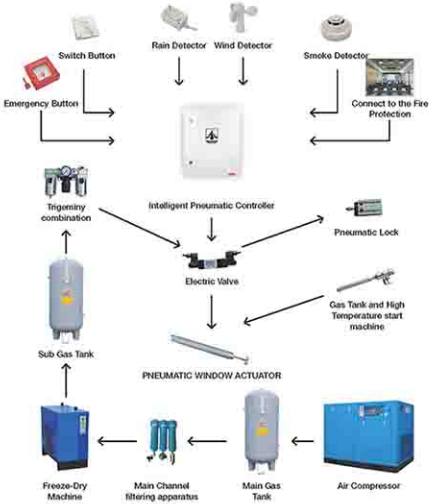
PNEUMATIC WINDOW ACTUATOR

Intelligent Pneumatic Control Circuit Diagram:



Features of Pneumatic Window Actuator:

- The air-compressor piston cylinder is the driving unit to control the opening and closing actions, its stable and strong movement power guarantees the performance of operation .
- No continuity supply of electricity is required which offers energy and cost savings.
- Feasible to connect with Intelligent smoke-exhaust control system and operated by the centralized fire alarm console.
- Optional spare pressurized bottle can be connected to the actuator for assurance of windows operation in case of high temperature detection device being triggered by fire hazard.

Manual Pneumatic Control Schematic Diagram:

Principle of Pneumatic window actuator system:

Pneumatic Window Actuator System is made of air-compressor, air storage tank, air filter, low temperature dryer, electromagnetic switch or manual switch, pneumatic actuator, pneumatic lock, air pressurized bottle, temperature detection trigger and intelligent control system. (Refer to the following diagram)

Air-compressor supplies sufficient air pressure to the system. The air storage tank stores pressurized air from the compressor and goes through the process of filtering and drying then distributed to the sub-storage tank. The functions of window opening and closing are operated by the electromagnetic switch or manual switch. Whenever the pressure has been released, the sub-storage tank will refill the air pressure. When insufficient air pressure has been detected in the system, the air-compressor will automatically generate air to replenish air pressure.

2. The electromagnetic switch system: The pneumatic controller connects with the electromagnetic switch that controls the actuator to operate the windows for performing daily ventilation. When pneumatic controller receives signal from the wind detector, rain detector, smoke detector, emergency button or fire alarm signal, it instantly activates the electromagnetic switch to control the actuator operating the windows.

3. Manual switch controlling system: The actuator can be controlled through manual switch to operate the windows performing daily ventilation.

4. Air-Pressurized Bottle against temperature Detection System: Fire incident causes rise of temperature to a designated level which triggers the system to pressurize the pneumatic window actuators to operate windows movements.