

LIFT CONTROL SYSTEMS

ILE manufacture a full range of lift control systems to suit most requirements from a simple two floor goods hoist to a multi-car group system, or a single speed machine, to a high speed gearless drive. ILE can produce the control system to meet your needs.

As a company we have been assessed under the European Lift Directive 95/16/EC and have been awarded the Quality Assurance Module Certificate of Conformity to Annex X111 of the Lift Directive. This directive is strictly adhered to via EN81.

Significant steps have been taken to ensure compliance to the European Directive 89/336/EEC with regards to **Electromagnetic Compatibility (EMC)**. All electrical and electronic apparatus have undergone both in house testing and in certain cases testing via a Namas accredited test facility, resulting in documentation allowing us to issue self certification of compliance with the directive.
The fitting of filters, ferrites and cable segregation ensures compliance.

All of our systems, whether it is a simple relay system or a complex microprocessor design, are designed and built using the highest quality materials and there is never a compromise in safety.

General Specification for all ILE control systems

All control equipment is mounted within a sheet steel enclosure, with a minimum protection rating of IP54, suitable for wall/floor mounting, with front access only required.

All control panels are supplied fitted with lifting eyes to ease transportation to the machine room.

Encapsulated diagrams and manuals are supplied with each control panel via an internally mounted document pocket.

The control system operates from a supply voltage of 110VAC (option for 240VAC) with the main control gear being selected from the Telemecanique 'Tesys' range of equipment with silver to silver contacts. Main contactors are rated to AC3 duty plus a minimum of 10% for inching duty.

Internal panel wiring is via tri-rated cable to BS6231 or optionally using LSZH cable.

All electrical equipment is protected from direct finger contact with terminals being selected of a shrouded pattern.

Resistors, when fitted, are mounted externally in IP20 enclosures to give optimum heat dissipation.

All electronics, hardware and software, utilised within our control systems are produced in-house, designed by our own R & D team of engineers with manufacturing via our own p.c.b. department.

For the more complex, to the most sophisticated installations we offer our **SKYCOM** microprocessor control system. This is a modular system of boards rack mounted, but front wired and offers the ultimate flexibility on site.

The system benefits from being site programmable via a keypad (password protected) or alternatively via a PC or Laptop.

A prominent feature of the SKYCOM microprocessor system is its large graphical and pictorial LCD display 128 x 64 pixel.



This is designed to suit the following typical specification: -

Drives	Single / Two Speed Traction Hydraulic/DCVV / VVVV / SCR/MRL
Control System	APB / Down Collective / Full Collective / Non-selective Collective Rack system will control up to 40 floors Full Collective or 48 floors Down Collective / Non-selective Collective or APB. System flexibility allows boards to be added for the required number of floors Group operation available without the use of a Despatcher. Inter-panel communication is via Can (Controller Area Network) serial communication.

Door Operators

Suitable for all types of door operator both AC and DC, with the option of Selective door operation. Also suitable for Manual or Swing type door operation.

Enclosure

IP54 (min) Wall/Floor mounting

Operating Voltage

Control Circuit 240 or 110 VAC.
Pushbuttons, indicators etc. 24VDC

Suitable for various Brake, Ramp and Valve Voltages.

All inputs and outputs are fully opto-isolated.

Floor Selection Indicators

In microprocessor, via ILE Shaft Encoder, Tapehead or proximity switches with terminal limits as backup.

Outputs for 24VDC Lift Coming or Call Accepted Indicators.

Position Indicators and Direction Arrows. Hall lanterns and Arrival Gongs. Lift Here and Out of Service indication is optional.

Gate open warning system for manual gate installations with 24VDC buzzer supply.

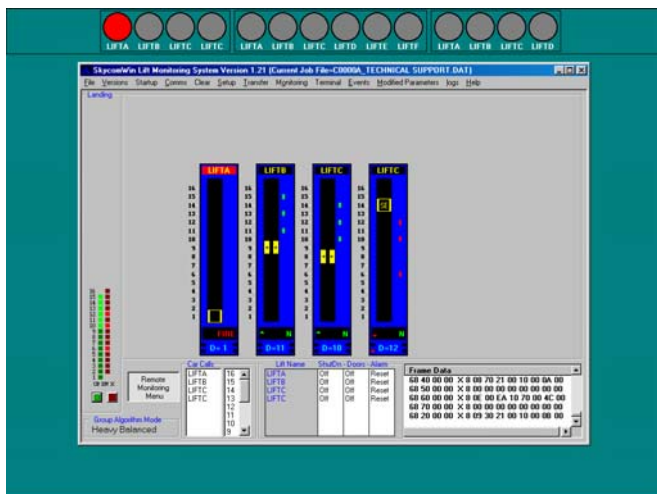
System Features

110% Overload with 24VDC output for indicator, 90% Bypass, Homing, Fire Control and Firefighting Control, Service Control, Emergency Recall, Standby Generator operation.

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The Skycom control System benefits from the following advanced features:-

- Fully programmable and parameterized processor system via P.C./lap top or using the keypad interface as supplied.
- Design based upon a rack system and using surface mount component technology to be small and compact so that a standard size box fits comfortably inside a control panel cabinet up to a maximum of 48 floors.
- Powerful 16bit processor, allowing the implementation and addition of complex software routines to enhance the system performance.
- Comprehensive fault logging including trace recording with real time/date stamp and an extra 63 characters of event description.
- IO rack system allows variable lift configurations to be implemented, which can be tailor made to suit the application and be cost effective according to the number of floors. Also each rack plug in board has on board identification (plug and play) which is used to provide information and help setup the board. All boards are protected against mains and overvoltage protection.
- Graphical and pictorial high resolution LCD display allowing the implementation of the "Lift Viewer" showing graphical information such as lift position, door status, speed, direction, primary and safety circuits, all call information, floor vane status and power supply status. Also the "Input Output Viewer" showing configuration and status of all inputs as well as showing the identification of the circuit boards fitted.
- Parameter system allows users to configure and re-configure the system as required. Modified parameter indication shows all parameters that have changed. ILE serial indicators and speech unit are fully programmable from Skycom.



- Password protection system incorporating different password levels for security of parameters.
- Facility to enter individual, all and patterns of calls from the Skycom.
- Real time clock enhances event storage and allows time based features such as call reallocation(call barring) at different times during the day.
- Local Remote Monitoring system(up to 500m) can provide selected programmability and graphical representation of the lift(s) i.e. "Lift Viewer", via a stand alone P.C or lap top.
- Despatcherless Group systems, achieved via the use of a Master/Slave system.
- Direct serial communication to drives, also direct to floor control.
- Adjustment of slowing distance / floor levels via software.
- Integral Shaft Encoder plug in board for high rise/high speed applications with it's own programming tool.

Options:- Fault logger download / print out facility via a standard PC.
On group systems we would supply a PC for system Monitoring / programming.
Full volt free outputs for BMS monitoring. Facility is generally provided to suit customer requirements.