Lift Control System

One controller – unlimited fields of application

Main features

» Compact design: Pre-selection module and safety bypass circuit integrated on the FST-2 circuit board
» Plug and Play: prefabricated trailing cable and bus cables with plug-in connections on both ends
» Automatic calibration and learn drives
» Cost efficient layout guarantees superb cost-performance ratio

Universal application

The FST-2 is designed for use in hydraulic and traction lifts and can handle the different challenges covering the entire range of installations from small to very large.

Flexible

Thanks to its modular design, the FST-2 is the perfect choice for standard lifts, but also ideally suited for those special applications requiring customized solutions.

Group configuration

In combination with a GST group circuit board, the FST-2 can effortlessly control groups of up to eight lifts.
The FST-2 is the result of the continuous development of the well-proven, innovative NEW LIFT FST control concept.

The combination of predefined and automatic functions as well as individually adjustable functions make the FST-2 the most flexible lift controller for systems with elite performance requirements.

**FST System**

The FST-2 is based on the FST-LON bus, a field bus system. The consequent application of LON bus technology for all components ensures the system's flexibility, simplifies commissioning and allows for effortless expansion.

The FST system includes the following LON modules:

- **ADM – hall station module**
  The ADM is the interface between the landing panel and FST-2 controller.

- **GST – group circuit board**
  Two or more FST-2 controllers can be easily combined to form a lift group, by simply adding a GST circuit board to one of the FST-2 motherboards.

- **FPM and FPM-2* – car panel modules**
  The FPM is the interface between the car panel and FST-2 controller.

- **FSM-2* – car control module**
  The FSM-2 car control module has a compact design that improves organization of inspection box components and facilitates an even quicker car installation.

- **ADM – hall station module**
  The ADM is the interface between the landing panel and FST-2 controller.

- **EAZ – position indicators**
  NEW LIFT offers a variety of position indicators for all applications:
  - **EAZ-256**: Cost efficient dot matrix display
  - **EAZ-LCD**: High resolution liquid crystal display
  - **EAZ-VFD**: Vacuum fluorescent display with high contrast
  - **EAZ-TFT**: The display for elite requirements

- **SAM – speech output module**
  The SAM includes an extensive sound library in studio quality. If you wish, you can create and use your own recordings.

- **LCS – load control system**
  The linear calibration function of the LCS allows for commissioning with a reference measurement which can be carried out by a single technician.

- **CUS – module for special functions**
  The CUS module is the key to your individual lift system. Many hundreds of special functions have been implemented with this module.

- **RIO-2 – expansion module**
  With the RIO-2 remote I/O expansion module, the FST-2 can be expanded with up to 48 additional inputs and outputs.

* These modules are included in the basic package of the FST-2 controller.
Flexible application
The new design and modular construction allow for the universal application of the FST-2.
For standard lifts, the FST-2 can be used with economical shaft positioning options and conventional wired landing calls. It is equally at home in high performance grouped systems with multiple bussed risers.
You can control both hydraulic and traction lifts – the FST-2 does it all.

Compact design and clear arrangement
The pre-selection module and safety bypass circuit are already integrated on the FST-2 circuit board. This facilitates installation in situations with limited space.
For installation in situations with extremely limited space, the controller is also available as a slim version FST-2s. The FST-2s has been specially developed for installation in the door frame of the lift.

Plug&Play and easy installation
The flat trailing cable and LON bus cables are all prefabricated, complete with pluggable connectors at both ends. Thanks to the variable use of spare lines in the trailing cables, no additional trailing cables are normally required for most popular emergency telephone systems.
In addition, the automatic calibration and learn drives of the FST-2 guarantee an unmatched ease of installation.

Intelligent diagnosis
Efficient troubleshooting is one of the biggest strengths of the FST-2. For this purpose, the on-board software provides many diagnostic menus and self test functions.
The extensive and detailed logs of LON bus traffic, drive curves and group statistics can easily be transferred via the PC card interface or with a modem. This makes troubleshooting a breeze – onsite or from a remote location.

FST-2 Group
The GST group circuit board is a powerful computer especially developed for the FST-2 lift control system. A FST-2 Group with a GST can effortlessly control groups with up to eight lifts. Of course the GST is compatible with both FST generations.
With the LON field bus connection to the FST-2 controller, the GST can detect all activities in the group directly and can apply and process this information thanks to its 32-bit processor.
For systems requiring the highest state of availability, a multiple redundant group control option can be integrated by installing at least two GST circuit boards in a group. In the case of a primary GST circuit board system failure, one of the secondary GST boards seamlessly takes over the control functions.

Additional PC programs
The intelligent FSTEditor PC program facilitates comfortable programming of the lift system on your computer. Once all settings have been made, they can be transferred directly to the controller with a serial cable.
NEW LIFT provides the LON Module Center PC-tool for programming and configuring the ADM hall station modules.

Lift Monitoring Systems
NEW LIFT offers three different lift monitoring systems:

LMSEleVision
With the LMSEleVision visualization program, a real-time overview of all lift systems is available at a glance. In addition, the system can be controlled remotely from the control center and intelligent diagnostics can be performed.

LMS24/7.T
The phone-based LMS24/7.T lift monitor system only requires an outside phone line for 24 hour remote monitoring, emergency phone and electronic lift attendant functions.

LMS24/7.E
The LMS24/7.E combines lift monitor functions with 24 hour remote monitoring. Connected via Ethernet, the system can easily be integrated in an existing building control system.

Modernization with the FST-2
NEW LIFT offers the FST-2 in a MOD package with a special focus on modernization and interfaces for nearly all existing components such as drives, door controllers and shaft installation.
The standard scope of delivery includes:
» FST-2 controller
» FSM-2 car control module
» FPM-2 car panel module
» Control cabinet 600 × 200 × 1000 mm
» Flat trailing cable with plug-in connectors
» Inspection box with control unit
The scope of delivery can be extended to include frequency inverter, displays, panels and shaft wiring according to your specific requirements.
FST-2 specifications

» LON bus technology used for all components – flexible systems and simple commissioning
» Up to 64 floors with two buttons
» Up to 8 lifts per group with the GST circuit board
» Control up to 3 car doors
» Three separate microprocessors for lift management, drive control and bus
» Digital shaft positioning with absolute value or incremental encoders
» PC card interface for extensive and detailed logging of LON bus traffic, drive curves and group statistics
» Serial PC interface
» Serial modem / fax interface
» DCP inverter interface
» Lift monitoring interface for LMS24/7 and third-party solutions
» FST-2 controller menu in English, French, German, Polish and Swedish

Functions

» Up to 80 programmable inputs and outputs
» Fire recall and fireman service according to various standards
» Evacuation control
» Error storage, drive and door call statistics
» Operating hour, drive and door cycle counter
» Brake, motor and contactor monitoring
» Automatic measuring of approach and braking distances by means of the calibration drive mode
» Anti nuisance
» Emergency call suppression
» Password protection
» Park drive (3 programs / weekday)
» Car light monitoring
» Installation mode
» Car fan control

Specifications

<table>
<thead>
<tr>
<th>Specifications</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimensions L x W x H</td>
<td>200 x 310 x 50 mm</td>
</tr>
<tr>
<td>Supply voltage</td>
<td>24V DC</td>
</tr>
<tr>
<td>Power consumption</td>
<td>300 mA</td>
</tr>
</tbody>
</table>

Selection of integrated special functions

» Energy saving mode
» Various VIP modes
» Various car loading modes
» Visitor control for penthouse suites
» Lobby stop for hotels
» Lift attendant mode
» Disabled call control
» Loading ramp control
» Bank control (up to 32 user groups)
» Folding or telescopic apron control
» Up to 8 blind or pseudo floors programmable
» Priority drive for car and landing
» Safety curtain operations
» Various front desk security options

Selection of supported special functions

» Remote monitoring and control via LMS/EleVision, LMS24/7, modem, fax, GSM, etc.
» Interfaces for automatic transport systems such as "Swisslog" or "Transcar"
» Emergency mode for hospitals
» Dangerous goods transport mode
» Car lift with traffic lights
» Loading barrier control
» Sabbath service
» Electric and hydraulic pawl control
» Wireless car control
» Interface to REM / TM4 / Teleservice / KRM / Rekoba Systems

© NEW LIFT Steuerungsbau GmbH – We reserve the right to make changes and corrections – ID No. EN0901001 – 09/2009