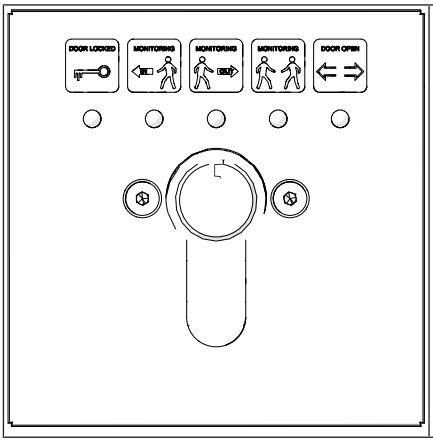
1 Safety features and controls

1.1 Key operated switch BDE-S

The operating modes can be selected using the key operated switch with 5 different positions. The key switch is equipped with an integrated Euro profile cylinder, which can be exchanged by the customer. The currently selected operating mode is indicated by an LED light. The switch is normally located on the door, but it can also be installed externally (i.e. external column or BMS).

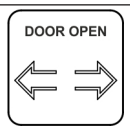


The following operating modes can be set with the key operated switch BDE-S:

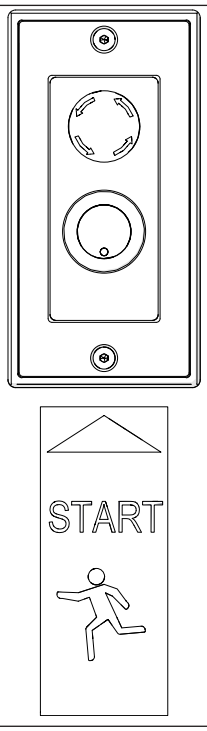
- Doors locked
- Monitoring form outside to inside
- Monitoring from inside to outside
- Monitoring in both directions
- Doors permanently open

1.1.1 Selecting the operating modes

Display symbol	Operating mode	Function
	Doors locked	Status of the system in this operating mode: both doors are closed and locked (if there is a lock). – The operating mode also serves as a reset. – The doors close even if the camera sensor fails (High Level only). – The plant is in a safe mode and no one can pass. – The signal lamps (if present) light up red.
	Monitoring from outside to inside	– The door acts as described in the Entrance / Exit mode (monitoring in both directions), except that monitoring is only activated in the entrance direction. – Several persons can leave the secured area at once (exit direction), as it does not require access authorisation. – The door is activated, for example, by a radar signal.
	Monitoring from inside to outside	– The system functions as described in the operating mode "Monitoring from outside to inside", only in the other direction (monitoring the exit direction).

Display symbol	Operating mode	Function
	Monitoring from both directions	Basic status of the system in this operating mode: both doors are closed or optionally locked. – The optional signal lamps on the inside light up red and on the outside green (or red, adjustable with the service display). – The ceiling lights are switched on. – If an impulse is triggered by an access control, the user can enter the door. – As soon as the presence inside is detected or the door open time has expired, the door closes (if no safety sensors are activated). – If an additional control within the installation is required (such as fingerprint or face recognition), the user must pass this check. – If the person has successfully passed all the tests and is alone inside, the opposite door is automatically opened. – The door then closes (and optionally locks) if neither a person nor an object is detected or the door open time has elapsed. – If entry into another area is granted, the signal lamps change to green accordingly. – In all other cases (two persons, suspect person or identity check failed) access is not granted. The door through which the user entered is opened again so that the system can be left again (person and object). It is then closed again (and optionally locked). – In this mode, monitoring is activated in both directions (input direction and output direction are monitored).
	Doors permanently open.	– The lighting is on. – The optional signal lamps light up green. – Both doors are open. – The passage is not monitored. – This operating mode can be used, for example, to allow the passage of large objects through the installation.

1.2 Panic button

	A panic button is integrated in the system. The door that was last used is opened again and the user can leave the system. The information about which door was last opened is stored in the control system as long as the mains voltage is applied.

1.3 Total open

Total open is a additional safety feature, designed for example, for when the building in which the door is installed needs to be evacuated, even if the door itself was not designed as an escape route. This input contact has the highest priority and opens both doors. This function is also available if there is no PLC or it is defective. This function directly controls an input on the door control unit.

Please Note: the installation is not certified as an emergency or escape route.

IMPORTANT

The total opening can only be done by an external signal. Otherwise, both doors can also be opened (e.g. transport of goods deliveries) via the BDE-S with the operating mode "Door open".

1.4 Lock-Down

As an additional safety feature, to ensure that nobody gets trapped inside the portal, and to maintain the building security regulations, there is an input contact with a high priority. For this function, one door has to close before the opposite door will open.

This function is also available if there is no PLC or it is defective. This function directly controls an input on the door control unit. A DIP switch on the MAIN board regulates which door is to be opened.

1.5 Conduct during a power failure

Without uninterruptible power supply (UPS)
The system could be installed without any type of emergency power supply (battery or UPS). In the event of a power failure, the electronics are switched off and the door remains in its current position. Nevertheless, at least one of the two doors should be able to be unlocked if both doors are closed and quipped with a bistable locking device so that no person can become trapped in the system. The use of a manual locking device is then possible. Special case: If one of the two doors is equipped with the currentless unlocked locking, it is possible that only one door remains closed and locked and no one can be locked in (fail-safe / fail-secure combination).

IMPORTANT

Without UPS or batteries, there is a danger of people being trapped inside during a power failure. We strongly recommend a mechanical emergency release for such cases.

With an uninterruptible power supply (UPS)
The system can also be equipped with an external UPS to maintain function in the event of a power failure. A signal could then be passed to the optional BMS to inform that the main power supply has been interrupted.

With batteries for emergency response
The system is equipped with batteries as standard to prevent people from being trapped in the event of a power failure. With the programming device, the respective door control can be set in such a way that in the event of a power failure, an emergency reaction is still carried out via the batteries. For example, it can be set so that in this case the door is always opened to the public side and locked to the secure side.

1.6 Conduct when power is restored

Restart after mains return
As soon as the main power supply is restored, the door goes back into operation. An automatic reset is performed. The door then switches back to the currently set operating mode.