

## Somfy Digital Network Benefits

The SDN system architecture consists entirely of interconnected intelligent devices. There is no central controller. System reliability is greatly enhanced by reducing the potential of a single point of failure. A complete building, having thousands of digital actuators, can be operated by a device as simple as a keypad and at the same time be fully integrated into the building management system.

The SDN exchanges digital messages on a twisted pair bus line using the differential signaling method defined by the RS-485 standard.

Differential signaling, low data speed communication and high impedance devices results in many benefits. This optimal combination of attributes results in a single bus segment that can be up to 4000' with 255 devices and free wiring topology with no termination resistors. Noise and interference is minimized by using capacitance controlled, unshielded twisted pair cable.

System scalability is virtually unlimited. Very large networks can be built using RS485 or IP, and then operated as a stand-alone system or integrated into a building management system.

No need for special wire or connectors. The SDN uses readily available category 5 UTP cable, Ethernet patch cables, RJ45 connectors and splitters to carry the data communications and bus power. Bus-connected control devices such as keypads, sensors and receivers are powered directly from the busline using a 24vdc class 2 power supply.