

IBT-100™ Intelligent Bus Translator

CS-Bus™ Internet Interface Adapter and Commissioning Tool

*Bi-directional RS-232-C
for CS-Bus Networks*

*Extends RS-232-C Connectivity
up to 4000 Feet*

*Self-Powered –No External
Adapter Required*



Surge and Static Protection to 16Kv

*Small Form Factor Device
can be Integrated Easily*

*Built-in Handshaking and
Negotiation Software Protects
Proprietary Data Packets*

Product Description

Background

The Intelligent Bus Translator (IBT-100™) is a robust, standalone, serial interface converter/firewall for CS-Bus™ and other RS-485 devices. This ingenious device enables automation systems providing RS-232-C capability to control CS-Bus™ equipment (lighting control and motor/shading products) up to 4000 feet away-reliably and inexpensively! The IBT-100 is designed to provide the highest degree of circuit protection and galvanic isolation for CS-Bus™ devices. The CS-Bus™ (based upon the hardware specifications of RS-485) forms the communication backbone for a number of Converging Systems' controller devices including the BRIC™, the IMC-100™ intelligent motor controllers as well as the ILC-100™ lighting controller.

Operation

This bus-powered firewall is typically placed within 50 feet of an automation system or computer with a RS-232-C port (or USB port with USB to Serial adapter) and then CAT5 cabling (up to 4000 feet) connects the IBT-100™ with the CS-Bus™ network. Incoming serial commands are then received, processed and intelligently routed to any targeted CS-Bus™ peripheral on the CS-Bus™ network. Only one IBT-100™ is required per network.

Easy Setup and Configuration

The IBT-100™ comes factory configured with serial command compatibility for all CS-Bus™ Controllers (motor and lighting). No external power adapters are required. Popular automation systems from Crestron, AMX, Elan, and Control 4 all have available drivers. A custom device driver toolkit is available for third-party custom drivers

Applications

Virtually every current automation system relies on serial (RS-232-C) communication. Newer systems have expanded upon one-directional control systems to employ more useful bi-directional control and feedback features. The IBT-100™ is designed for all of these systems. Its key benefit of serial communication up to 4000 away saves much time and expense for the system installer as well as saving significant hardware costs. In addition, the IBT-100™ is a useful programming tool employed to update many CS-Bus™ compatible peripherals with new firmware when released.

Features

- CS-Bus control accessory
- Bi-directional communication translator/firewall for RS-232-C
- Galvanic opto-isolation circuit
- 16 Mhz RISC processor
- Self-powered from DC voltage available on standard CS-Bus™ and other RS-485 bus line
- Static protection to 16Kv
- Preprogrammed lighting and motor interpreter/translator/bus negotiation
- Plug-n-Play—no additional software or driver setup required
- Small form factor-can extend RS-232-c communication to 4000 feet effectively
- CS-Bus powered-no need for separate power

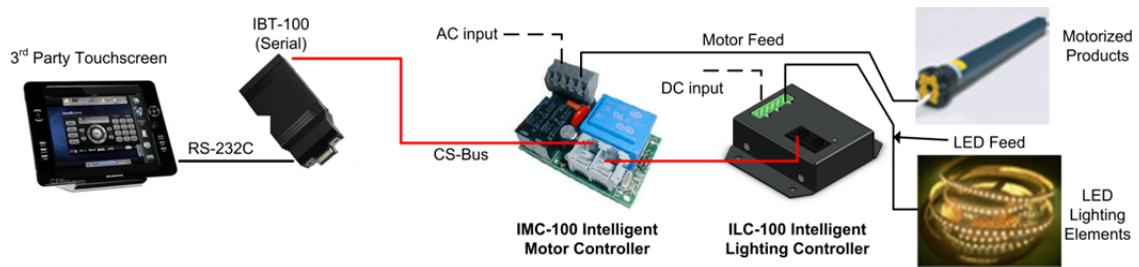
Specifications

Feature	Detail
Serial Interface	Serial Interface converter/firewall for CS-Bus™ and other RS-485 devices.
RS-232-C Communication	DB-9 (F) connector. Baud Rate: 57.600, 8 data bits, 1 stop bit, no flow control. Does not require RTS/CTS hand shaking
RS-232-C Pin-outs	- Pin 2 Transmit, Pin 3 Receive, Pin 5 Ground - Straight RS-232-C cable required for communication (not supplied)
Network Bus Type	One RJ-25 for CS-Bus™ or RS-485 communication
Network Pin-outs	Pin 3 RS485-, Pin 4 RS485+, Pin 2 Ground
Opto-Isolation	Galvanic Opto-Isolation
Static Protection	Protection to 16,000 volts

Feature	Detail
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
Power Requirements	-Self powered from DC voltage available on standard CS-Bus lines (as well as commonly available RS-485 bus lines) -12V DC, 75ma typical
Power Connector Pin Out	Power Pin out: -Regulated Power Input: Pin 5 (5vdc+), Pin 2 GND -Unregulated Power Input: Pin 6 (5-15vdc+), Pin 2 GND Note: Autosensing circuit selects appropriate power available on Pins 5 or 6 on RJ-25 cable
Size	3.23" x 1.66" x 0.81" (82 mm x 42 mm x 21 mm)
Enclosure	Molded plastic enclosure
Weight	3.4 oz. (.10kg)
Manufacturing	Made in the USA

Wiring

Overview



Applications

The IBT-100™ is ideal for a variety of applications. It is the most common interface tool for today's automation system including those from AMX, Control 4, Crestron, Elan Home Systems, Vantage and other popular systems where **two-way communication with feedback** is required. The device also expands the reach of typical RS-232-C communication which typically is limited to 50-foot runs from a computer or automation system. With the IBT-100 a CS-Bus™ network can be controlled up to 4000 feet away from the serial port of the controlling device, reliability and inexpensively!

For the installer, the IBT-100™ is the software upgrade tool of choice for nearly all CS-Bus™ devices. Simply connect the IBT-100™ to your computer and then connect to virtually any CS-Bus™ controller, keypad, or accessory to upgrade or customize firmware within seconds.

Here is how bi-directional serial communication operates and offers enhanced functionality over standard one-way serial communications.

