

Hats Asociados, S.L. is an experienced company with more than 20 years designing micro-processed control panels for lifts, an activity in which is a pioneer in Europe. Hats control panels have already been installed in more than ten countries.

ZEUS is the culmination of years of experience in the world of the control panel for lifts. The innovative design, the use of the most advanced technology and the proven quality of our products culminate in a new control panel concept for lifts. ZEUS is more than a new control, is a new philosophy for the elevator.

ZEUS uses the latest technology in both hardware and software, incorporates microprocessors of last generation, flash memory, net architecture, and the most advanced algorithms based on Artificial Intelligence, fuzzy logic and neuron nets algorithms.

ZEUS IS INCREDIBLE

- ✓ More than 100 floors and buildings 500 m high.
- ✓ Up to 8 lifts in group without combining board.
- ✓ Standard installation for all kind of lifts: electric 1 speed or 2 speed, speed regulation and hydraulic.
- ✓ Only 11 wires for well, any number of stops and any type of lift.
- ✓ Only 24 wires for cabin, any number of stops and any type of lift.
- ✓ All connections are pluggable
- ✓ Short-circuited and fused lamps detection
- ✓ Different traffic-programs from the simplest to the most complex based on Artificial Intelligence.
- ✓ Safety circuit for doors early-opening and urelevelling with open doors integrated in main board. The circuit is homologated and fulfills the new CE Directive 95/16.
- ✓ Temperature probe in machinery room integrated in main board, regarding the CE Directive 95/16.
- ✓ Programming console with keyboard and LCD included in main board.
- ✓ Secondary Test control included in main board.
- ✓ Mishaps and relevant events detection and memorization.
- ✓ Serial interface included.

Modular architecture

Due to its modular architecture, cabin and shaft installations are standard, and require the same number of wires for any number of stops, for any lift and any traffic mode. The result is an easy and quick installation, which at the same time prevents from wrong connections provided that all the main connections are made through pluggable connectors.

Open architecture

ZEUS is a small network inside the lift, microprocessors are used to control every floor, the cabin, the machinery room, the modem, other lifts, computers, etc. All them are connected to Zeus main board through three RS485 serial buses and one RS232 port. This conception allows that ZEUS control can continue to grow as much as it is required.

ZEUS also offers the possibility to easily divide a group installation in several subgroups or in individual elevators, simply disconnecting the cable group wire. This option provides great flexibility to the installations.

Fault detection and alarm

ZEUS control has a system in order to detect errors and detection and anomalous operations in the installation. Every fault or relevant event is registered in the non-volatile memory, also indicating the date, hour, minute and second of occurrence, together with all the information about the state of the elevator in that moment: speed, load, position, travel time, travel number, operation in course, etc.

Some of the events which can be detected are:

- Phase fault or sequence
- Lamps fused or short-circuited
- Short-circuit in an output
- Broken push-buttons
- Open contact in safety chain
- Independent detection of door contacts

Maintenance assistance

ZEUS does also provide very useful information in order to keep a good quality control, through indications about the aging of the contactors and the motor, fused lamps, time since the last maintenance and many other statistics like number of travels carried out per month or per year, total number of traveling hours, bad-functionings, etc.

Easy connection of elevators in group

ZEUS control panel is especially designed to work with elevators in group. It does not require any additional combining board, simply to connect the main boards by means of a phone cable and to configure the elevators to work according to the requirements.

Intelligent traffic

ZEUS uses the latest concepts in traffic control. Traffic, especially for elevators in group, gets an enormous improvement as for waiting-time and energy saving. The algorithms applied in ZEUS are based on Artificial Intelligence, incorporating novel concepts of neuron nets and fuzzy logic.

Traffic is optimized keeping in mind all the parameters of the elevators, and the peculiar characteristics of the building, in order to adapt in particular to the concrete requirements of each installation. The result is a modern traffic, used up till now only in very special facilities as sky-scraper, but at the same time very simple to be used.

Remote connection

ZEUS can be connected directly to a PC or a modem through its RS232 port. This allows to know the state of the elevator, the mishaps and all the parameters of the elevator directly from the office. ZEUS can also be programmed automatically to carry out a phone call and to notice of a mishap as soon as this takes place.

Everything included

ZEUS control panel has been designed with the objective of simplifying the installation of the elevator. All the requirements and standard functions of the elevator are included in the basic structure: emergency for hydraulic, battery loader, control of groups of elevators, firemen service, entrances for weight-load, luminous and sound indication of excess of weight, gong of arrival to floor, control of temporization for cabin lights, etc.

Programming console integrated

ZEUS control panel includes in its main board the programming console with four keys and a LCD screen.

This console covers several functions:

- Programming of parameters
- Visualization of lift state
- Visualization of faults and alarms
- Visualization of relevant information for the maintenance

CE Certified

ZEUS completes all the normative in use at the moment, the European Normative for elevators: norms EN81-1 and EN81-2, Directive 95/16, the Normative of Electromagnetic Compatibility: norms EN12015 and EN12016 (Emission and Immunity).

ZEUS control has also passed the pertinent evaluations to get the marked CE like electronic circuit of security to carry out the levelling manoeuvre with open doors and of early opening.

ZEUS also guarantees its operation proven against the so call effect 2000, or any other dangerous date as leap years among others.

ZEUS: almost unlimited

Although ZEUS control already incorporates all the actual requirements of the elevators, it is a design of open architecture, so that is clever to adapt easily to any future necessity, thanks to its modular structure and to its philosophy of permanent amplification.

ZEUS is not a closed system, but rather it is prepared to adapt to the future.

ZEUS is the control panel for elevator that simplifies installation and maintenance, the best assistant for the technicians of elevators.