

Product catalogue



ELECTRICAL COMPONENTS FOR LIFTS

CONSTRUCTION OF NEW LIFTS

RENOVATION OF LIFTS

RENOVATION OF LIFT SHAFTS



www.helgos.cz

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Czech Top 100 ceremony at the Prague Castle

HELGO S s.r.o. was established in 1992. Our company provides comprehensive services in the field of the design, manufacture, installation, and subsequent warranty and after-warranty servicing of all lift types, in addition to the manufacture and supply of lift switchboards and electrical components. The company has an international quality management system certificate pursuant to ČSN EN ISO 9001:2009, ČSN EN ISO 14001:2005, ČSN OHSAS 18001:2008, AUTHORIZED COMPANY, Czech Stability Award.

The services provided include the manufacture and supply of electrical systems for lifts and the construction of lifts in line with applicable regulations. For the convenience of our clients we provide complete lift servicing based on applicable regulations. Our competitive advantage lies in an integrated organization system which ensures a highly flexible response to our clients' requirements.

We currently provide contract-based servicing for approximately 1,420 lifts. Since 1999, our company has operated its own centre for lift switchboard production.

We recently extended our production line with Mik-el microprocessor boards. The system functions are described below. The switchboards are equipped with Yaskawa frequency converters, which have proven very reliable over the years.

We supply complete turn-key electric installation to lift manufacturers. According to their requirements, it's possible to supply switchboards without a frequency converter.

Our technical support is one of our chief advantages.

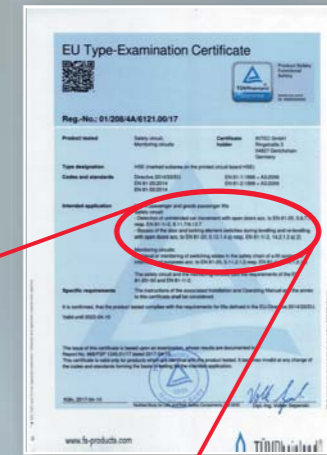
Our largest customers: Czech Republic, Slovakia, Ukraine, United Kingdom.



New ČSN EN 81-20/50 standard

New ČSN EN 81-20/50 standard has applied to both new and newly reconstructed lifts since 1 September 2017. It can happen that your lift will not be approved for operation if it does not meet the conditions of this standard. All responsibility for risks and damage caused hereby passes to the lift operator.

Companies performing reconstruction of original lifts or construction of a new lift must possess new valid European certificates for the components supplied.



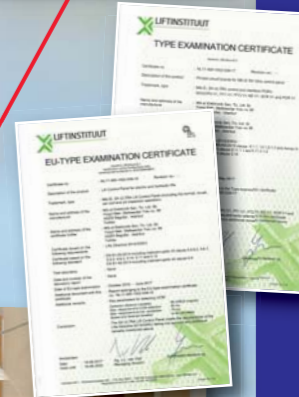
Use in passenger and goods passenger lifts

Safety circuit:

- Detection of unintended car movement with open doors acc. to EN 81-20, 5.6.7.7 resp. EN 81-1/-2, 9.11.7/9.13.7
- Bypass of the door and locking element switches during levelling and re-levelling with open doors acc. to EN 81-20, 5.12.1.4 a) resp. EN 81-1/-2, 14.2.1.2 a) 2)

Monitoring circuits:

- Retrieval or monitoring of switching states in the safety chain of a lift system
- Special purposes acc. to EN 81-20, 5.11.2.1.2 resp. EN 81-1/-2, 14.2.1.2 a) 1)



Modern and safe lift from Helgos

Construction of new lifts

We offer turn-key construction of modern and efficient lifts for different types of shafts.

Reconstruction of old lifts

We offer various types of reconstruction, from partial to total, always using the most advanced lift components.

Reconstruction of lift shafts

We reconstruct and build new lift shafts covered by Rigips boards, with milky or clear safety glass according to the client's requirements. We offer the possibility to choose various handles with the safety glass variant (stainless-steel strips, discs, etc.).

Double-sided exit of cabins

The exit can be installed on the other side of the lift, opposite the back door and allow barrier-free access to residential buildings.

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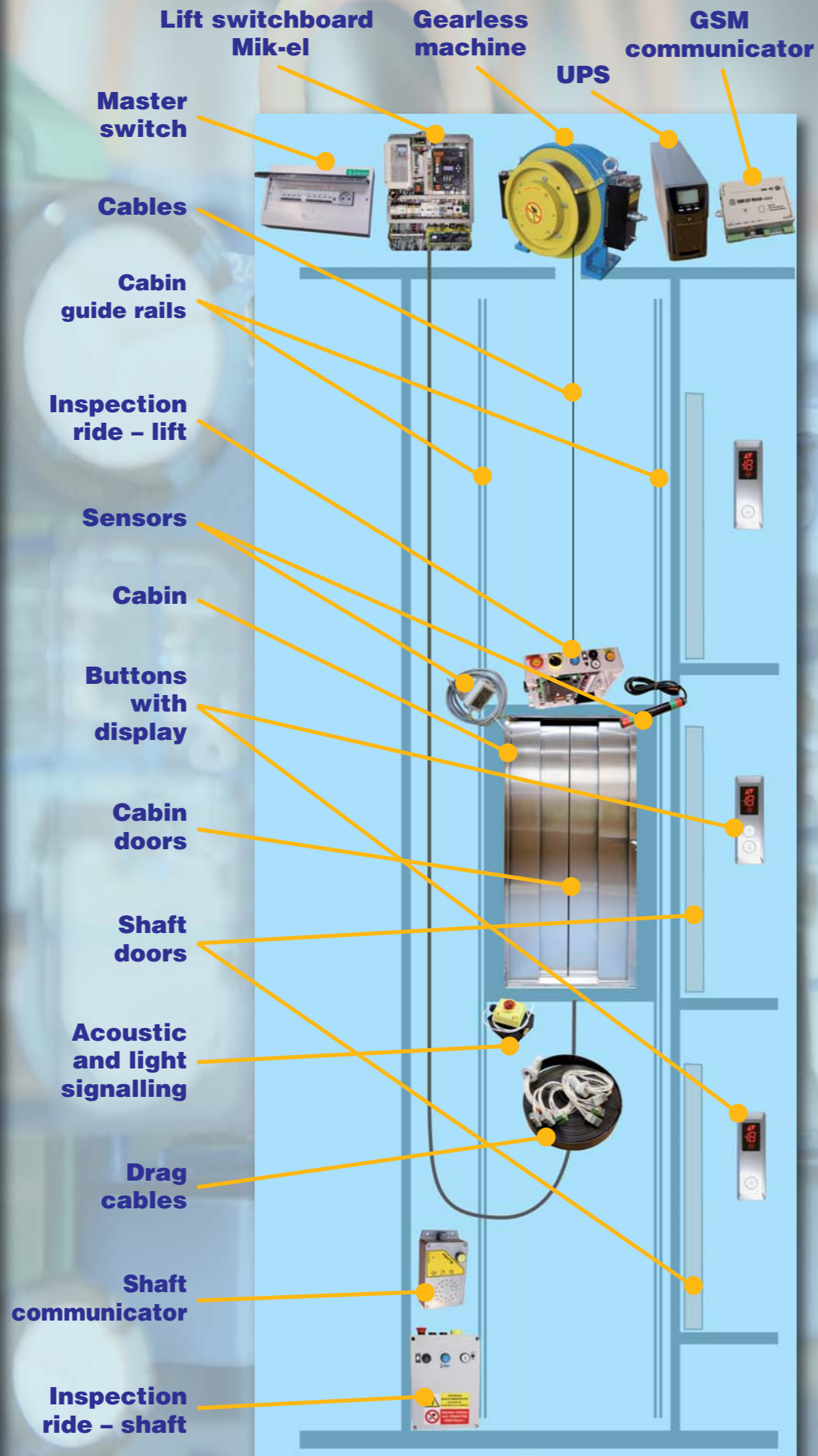
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Basic lift scheme

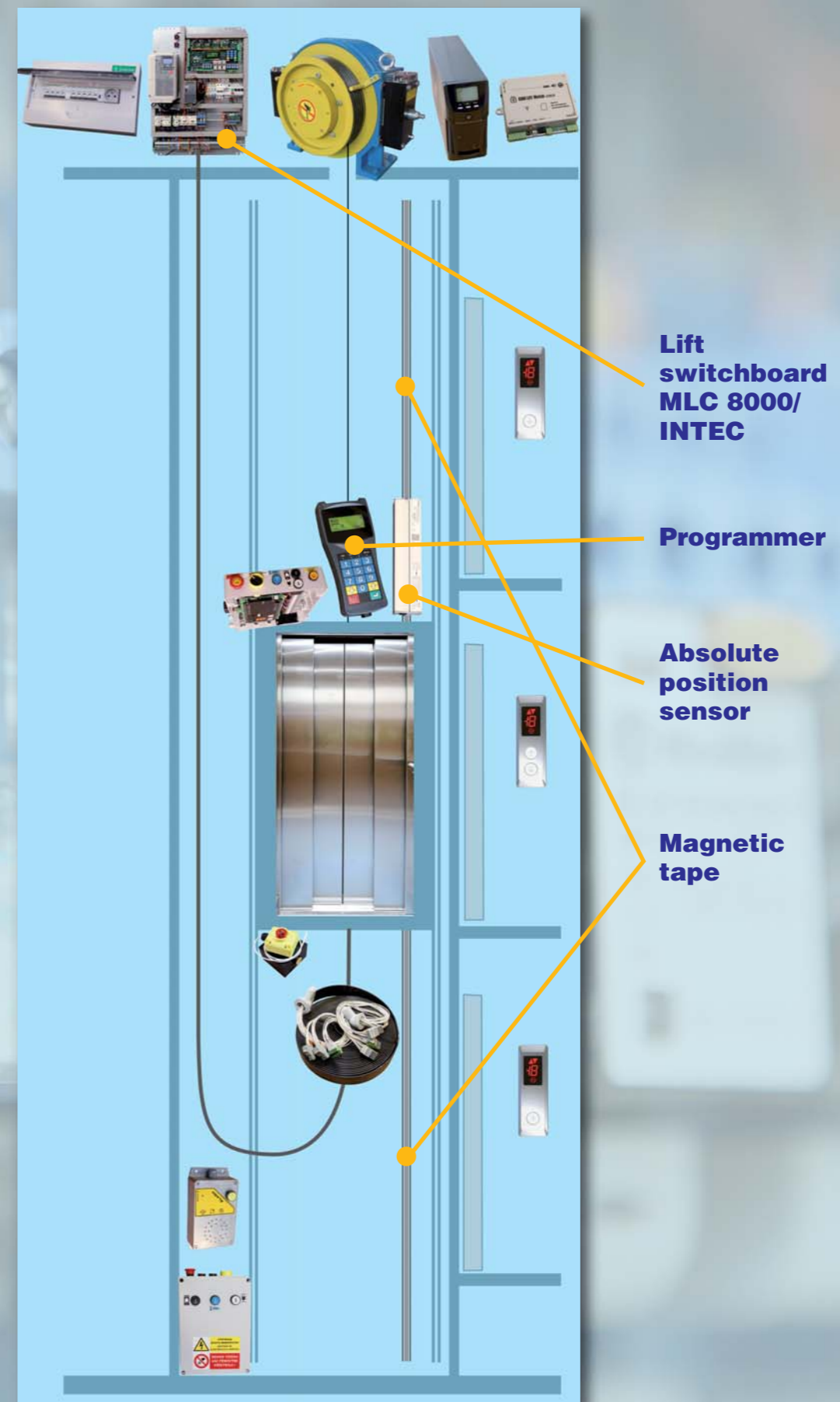
Mik-el control system pursuant to ČSN EN 81-20/5



Extended lift scheme

For technically demanding facilities
 (department stores, hospitals, airports)

MLC 8000 control system pursuant to ČSN EN 81-20/50



Mik-el lift control system

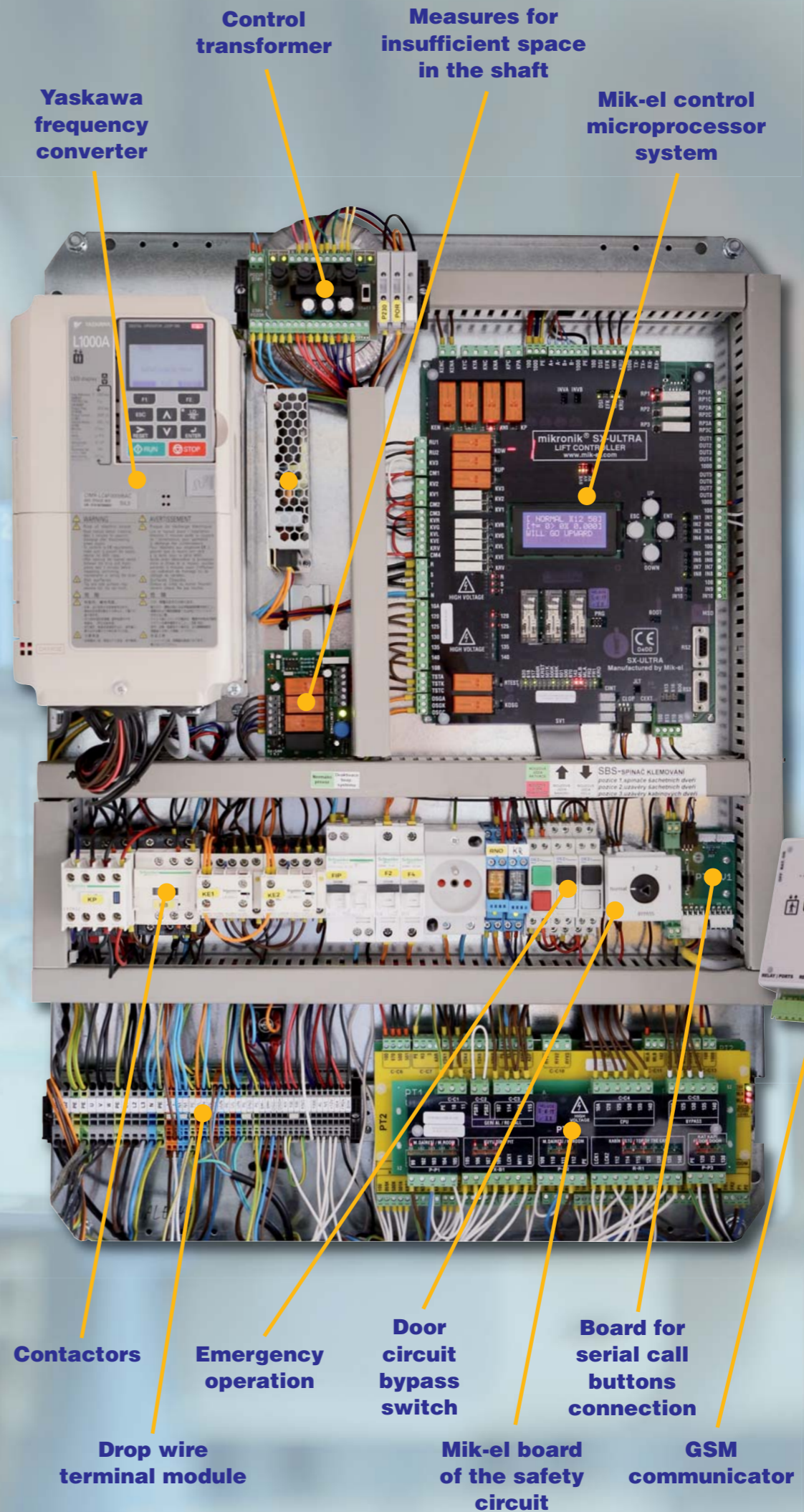
System benefits:

- CanBus – serial connection of the switchboard panel and the inspection ride box = saving the 24-wire drag cable and fault elimination.
- Power supply of processors and their circuits (9V AC) isolated from operating 24V DC = elimination of problems, HW protection during construction and operation (short circuits, voltage peaks of switching elements, etc.).
- Simple and intuitive setup of parameters and controls.
- Two integrated information displays on the main card and status LED on inputs and outputs.
- Sophisticated functions for lift testing (blocking floor switches, blocking door opening, random ride etc.) = convenient for servicing.
- Outputs to gray, binary and 7-segment displays for the cabin and for individual floors without need for an extension card or “expanders”.
- Possibility of door pre-opening and alignment for both hydraulic and cable lifts.
- Possibility of shaft copying (cabin position determination) using a machine encoder and a special magnetic sensor.
- Possibility of simple connection of emergency cabin operation with UPS in case of power failure.
- Advantageous price.
- There is no need for an external programming device (programming is done using the buttons).
- Accurate adjustment of the cabin's arrival to the specific floor is possible using the switchboard buttons, there is no need to move the magnets in the shaft.

System (board) components:

- Possibility of short floors
- Walk-through cabin doors
- A3 standard
- Phase monitor
- Floors announcement with simple set-up using an SD card
- Sound signal for buttons
- Four-row display
- Emergency descent
- Real-time fault recording
- Eight speeds for frequency converter
- Possibility of software securing with a password

Pole design



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Mik-el lift control system



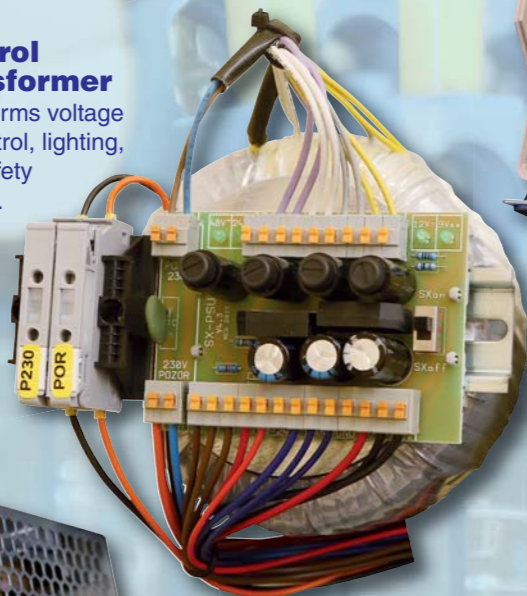
Frequency converter

Provides for smooth starting and stopping of the lift movement. Enables accurate cabin alignment on the specific floor. Reduces power consumption. Very high quality. Over 4,000 Yaskawa frequency converters installed. Long service life.



Control transformer

Transforms voltage for control, lighting, and safety circuits.



Switching source
 Ensures accurate voltage for control systems.

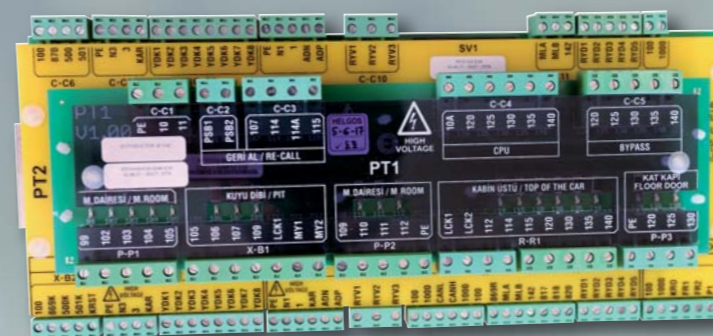
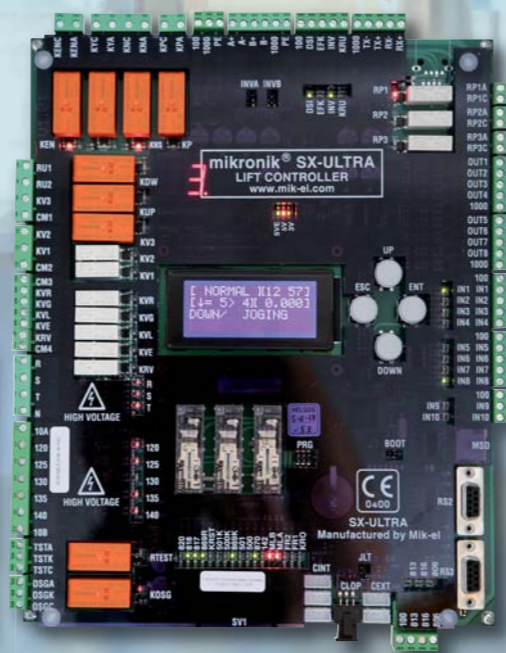
Emergency operation

Lift operation control from the switchboard in the machine room.



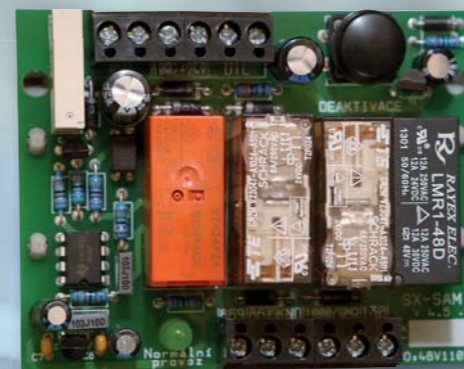
Control microprocessor system

Mik-el microprocessor board controls all lift operations. It is very easy to set up as the parameters are displayed on the on-board display. Highly reliable. Annual volume is approximately 500 installed units.



Board for insufficient space in the shaft

Used in shafts with limited space. Enables lift installation even in confined shafts (safety block).



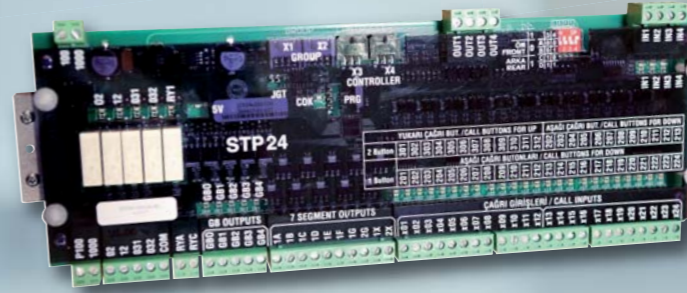
Board for serial call buttons connection

Speeds-up the lift construction thanks to simple connection of call buttons over a serial line.



Card for parallel call buttons

Enables parallel call button connection, thus increasing the compatibility with most call buttons as required by the customer.



Safety circuit board

Graphic/light indication of complete safety circuit facilitating quick fault identification.



Contactors

Control converter function and thus the cabin movement. High quality Schneider products.



GSM communicator

For communication with technician in case of problems with the lift.



Screwless terminal

It enables quick installation and convenient service.



Door circuit bypass switch (bypass)

Mandatory component according to the new standard; enables by-passing the door circuit for higher safety of service technicians.



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Other components



Master switch

Complies with current European standards and protects the switchboard.



Communicator in the lift cabin

User can use the communicator to reach a service technician in case of lift failure.

Inspection ride above the cabin

Enables cabin control during revisions and servicing from the cabin roof.



UPS

In case of power failure, the cabin can return to the nearest floor, including automatic door opening. It also enables manual lowering of the cabin in case of power failure through releasing the speed limiter.



Inspection ride at the bottom of the shaft

Enables lift control from the recess.



Sensors

Supply information about the cabin position and movement to the switchboard.

Shaft communicator

Enables connection with the service from the shaft recess.



Other components only for MLC 8000 system



Programmer

For lift parameters programming and errors identification.

Absolute position sensor

Enables accurate cabin alignment. High European standard.

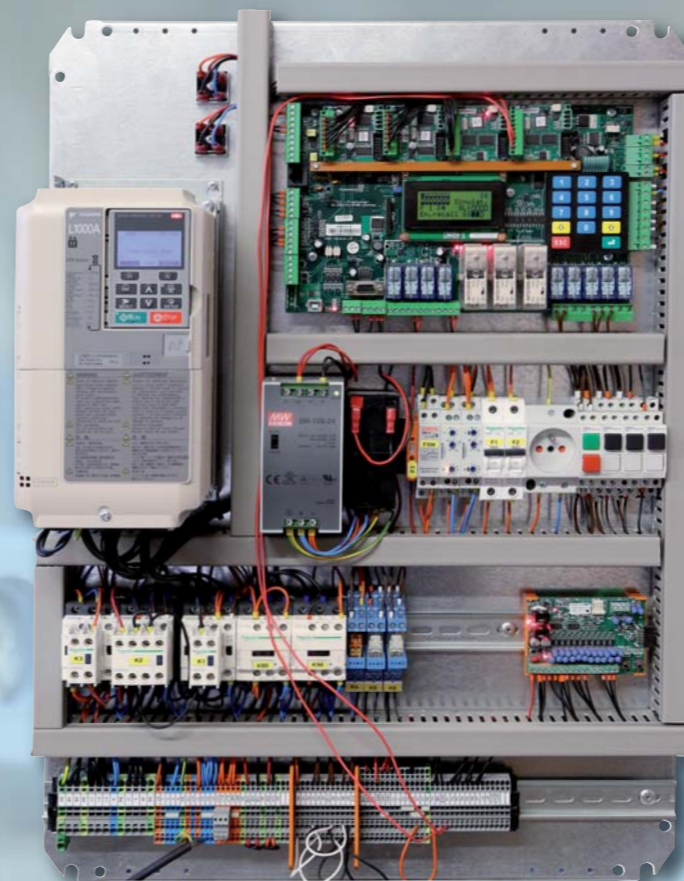


Magnetic tape

Accessory for absolute position sensor.



Lift switchboard MLC 8000/INTEC



Pole design

System benefits:

- Short floor available in millimetres.
- Usage of second opposite door and the possibility of selective opening for individual floors.
- Independent selections as required (side A/B).
- Application of hydraulic drives.
- Application of gearless unit control with frequency converter and feedback.
- Application of cabin position sensing for high travel speeds using an encoder.
- Application of serial line on lift cabin reducing the number of drag cables.
- Multiplex control of several lifts in a group.
- Cabin position sensing with the accuracy of 1 mm thanks to magnetic tape in the shaft.
- Portable programmable terminal for system access from the cabin or from the lift shaft.
- Possibility to connect all lift components over "CanOpenLift" bus (two individual buses), e.g., frequency converter, automatic door, weighing, cabin display...
- Advanced possibilities of performing installation test with a control system.
- Possibility of controlling a car lift, lift with cabin chairs, rope and hydraulic lifts.
- Cabin module with six programmable relays.
- Programming from PC using a USB cable (possibility of settings storage and backup to a PC).
- Possibility of remote programming and set-up over the internet.
- Group control for eight lifts.
- Eight speeds for frequency converter.
- Advanced set-up possibilities for all lift functions.
- Possibility of cabin door control with inspection ride (while servicing).
- Improved loading function.
- Advanced possibilities of adding a password for the software and hardware.
- Time record of all faults – multi-level description of individual faults.
- At least 200 rides are performed on a testing simulator before switchboard shipping.

System (board) components:

- Function for EN 81-20
- Real time recording
- Cable bends counter
- Emergency descent
- Four memory levels
- Eight programmable relays
- Programming on four-line display
- Integrated programming terminal
- Back-up power source – redundant 24 V power supply branch
- Two inputs for machine heat sensors, two on-board heat sensors (possibility to control the switchboard cabinet fan)

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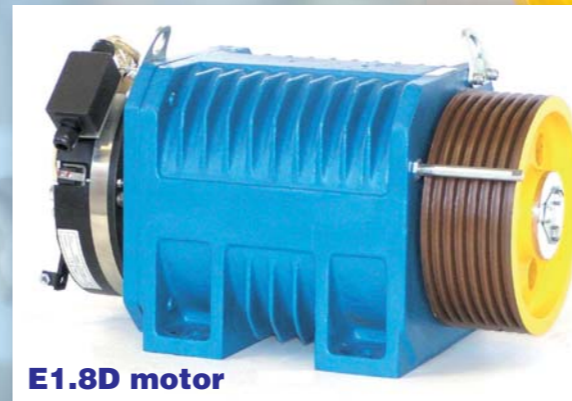
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Gearless machines



G3-OF motor

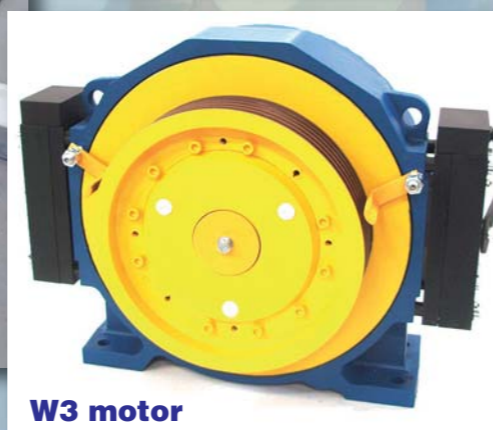


E1.8D motor



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Supporting devices



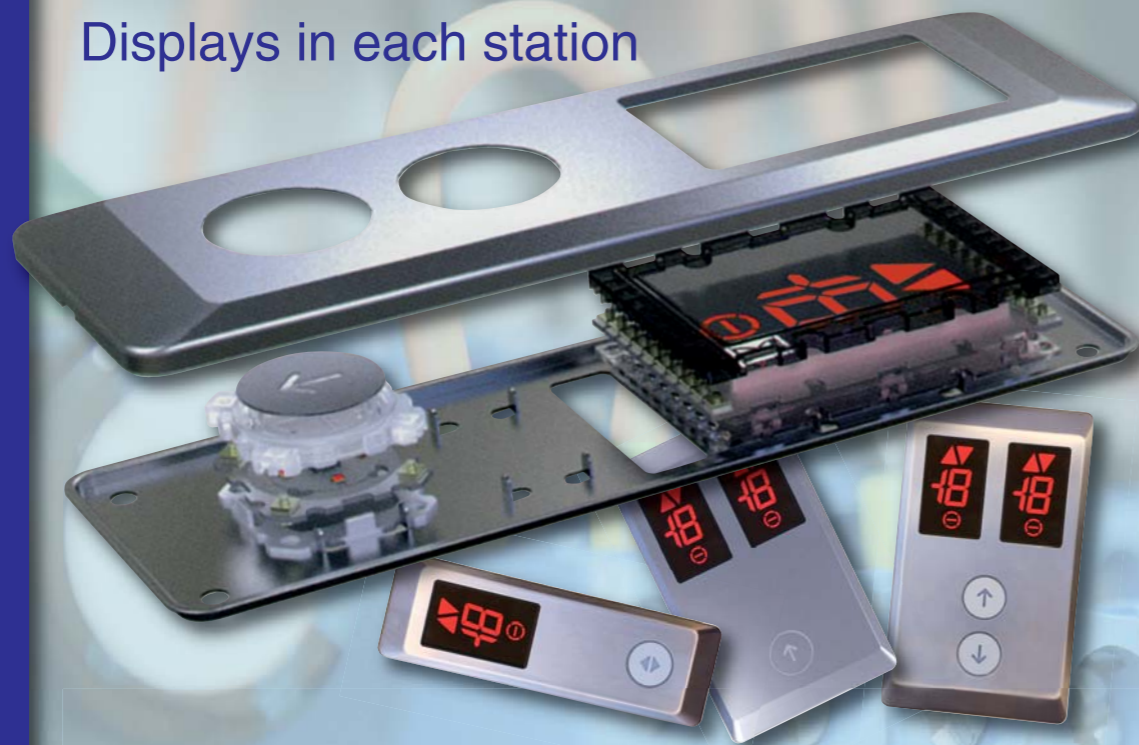
W3 motor



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Genemek buttons

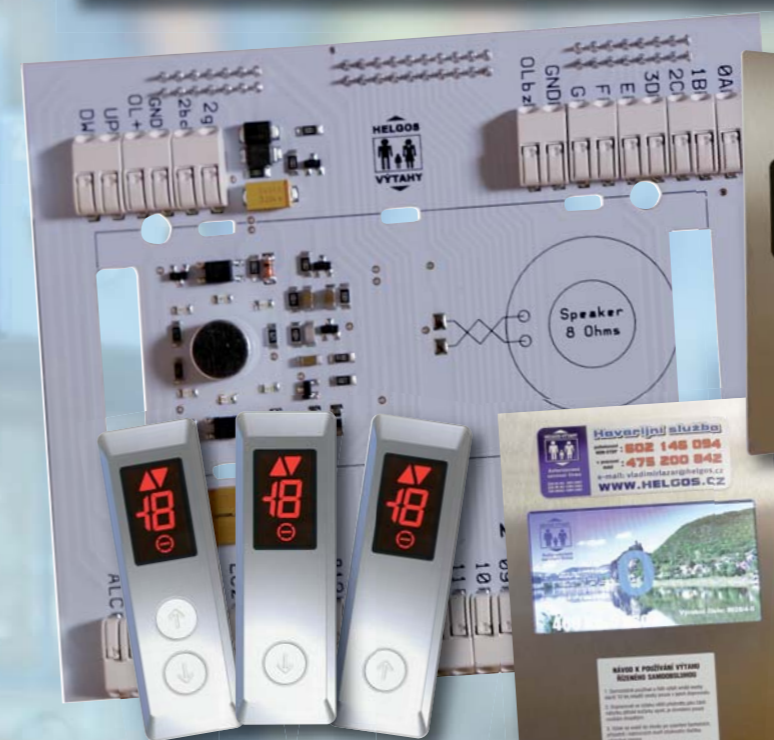
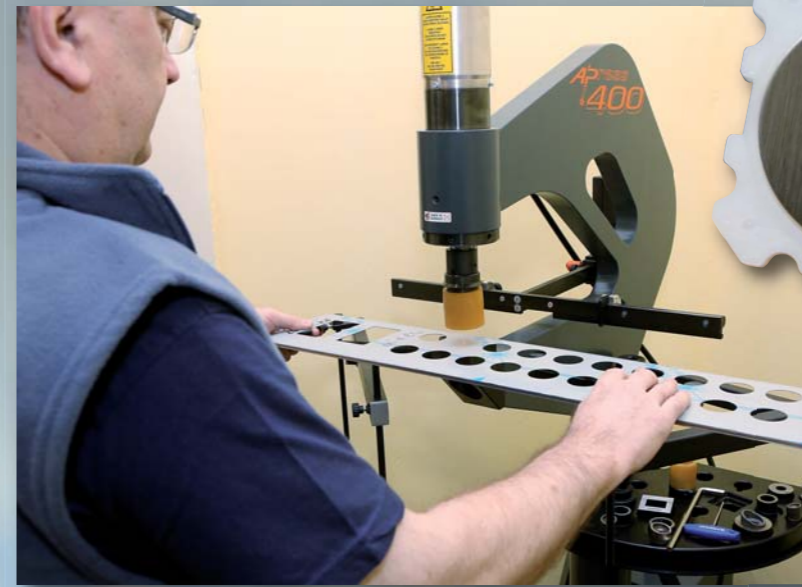
Displays in each station



Duplex control option



Serial line option



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Shaft doors



Depending on the space available in the shaft, it is possible to opt for a manually operated or automatic shaft door. The manually operated shaft door comes with a selection of window sizes and handle types. Reliable and silent operation.



Cabin door

Guarantee safety of the persons transported in the cabin. Reliable operation. Silent operation. Windows can be installed in the bus cabin door.

Cabins

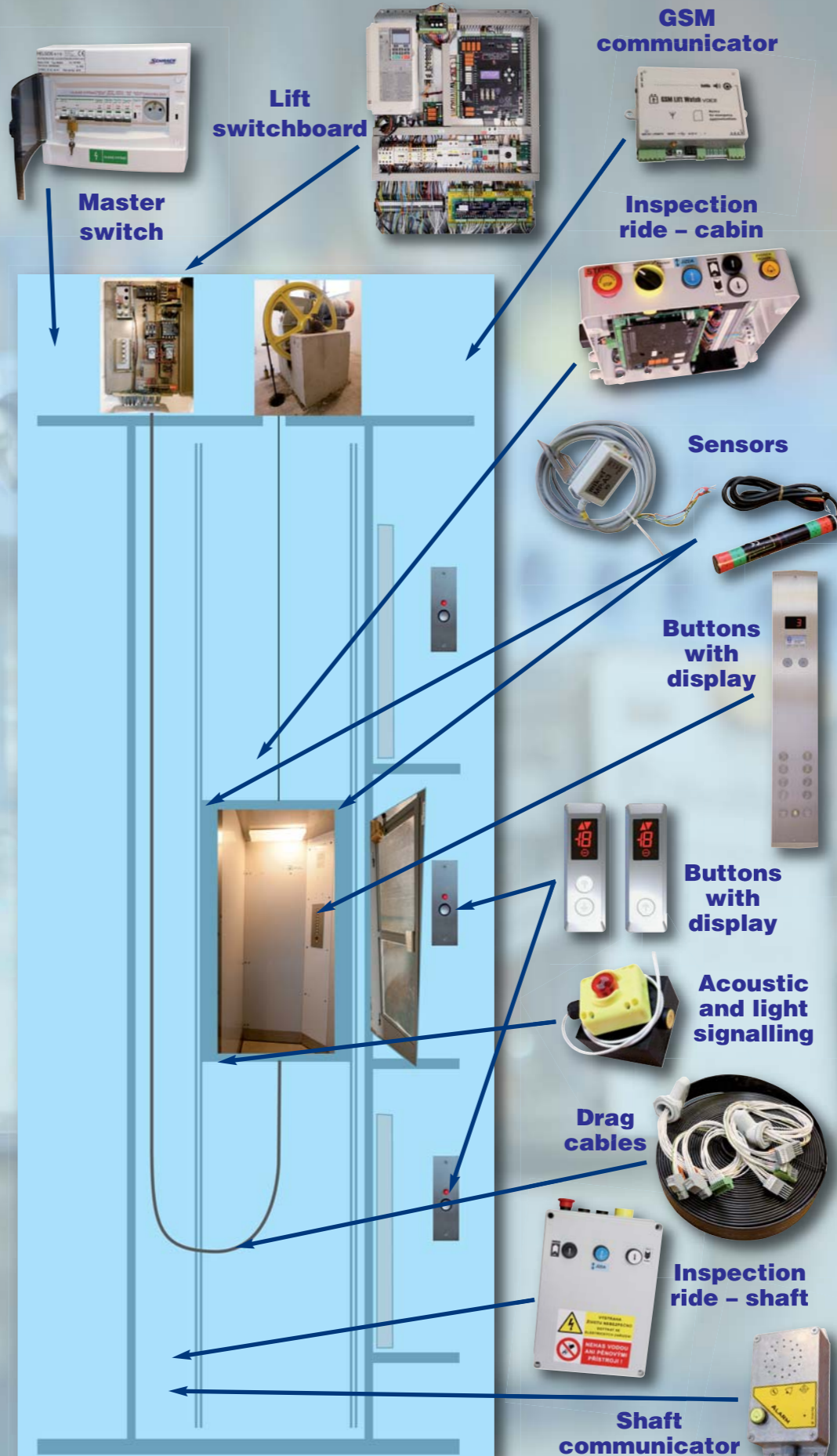
The cabin design can be tailored to the customer's requirements. A number of Thermopal, stainless, or Komaxit coated panels are available for the cabin walls. The cabin is always designed to have the largest possible dimensions with regard to the shaft.



Refurbishment in stages

STAGE 1

Replacement of the lift switchboard and electrical system

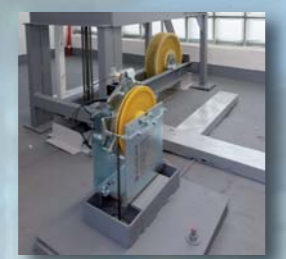


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Refurbishment in stages

STAGE 2

Replacement of the lift machinery and accessories



STAGE 3

Installation of cabin doors and related wiring



Refurbishment in stages

STAGE 4

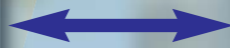
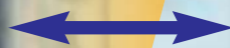
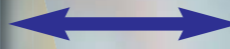
Replacement of the cabin, shaft doors, cabin guide rails, counterweight, and other old components

Cabin guide rails



Total refurbishment in one stage

OLD LIFT



NEW LIFT



Renovation of lift shaft



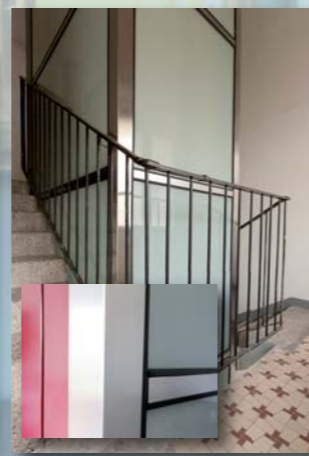
The filling of the old wire shaft will be replaced:



Variant 1
Lining with Rigips boards



Variant 2
Lining with milky safety glass on discs



Variant 3
Lining with milky safety glass with stainless rails



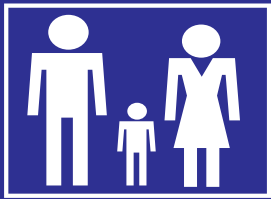
Reconstruction of the original lift



We install new, modern lifts even in old buildings, where it is necessary to maintain and only partially change the lift shaft to meet the applicable standards and at the same time, to preserve the original and beautiful appearance of the lift shaft.



HELGOS



VÝTAHY

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Service and technical support

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