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LiSA-Group

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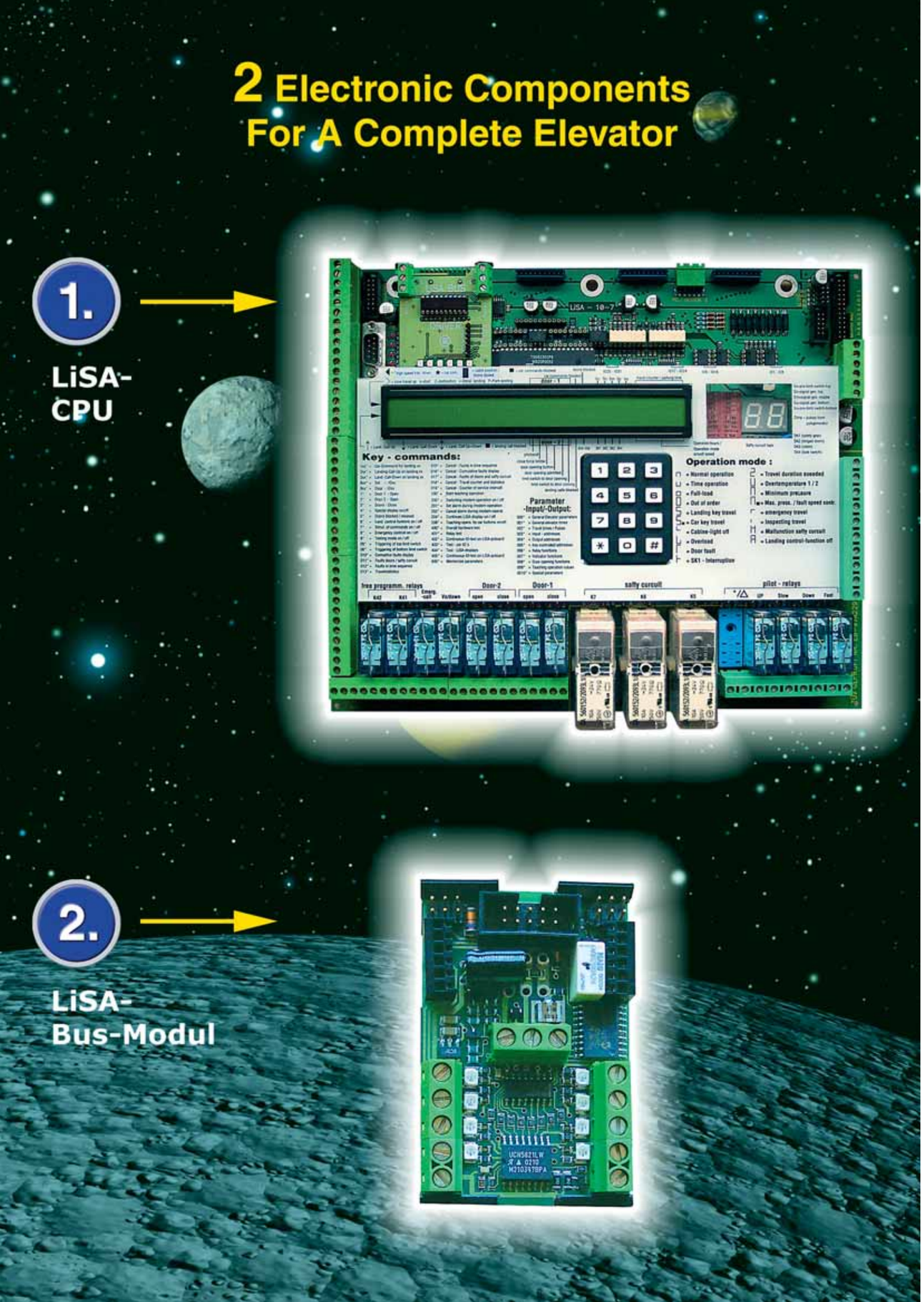
okt05

LiSA

the whole world of elevators within 2 components

www.lisa-lift.de



LiSA -Control cabinet for room less-evelators

Technical Features

• Control Cabinet:

- Two-part control cabinet with buried door, enabling flush installation in a recess without the need of a separate mounting frame.
- Compact design (1700 x 300 x 130 mm) enabling installation beneath the landing door.
- Painted steel-casing with protection class IP44 (colour RAL 7032).
- Two triangular locks, 1 key.
- Right- or lefthand door hinge, option can be chosen on site.
- Installation angles allow an individual positioning.
- Bottom cable inlet.
- Door of cabinet also available in stainless steel.
- Area for evacuation action is easy to approach and overview for the field personnel.

- Transparent plastic cover protecting against accidental contact.
- Display for field personnel enables survey of the drive control in case of rescue drive operation and evacuation actions (EN 81-1 14.2.1.4).

- Emergency power supply by UPS, enabling evacuation of passengers in case of mains failure.
- Favourably priced thanks to standardized pre-fabrication.

• Control functions:

- Shortest possible installation time thanks to pre-connectorized pluggable wiring.
- Only one pre-connectorized travelling cable.
- Digital floor selection by incremental signals (generated by the drive control).
- Simple commissioning thanks to read-in travel function.
- Multiple diagnostics and telecontrol functions.
- Integrated alarm system.
- Parameters of the frequency converter to be set by pluggable RCP-module serving as a palm-terminal.
- DCP-interface between LiSA and invertor in preparation.

• LiSA-Bus-technology:

- Very simple spare parts provisioning, as two components only (LiSA 10-7 CPU and bus-module).
  Very simple installation thanks to one 3-wired bus-cable only.
  Electronic landing-modules to be snap-plugged Connection by penetration.

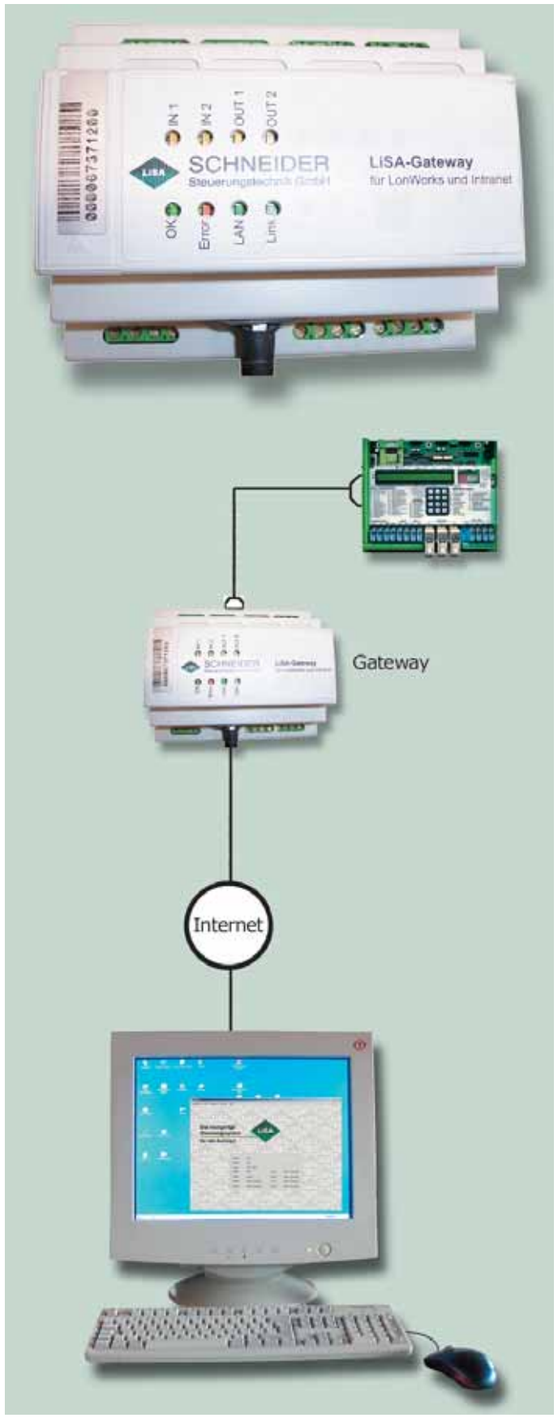
• Drive equipment in the well:

- mr-less elevator conception of Messrs. AUFZUGTEILE BT GmbH.
- Motor SM 700 make Ziehl-Abegg.
- Frequency converter ZETASYN 2SY make Ziehl-Abegg.

LiSA-Elvator Monitoring

Visual display of elevators via Internet

LiSA-Internet Gateway



LiSA Internet Gateway

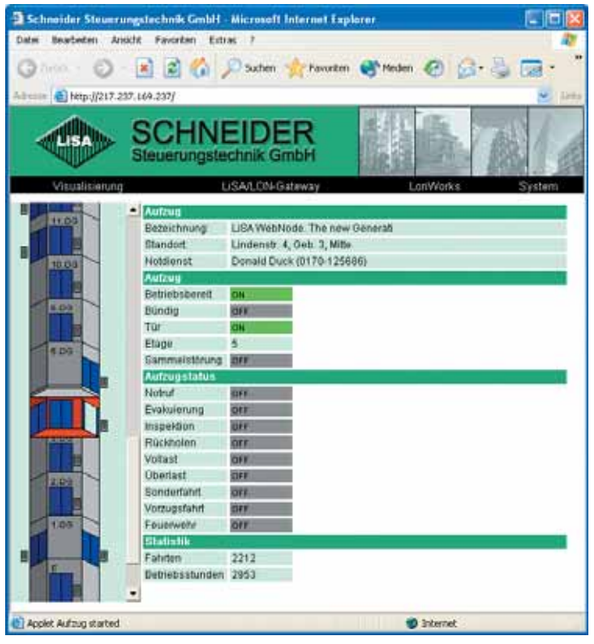
Layout and Functions:

- Dimensions: (108x90x66 mm) for DIN mounting channel.
- LAN-interface: Ethernet 10BaseT.
- Inputs: 2 digital inputs.
- Outputs: 2 make relays

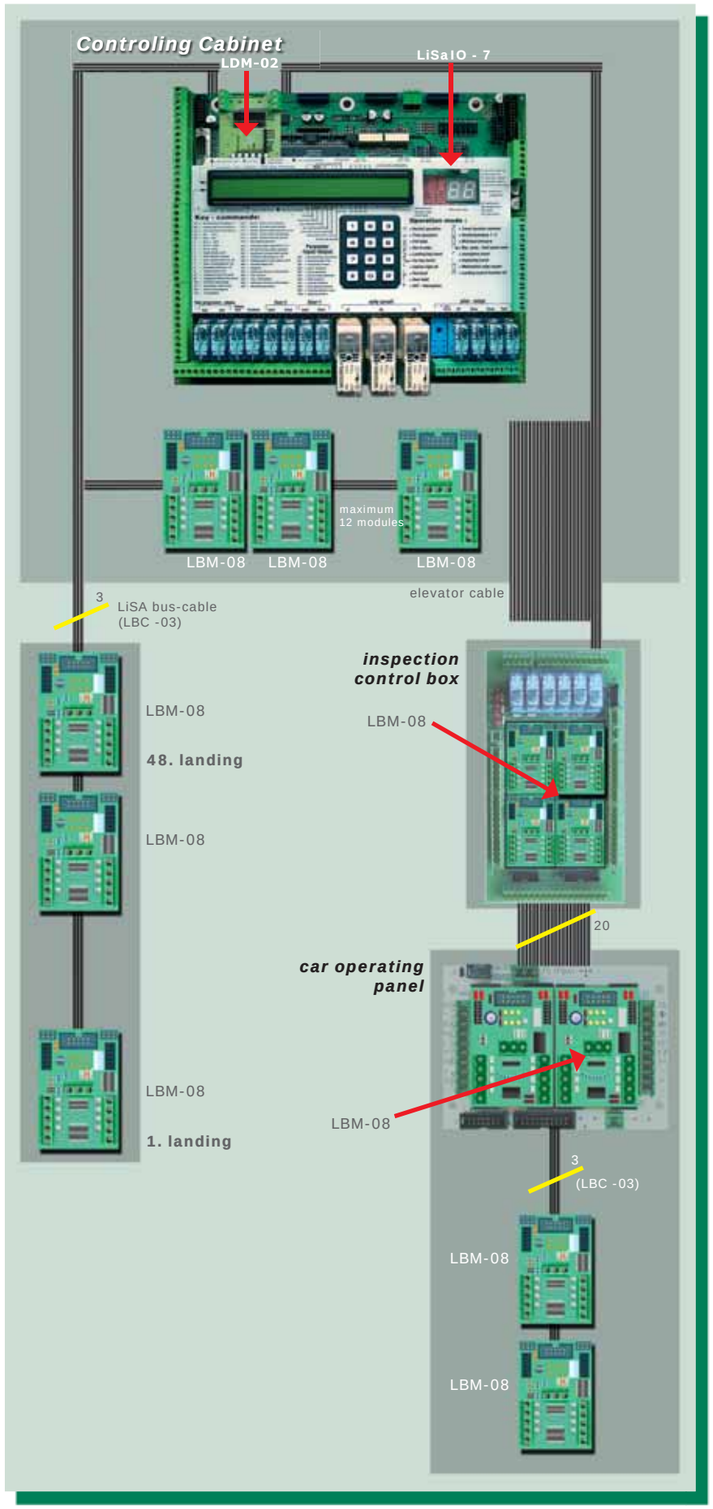
Visual display:

- The gateway in regular intervals reads the status block of the LiSA elevator control unit out to the user via an HTTP-server. By means of a standard Internet browser with Java 1.3, the user gains access to the homepage of the elevator. To have a smooth presentation of the elevator travels and door movements, the visual display was realized by a Java-Applet. See a test elevator in www.Lisa-Lift.de

Visual display screen:



The LiSA Elevator Control Unit / The 2-Components-System



Main Features

- Complete control consisting of 2 electronical components (simple stockkeeping of spare parts)
- One single electronic pcboard covering the entire range from very simple rope-traction elevators for two landings only to VVVF-controlled elevator banks with speeds of 3,5 m/sec and up to 48 landings
- All functions covered by one standard software, accessed by keypad and display or PC
- All components pluggable
- No superset host computer
- Full-custom protection possible thanks to hardware coding of all electronic components
- Data communication by additional modem
- Visual display by means of PC software
- One single travelling cable

Range of application

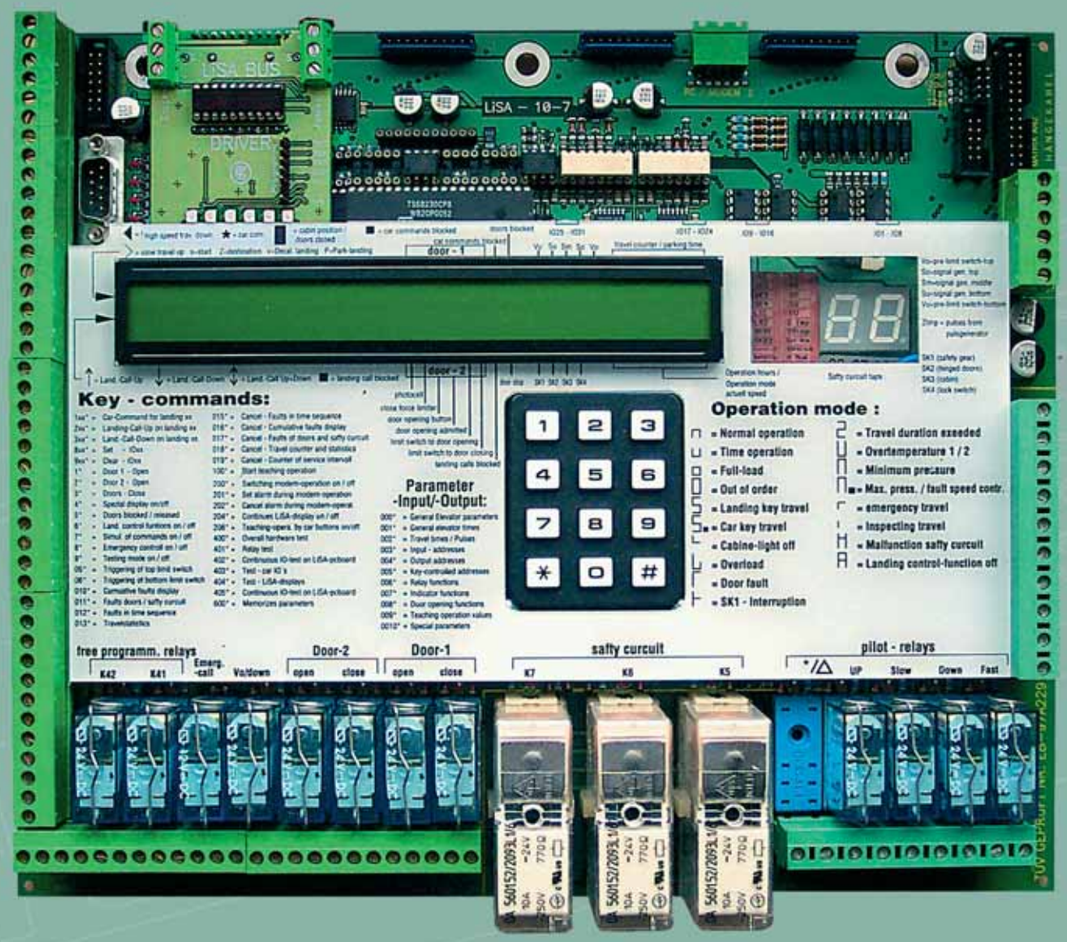
- Single elevator.
- Groups of 2 to 8 elevators.
- Speeds of up to 3,5 m/sec.
- Up to 48 landings.
- All types of elevators, such as
  - hydraulically operated
  - two-speed rope traction
  - VVVF elevators

Product range

LiSA 10-	7	LiSA CPU
LDM	- 02	LiSA driver module
LBM	- 08	LiSA bus module
LBDS	- 4	LiSA bus display small)
LBDB	- 7	LiSA bus display (big)
LBK	- 03	LiSA bus cable
LLM	- 03	LiSA-landing-modul
LBG	- 01	LiSA-Arrival Gong
LBTG	- 01	LiSA-voice response

LiSA-Components

LiSA-CPU (LiSA10-7) with LiSA-bus-driver (LBD-02)



Layout and Functions

- Dimensions: 290 x 240 mm.
- 4-fold multilayer execution.
- Slot for LiSA bus driver.
- 3 serial interfaces
  - PC modem
  - group connector
  - DCP (in preparation).
- 13 relay outputs (2 of them freely programmable, 4 pluggable).
- Safety circuit for doors pre opening resp. being open during relevelling.
- Charging unit for emergency power supply , no separate emergency current unit.

- Power supply alternatives: either 24V DC or 15V.
- Pulse evaluation for digital shaft selection.
- Keypad and display for entering of parameters
- Position and operation indicators
- Compatible to previous LiSA 10 versions (4 slots for IO pcboards, 15V feed and serial connection to car and signal units)

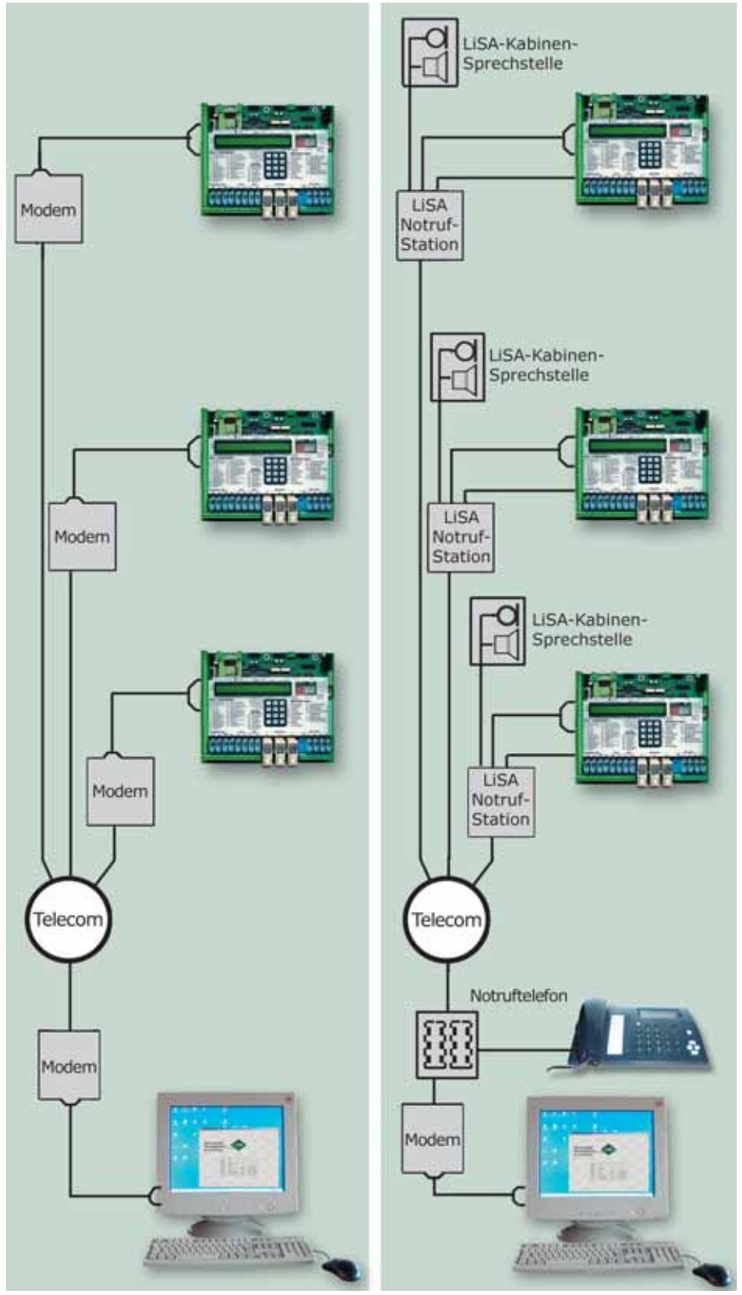
- Bus interface on plugged **IO-driver-modul (LBD-02)**
- 3 screw-terminals for connection to the landing bus. Maximum 48 LBM-08 for landings (doors side 1) and maximum 12 LBM-08 in control cabinet to be connected.
- 3 screw-terminals for connection of the car bus. Maximum 48 LBM-08 for landings (door side 2, selectively) and maximum 12 LBM-08 in the car to be connected.
- 6 LEDs for operation indication
- Full-custom coding of the hardware is possible

LiSA-Elevator Monitoring

Remote monitoring of the elevator funktions via telephone network:

Data transmission via modem

Data transmission via modem and additional data phone



Connection via telephone network, data transmission via modem:

Layout and Functions:

- LiSA elevator control units connected to an external monitoring PC via modem.
- 4 elevators monitored via one telephone connection.
- Same functions as with RS232 interface.
- Automatic call of the monitoring station in case of malfunctions and recording of the elevator status.
- Transmission of the fault by SMS or fax.
- Visual display of one elevator.

Connection via telephone network by LiSA Emergency Data Phone
(Data and intercom or only intercom)

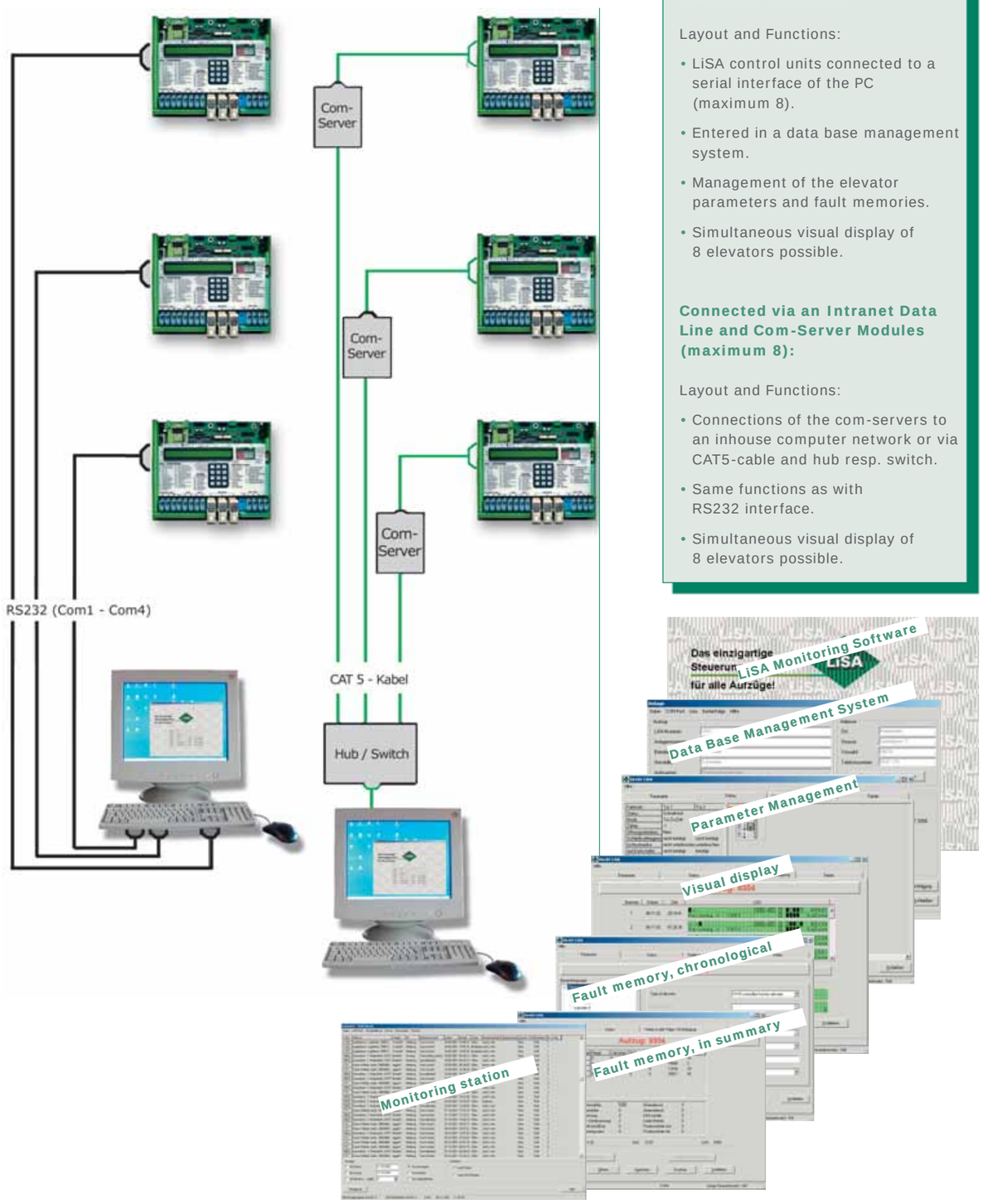
Layout and Functions:

- LiSA elevator control units connected to an external monitoring PC via the modem of the LiSA Emergency Data Phone.
- 4 elevators monitored via one telephone connection.
- Same functions as with RS232 interface.
- Automatic call of the monitoring station in case of malfunctions and recording of the elevator status.
- Transmission of the fault resp. emergency call by SMS or fax.
- Visual display of one elevator.
- Call of four different monitoring stations possible.
- Call either of the PC or the phone of the monitoring station.

LiSA-Elevator monitoring

Inhouse monitoring of the elevator functions:

RS232-Interface **Intranet**



Connected to a PC via RS232 interface:

Layout and Functions:

- LiSA control units connected to a serial interface of the PC (maximum 8).
- Entered in a data base management system.
- Management of the elevator parameters and fault memories.
- Simultaneous visual display of 8 elevators possible.

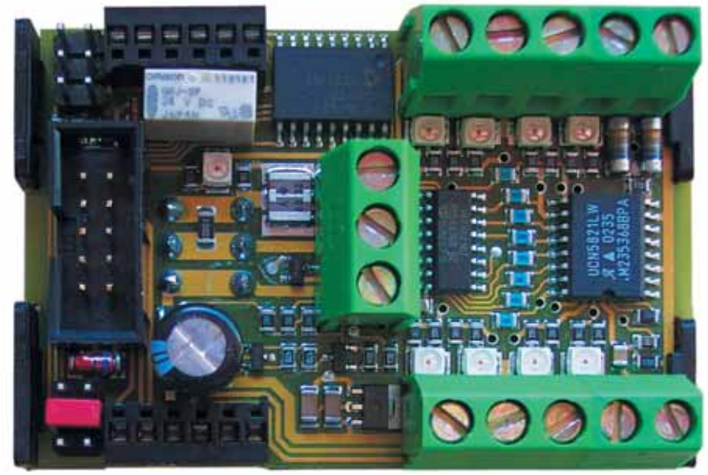
Connected via an Intranet Data Line and Com-Server Modules (maximum 8):

Layout and Functions:

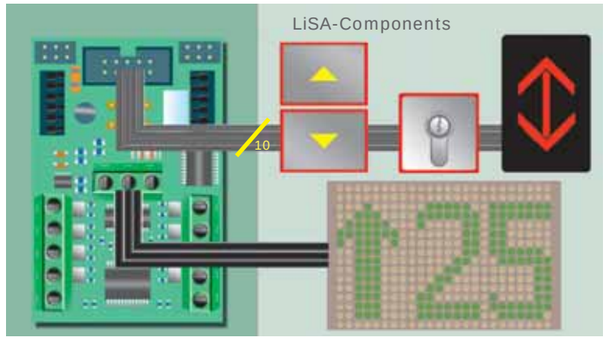
- Connections of the com-servers to an inhouse computer network or via CAT5-cable and hub resp. switch.
- Same functions as with RS232 interface.
- Simultaneous visual display of 8 elevators possible.

LiSA-Components

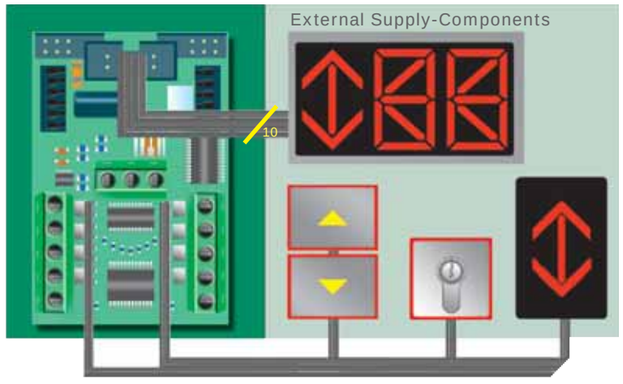
LiSA-Bus-Module (LBM-08)



Connection of LiSA-Components to Bus-Module



Connection of External Supply Components to Bus-Module



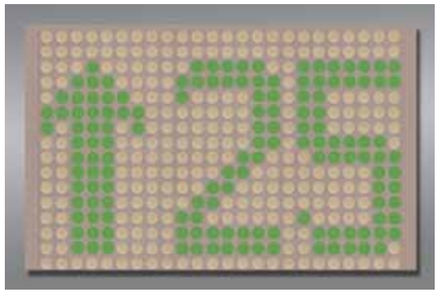
Layout and Functions:

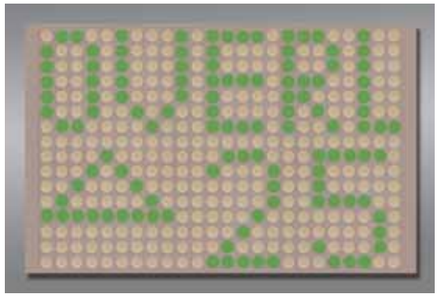
- Dimensions: 65 x 43 mm.
- 8 Short-circuit proof IOs
  - 2 IOs for pushbuttons,
  - 2 IOs for travel continuation indicator,
  - 4 IOs, freely programmable, for special key-functions and luminous blocks.
- 8 IO status indicators (LEDs).
- 1 LED indicating state of operating modus.
- 8 Screw terminals for conventional connection to the IOs resp. connection of any kind of display units (selected via Gray-code).
- 10 pole flat-cable plug-in slot for connection of LiSA-components resp. of any display unit (selected via Gray-code).
- 1 Mini-relay disconnecting defective components from the bus.
- 3 Screw terminals for connection of the LiSA-Display.
- 6 Jumpers for adressing a maximum of 64 modules.
- 6 Pins snapping in the 3-pole LiSA bus cable (LBK-03) at any spot choosen – no plug-connectors!
- Two 6-pole plugs connecting the module to the pcboards in the car.
- To be clipped on a hat-shaped profile rail.
- Full-custom hardware coding is possible.
- Range of application:
  - Landing module,
  - Control module,
  - Car module.

LiSA-Components

LiSA Bus Display Big (LBDB-7):

24x16 dot-matrix display with direct connection to the LiSA bus.
Preferably built in the hall display panels above the landing doors or in the car.



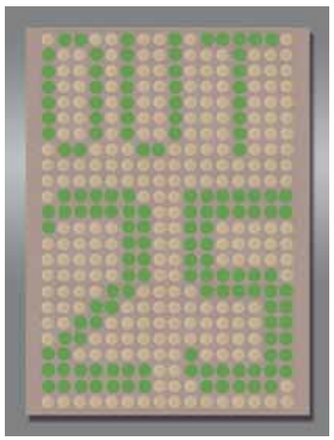


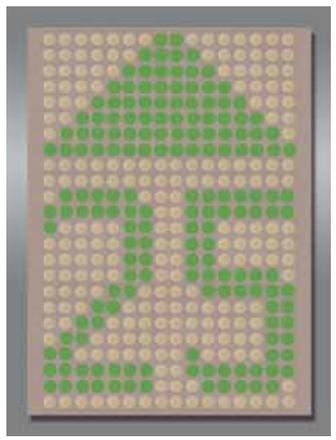
Layout and Functions:

- Dimensions: 90x80 mm, display: (96x64) mm.
- 3-pole connection to bus.
- Position and direction of travel are indicated simultaneously.
- Indication of horizontally scrolled messages is possible (position indication is reduced to 32 mm). Therefore it is possible to display messages for overload, preference travel, fire brigade operation, evacuation, etc.
- Full-custom coding of the hardware is possible.

LiSA Bus Display small (LBDS-4):

16x24 dot-matrix display with direct connection to the LiSA bus.
Preferably built in the landing call panels.





Layout and Functions:

- Dimensions: 40x80 mm, display : 42x60 mm.
- 3-pole connection to bus.
- Position and direction of travel are indicated simultaneously.
- Indication of horizontally scrolled messages is possible. (position indication is reduced to 40 mm). Therefore it is possible to display messages for overload, preference travel, fire brigade operation, evacuation, etc.
- Full-custom coding of the hardware is possible.

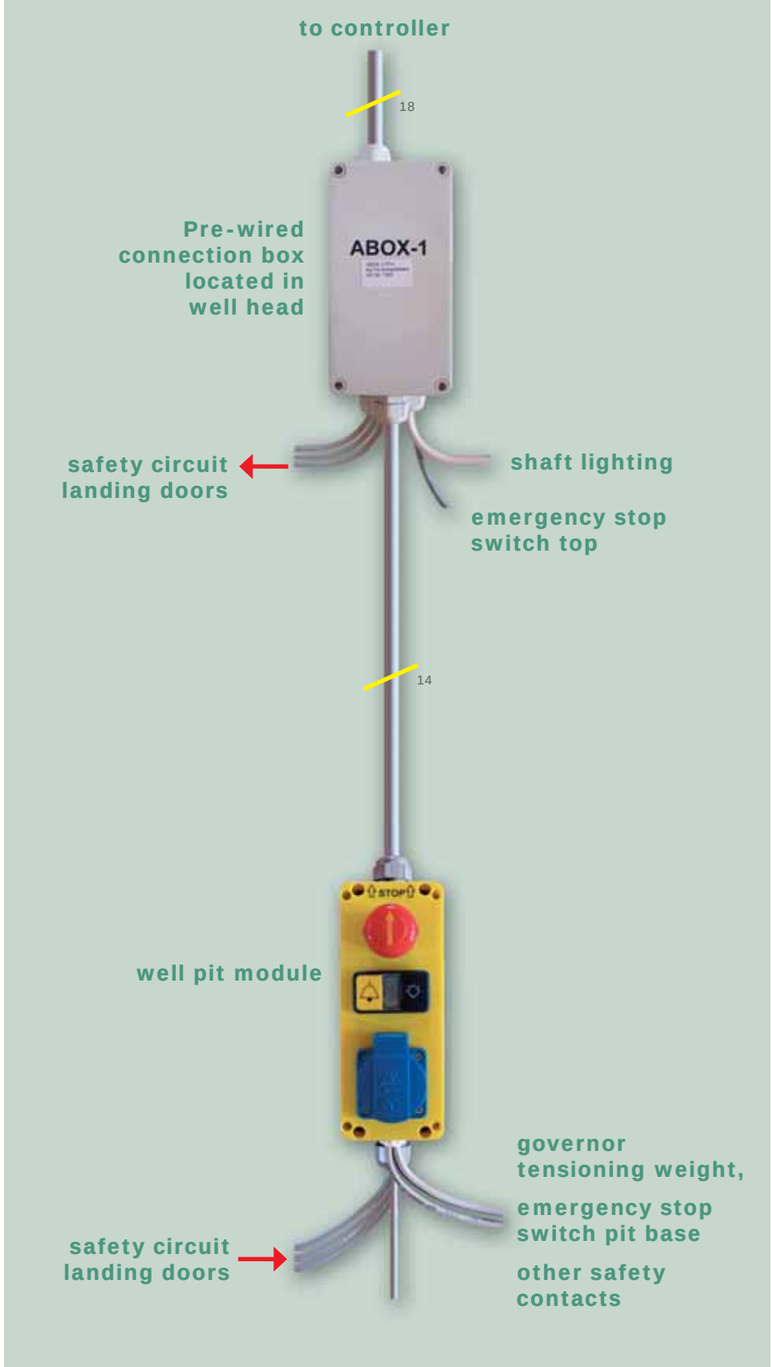
LiSA-Bus-Cable (LBK-03):

Layout and Functions:

- Dimensions: 4 x 11 mm.
- 3 cores 1,5 mm², isolated by a special rubber-sheathing.
- Geometrically coded.
- Self-restoring – ingress defects are watertightly restored after disconnection.

LiSA-Well installation

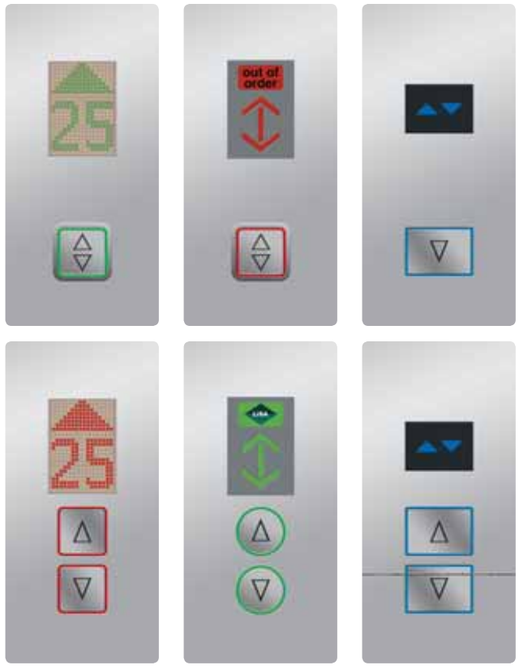
LiSA well installation (ABOX-1 / ABOX-2):
Completely pre-installed well installation kit either for machine rooms on top (ABOX-1) or machine room at bottom (ABOX-2).



Layout and Functions:

- To A-Box1:
  One 18-core oilflex cable to the control cabinet with all connections for safety circuit, shaft illumination and well pit module
- From A-Box1:
  One 14-core oilflex cable between well pit module and connection box with all return wiring for the safety circuit
- Well pit module according to EN81
  - emergency stop
  - Alarm
  - shaftlight-switch
  - power point
- Shaftlight, pluggable in the shaft

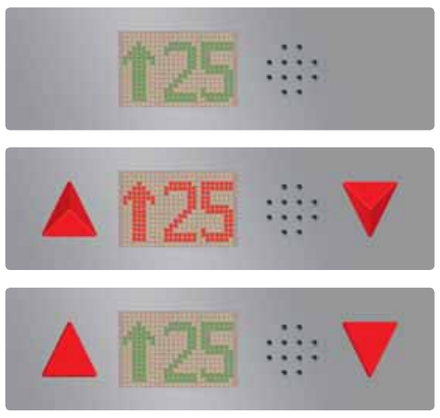
LiSA-Hall Operating Panels (HOPs)



Landing call panels:

- Dimensions:
  Width: as per your requirements (different standard widths),
  length: as per your requirements (different standard lengths).
- Material:
  Standard: stainless steel, brushed, ground, grain 180 or grain 240,
  special execution: stainless steel, polished, hard gold lined, brass.
- Layout:
  - Screwed as from front side,
  - fixed to door frame by welded bolts
  - snap-fixed onto a built-in back-box.
- Components:
  - LiSA pushbuttons and keys or other makes at your choice,
  - luminous blocks,
  - displays at your choice,
  - card reader and coding keys.

LiSA-Hall Display Panels (HDPs)



Signal Arrows:

raised

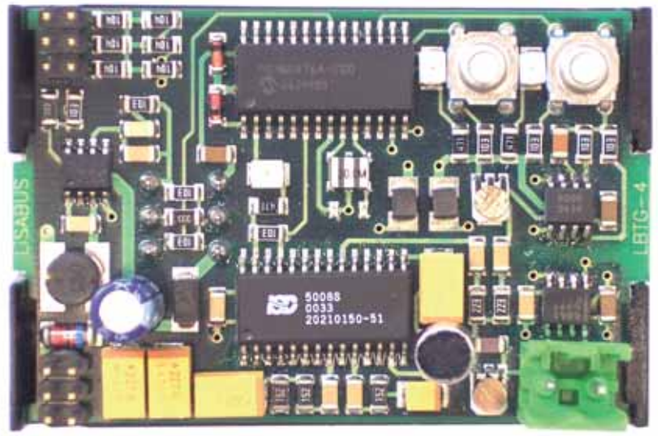
flat

Signal panels:

- Dimensions: same as landing call panels
- Material: same as landing call panels
- Layout: same as landing call panels
- Components:
  - Displays of your choice,
  - Arrows for direction of travel or next arrivel either flush or raised
  - Gong

LiSA-Components

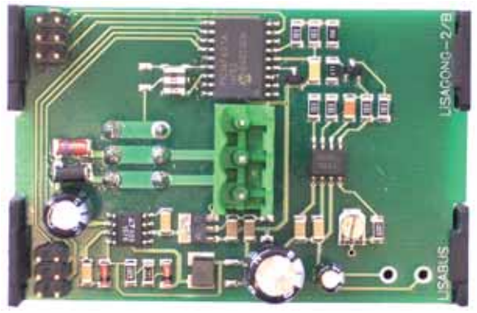
LiSA-Bus-Voice response (LBTG-5)



LiSA Voice Synthesizer

- Controlled directly by the LiSA Bus
  Capacity for 4 minutes of Text (adequate for approx. 60 texts)
  - Dimensions: 66x44 mm
  - Integrated Gong
  - Freely programmable on site, if required
- Texts for
  - Lift position
  - various situations such as,
- Emergency, Fireman's Control, Evacuation, Overload, etc.
  - Direction of Travel
  - Door Opening, Door Closing
- Hardware coding possible

LiSA-Bus-Gong (LBG-1)



LiSA-Bus-Gong

- Controlled directly by the LiSA Bus
- Addressed by floor
- One-tone gong for UP-direction
- Two-tone gong for DOWN-direction
- Hardware coding possible

LCD-indicator

LiSA LCD Display:

- Dimensions: 80x160 mm
  Picture quality 128 x 240 pixels
  - Vertical or Horizontal installation
  - Display possibilities: Next Stop,
- Door Opening, Door Closing, etc.
  - Special text for each floor, if required
  - 15x special texts to cover Lift status
  - Display of Company Logo
  - Display of complete Lift Information

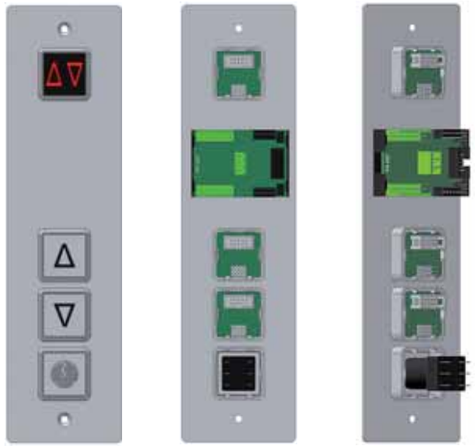
LiSA-components. LiSA floor modules The “All-in-One” solution.

The LiSA Floor Module combines the LiSA Bus board, the LiSA Bus Display, the LiSA button(s), and the LiSA Light/Info Field into one pre-wired module; which is connected directly to the Bus cable in the shaft loom.

LiSA Floor Module mod.1 (LLM-1)

For LiSA buttons and Light/Info Fields, as well as other components from other manufacturers.

- Bus module mounted on back of faceplate
- LiSA buttons and Light/Info Fields connected with Bus module by ribbon cable
- Connection to LiSA Bus adapter by 3-wire cable or Bus cable
- Components from other suppliers can be connected by wiring directly to the Bus module



LiSA Floor Module mod.2 (LLM-2)

Only for LiSA components with 4-pin connectors

- The Bus electronic is integrated into the LBEM-1 PCB
- The LBEM-1 is pressed directly onto the LiSA buttons and Light/Info fields (at the moment only for the LiSA “DR” components range)
- The buzzer for the acoustical requirements of EN-81.70 is located on the LBEM-1 PCB
- Connection to the LiSA Bus adapter with a telephone type cable
- The LBEM-1 PCB has connection point for max. 5x connectors for example 2x buttons, 3x Light/Info fields
- Conventional wiring connection for 2x further functions (kewswitch, etc.)

LiSA Floor Module mod.3 (LLM-3)

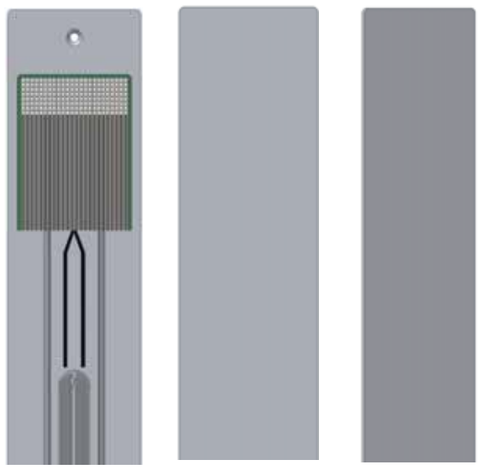
For LiSA buttons and Light/Info Fields, as well as components from all other manufacturers when LiSA Bus Display is installed in a vertical position.

- The Bus electronic is located on the LBLC-5 PCB
- The electronics for the LiSA Display are also on this PCB. Both are together in a clear plastic housing.
- LiSA buttons and Light/Info fields are connected to the LBLC-5 with a ribbon cable.
- Components from other suppliers are connected by conventional wiring to the LBLC-5. When there is a separate connection (4 –wires) for the call buttons and the call acknowledgement it is possible to utilise the PCB mounted buzzer for EN-81.70 requirements.
- Connection to the LiSA Bus adapter with a telephone type cable
- The analogue Bus module (LBLC-5) has 8 functions. The buttons may be connected by ribbon cable or br conventional wiring, as required.

LiSA-Etagenmodul Version 4 (LLM-4)

Only for LiSA buttons and Light/Info fields with 4-pin connectors.

- Analogue version 2 combined with LiSA Bus Display (LBDS-4) In horizontal position.



Half-length LiSA-Car operating panels (COPs)

Car operating panels:

- Dimensions:
  Width: as per your requirements (standard = 180 mm),
  length: as per your requirements (standard = 800 mm).
- Material:
  Standard: brushed, grain 180 or grain 240 stainless steel.
  Special execution: stainless steel, mirror, hard gold lined, brass.
- Layout:
  - Screwed as from front side
  - hinged horizontal or vertical, built-in back-box,
  - lockable.
- Components:
  - LiSA-pushbuttons and keys or other makes of your choice,
  - intercom/autodialer as requested
  - information field with emergency light,
  - displays as requested,
  - card reader and coding keys.

Desk-type car operating panels for handicapped persons

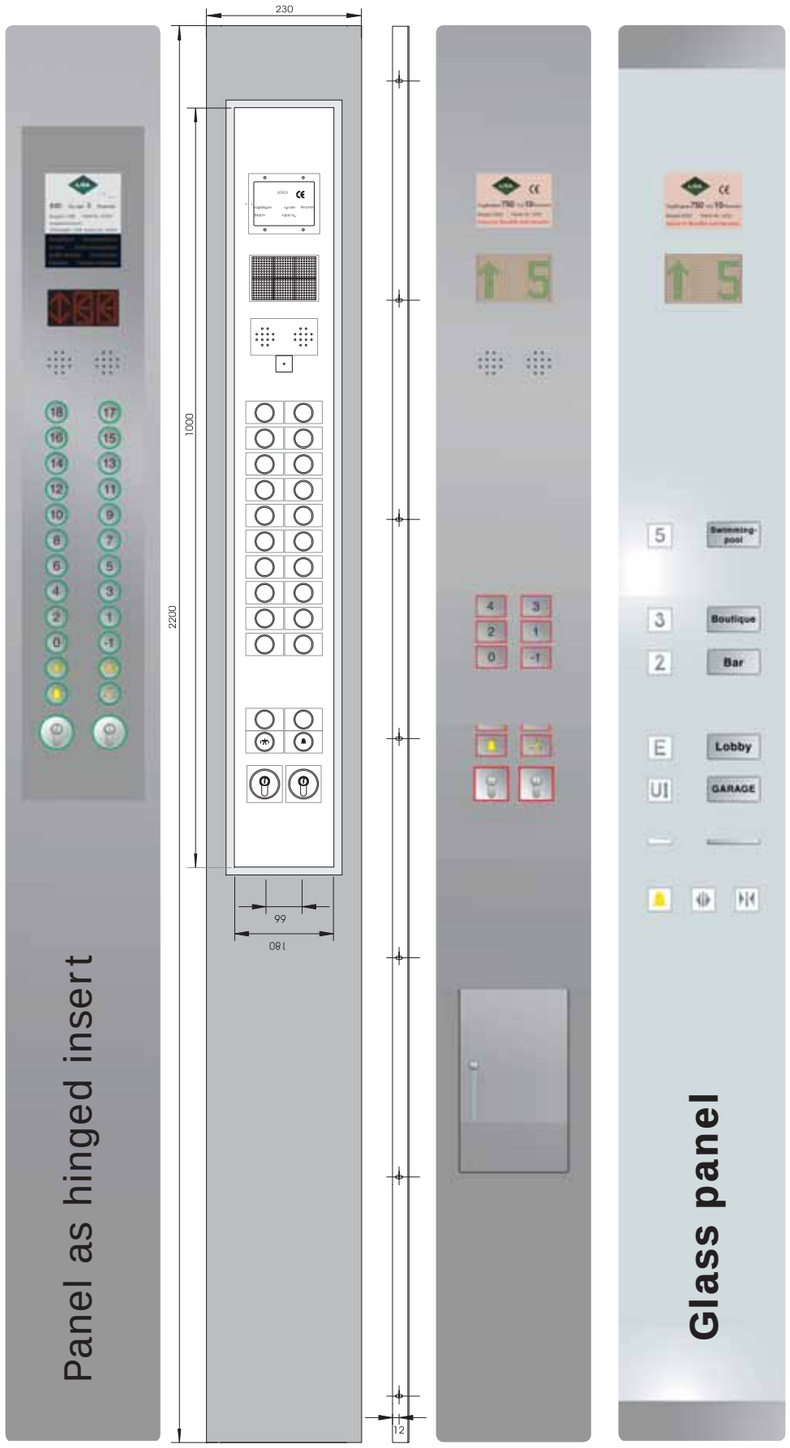
Desk-type car operating panels for handicapped persons as per DIN 18025:

- Dimensions:
  Width: as per your requirements (standard: 500, 600, 750 mm).
- Material:
  Standard: stainless steel, brushed, ground, grain 180 or grain 240, special execution: stainless steel, polished, hard gold lined, brass.
- Layout:
  Screwed as from front side, hinged in vertical.
- Components:
  - LiSA push-buttons 50x50 or or 50 mm diameter.
  - symbols raised by 1 mm, from stainless steel, black background,
  - tactile contact plate with braille symbols possible,
  - all kinds of intercom stations,
  - information block with emergency light and 2 luminous blocks,
  - information and luminous blocks at your choice,
  - displays at your choice,
  - card reader and coding keys.

Tactile contact plate, lasered, also available with braille symbols

DR-02 DR-08 DR-02

Full length LiSA-Car operation panels (COPs)

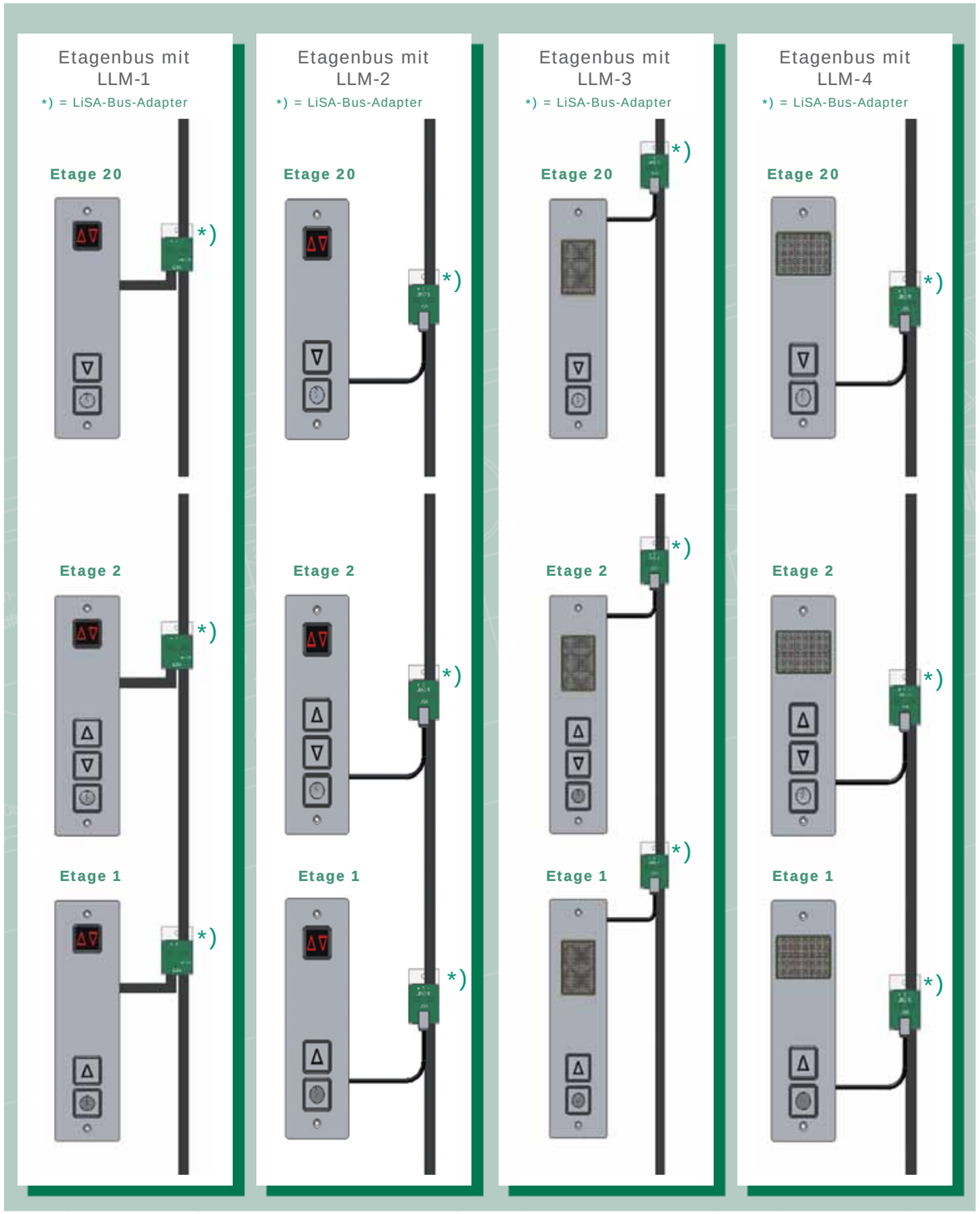


Car Operation Panels:

- Dimensions:
  width: as per your requirements (standard: 230 mm),
  length: as per your requirements.
- Material:
  - standard: stainless steel brushed, ground, grain 180 or grain 240,
  - special execution: stainless steel, polished, hard-gold lined, brass, granite, safety glass.
- Layout:
  - screwed as from front side,
  - hinged in horizontal or in vertical, with built-in box,
  - lockable,
  - partially pivoting,
  - flush tarsia execution.
- Components:
  - LiSA-pushbuttons and keys or other makes at your choice,
  - all kinds of intercom stations,
  - information block with emergency light and 2 luminous blocks,
  - information and luminous blocks at your choice,
  - displays at your choice
  - telephone recess, card reader, coding keys.

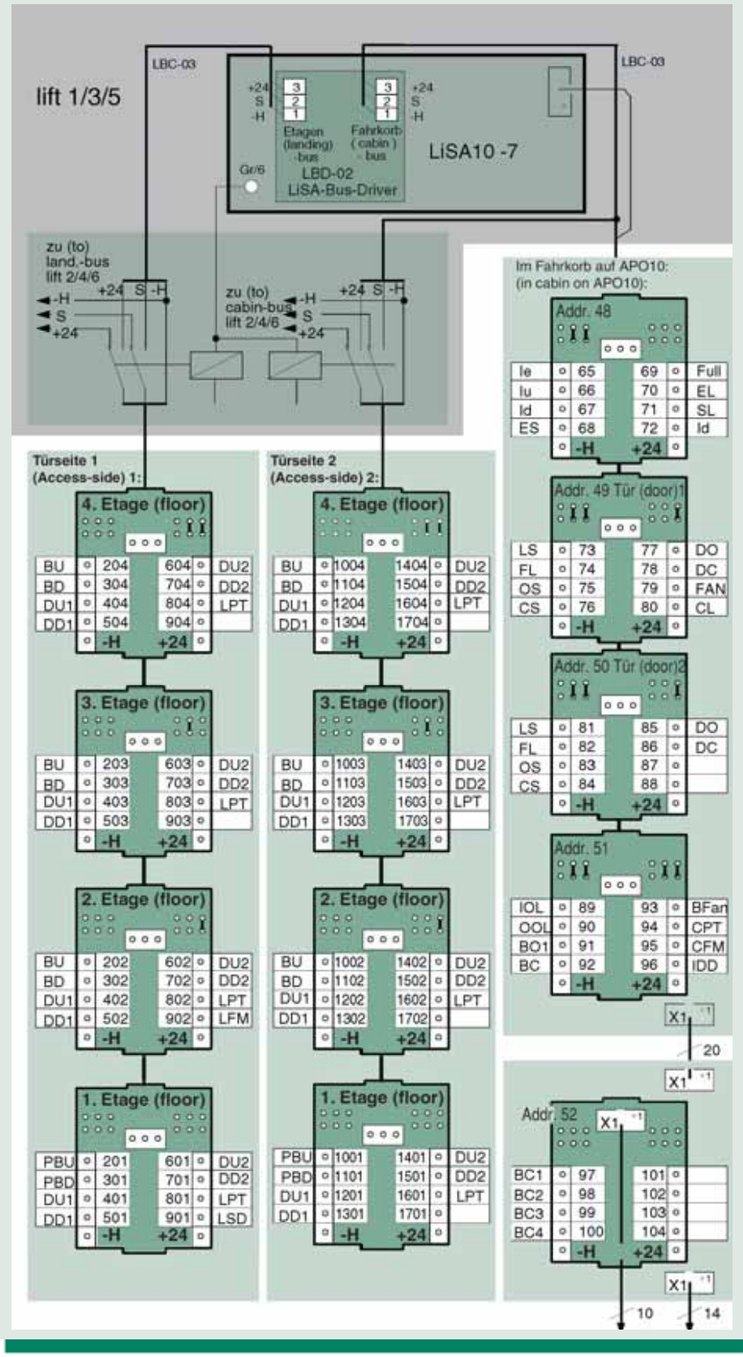
LiSA-Landing-Bus

Example: 20 landings, priority key and indicator in each landing



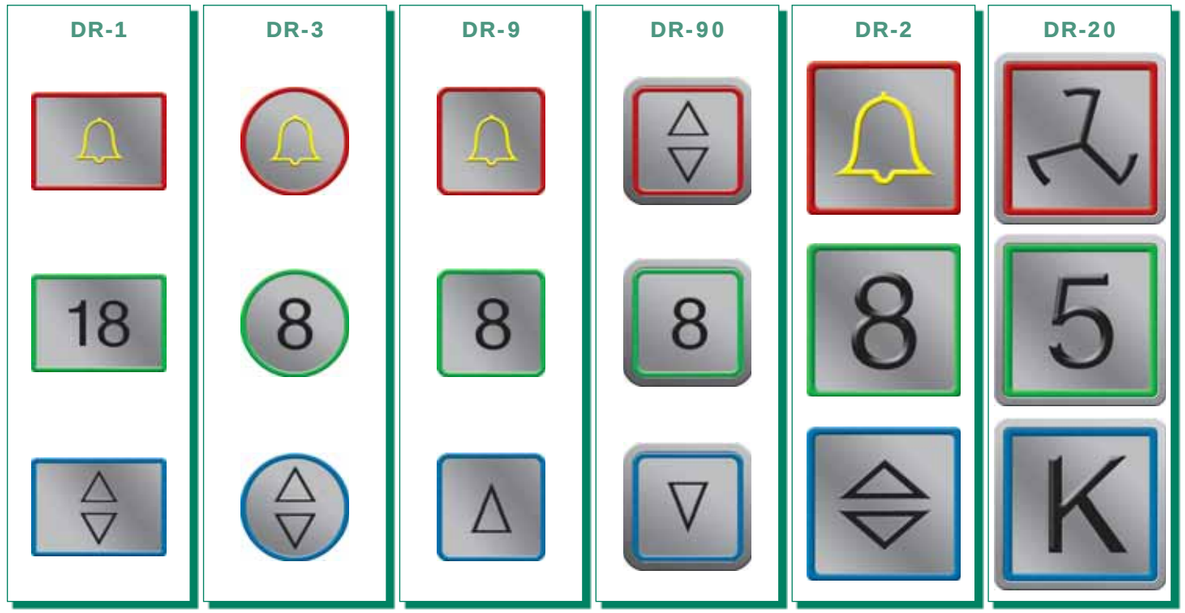
LiSA-Bus within an elevators group

Example: Group with 4 landings, 2 access sides selectiv, on-going direction for own lift and for next lift in group, priority travel in each landing, firemen mode in landing too and shut down function in landing one.

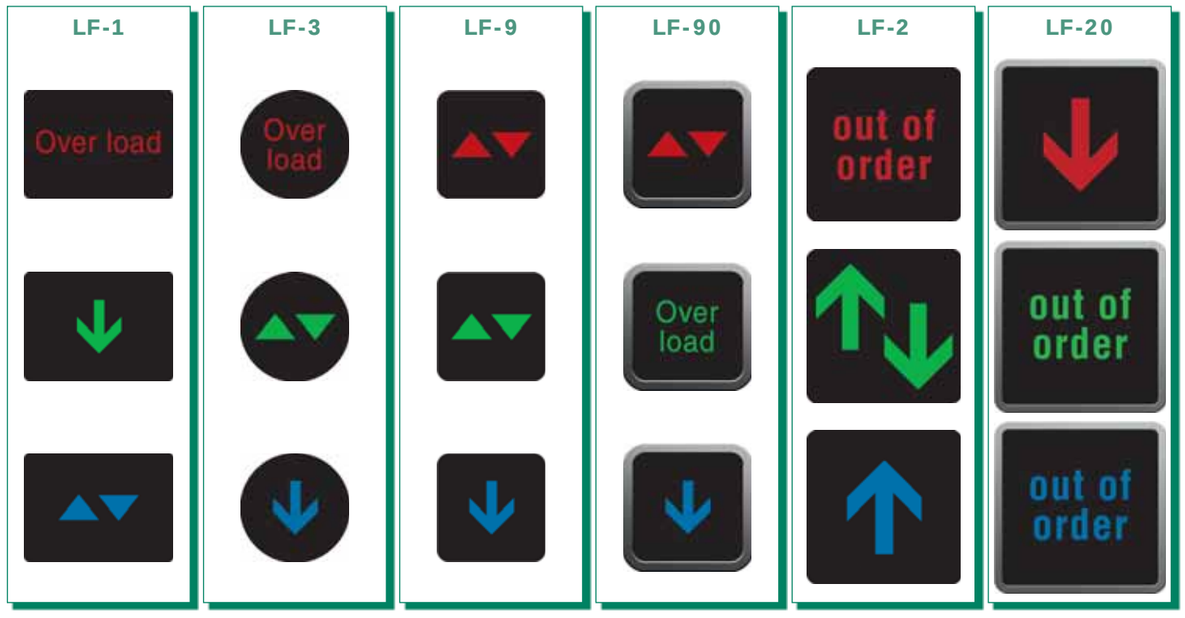


BU	=	Push button up
BD	=	Push button down
DU1	=	Lift 1 direction up
DD1	=	Lift 1 direction down
DU2	=	Lift 2 direction up
DD2	=	Lift 2 direction down
LPT	=	Priority travel in landing
LFM	=	Firemen mode in landing
LSD	=	Shut down in landing
Ie	=	Inspection travel
Iu	=	Inspection travel - up
Id	=	Inspection travel down
ES	=	Input - Emergency - stop
Full	=	Input - full - load
S1	=	Input - Shaft light
If	=	Input - Inspection travel fast
Ls	=	Input - light screen
F1	=	Input force limiter
OS	=	Door open limit switch
CS	=	Door close limit switch
DO	=	Door open command
DC	=	Door close command
FAN	=	Output - fan
CL	=	Output - cabin light
IOL	=	Input - Overload
OOL	=	Output - Overload
BO1	=	Push button door 1 / doors open
BC	=	Push button doors close
BFan	=	Push button fan
CPT	=	Priority travel in cabin
CFM	=	Firemens mode in cabin
IDD	=	Input - Diving door
BC1	=	Push button cabin command floor 1
BC2	=	Push button cabin command floor 2
BC3	=	Push button cabin command floor 3
BC4	=	Push button cabin command floor 4

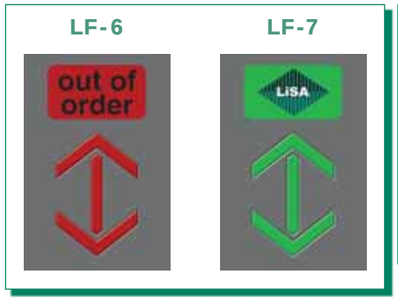
LiSA-Push buttons



LiSA-Luminous blocks



LiSA-Luminous moduls



All push buttons according to EN81-70 with 1mm tactile symbols.

All typs available in three diverent colours: red, green, blue

Dimensions:

DR-1,	LF1:	44x32
DR-2,	LF2:	50x50
DR-20,	LF20:	56x56
DR-3,	LF3:	Ø 32
DR-9,	LF9:	32x32
DR-90,	LF90:	34x34
LF6,	LF7:	43x63