

Airlock control system

clean-tek has developed a new and improved airlock control system. This new system offers the customer a variety of different options for controlling the airlock, and also allows very simple Plug'n'Play installation. The system is supplied ready to fit and thus satisfies the demands so often made for simplicity and interchangeability.

The **clean**-tek airlock control system consists of a control unit available in 3 versions to interlock 3, 5 or 7 doors relative to each other. This assumes that one of the doors is fitted with an airlock function, i.e. with at least one electrical door opener which can be locked, together with signal light displays to indicate whether access to the airlock is permitted.

The airlock can be operated in active or passive mode, i.e. either all doors are normally locked and are enabled in response to the request button (active); or all doors

are normally unlocked and are locked only when the airlock matrix detects that one of the other doors is open (passive).

No further modification is required to connect the following options:

- Access control 12V or 24V: The access control is connected to the clean-tek distribution box.
- Automatic drive: Revolving doors, sliding doors or roller shutter doors which have their own drive systems often incorporate an integral airlock function. Nevertheless it may sometimes be necessary to combine such doors with our airlock function. Simply connect them to our distribution box.
- Signal light display and electrical door openers are interchangeable and can also be implemented in conjunction with other elements. Thus our system is compatible with yours.
- Emergency stop: Certain doors must allow an unobstructed emergency exit or rescue access. To ensure users' safety an emergency stop mushroom push button can be installed either at the door or in the clean room. This deenergises the airlock control system. This facility requires installation of an emergency stop control module.
- Potential-free contact for freezing the volumetric flow controller (to avoid pressure surges).



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Airlock ontrol system with status display

Signal light element as status display

 All variants can be combined with each other. In this way, 13 different operating concepts are available for integrating an individual door into the airlock concept.

The following components are however available ex stock:

clean-tek ILS-3	
clean- tek ILS-5	
clean- tek ILS-7	_
clean-tek Distribution box	
clean-tek Emergency stop control element	
clean- tek Signal light element	
clean-tek Door opener with USB interface	
clean- tek Cabling set	

clean-tek[®]



Technical data

Distributionbox

Each door requires a distribution box. The following components can be connected to the distribution box:

- Signal light display red/green 2 items
- Electrical door opener (fail-safe circuit or active circuit) –
 1 item
- Request button/access control 2 items
- Door status (can be inverted by jumper)

This is connected to the airlock control system via the distribution box.

Airlock control system

The control system is available as standard for 3, 5 or 7 doors. Control systems for larger and smaller airlocks are also available on request.

- The airlock matrix is configured using a DIP switch.
- The recovery time can be set by the DIP switch in steps of 5 sec, 10 sec, 30 sec, 60 sec, 180 sec. (min. 5 sec, max. 285 sec.)

- The door status can be detected by the airlock control system.
- The airlock control system has a fail-safe contact which disables it in the event of a fire alarm
- The airlock control system is fitted with a relay for alarm messages, 250 VAC. The alarm is triggered in following situations:
 - The emergency stop is pressed (can be disabled by a jumper).
 - he airlock matrix is not complied with (can be disabled by a jumper).
- The alarm can be acknowledged by an input contact (elegant for BMS, or acknowledgement by button, or acknowledgement by cable jumper).

Emergency stop

The airlock control system can be deactivated using the emergency palm button. This requires a connection of a separate module to the airlock control system. Correct operation of the emergency stop function is guaranteed only if the door opener fail-safe circuit is in use.



- Signal light display
- Electric door opener
- Emergency stop mushroom push
- Access control
- Request button
- A Automatic door
- V Distribution box
- ILS-3 Airlock control system