longer exists.



NOTICE

If the system performs a slow opening or closing movement, this may be a deliberate, automatic redundancy test (self-test).

7.1.1 Malfunction indication



NOTICE

In some cases, malfunctions can be remedied by the operator himself. If the operator does not remedy the fault, please contact the responsible service centre. Before you call, please make a note of the information which is shown on the display of the BDE-D FC operating unit. This information gives the service technician important information for possible troubleshooting.

Malfunction	Display icon	Description
Error display		<ul style="list-style-type: none"> – Error is pending. – Contact Service.
No indication		<ul style="list-style-type: none"> – Check connections. – Contact Service.
CAN malfunction		<ul style="list-style-type: none"> – No connection to the controller. – Contact Service.

7.1.2 Possible troubleshooting

- Based on the status display, malfunctions can be partially corrected by the user.
- If you are not sure, please contact the responsible service centre.
- Before you call, write down the data displayed on the BDE-D FC. These information give the technician important information for a possible troubleshooting.
- You can navigate from one malfunction to another by pressing the INFO button 2x quickly.

Example:

Which information?	How displayed? (Example)	Procedure
Malfunction		– Is automatically displayed on the control unit
Software versions		– By pressing the INFO button 2x quickly, you can access the settings. Then go to the menu item [version].

8 Taking out of service and disposal

8.1 Decommissioning

When shutting down or taking out of service, the system is disconnected from the mains supply and any existing battery is unplugged.



NOTICE

After each temporary shutdown a new commissioning must be carried out.

8.2 Dismantling and disposal



IMPORTANT

All machine parts must be sorted by type of material and disposed according to local regulations and guidelines.



NOTICE

The door systems can be completely disassembled in reverse order.

The installation mainly consists of the following materials:

Aluminum:

- Linking profiles
- Gearbox, Drive panel
- Door wing profiles and side profiles
- Various profiles and small parts

Steel / iron parts:

- Stainless steel casing, Floor panel, Box recess for floor installation
- Optional spacer or reinforcement profiles
- Gear components, springs
- Various small parts like fittings, covers, linking parts, etc.

Glass:

- Door wings and side panels

Various electronic and electromechanical components:

- Sensors, control and operator components
- Batteries and rechargeable batteries

Various plastics:

- Rollers
- Cable clips, coupling and linking parts
- Sealing profiles
- Casing of electromechanical components and sensors



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