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Due to the company's ongoing product upgrades, the content is subject to change without prior notice.
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DECOWELL®

DECOWELL SERIES PRODUCTS

Decowell Reliable partner for intelligent manufacturing



- FS Series Integrated I/O
- RX Series High Performance Card I/O
- SD Series IP67 Remote I/O
- RS series integrated I/O
- EX Series Card I/O
- LS Series Discrete I/O



COMPANY PROFILE

Nanjing Decowell Automation Co., Ltd was founded in 2016. It is a national high-tech enterprise integrating technology development, production, sales, and service. As a leading automation service provider in China, Decowell automation products are widely used in 3C, new energy, logistics, food, pharmaceutical, automotive, environmental protection, Educational Instruments Industry, rail transportation, machine tools, metallurgy, chemical, and other industries.

Decowell Automation has served more than 1,000 customers at home and abroad and has established business relationships with many of the world's top 500 companies. The company owns more than 100 intellectual property rights, and its products have been certified by UL, CE, ETG, PI, and CLPA for product conformity.

Decowell Automation keeps pace with the times and continues to provide customers with highly reliable products and solutions for industrial bus applications.

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HONOR AND QUALIFICATION

Decowell products have obtained the following certifications:

- UL certification
- CE certification
- Conformity certifications from the three major associations ETG, PI, CLPA
- ISO9001, ISO14001, ISO45001 triple system certifications
- The company possesses over 100 intellectual property rights.



UL Certification



ISO9001



ISO14001



ISO45001















CE Certification







Product conformance certified by ETG,PICLPA, three major associations

DECOWELL®

Next generation high protection I/O

SD Series IP67 Remote I/O

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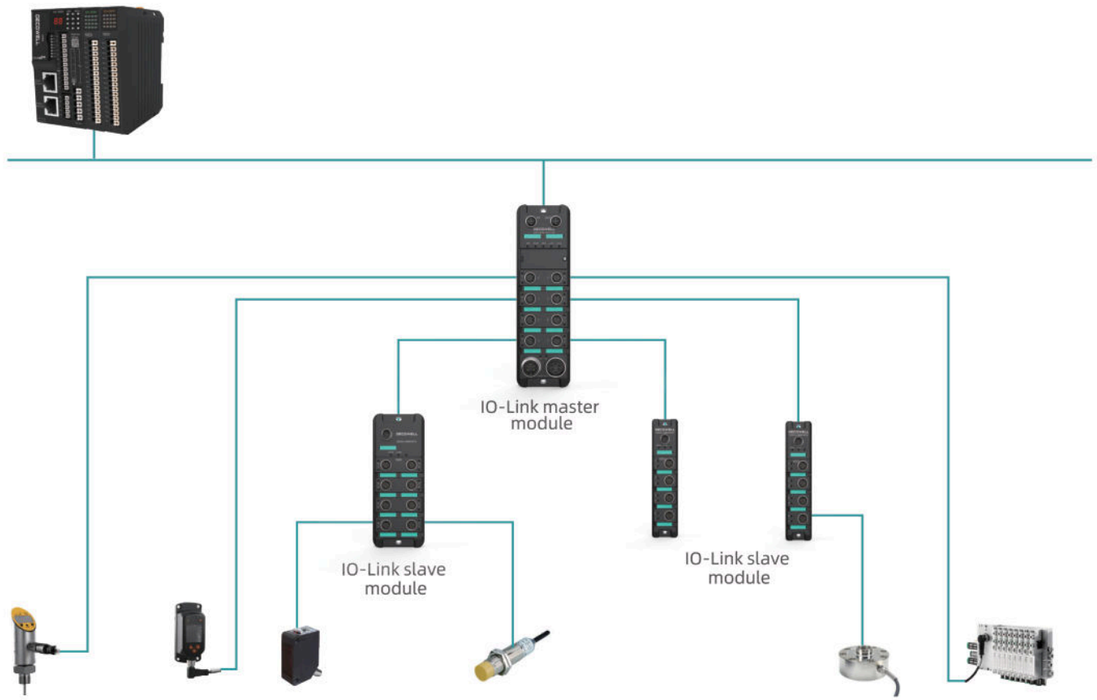
SD Series IP67 Remote I/O

Product description

SD series has a protection level of up to IP67 and supports mainstream fieldbus protocols such as PROFINET, EtherCAT, EtherNet/IP, etc. Fully sealed and miniaturized design, compact structure, easy integration and installation, suitable for application scenarios that require long-term stable operation and use in various harsh industrial environments, with strong anti-interference ability.



Product application topology diagram



SD Series IP67 Remote I/O

IP67 interface description

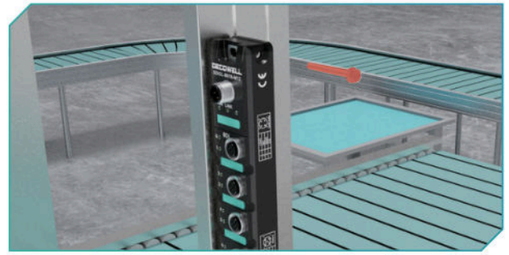


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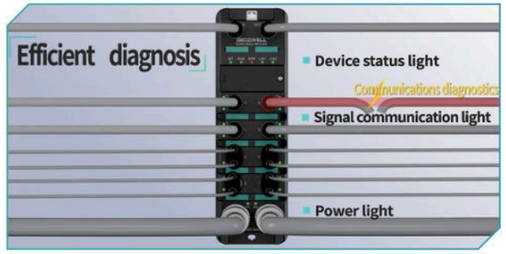
Product Highlights



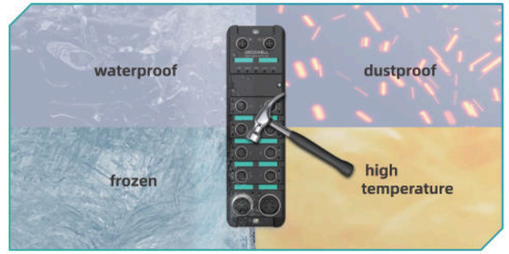
Screw installation is convenient and fast



Standard M8/12 interface port, quick wiring



Efficient diagnosis



waterproof, dustproof , shock-proof, high temperature

SD Series IP67 modules are used for product characteristics in harsh environments

5 ADVANTAGES

01 Dustproof and waterproof
Thanks to its IP67 protection rating, this module can function seamlessly in demanding dustproof and waterproof environments, and is capable of withstanding intense vibrations and shocks.

02 Remote installation
Modules can be distributed across different locations within equipment and machinery, enhancing flexibility and precision in monitoring and control.

03 Miniaturized design
Compared to traditional remote I/O, the SD series IP67 module is compact in design, saving space and making it easy to integrate and install.

04 Multiple communication interface ports
"The SD series IP67 module supports a variety of communication protocols, such as PROFINET, EtherCAT, EtherNet/IP, etc., providing high speed and stability. It can satisfy the requirements of real-time data transmission and remote monitoring."

05 Reliability
The SD series IP67 module features built-in fieldbus diagnosis and status monitoring functions. These functions enable real-time network monitoring, obstacle removal, and enhanced operational reliability.

Compact structure and simple wiring

EX series card I/O



Abundant protocols

Efficient diagnosis

Compact structure

Simple wiring

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EX series card I/O

Product description

The EX series card type I/O consists of an adapter module, I/O module, power module, and terminal module. The adapter can support multiple communication buses, such as PROFINET, EtherCAT, DeviceNet, etc. I/O modules can be divided into digital input module, digital output module, analog input module, analog output module, and functional module. The maximum number of I/O points for a single module is 32, and a single adapter can scale up to 32 I/O modules. The module is designed with rich diagnostic functions and status indicators, allowing users to easily identify the current operating status of the module.



Module composition

Digital module

- Direct plug-in 8-point transistor input/output
- Direct plug-in 16-point transistor input/output
- Direct plug-in 32-point transistor input/output
- External terminal block 32 points transistor input/output
- Direct plug-in 8-point relay output

Temperature acquisition module

- Thermocouple (TC) K type, S type, J type, R type, T type, B type, E type, C type, N type, voltage measurement input module
- Thermal resistance (RTD) PT100, PT200, PT500, PT1000, Ni120, Resistance measurement input module

High-speed counting module

- Two-channel NPN high-speed counting module
- Two-channel PNP high-speed counting module

Communication module

- RS485 Modbus-RTU
- Main station communication module
- RS485 free port communication module
- RS232 free port communication module



Adapter module

Support multiple bus protocols

- EtherCAT
- PROFINET
- EtherNet/IP
- CC-Link
- DeviceNet
- CC-Link IEFB
- Modbus-TCP
- PROFIBUS-DP
- Modbus-RTU
- CANopen

Analog module

- 4/8 channel 0-5V/10V, 0/4-20mA, ±10V, ±5V analog input (16/12Bit)
- 4/8 channel 0-5V/10V, 0/4-20mA, ±10V, ±5V analog output (16/12Bit)

Temperature control module

- 8-channel temperature detection and control module, Comes with PID algorithm, easy to implement Temperature control applications

Encoder acquisition module

- Single-ended NPN encoder acquisition
- Single-ended PNP encoder acquisition
- Single channel differential encoder acquisition
  SSI encoder acquisition

Auxiliary module

- System power module
- Terminal module

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EX series card I/O

EX series interface description



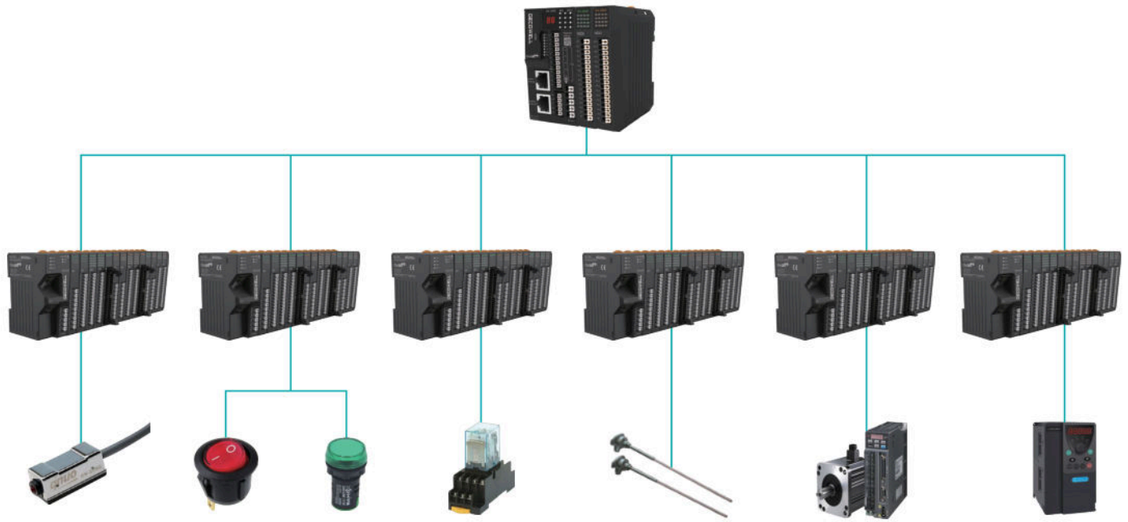
① Status indicator light

② Communication interface

③ Power interface

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Product application topology diagram



Product Highlights



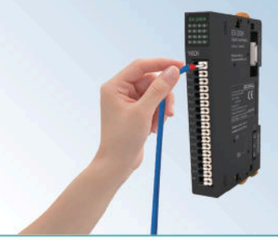
Small size and compact structure

EtherCAT Technology Group
PROFINET
DeviceNet
CANopen
CC-Link
CC-Link IE Field Basic
Modbus
EtherNet/IP

Support multiple communication protocols

Digital module	Analog module
Temperature acquisition module	Encoder acquisition module
Temperature control module	High-speed counting module
Communication module	Auxiliary module

Abundant product types



Direct plug-in terminal, quick installation

More stable and reliable design

FS series integrated I/O



Rich protocol options | Stable performance | Compact yet powerful | Easy installation

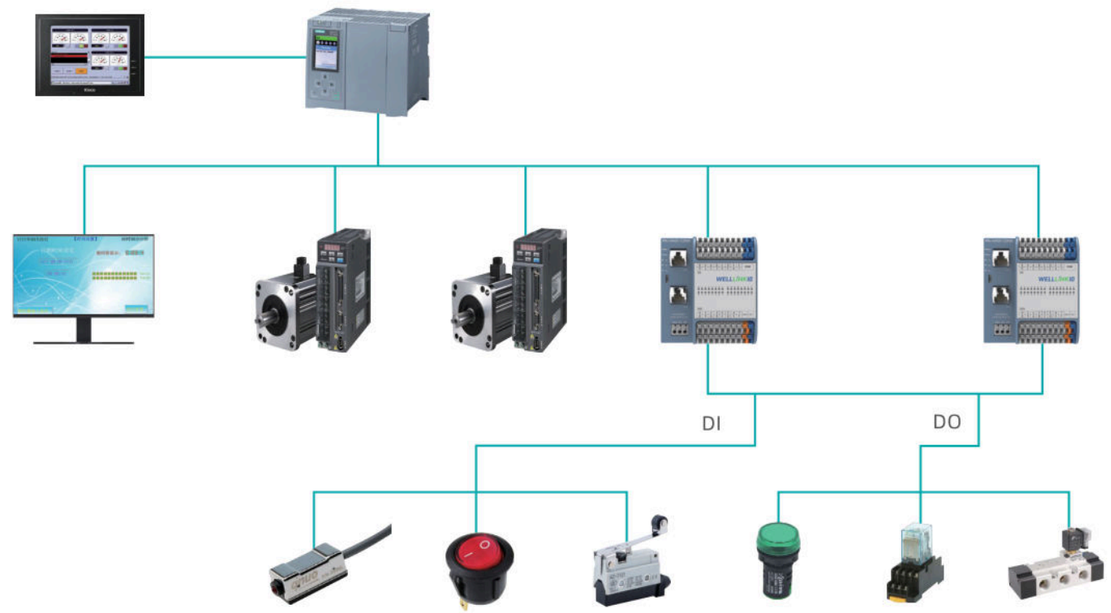
FS series integrated I/O

Product description



The FS series integrated I/O is an early bus product launched by decowell. Innovative design of communication interfaces, power modules, and I/O modules as highly integrated individual modules. It can support various communication buses, such as PROFINET, EtherCAT, etc. The Ethernet communication interface is designed as a 45 degree inclined interface, which can reduce the stress caused by long-term bending of the network cable on the network interface structure, thereby increasing the reliability of the system. All terminals are equipped with screw free terminals, greatly reducing the workload of on-site installation and wiring, and saving installation time.

Product application topology diagram



FS series integrated I/O

FS series interface description



① Status indicator light

② Bus communication interface

③System power input port

④ I/O input port

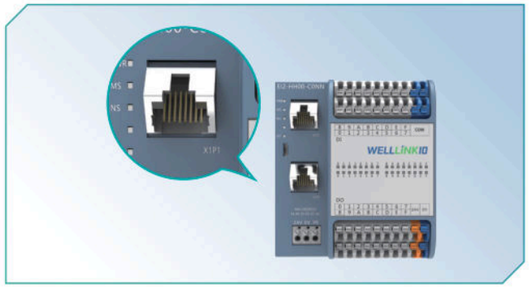
⑤ I/O signal indicator light

⑥ I/O output port

Product Highlights



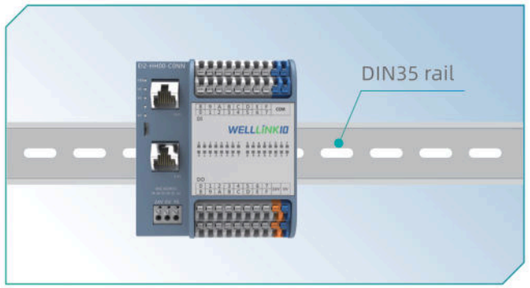
Direct plug terminals, quick installation



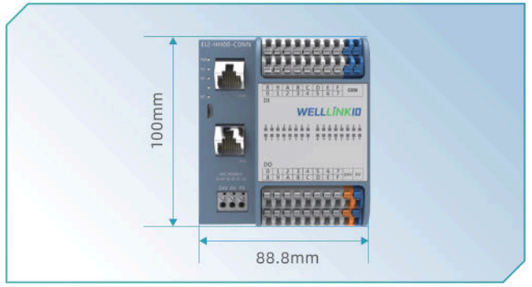
The communication interface is designed as a 45-degree angled interface



Supports multiple communication protocols



DIN35 rail mounted



Small product size and compact structure



Stable communication and no packet loss of data

Stable and reliable protocols

RX Series High Performance Card I/O



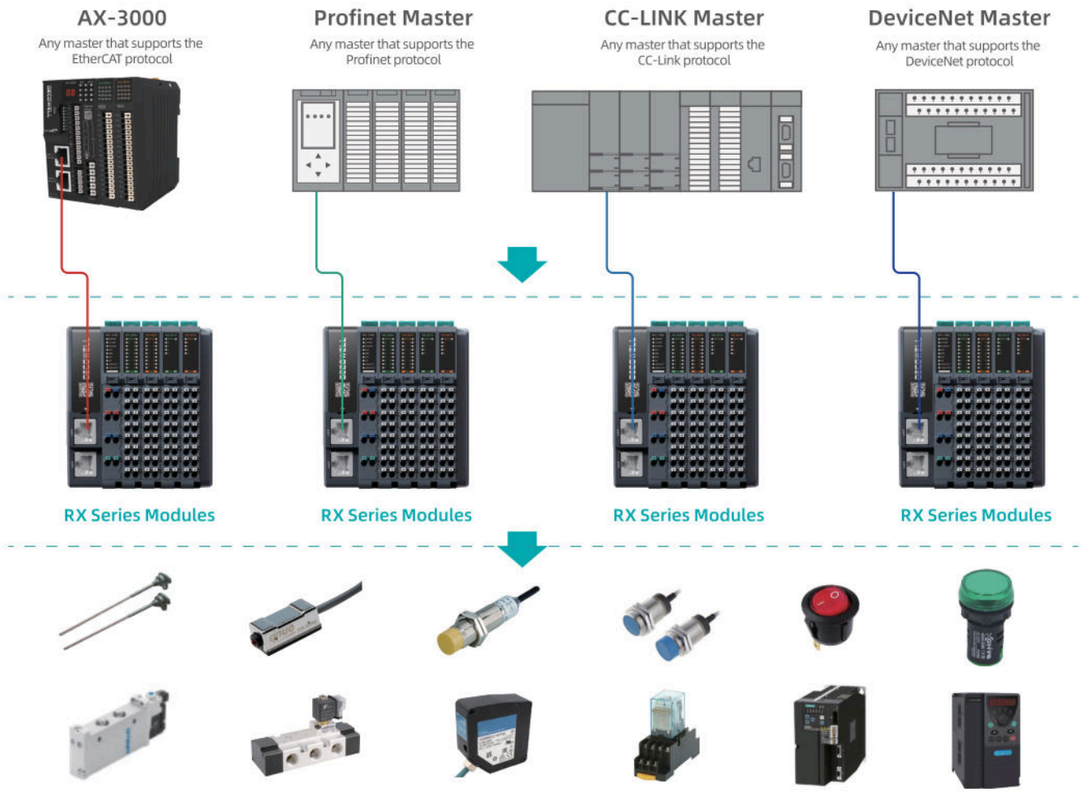
- Supports vertical unplugged installation
- DIN35 rail mounting
- Modules support hot-swapping
- Supports large-diameter terminals for tool-less wiring
- The communication interface is designed as a 45-degree inclined interface

RX Series High Performance Card I/O

Product description

RX Series High Performance Card I/O is a new generation of card-type modules, supporting mainstream fieldbus protocols, such as PROFINET, EtherCAT, EtherNet/IP, etc., which can be used to collect input and output signals in the equipment system in a more high-speed and reliable way.RX series body is as thin as 12mm, with the design of the three-section structure, the terminals can be detached, the module supports hot-swappable, and the response speed is as high as microseconds. The response speed is up to microseconds. At the same time, it provides high-speed backplane communication and more diagnostic functions to meet the higher performance requirements of customers.

Product application topology diagram

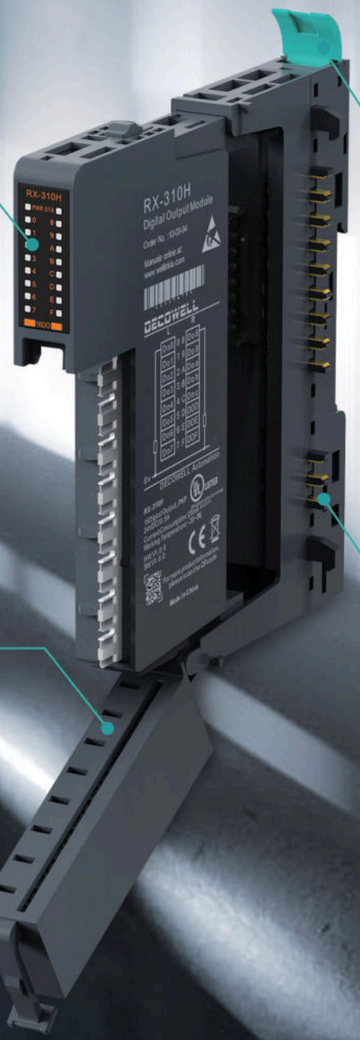


Three-section design, flexible disassembly

RX Series High Performance Card I/O

Independent status diagnostics andLEDs Quickly distinguish between I/O functions.

The mounting terminals are designed with knobs for tool-less disassembly and installation.



D-BUS design. Double the stability

Designed with removable terminals. minimizes installation resulting in errors caused by installation.

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Product Highlights

Paper thickness, saving electrical cabinet space

Paper thickness can be as thin as **12mm**

One coupler can support **32** modules

Saves **2/3** of the energy cabinet space

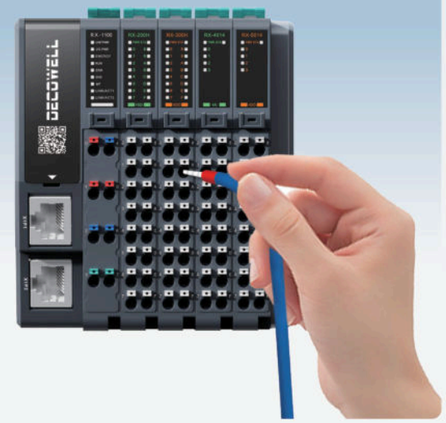


RX Module Electrical Cabinet



Other modular cabinets

Direct plug terminals, tool-free installation



Superior performance, microsecond-level response

100mbps

The local bus speed can reach

Other Products Local Bus Speed

RX Product Local Bus Speed 100mbps

DECOWELL®

Superior performance
Quick Installation

RS series integrated I/O





Product Features

- Supports bus exception output Status Configuration
- Module supports up to 32 digital signal points
- Built-in USB upgrade port Convenient software upgrade
- IO modules support hot-swapping
- Module split design, IO module Support multiple interfaces
- Supports the combination of multi-channel PNP & NPN mixed input and output
- Supports slave loss diagnostics Configuration i nconsistency detection
- Support one key to restore factory settings

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RS series integrated I/O

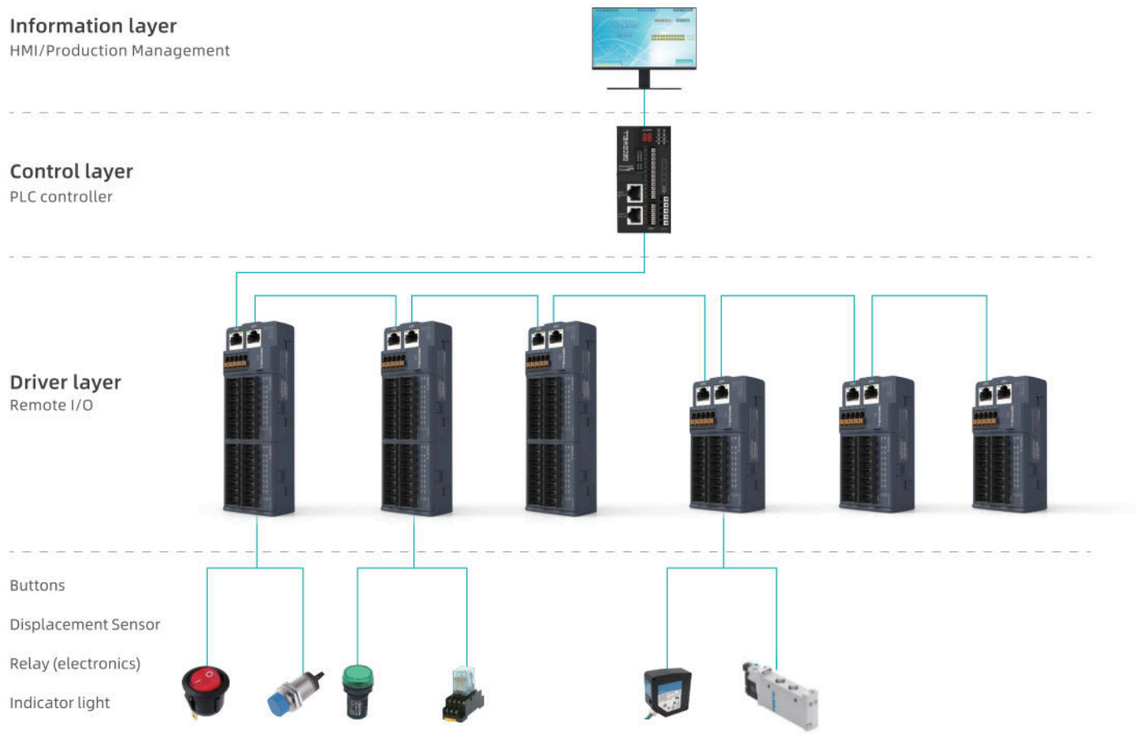
Product description

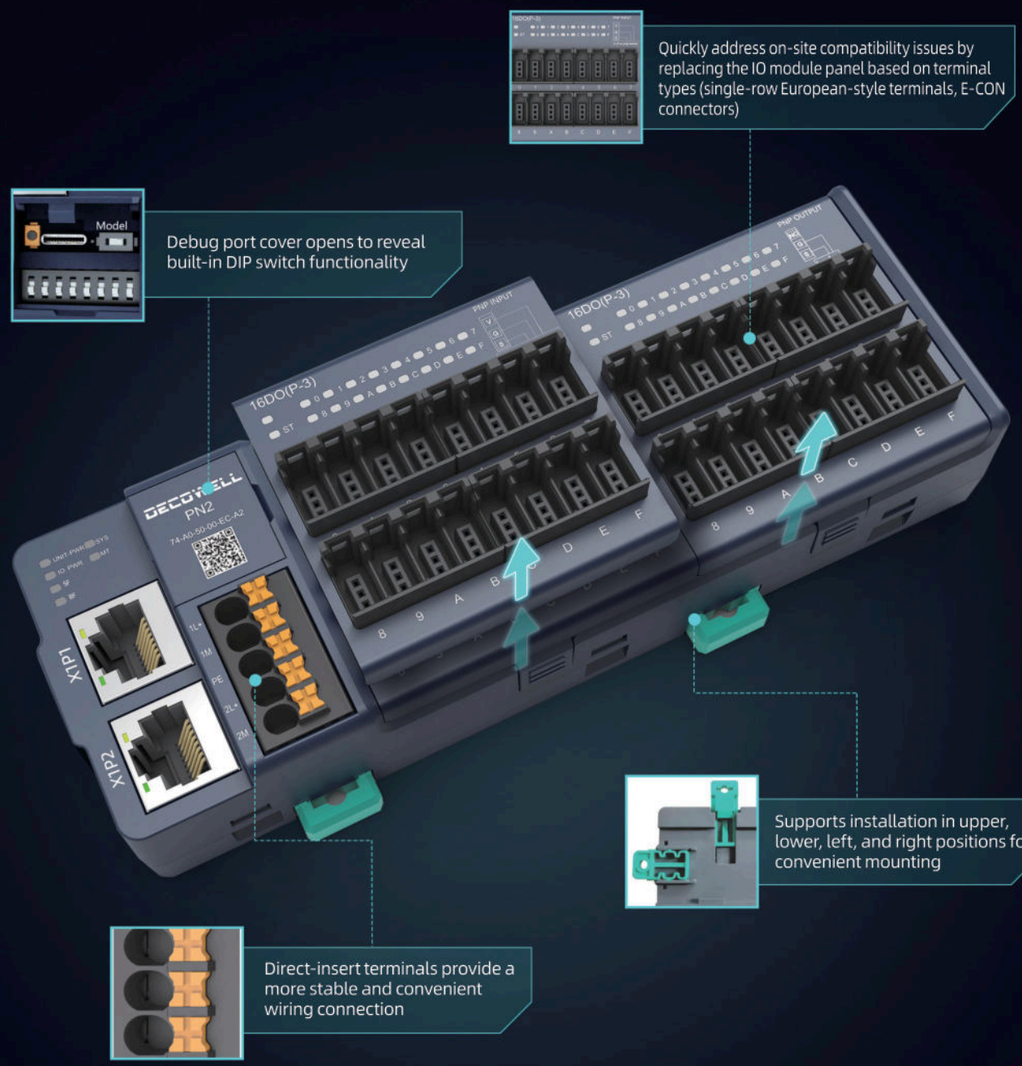
RS series integrated I/Omodules support a variety of industrial fieldbus protocols, such as EtherCAT, PROFINET, EtherNet/IP, DeviceNet, etc. The I/O modules support a maximum of 32 channels of digital inputs/digital outputs, and users can choose different I/O module components according to the actual needs, with single-slot and dual-slot chassis available. The RS series bus protocols are respectively

Each bus protocol of RS series supports 16DI NPN, 16DI PNP, 16DO NPN, 16DO PNP, 8DI8DO NPN, 8DI8DO PNP, 8DO relay respectively.



Product application topology diagram





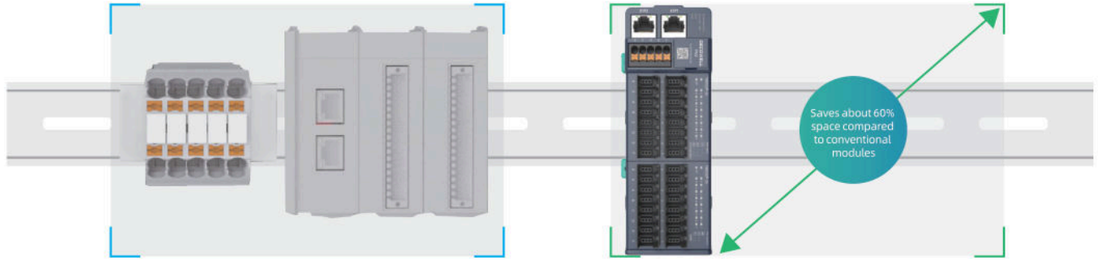
NEW UPGRADE

Faster, more stable next-generation I/O systems

Product Highlights

Small size and space saving

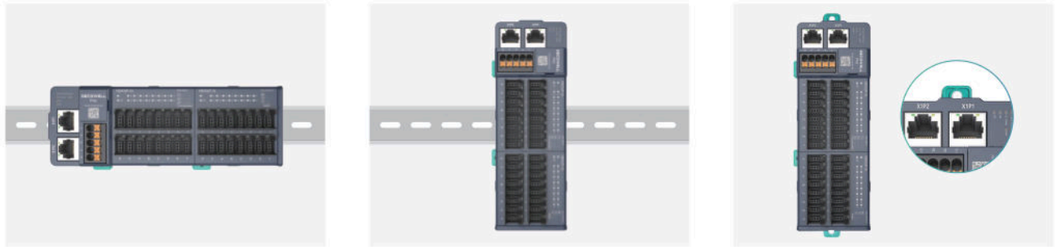
60% saving in installation space



Traditional Layout | RS Layout

Installation

Flexible options, three installation methods



Horizontal rail mounting | Vertical rail mounting | screw-in installation

E-CON Quick Connectors

E-CON Quick Connector Features: compactness | safe and reliable | Quick Wiring | space-saving | long life | not easily dislodged

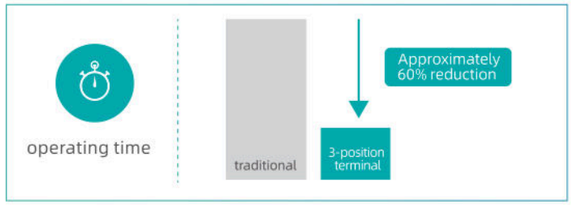
Only two steps are required (insertion and crimping) thus drastically reducing the working time by 60%.



power strip

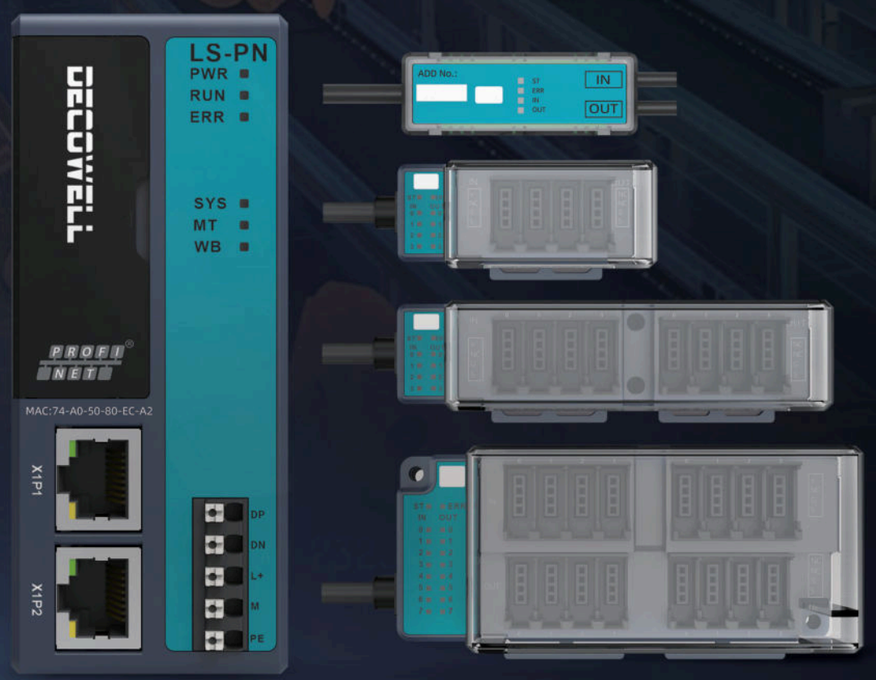


pressure crease



Compact size and flexible layout

LS Series Discrete I/O

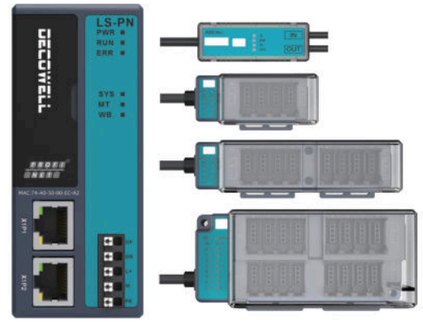


- Communication Cables Free choice
- With infrared Handheld devices
- Flexible topology Layout on demand
- 2-core transmission

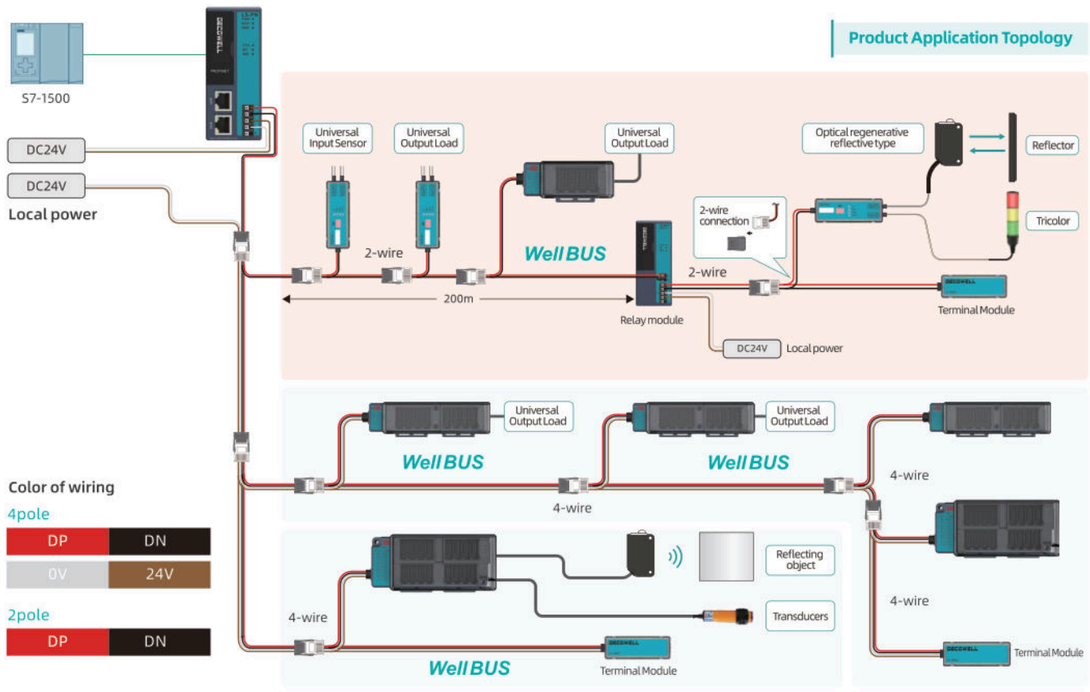
LS Series Discrete I/O

Product description

LS series product is a distributed I/O module developed based on Deckwheel's self-developed bus WellBUS. This series module adopts the way of signal power superposition, which allows free choice of topology, in addition, the compact module volume saves customers more space in the cabinet, and it can be applied to logistics and warehousing and other points of dispersed occasions.

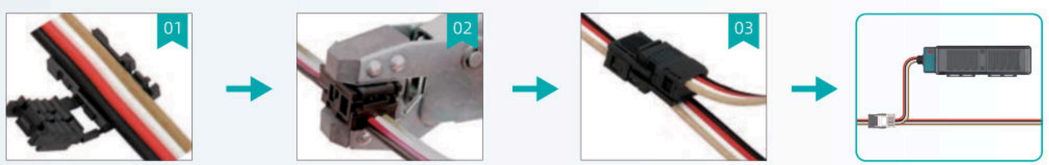


Product application topology diagram



Product Highlights

01. Simple cable connection



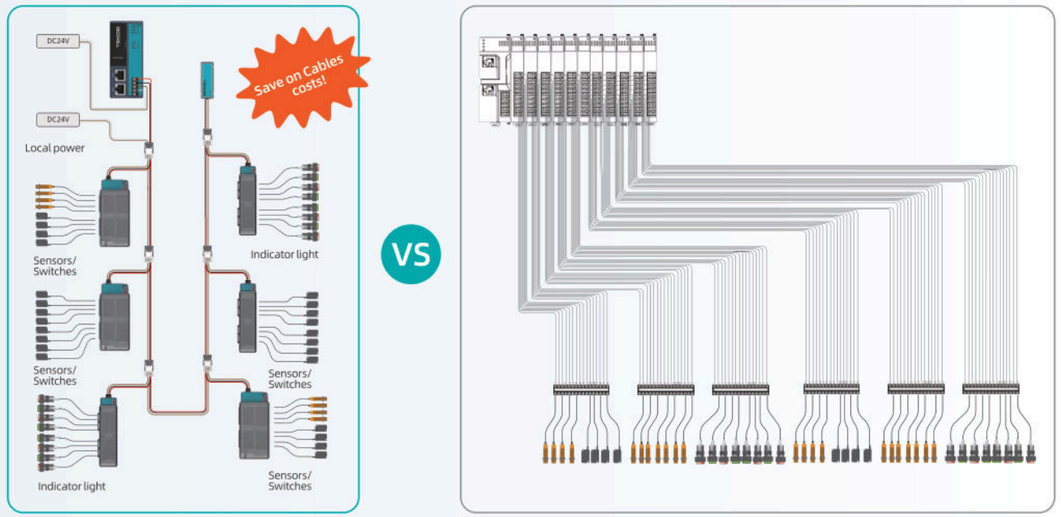
Specialized no-strip connectors are used, and the cables are placed in the corresponding cable slots.

A special crimping tool can be used to crimp the no-strip connector.

Push on both ends until the connector locks.

Note: It is recommended to use a special crimping pliers, connection and installation debugging faster.

02. WellBUS Easy wiring



WellBUS module

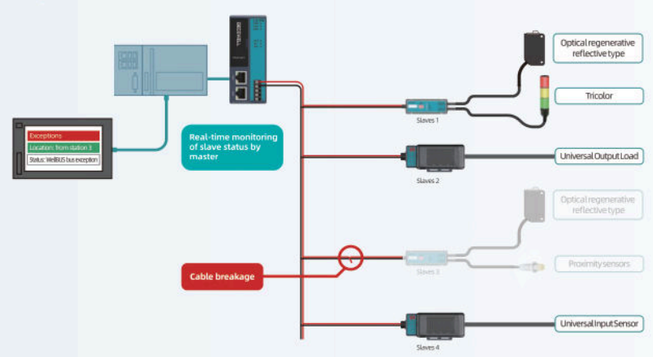
One row of wires completes the connection

Traditional IO

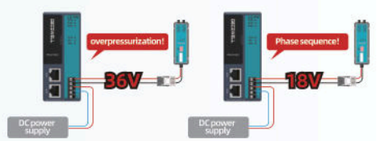
Increase in the number of lines with the number of connections

03. Alarm information and status monitoring

When an abnormality occurs on the WellBUS bus, such as a broken communication cable, the master can monitor the current slave loss and quickly locate the faulty slave module,**Facilitates on-site problem troubleshooting and saves time.**



Slave Loss Alarm

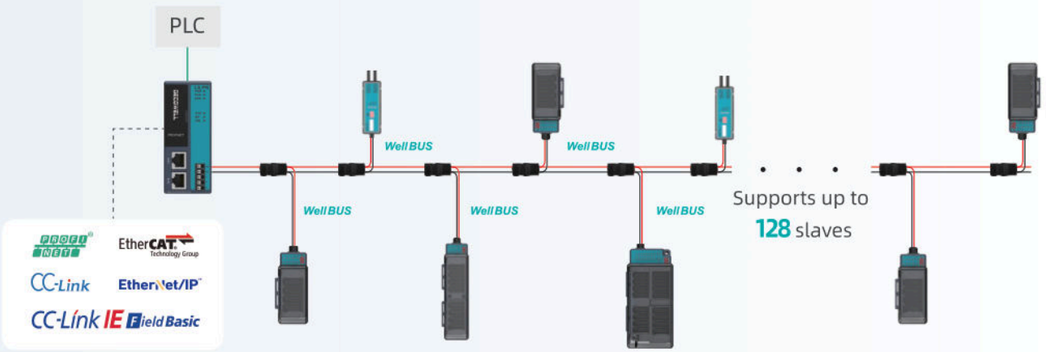


Undervoltage and overvoltage alarms



Slave Address Conflict Alarm

04. Performance Parameters



- Single master supports up to 128 slaves
- Single master with up to 512 inputs + 512 outputs
- Communication distance up to 200 meters
- Wire break detection, short circuit protection
- Scanning period: 2ms~20ms corresponds to 32 points IO~512 points IO
- Short circuit protection, power supply over-voltage and under-voltage protection
- Upper unit configuration software: you can monitor the status information of each slave station on the upper unit software; address the slave station; and perform punching operations on the process data of the slave station.