

EZR5003

3-ch Digital Input / 3-ch Digital Output Ethernet IO Controller



SUNIX EZR5003 utilizes SUNIX EAZInet networking technology to quickly expand three digital input and three digital output signals via Ethernet, allowing users to conveniently implement automation, swiftly incorporate the Internet of Things into their businesses, and raise their competitiveness.

SUNIX EZR5003 does not require IP setting and supports full network topology, which substantially lightens the burden of network planning and management, shortens the hardware deployment process, and enables subsequent expansions to be executed more flexibly.

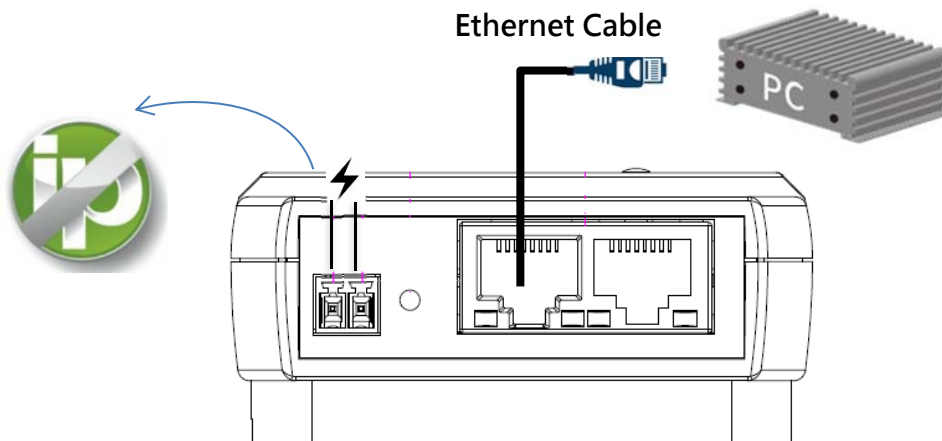
SUNIX EZR5003 is capable of automatic device enumeration, which allows the console terminal to quickly search for terminal devices, thus enabling plug-and-play functionality. This greatly improves the convenience of system development for users.

Features

- 3-ch DI, 3-ch DO, Ethernet-based smart I/O
- Built-in with SUNIX High-Performance Ethernet-IO controller.
- Built-in dual 10/100 Ethernet ports for Ethernet cascading capability.
- IP setting not required, enabling convenient and quick deployment configuration
- Supports daisy chain network topology for flexible and quick I/O expansion
- Automatic device enumeration mechanism facilitates terminal device networking
- Hardware may be wall or rail (DIN) mounted

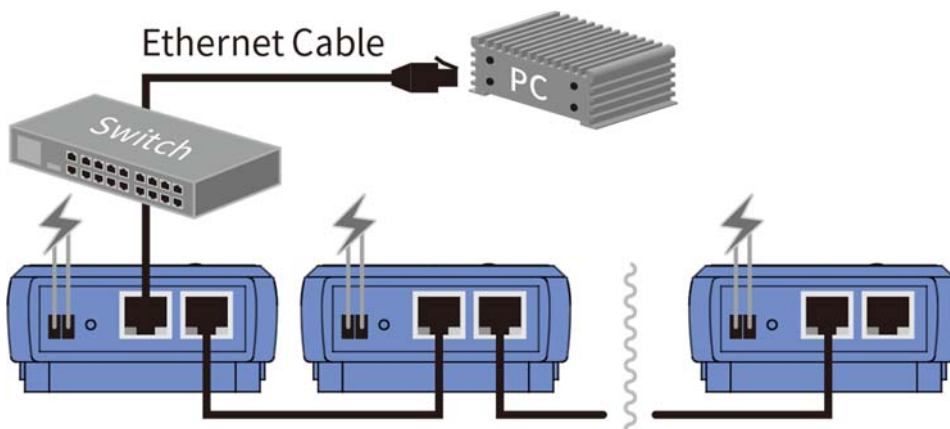
IP setting not required, enabling convenient and quick deployment configuration

SUNIX EAZInet networking technology reduces deployment time since its does not communicate via IP addresses. IP address planning and management are not required during hardware installation and deployment, and an I/O expansion simply requires the power supply and networking cables.



Supports daisy chaining for flexible I/O expansion

SUNIX DevicePort I/O EZR5003 comes with two 10/100 Ethernet ports, one for connecting to the console device, and the other for connecting (daisy chaining is supported) to a SUNIX DevicePort I/O device. This enables flexible I/O expansions, simplifies network cabling complexity, and reduces wiring cost.



Automatic device enumeration mechanism facilitates terminal device networking

SUNIX developed the EAZInet network's communication protocol with the aim of facilitating terminal device networking. With this technology, the EZR5003 can be quickly deployed using a network cable and does not need to set IP addresses. After deployment, the SUNIX DevicePort Manager installed in the console computer will promptly search for and detect all EZR5003 devices in the local area network. Once a connection is established, the DevicePort Manager will automatically enumerate each I/O channel based on the models that are used



DIO 1

Selected DevicePort name : EZR5002
Selected DevicePort MAC : 00:0a:0a:91:00:5a

Bank 1

<input type="checkbox"/>	No	Direction	Invert	Status	Initial Status	Safe Status	Latch Pos
<input checked="" type="checkbox"/>	1	Input	False	Low	Low	Low	False
<input type="checkbox"/>	2	Input	False	Low	Low	Low	False

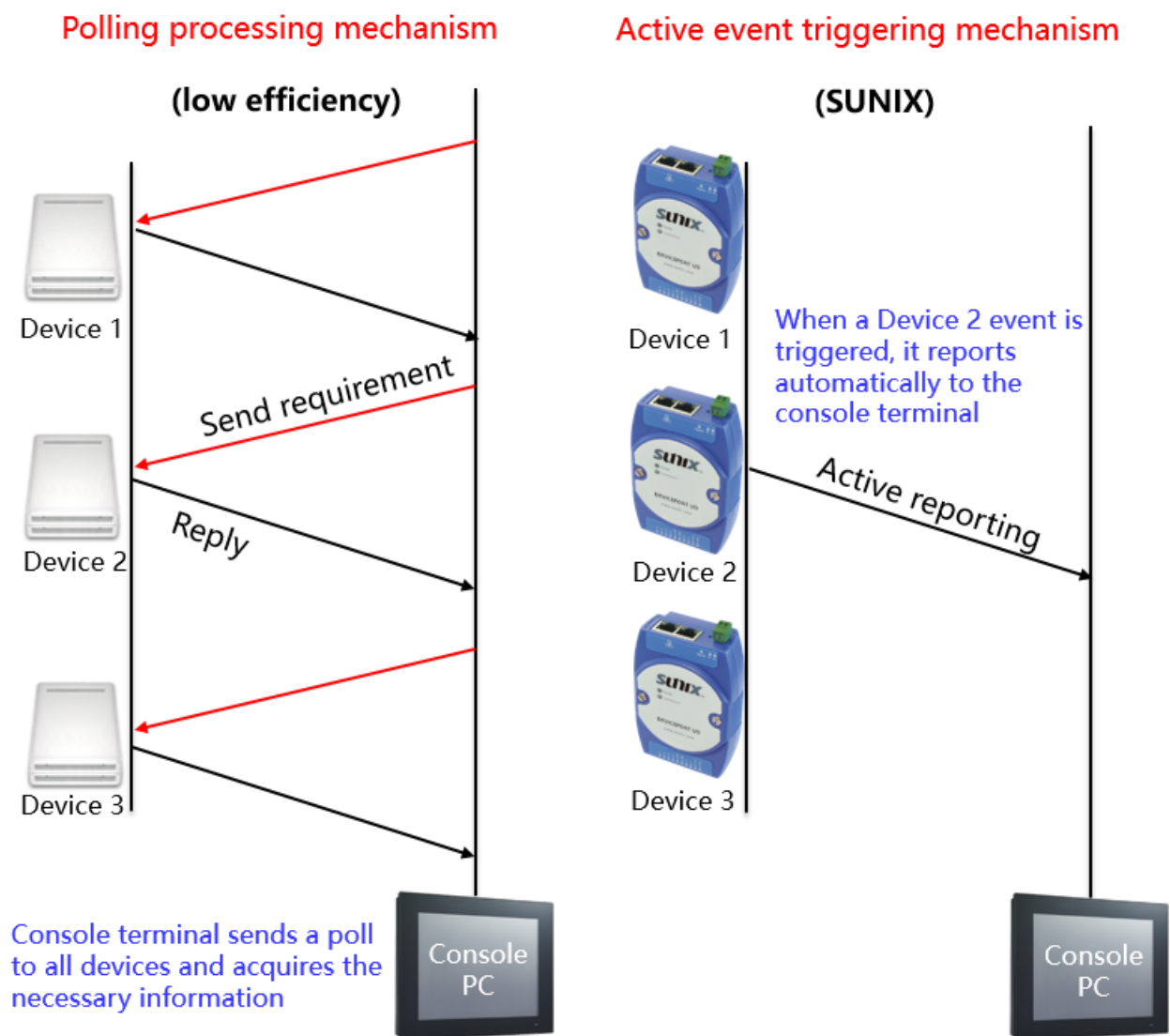
Bank 2

<input type="checkbox"/>	No	Direction	Invert	Status	Initial Status	Safe Status	Latch Pos
<input checked="" type="checkbox"/>	1	Output	False	Low	Low	Low	False
<input type="checkbox"/>	2	Output	False	Low	Low	Low	False
<input type="checkbox"/>	3	Output	False	Low	Low	Low	False
<input type="checkbox"/>	4	Output	False	Low	Low	Low	False

Transfer and access mechanisms with active event trigger increase efficiency of data transmission

Most existing transmission and control mechanisms for terminal devices communicate via polling or other methods. These processing mechanisms suffer from low transmission efficiency, and when a large number of terminal devices are used, the delays of each terminal device are likely to substantially compromise the entire system's control and transmission efficiency.

To address this efficiency problem, SUNIX EZR5003's transfer and access processing mechanisms utilize active event reporting.



Common Specifications

LAN

Ethernet: 2-port 10/100 Mbps RJ45 ports

Protection: 1.5 KV magnetic isolation

Protocols: SUNIX EAZInet

Physical Characteristics

Dimensions: 72.1 x 108 x 33.7 mm

(2.83 x 4.25 x 1.32 in)

Weight: 118 g

Mounting: DIN rail or wall

Environmental Limits

Operating Temperature:

-25 to 70°C (-13 to 158°F)

Storage Temperature:

-30 to 75°C (-22 to 167°F)

Operation Humidity:

5 to 95% (non-condensing)

Standards and Certifications

- **EMC:** EN 55032, EN 55035
- **EMI:** CISPR 32, FCC Part 15B Class B
- **EMS:** IEC 61000-4-2
- **ESD:** Contact: 4 kV; Air: 8 kV

EZR5003 Specifications

Digital Input

Channels: 3 channels

Dry Contact:

- **Logic Level 0:** Open
- **Logic Level 1:** Close to GND

Wet Contact:

- **Logic Level 0:** 3V (Max.)
- **Logic Level 1:** 10 to 50V

Input Resistance: 10 kΩ

Isolation: 1k VDC

Over-Voltage Protection: 70VDC

Digital Output

Channels: 3 channels

Output Type: NPN

Output Voltage Range: 3.5-30V

Normal Output Current: 500mA per Channel

Isolation: 1k VDC

Startup Value Setting: Yes

Communication Safety Value Setting: Yes

Power Requirements

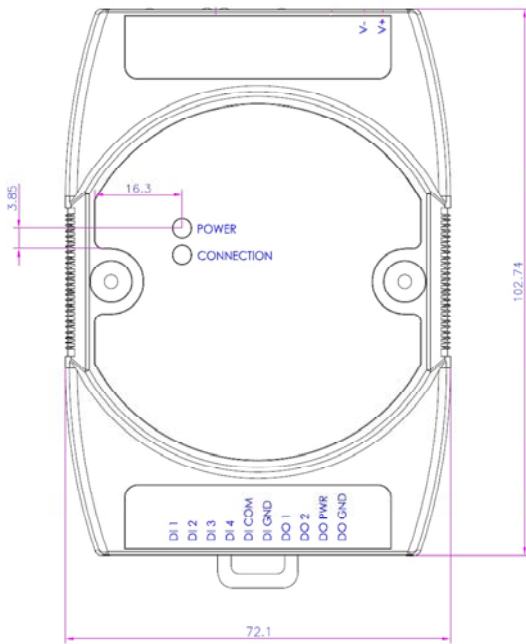
Input Voltage: 12 to 24 VDC

Power Consumption: 1.6W @ 24 VDC

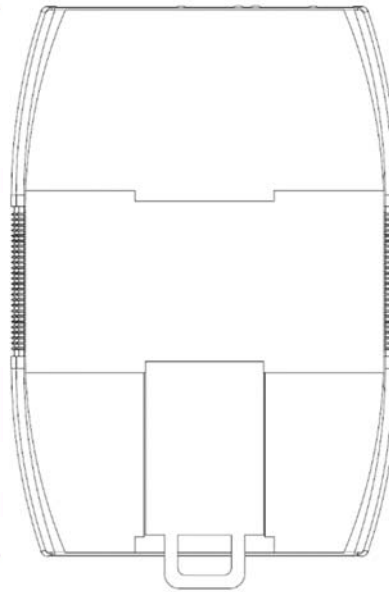
Connector: 2 PIN Terminal Block

Dimensions

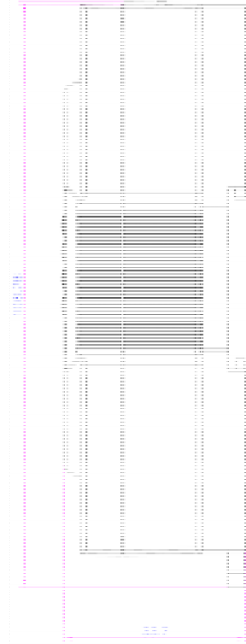
72.1 x 108 x 33.7 mm (2.83 x 4.25 x 1.32 in)



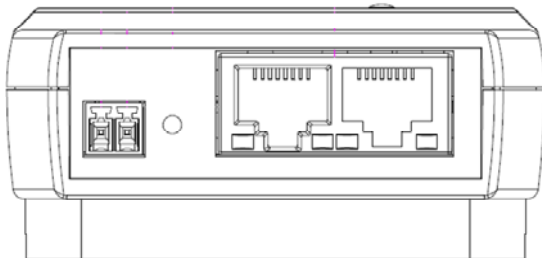
Front View



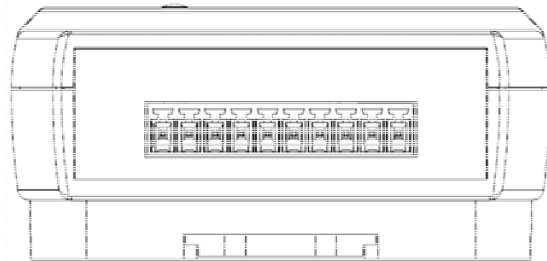
Rear View



Side View



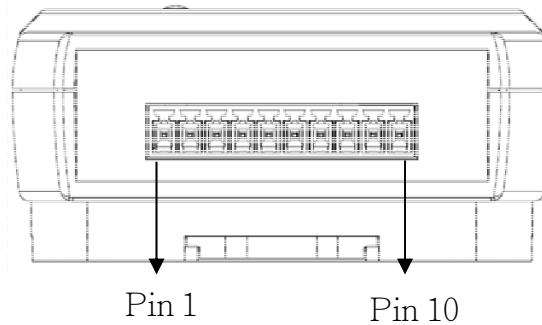
Top View



Bottom View

Pin Assignment

- Digital Input / Digital Output



PIN	1	2	3	4	5	6	7	8	9	10
	DI1	DI2	DI3	DI4	DI COM	DI GND	DO1	DO2	DO PWR	DO GND

Package Contents

- EZR5003, 3 Channels Digital Input / 3 Channels Digital Output Ethernet IO Controller
- Quick installation guide

Ordering Information

- EZR5000, 8 Channels Digital Input / 8 Channels Digital Output Ethernet IO Controller
- EZR5003, 4 Channels Digital Input / 2 Channels Digital Output Ethernet IO Controller
- EZR5002, 2 Channels Digital Input / 4 Channels Digital Output Ethernet IO Controller
- EZR5003, 3 Channels Digital Input / 3 Channels Digital Output Ethernet IO Controller
- EZR5230, 8 Channels Analog Input Ethernet IO Controller
- EZR5231, 4 Channels Analog Input Ethernet IO Controller

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