

Proposed specification

MotorLink™ Control Panels/Power Supplies

The actuator control panels must include MotorLink™ technology and must be used in conjunction with MotorLink™ actuators. For direct connection into the BMS system the actuator control panels must have versions suitable for the following field bus systems; KNX, BACnet, LON, Modbus. This connectivity will enable simple and cost efficient cabling, due to reduced point to point wiring, and simple and fast commissioning by the BMS contractor on site.

The MotorLink™ control panels and the MotorLink™ actuators will enable the BMS to be programmed to benefit from the following features:

- Actuator Position feedback via MotorLink™ Technology

The control panels must provide two-way communication with the individual MotorLink™ window actuators to enable feedback to the control software on the exact actuator position, for precision of opening (mm x mm) and control, as well as a security indicator for open windows.

- Three speed operation of Window Motor/Actuator

The MotorLink™ control panel must enable the motors to operate at a very slow speed when in the automatic mode, which can reduce any potential impact or disturbance to the occupants. It can also enable the motors to operate at a faster speed when activated by the manual keypads, for example, in order to provide an immediate visual response to the user, and at full speed in the event of an alarm signal for smoke clearance.

- Fault indication via MotorLink™ Technology

The system must provide two-way communication between the control panel and the individual window actuators. This must enable feedback to the control software on the window status and an early indication of any errors with the actuator operation or the wiring.

- Pressure Safety Function

The MotorLink™ control panel must have the ability to monitor for entrapment on specified windows by communication via the microprocessors installed within the MotorLink™ actuator and by monitoring in real-time the amount of electrical current being drawn and the precise position of the window to an accuracy of less than a millimetre. The MotorLink™ actuator will detect if an object becomes trapped in the leading edge of the window and prevent it from closing by monitoring the amount of current being drawn and then reversing the actuator to release the obstruction.

The sensitivity of the system must be adjustable, as the pressure safety function is a factor of the closing force of the actuator combined with the size and weight of the window, as well as the configuration of the window, its hinges and the rigidity of the profile itself. Therefore the overall performance and sensitivity of the system is dependent upon all these factors combined and needs to be monitored and adjusted as the required forces can change during the life of the building.