

IMC-100™ Intelligent Motor Controller

CS-Bus™ Networkable Bi-Directional Motor Controller

Controls Bi-directional AC motors up to 1/3 hp

UL and FCC ratings

Networkable System Enables up to 65,025 controllers to be managed

Small Form Factor Device can be Integrated Easily

Embedded Firmware Manages interlocks and other logic operations

Sophisticated Programmable Software



Background

The Intelligent Motor Controller IMC-100™ is a state-of-the-art bi-directional communication AC motor controller designed to control motors such as those used in projection screens, drapery or curtain applications. The device's incredibly small size enables it to be easily mounted within a standard J-Box or within a screen, drapery or curtain head rail or shroud. A built-in microprocessor allows individual addressability as well as more sophisticated triggering and sequencing of any number of additionally CS-Bus™ linked IMC family controllers from simple switches, screen trigger inputs, home automation systems, lighting/shading panels or even over the Internet using IP (Internet Protocol). The IMC-100™ implements communication standards adopted by the computer industry (rather than proprietary standards) that allows for up to 65,025 distinct IMC-100™ controllers to be *interconnected* and *controlled* from virtually any distance (up to 4000 feet) using an inexpensive, low-voltage communication bus (using standard CAT5 or CAT3 wiring).

Operation

One or more IMC-100™ controllers (max 65,025) can be networked to control nearly an unlimited number of motorized devices. A family of Decora[®]-style keypads including a simple "Exit Control" device is available to trigger various motor operations. Automation systems and 3rd party lighting/shading panels can operate CS-Bus networks up to 4000 feet away.

Easy Setup and Configuration

The controller's incredibly small size enables the unit to be positioned seamlessly within a soffit, equipment rack, J-Box or control panel. A built-in microprocessor allows easy system programming while embedded CS-Bus™ discovery technology allows one or more keypads to be quickly interfaced to control motor functions. Popular building and home automation systems have developed customized device drivers which enable simple to sophisticated control of motors and functions. In addition, a family of CS-Bus™ interface adapters is available which enable IMC-100™ family motor controllers to be connected to nearly any type system without third-party drivers!

Applications

The IMC-100™ System is typically deployed in residential or commercial locations to control projection screens, trap doors, as well as vertical or horizontal draperies and blinds. A breakthrough in technology allows a much simpler wiring topology to be used (daisy-chain versus home-runs for each device) thereby eliminating the time and expense of more-costly dedicated home runs of low and sometimes high-voltage wiring often required by competitive systems. Over 65,025 CS-Bus™ controllers (motor and lighting) can be individually or jointly controlled or organized into a more sophisticated scheme whereby individual controllers, or groups of controllers can be controlled separately, remotely or hierarchically virtually without any limitation.

Product Description

Features

- CS-Bus Control Accessory
- Up to 65,025 Controllers can be individually addressed/controlled
- Compatible with nearly any type of interface (dry contact, STI, 0-10v dimmable ballast controllers, serial and Internet Protocol)
- Simplified (lower cost) wiring—CAT3/CAT5 daisy chain wiring for bus control
- Enhance functionality of popular automation systems
- Can interconnect to control panels up to 4000'
- Easy J-Box for Drapery/Curtain Rod Installation
- Can be triggered by compatible motor controllers (useful on Projection Screens and window covering products)
- Detachable Class 1 Connectors
- Sophisticated Programmable Software
- Wide range of network control options available

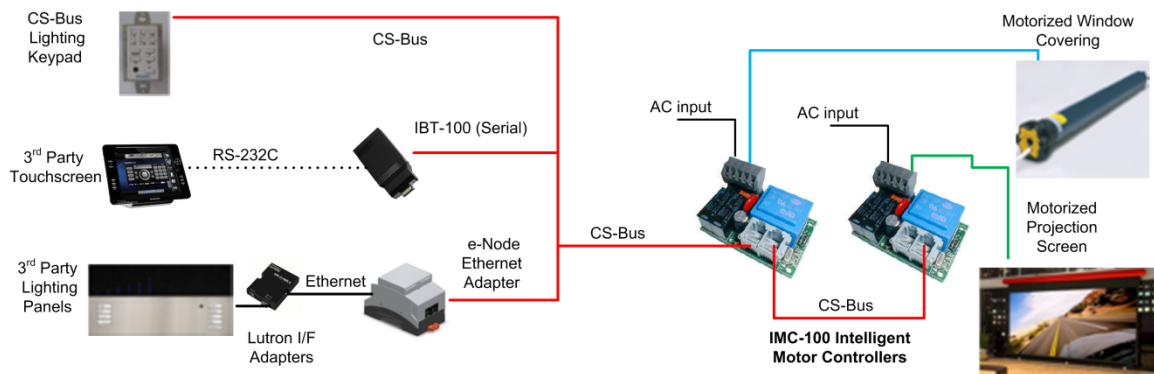
Specifications

Feature	Detail
AC Motor Control	Control of a single 1/3 hp 2.1 amp bi-directional AC motor (two directions) 120v (240V version available). Relays certified to 5 amps. Fuse protection to 5 amps. Build in surge suppression.
Network Communication	CS-Bus™ (4 –wire bus). On-board powered RJ-25 connector (for driving keypads and accessories) and one RJ-25 connector for additional bus connections
Current Sensing	Built-in current sensing version (IMC-100C™) for intermediate presets.
Addressability	- Zone Limit- 255 Controllers per zone. -System Limits-65,025 limitation using bridge interconnects
Failsafe I/O	Unique circuitry permits failsafe operation for all units on the CS-Bus™ even if one Controller fails or shuts down for lack of power
Hardware Compatibility	A built-in connector allows keypads to be easily integrated using Category 2 wiring
Software Compatibility	-VPAD (virtual keypad) PC application -Any third-party Serial COMM. Utilities -Lighting & Shading Panels from Lutron and Vantage -Automation systems from AMX, Crestron, Control 4, Elan Home Systems and others
IR Control	On-board CS-Bus™ connector enables low-cost IR receiver to be connected for IR operation
Screen Trigger (STI) Control	IBE-1000™ Intelligent Bus Encoder

Feature	Detail
External LV Control	On-board channel (i.e. Up/Down) low voltage connection is designed to interfere with dry contact keypad or third-party off-the-shelf switches.
RS-232-C Control	IBT-100™ serial adapter plugs anywhere onto CS-Bus™ network line up to 4000 feet from IMC-100™ Controller
External IP (Internet Protocol) Control	E-Node™ Ethernet adapter plugs anywhere onto CS-Bus networks up to 4000 feet from IMC-100™ Controller
External Lighting/Shading Panel Control	IBE-1000™ Intelligent Bus Encoder enables compatibility with third-party devices support 0-10v dimmable Fluorescent adapters
Power Requirements	Domestic Version: 120vAC, 50/60 Hz Int'l Version. 240 vAC 50/60 Hz single phase
Weight	PCB Version: 4.0 oz (0.11kg)
Size	PCB Version: 1.78" (46mm) x 2.75" (70mm) x 1.1" (28mm)
Manufacturing	Made in the USA
Safety	ETL Listed. Conforms to UL STD 325 (120v version)
Emissions	FCC Class B

Overview

Wiring



Applications

The IMC-100™ family of motor controllers is ideal for a variety of applications. It is widely used in a variety of application areas where **networkable functionality**, **bi-directional feedback**, and **absolute positional accuracy** is demanded. Special features which provide for interlocking and network triggering and lockout makes the IMC-100™ unique where system operation is critical. Your application may be easily adapted from our core technology. Contact us for more information.

- Motorized Projection Screens
- Automated Windows Coverings
- TV/Plasma Lifts
- Projector Lifts
- Motor Automation
- Factory Motor Control
- Mechanical Device Control
- Interlocking/Safety Doors
- Sensor/Transducer Positioning
- HVAC Control