Proposed specification

MotorLink™ Actuators

Programmable 24 V DC window actuators with MotorLink™ technology and electronic end-stop must be used throughout the project. The MotorLink™ actuator range must be suitable for surface and/or for concealed installation in both comfort and smoke ventilation applications. The actuator must have a reverse function to prolong the life of the weather seal and must be programmable for modification of tractive force and pressure for closing forces (subject to factors such as hinges, window type, application etc.).

The MotorLink™ actuators must be used in conjunction with an intelligent MotorLink™ control panel in order for the BMS system to be able to be programmed to benefit from:

- Actuator Position feedback

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

- Three speed operation

  The actuator must provide two-way communication with the control panel to enable it 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.

- Pressure Safety Function

  The MotorLink™ actuator must have the ability to monitor for entrapment on specified windows by communication via the microprocessors installed within the 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 pressure safety 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.

- Fault indication

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