



Retractable Horizontal Louvers - external. Port authority building in tropical environment.

Automated control solutions

Motorized Horiso® Retractable Horizontal Louvers can be operated in different ways using a combination of:

- ▶ Wired or wireless switch, remote control
- ▶ Home automation integration
- ▶ Touch phone and hand held devices
- ▶ Climate Ready® Operating System - optimum building management solution including ZigBee wireless mesh network
- ▶ Building management system integration for BACnet®, Lonworks® and KNX® protocols
- ▶ Range of sensors can also be integrated to react to external weather conditions.

Automatically controlled shading systems optimize the benefits of the system compared with manual control. Benefits include:

- ▶ Improvement in well-being
- ▶ Increase in productivity
- ▶ Reduction in energy costs
- ▶ Optimum daylight
- ▶ Ease of operation
- ▶ Seasonal optimization of shading system
- ▶ Protection against most weather conditions
- ▶ System longevity and expansion.

Climate Ready® Operating Systems

The systems allows customized functionality for individual buildings with the operating system performing effectively as a component of the overall facade. Software functions include:

- ▶ Shading devices compatibility
- ▶ Horiso “Smart Control” - safety soft limits,

precise louver adjustment in angle degree or position for facade uniformity. Programmable parameters and preset stops

- ▶ Basic scheduling with up grade options
- ▶ Switch user/override capabilities
- ▶ Sensors - Dynamic wind and brightness response
- ▶ Maintenance mode, specific commands
- ▶ Building management system interface
- ▶ Reporting and alarms
- ▶ Air conditioning integration
- ▶ ST[a]ATS (solar tracking automatic tilt synchronization)
 - solar path optimization
 - FIM options (Facade Intelligence Modelling)
 - ECO-Mode - preserves the inside temperature of the building by closing the louvers overnight and utilizing solar radiation during the day (winter mode).
- ▶ User apps for hand held devices
- ▶ Graphical User Interface (GUI)
- ▶ User control web application
- ▶ Climate Ready® Wireless Mesh Network
 - Based on ZigBee® wireless technology
 - BACnet™ protocol or standalone
 - Open global standard operating in unlicensed bands
 - Low power consumption for communication / standby
 - Support for multiple network topologies
 - Low duty cycle, low latency
 - Up to 65,000 nodes per network
 - 128-bit encryption for secure data connections
 - Stability in busy RF environments.