

EIBA CTRLink® Family – Built for Buildings



Plug-and-Play Functionality

- Auto-MDIX ports
- Auto-negotiated data rate, duplex, and flow control
- Broadcast storm control option
- Full- or half-duplex operation
- Industrial temperatures: 0°C to +60°C
- 10BASE-T/100BASE-TX compliant

Standards Compliant

- Industrial environment EMC compatible
- UL 508 Listed, Industrial Control Equipment
- C-UL Listed, CSA 22.2 No. 14-M91, Industrial Control Equipment
- CE Mark
- RoHS compliant

Simple Installation

- DIN-rail and panel-mountable versions
- Compact size:
 - DIN-rail model (3.31" H x 0.97" D x 3.5" W;
84 mm x 24.6 mm x 89 mm)
 - Panel model (2.88" H x 1.25" D x 4.13" W;
73 mm x 32 mm x 105 mm)
- 10–36 VDC and 24 VAC ($\pm 10\%$) 47–63 Hz
Power is provided through a quick-disconnect terminal strip.
- Activity/link and data rate LEDs

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Product Overview

There is an expanding need for Ethernet switches in many of the new Building Automation Systems (BAS). The Plug-and-Play (PnP) EIBA switches provide the needed functionality, mounting convenience and ruggedness to fill those applications. The popular EIBA5-100T which is designed for panel mounting is complemented by its DIN-rail cousin, the EIBA5-100T/R.

Utilizing switching technology, the compact and low-cost EIBA switches provide five 10/100 Mbps shielded RJ-45 ports. Each port is Auto-MDIX compliant and can operate as an uplink port, eliminating the need for crossover cables. All ports automatically negotiate data rate, duplex and flow control.

EIBA switches address a key issue in building automation systems and that is convenient mounting in control panels. Office-grade equipment is intended for desktops, requiring a separate power supply powered from a 120/230 Volt AC mains circuit. In this situation, a shelf would be constructed to mount the unit and a receptacle would be installed inside the control panel. However, EIBA switches mount in sub-panels and operate from the same source that powers other

BAS equipment, making the installation neat and rugged. These devices accept a low-voltage AC or DC power source.

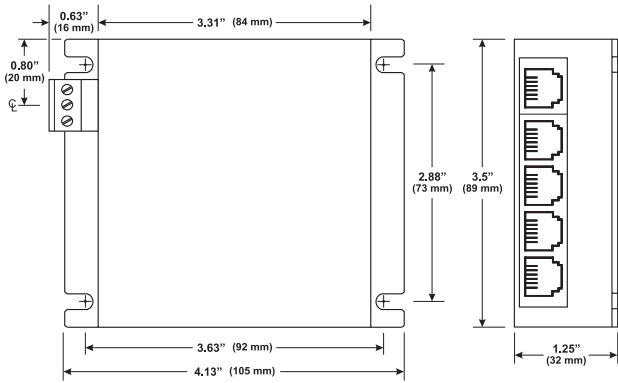
The LEDs on these units face the technician for easy network troubleshooting. The label on the device can be written upon so port connections can be documented as to the location of connected equipment. Each port LED glows solid if a link exists, flashes to show activity and shows data rate by colour: green for 100 Mbps and yellow for 10 Mbps. One power LED is provided.

Unlike office-grade equipment, EIBA units are designed for commercial and industrial applications. The switches have a wider operating temperature range and comply with global industrial electromagnetic compatibility standards so there is no concern about installing them in harsh environments. They are UL 508 Listed for Industrial Control Equipment.

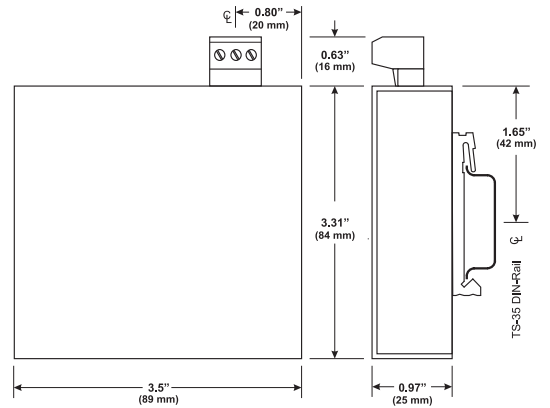
These EIBA switches will function with any Ethernet application such as BACnet®/IP, BACnet®/Ethernet and Metasys. The broadcast storm control option prevents excessive broadcasts from degrading network performance.

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Mechanical

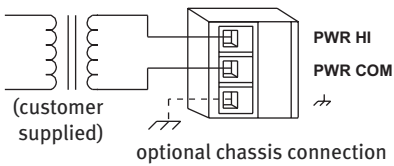


EIBA5-100T Panel Mount

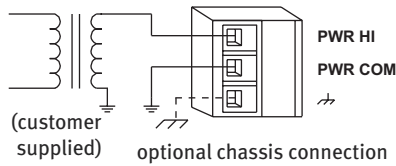


EIBA5-100T/R DIN-rail Mount

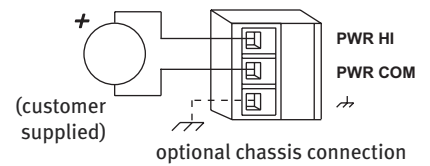
Power Diagrams



AC Powered



AC Powered with Grounded Secondary



DC Powered

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Specifications

Electrical

	DC	AC
Input voltage	10–36 Volts	24 Volts (±10%)
Input power (max)	5 W	5 VA
Input frequency	N/A	47–63 Hz

Environmental

Operating temperature	0°C to 60°C
Storage temperature	–40°C to +85°C
Relative humidity	10–95%, noncondensing
Protection	IP30

Functional

Standards	IEEE 802.3
Process type	Store-and-forward
Data rate	10/100 Mbps
Signalling	10BASE-T/100BASE-TX
Connectors	Shielded RJ-45
Segment length	100 m (max)
LED indicators	Link (L) Yellow – 10 Mbps, Green – 100 Mbps Flashing – Green
Flow control	Half-duplex (Backpressure) Full-duplex (IEEE 802.3x – PAUSE)
Aging	200 to 300 seconds

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RJ-45 Pin Assignments

MDI-X ¹	10BASE-T/100BASE-TX Usage
1	TD+
2	TD-
3	RD+
4	Not Used
5	Not Used
6	RD-
7	Not Used
8	Not Used

¹Ports normally assume the internal crossover function, but will automatically adapt to connected devices.

Electromagnetic Compatibility

Standard	Test Method	Description	Test Levels
EN 55024	EN 61000-4-2	Electrostatic Discharge	6 kV contact & 8 kV air
EN 55024	EN 61000-4-3	Radiated Immunity	10 V/m, 80 MHz to 1 GHz
EN 55024	EN 61000-4-4	Fast Transient Burst	1 kV clamp & 2 kV direct
EN 55024	EN 61000-4-5	Voltage Surge	1 kV L-L & 2 kV L-Earth
EN 55024	EN 61000-4-6	Conducted Immunity	10 Volts (rms)
EN 55024	EN 61000-4-11	Voltage Dips & Interruptions	1 Line Cycle, 1 to 5 s @ 100% dip
EN 55022	CISPR 22	Radiated Emissions	Class A
EN 55022	CISPR 22	Conducted Emissions	Class B
CFR 47, Part 15	ANSI C63-4	Radiated Emissions	Class A

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Ordering Information

Copper Only

Model	Description
EIBA5-100T	Five-port 10BASE-T/100BASE-TX switch, panel mount
EIBA5-100T/R	Five-port 10BASE-T/100BASE-TX switch, DIN-rail mount

Accessories

Model	Description
AI-XFMR	Wall-mount plug-in transformer, 120 VAC input/24 VAC output (nominal values)
AI-XFMR-E	Wall-mount plug-in transformer, 230 VAC input/24 VAC output (nominal values)

United States

Contemporary Control
Systems, Inc.
2431 Curtiss Street
Downers Grove, IL 60515
USA

Phone: +1 (630) 963-7070
Fax: +1 (630) 963-0109

info@ccontrols.com
www.basautomation.com
www.ccontrols.com

China

Contemporary Controls
(Suzhou) Co. Ltd
11 Huoju Road
Science & Technology Park
New District, Suzhou
PR China 215009

Phone: +86-512-68095866
Fax: +86-512-68093760

info@ccontrols.com.cn
www.basautomation.com
www.ccontrols.com.cn

United Kingdom

Contemporary Controls Ltd
Sovereign Court Two
University of Warwick
Science Park
Sir William Lyons Road
Coventry, CV4 7EZ
United Kingdom

Phone: +44-24 7641 3786
Fax: +44-24 7641 3923

info@ccontrols.co.uk
www.basautomation.eu
www.ccontrols.eu

Germany

Contemporary Controls GmbH
Fuggerstraße 1
04158 Leipzig-Wiederitzsch
Germany

Phone: +49-341-520359-0
Fax: +49-341-520359-16

info@ccontrols.de
www.basautomation.eu
www.ccontrols.eu