



DESTINATION CONTROL SYSTEM

Comfort destination control system

Schneider Steuerungstechnik GmbH has already been active on the lift market for 20 years with their full controller packages. In 2011 this range of products was expanded by one controller variant: the so-called destination control system.

This principle is explained in the following on the basis of some already existing lift systems. However, not the sufficiently known advantages of this controller type and the algorithms used are the centre of attention. We want to show the lift manufacturers how simple it is to realise this structure.

The system consists mainly of a central processor (server PC) and various terminal PCs with touch screens (panel PCs). Each PC is equipped with a Windows operating system and a remote software which allows for external access.

The actual destination control system software is on the central processor together with a modified LiSA PC programme. For reasons of safety this central processor consists of a double processor system which allows to switch over to the parallel system if one server fails.

The panel PCs and the lift controllers (LiSA10) are connected to the central processor via a switch and form an individual local network which has access to the internet if connected to the on-site net. In this way it is possible to permanently control every PC or monitor them in real time via each on-site or external computer. Any subsequent change requests are no problem. Software updates are possible at any time.

In the following example the actual destination control system was extended by some interesting additional functions.

1. Card reader system

A card reader is connected directly to every panel PC in the landings and in the lift car. The transponder cards are administered at the reception desk via a PC (porter's panel PC) with touch screen. The data base is on the server.

2. Group control

The porter's panel PC serves to display the lifts, make calls in an easy way and to block or unblock any landings. By simply pressing a button, the entire system can be changed from destination control system to „normal“ group control system and vice versa. This possibility to change the control is particularly interesting if the expected users vary in a time-dependent way or if the destination control system function is not available for whatever reason.

The handling is extremely simple:

Destination selection: simply by touching the field for the requested destination on the panel PC.

Indication of which lift has been selected:

The display indication changes and the user's position (position of the panel PC) is highlighted by means of an animation (blinking position and selected lift) and additionally by means of a contrasting colour.

The indication of the position is especially important as two panel PCs are installed in each landing. This process is optionally accompanied with a sound or voice announcement.

The user goes to the indicated lift. After entering the lift car, the

user can see the current position and the next destination on the panel PC in the car.

Approaching any landings which are blocked for „normal“ users:

Blocked landings are indicated dimly on the panel PC. After holding a transponder card against the card reader, those landings are now also highlighted which have been unblocked for the user.

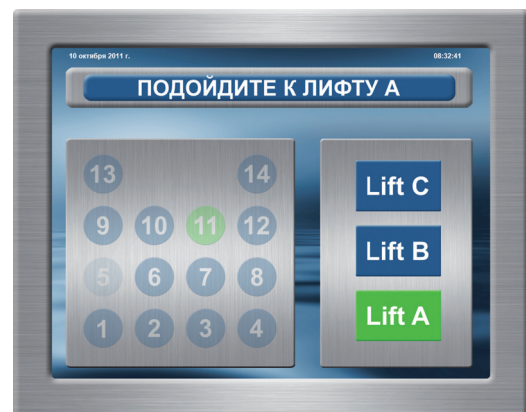
Taking one lift out of the group:

(special and priority travel)

After using a special transponder card, those lifts are displayed which are freely selectable for the respective function. The panel PC in the lift car switches from the position and destination indication to a button display with touch screen in order to enter commands.



Basic destination selection menu



Confirmation: lift A on the way

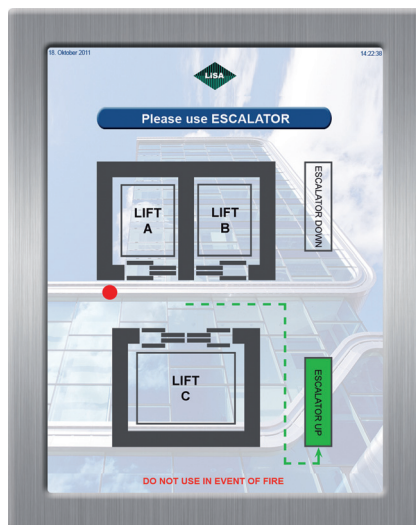


Lift temporarily not available

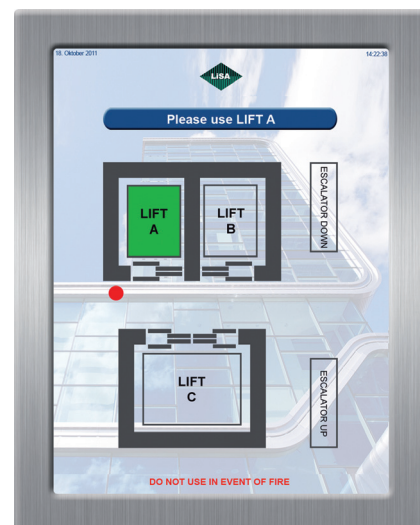
Examples of landing display indications for normal operation:



1 - Basic destination selection menu



2 - Position indication with animated reference to escalator usage



3 - Position indication and indication of the available lift with animation and sound

Examples of car display indications:



4 - Unblocking of landings with special card



5 - Indication without operating mode



6 - Indication with operating mode

Examples of landing display indications in priority travel mode:



7 - Priority travel only with transponder card - lift freely selectable



8 - Reference to selected lift

Example of car display indications:

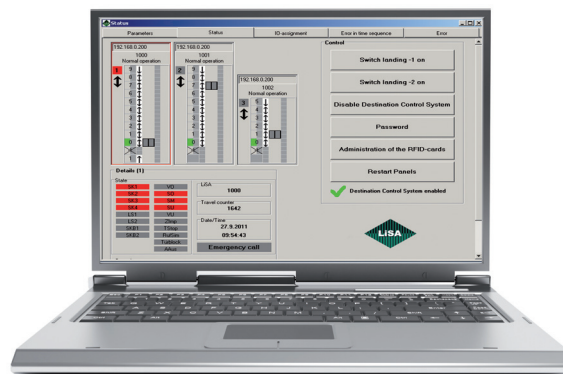


9 - Priority travel destination selection

Modern group control system

The destination control system can quickly be changed over to the conventional group control system. This is done by a special programme installed on the porter's panel PC, for instance. Compared to the destination control system, the panel PC in the

landing only allows to select the direction „up / down“ if the group control system is activated. The destination can - as usually - be selected via the panel PC in the lift car.



Porter's panel PC

Examples of landing panel PC indications:



Indication without operating mode



Indication with operating mode

Panel PC indication:

- direction
- position of the lift
- direction arrow up/down (touch)
- operating mode

Examples of car display indications:



Indication without operating mode



Indication with operating mode

Panel PC indication:

- direction
- position of the lift
- destination button (touch)
- operating mode