Automatic Door Controller Precision High-Speed Motion Control

Design Note #93



Whether your door control application is for a portal into the beyond or just a loading dock, custom designed door control electronics from Orchid opens the way.



"Complex motions and low cost were essential to our application. Orchid delivered rapidly and to the letter."

- Sustaining Motion Controls Engineering Manager

Automatic Door Controller

Automatic Door Controllers come in a variety of types and styles. Custom design of high-speed automatic door controllers must take into account embedded microcontroller performance capabilities, the door motion sensing system, safety sensors, and overall door motion force. Safety doors require low-torque. Factory doors require high speed and power. All door systems require accurate sensing and backup plans. Door motions may be as simple as open and close or may perform torque sensing and braking functions.

Precision High-Speed Motion Control

Working with high precision motion sensors, Orchid custom door controllers can operate in a variety of environments from swing door systems to slide, folding and overhead door systems. Precision control and tuning systems permit operation with a variety of door weights. Heavy doors up to 1000 lbs. require significant braking control and can benefit from the use of regenerative braking techniques. Light doors require re-open, re-close functions to counter act wind and environmental conditions.

Building Access and Control Communications

Modern door controllers may be operated through local sensors and controls as well as through networked operating systems. Modern door controllers incorporate Ethernet, RS-485, and CAN Bus wired communications systems. Wireless operation using WiFi and 802.15.4 wireless communications can be useful for overall building management and control purposes.

Simple Installation

Custom door control software can assist the field installer when setting up a particular door and maintaining the system through its useful life. Sophisticated diagnostics automatically signals the service depot when trouble occurs.

Orchid Technologies: Custom Door Controllers

The development of custom electronic products for our OEM clients is Orchid's entire business. The design of custom automatic door controllers with rapid design cycles, demanding technical requirements, and unforgiving schedules sets us apart. Call Orchid Technologies today!





ORCHID TECHNOLOGIES ENGINEERING & CONSULTING, INC.

Custom Engineering From Concept to Production

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