



Model: EIR205 Series

## Industrial 5 Port Unmanaged Ethernet Switches in Thin DIN Rail Mount Case



### Features

- ✓ Space saving, slim enclosure with DIN rail mount.
- ✓ Single and Multi-mode fiber optic options. ST or SC connectors available.
- ✓ 10/100M, full/half duplex, MDI/MDI-X (auto-negotiate).
- ✓ Supports IEEE 802.3/802.3u/802.3x standards.
- ✓ Range extension up to 80 km (50 miles) available.
- ✓ Wide power input with easy to connect removable terminal block.
- ✓ LED indicators for power, link, and activity.

### Functional Description

EIR205 series switches are entry-level, unmanaged, plug-and-play industrial Ethernet switches. With a compact DIN rail case, LEDs for power and monitoring, wide power input with removable terminal blocks, auto-negotiation of speed, full-duplex and auto-cross, it is perfect for any application that doesn't require management features. Common features include broadcast storm protection, store and forward mechanism, and back-pressure / IEEE 802.3x flow control. Additionally, the switch contains a 48K byte memory buffer and supports 2K MAC addresses. Choose one with 5 copper 10/100M ports, or one with 4 copper 10/100M ports and 1 fiber optic Ethernet port. Fiber optic port options include multi-mode or single-mode fiber, with either ST or SC connectors. For extra long distances choose 40 km or 80 km single-mode fiber options. An external 10 – 48 VDC power supply is required (not included).

### Ordering Information

Model Number	Description
EIR205	5 RJ45 ports
EIR205-MT	4 RJ45 ports and 1 Multimode Fiber Optic (ST) port.
EIR205-MC	4 RJ45 ports and 1 Multimode Fiber Optic (SC) port.
EIR205-ST	4 RJ45 ports and 1 Single-mode Fiber Optic (ST) port.
EIR205-SC	4 RJ45 ports and 1 Single-mode Fiber Optic (SC) port.
EIR205-ST40	4 RJ45 ports and 1 Single-mode Fiber Optic (ST) port. 40 km range.
EIR205-SC40	4 RJ45 ports and 1 Single-mode Fiber Optic (SC) port. 40 km range.
EIR205-ST80	4 RJ45 ports and 1 Single-mode Fiber Optic (ST) port. 80 km range.
EIR205-SC80	4 RJ45 ports and 1 Single-mode Fiber Optic (SC) port. 80 km range.
DR-30-24	24 VDC, 1.5A DIN rail power supply.
PS5R-A24	24 VDC, 0.3A DIN rail power supply.
7444	Removable terminal block for power – one included.
C5UMB10FBG	10 foot Ethernet patch cable.



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Figure 1 – Example Application

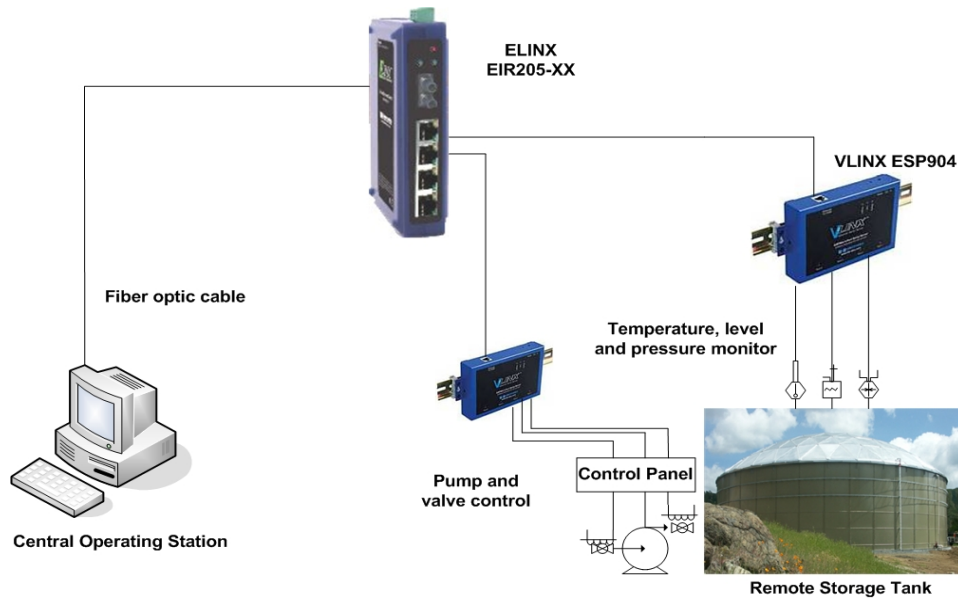
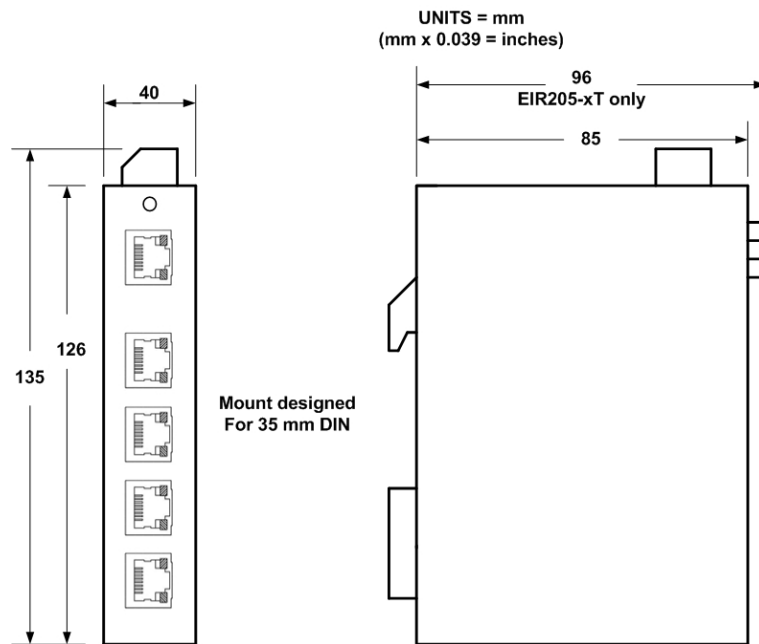


Figure 2 – Mechanical Drawing



## Specifications

### Technology

Standards:	IEEE802.3, 802.3u, 802.3x
Processing Type:	Store and Forward, with IEEE802.3x full duplex, non-blocking flow control.
Flow Control:	IEEE802.3x flow control, back pressure flow control
Packet buffer memory :	48 K bytes
Address Table Size:	2K MAC Addresses

### Interface

RJ45 Ports:	10/100BaseT(X) auto negotiation, Full/Half duplex, auto MDI/MDI-connection
Fiber Ports:	100BaseFX ports (multi-mode or single-mode with ST or SC connector)
LED Indicators:	Power, 10/100M (TP port), and 100M (Fiber port)

### Fiber Optics

Model	Distance	Wavelength	Output Power	Sensitivity
EIR205-Mx	2 km	1310 nm	19 - 30 dBm	≤ - 32 dBm
EIR205-Sx	15 km	1310 nm FP	15 - 8 dBm	≤ - 32 dBm
EIR205-Sx40	40 km	1310 nm FP	5 - 0 dBm	≤ - 34 dBm
EIR205-Sx80	80 km	1550 nm DFB	5 - 0 dBm	≤ - 34 dBm

### Power

Input Voltage:	10 - 48 VDC
Power Draw:	Copper Model 90 mA @ 24 VDC, Fiber Optic Models: 140 mA @ 24 VDC
Connection:	Removable Terminal Block
Protection:	Reverse Polarity Protection

### Mechanical

Enclosure:	Industrial SLIM Line plastic case
Dimensions (W x H x D):	EIR205: 86.6 x 128.3 x 29.5 mm (3.41 x 5.05 x 1.16 in) EIR205-xT: 97.8 x 128.3 x 29.5 mm (3.85 x 5.05 x 1.16 in) EIR205-xC: 86.6 x 128.3 x 29.5 mm (3.41 x 5.05 x 1.16 in)
Weight:	EIR205: 150g (5.3 Oz), EIR205-xx 156 g (5.5 Oz)
Installation:	DIN-Rail Mounting

### Environmental

Operating Temperature:	0 – 60 °C (32 – 140°F)
Storage Temperature:	-40 – 80°C (-40 - 176°F)
Humidity:	0 – 95% non-condensing



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## Regulatory Approvals

EMI:	FCC Part 15 Class A, CISPR (EN55022)
EMS:	EN6100-4-2 (ESD), EN6100-4-3 (RS), EN6100-4-4 (EFT), EN6100-4-5 (Surge), EN6100-4-6 (CS)
MTBF:	298,946 hours
Other:	CE, RoHS

### DECLARATION OF CONFORMITY

Manufacturer's Name:	B&B Electronics Manufacturing Company
Manufacturer's Address:	P.O. Box 1040 707 Dayton Road Ottawa, IL 61350 USA
Model Numbers:	EIR205, EIR205-XX
Description:	Industrial Ethernet Switch
Type:	Light industrial ITE equipment
Application of Council Directive:	89/336/EEC
Standards:	EN 55022 EN 61000-6-1 EN 61000 (-4-2, -4-3, -4-4, -4-5, -4-6, -4-8, -4-11)




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