

Industry: Building Management

Products Used: FX PLCs

Mitsubishi PLCs move into lifts

Engineers often use PLCs to replace relays. As a result they are being used more and more for applications other than factory automation. Lester Control Systems, an enterprising company in Surrey, has developed a lift control panel based around Mitsubishi Electric's FX PLC family that offers a host of advantages to lift users.



As John Berresford, Managing Director of Lester Control Systems states, "FXs give a much more reliable and cost effective method of controlling lifts. They are less expensive and require very little wiring compared to relay based systems. We can also make our panels smaller, faster and at a lower cost."

The PLC based panels are used to control the more complex 'collective' lifts. The lift is programmed to respond to any additional calls while on its way to answer the call it first received. On Duplex lift systems, each lift has a dedicated FX situated in the control panel, but has a communications link between the lifts.

When someone pushes the button to call a lift on a Duplex system, the PLC checks the lift's availability and sends the one that is not being used, or if both are in use, the nearest one.

To prevent both lifts answering the same calls, the PLCs need to 'talk' to one another - exchanging data on each lift's position. This is made possible by one of Mitsubishi's Special Function Modules, the FX2-40AW Parallel Link Adaptor. It is a low cost, low level communications link that allows two FX PLCs to read each other's inputs and control each other's outputs via twisted pair cables.

The FX controls all the lift functions including opening and closing doors, the amount of time a door stays open (via its internal timer), positioning the lift and safety features such as load monitoring.

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FXs give a much more reliable and cost effective method of controlling lifts

John Berresford
Lester Control Systems

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"Initially some of our customers were reluctant to move away from the traditional relays to electronic control. However, because it is a Mitsubishi PLC they know that they are not tied to Lester as they can get support from any of Mitsubishi's local distributors or group companies throughout the UK and abroad."

Application story first released February 1995 by Mitsubishi Electric UK