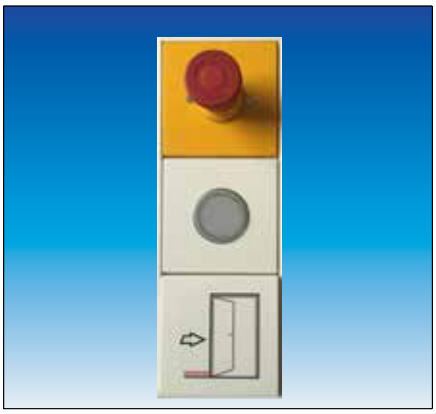


## Interlock Control System for Flush Fitted Switch Boxes or Pattresses SP - Overview

In areas which require an interlock control system but where the door terminals don't have to meet extremely high requirements regarding the suitability for clean rooms, the components of the door terminals can also be integrated in the switch series LS 990 of the company Jung.

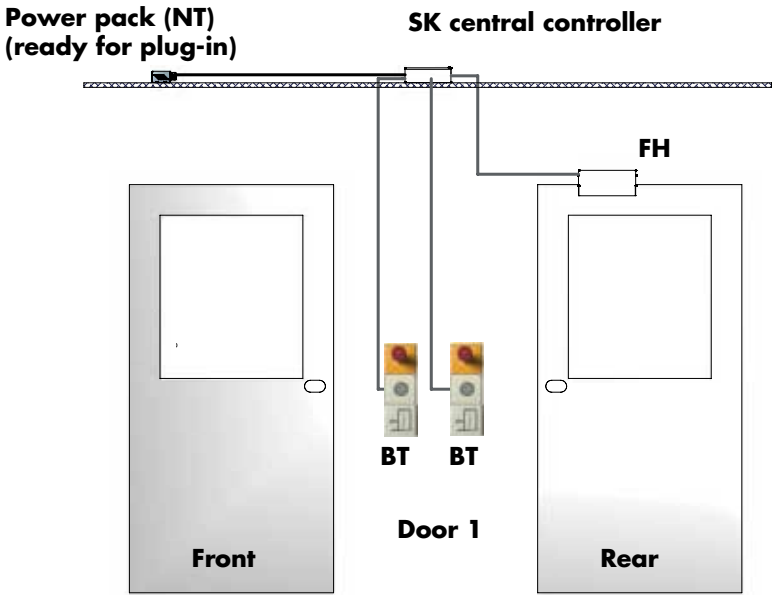
## Basic Set-up

The structure of the version for the switch boxes SP is similar to the one of the ex-proof interlock control system. All control boards are located in the central controller. The individual components of the "door terminals" and the locking devices as bar magnets or electric strikes are connected directly in the SK central controller.

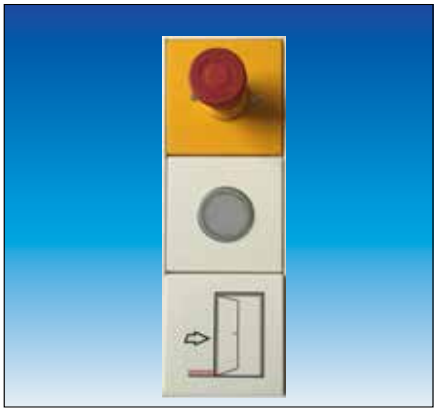
The necessary wiring and the electrical connection have to be effected on site by the customer. This offers the highest possible flexibility of the system.

The power pack supplying the power is ready for plug-in. Its safety plug is plugged in a socket on site. In the SK central controller is provided a socket for the power cable of the power pack.

The operating key, the LED light for indicating the door status and, if necessary, the emergency-open switch are inserted in the switch box/pattress series LS 990 for flush mounting of the company Jung. Depending on the project single frames or frames for up to 5 switches can be used.




**Legend:**
**FH =** bar magnet or electric strike
**BT =** operating terminal, composed of variable components



## Interlock Control System for Flush Fitted Switch Boxes or Pattresses SP - Components

If necessary, this interlock control system also allows to integrate components of the peripheral or central system. In this case a central controller RJ or a distribution box of the peripheral system are connected to the SK central controller.

## System Components

**SK Central controller**
Per system one SK central controller is needed. It is intended for the connection of cables provided on site.

Usually it can control up to 5 doors. However, it is possible to enlarge the system to a maximum of 8 doors by connecting another SK central controller.

In addition it is also possible to integrate in the interlock control system for switch boxes SP components of the peripheral system. In this case a distribution box of the peripheral system (see pages 08.015.00 et sq.) is connected which allows to control 3 more doors with each a control terminal of the peripheral system and if required an operating terminal BT3 - see pages 08.013.00 et sq.). Another option is to connect a pluggable central controller RJ (see pages 08.021.00 et sqq.) together with the operating terminals BTZ and BT3.

**Operating terminals**
They are individually combined per door. Components are the Jung switch series LS 990, a switch for releasing the door, an emergency-open switch on a yellow faceplate and a light sign fitted in a faceplate.

**Central power pack**
The 24 VDC power supply of the SK central controller is provided by a power pack. It is available either with a power of 2.7 A or 5 A. The power pack is furnished ready for mounting with a mains cable with safety plug and a 2 m long 24 VDC cable with 6-pin connector to the SK central controller, i.e. it doesn't have to be opened for connection.

**Door locking device**
For locking the door a great choice of bar magnets and electric strikes is available (see catalogue beginning on page 08.047.00). It is important that the locking devices used have a potential-free feedback contact.

**Time-delayed opening**
In case certain doors of the interlock system shall be released only after a delay, this can be adjusted directly in the SK central controller. The remaining time, however, is not indicated in the interlock.

Information about **more components** can be found on the pages about the peripheral and the central system and the additional components.

It is also possible to connect components of other manufacturers (e.g. **emergency exit terminals** and **electric strikes**). Connection diagrams can be found in the manual or are available on request.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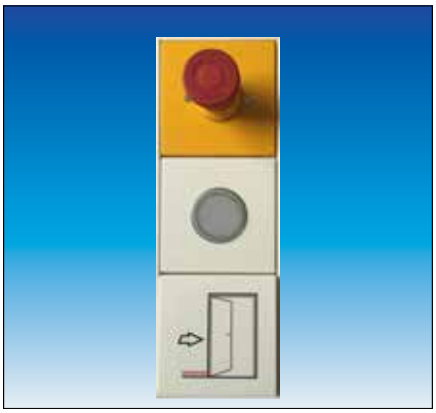


## Interlock Control System for Flush Fitted Switch Boxes or Pattresses SP - SK Central Controller

The interlock control system for flush fitted switch boxes SP combines all electrically relevant parts in the SK central controller. The operating terminals are connected by screw terminals.

The standard version provides 2 control boards for 2 doors. In case the interlock control system consists of more doors, the SK central controller will be furnished with the necessary number of control boards.

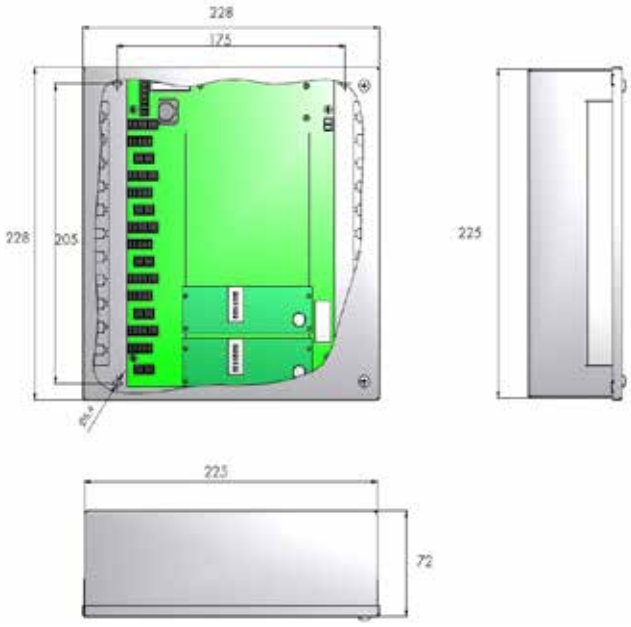
## Structure

The SK central controller is designed for systems with maximum 5 doors. If necessary, the system can be enlarged to maximum 8 doors by adding an additional SK central controller.

The SK central controller contains a basic circuit board on which are plugged the control boards for the individual doors. Above every control board are situated 3 terminal strips each:

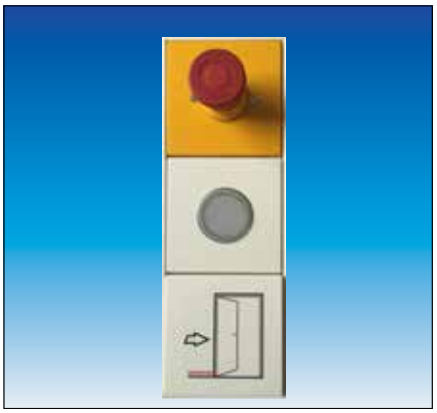
- KL 1: connection of the locking device (bar magnet or electric strike)
- KL 6: connection of the operating keys and the light signs of the corresponding terminals
- KL 11: connection of the emergency-open switch

More information about the structure, functions and additional options can be found beginning on page 08.029.00.




## Technical Data

| | |
|---|---|
| Voltage | 24 VDC +/-15 % |
| Power consumption basic version for 2 doors | 100 mA |
| Power consumption per additional door | 50 mA |
| Power consumption relay for global emergency-open | 30 mA |
| Power consumption LAN module | 100 mA |
| IP rating | IP 20 |
| Operating temperature | -10 °C to +40 °C |
| Material casing | hot-dip galvanised sheet steel |
| Max. cable length to terminals/locking devices | 15 m |



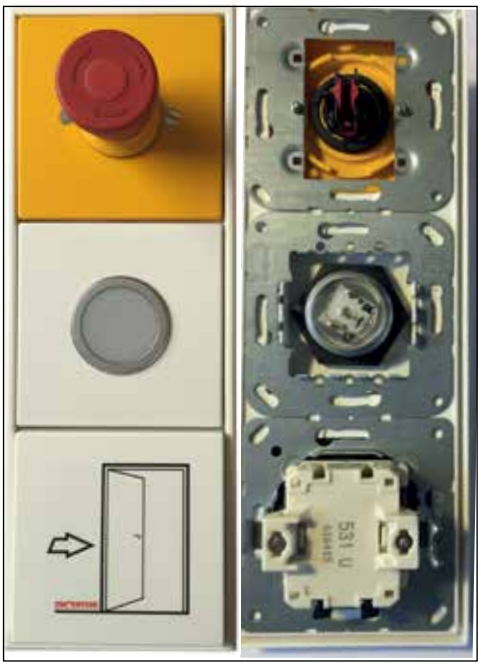
## Interlock Control System for Flush Fitted Switch Boxes or Pattresses SP - Components "Operating Terminals"

The operating terminals of the system for switch boxes SP are combined individually and assembled on site. This offers the highest possible flexibility. The SP system is intended for mounting into flush-mounted boxes.
The flush switch boxes should have a diameter of Ø 60 mm and a depth of 40 - 45 mm.

## Components

For the **operating terminals** the following **components** are available:

- **Frames of the Jung switch series LS 990** (colour alpine white)
  Depending on the number of elements of the operating terminal (with/without emergency-open switch), usually the double or triple frame will be used. To prevent misuse, it is however also possible to locate e.g. the emergency-open switch separately from the normal operating terminal in a single frame.
- **Insert Emergency-Open Switch**
  To make the emergency-open switch contrast optically, it is furnished with a yellow faceplate. The emergency-open switch is illuminated. It can be secured against misuse by a cover which is prepared for a lead seal (see page 08.045.00).
- **Faceplate** (colour alpine white) **with light sign green/red**
  The light sign is inserted in a faceplate with a corresponding hole. Depending on the situation, whether the door may be opened or whether another opened door prevents its opening, the light is green or red.
- **Switch for opening the door**
  The rocker of the switch shows an icon "open door" and the DICTATOR Logo.



- The wiring and connection of all components has to be provided on site.

## Technical Data

| | |
|---|---|
| Light sign | LED 22, bicolor green/red |
| Power consumption light sign | 24 VDC +15 %, 13 mA (green), 17 mA (red) |
| Electrical connection light sign | 3 x blade terminals 2,8 x 0,5 mm |
| Emergency-open switch | mushroom-type push-to-lock |
| Power consumption emergency-open | 24 VDC, 30 mA |
| Emergency-open switch contact set (capacity) | 1 break contact, 1 make contact (3 A at 24 VDC) |
| Electrical connection emergency-open switch | 2 x blade terminals 2,8 x 0,5 mm |
| Operating temperature | -10 °C to +40 °C |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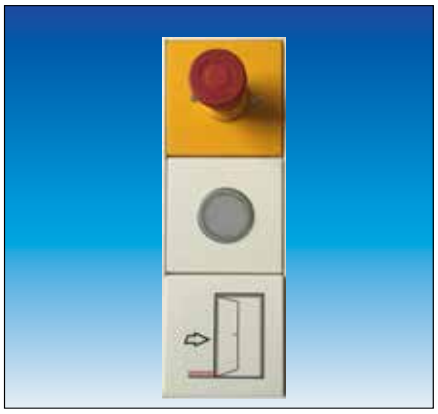

## Interlock Control System for Flush Fitted Switch Boxes or Pattresses SP - Order Information

On this page you will find a summary of the part numbers of all components of the DICTATOR interlock control system for flush fitted switch boxes SP.

Other accessories:

- Power packs page 08.071.00 et sqq.

### Order Information Components Operating Terminals

(see page 08.040.00)

### SK Central Controller

(see page 08.039.00)

| | |
|---|---|
| Frame Jung switch series LS 990 alpine white, single | part no. 711011 |
| Frame Jung switch series LS 990 alpine white, double | part no. 711012 |
| Frame Jung switch series LS 990 alpine white, triple | part no. 711013 |
| Emergency-open switch, illuminated with yellow faceplate | part no. 711006 |
| Light sign red/green with faceplate alpine white | part no. 711003 |
| Operating switch alpine white with icon "open door" | part no. 711000 |
| SK central controller, 2 doors | part no. 710924 |
| SK central controller, 3 doors | part no. 710924-3 |
| SK central controller, 4 doors | part no. 710924-4 |
| SK central controller, 5 doors | part no. 710924-5 |
| Additional relay for global emergency-open, retrofittable, for central controller | part no. 710953 |
| Additional circuit board (LAN module) for connection to facility management system, to be retrofitted in production | part no. 710954 |

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