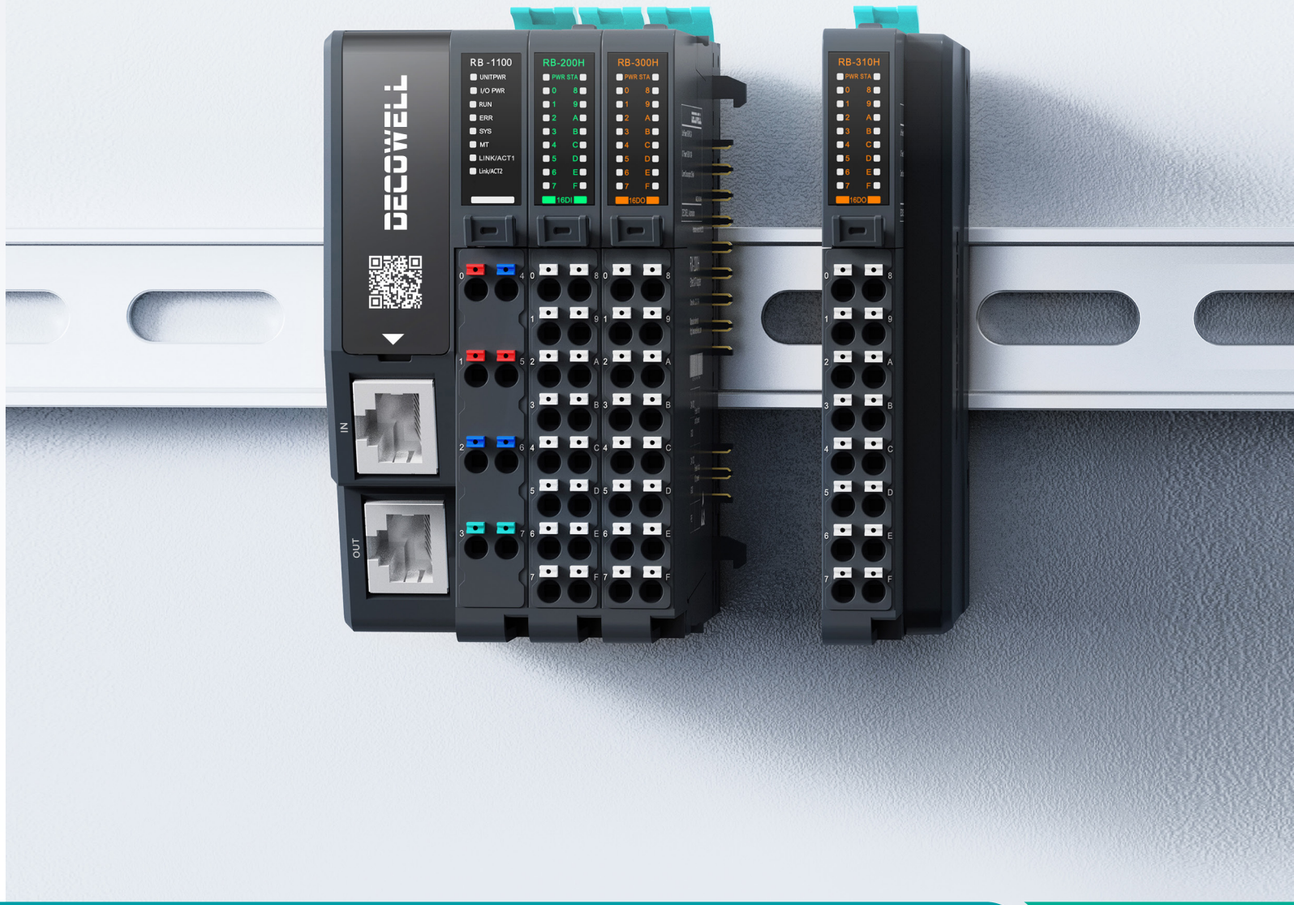
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V250110-007

DECOWELL®

Multi-function Expansion Module-RB Series

Slim and reliable, easy to use and efficient

Decowell • Reliable Partner for Industrial Intelligence



Nanjing Decowell Automation Co., Ltd.

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About Us

Founded in 2016, Nanjing Decowell Automation Co., Ltd. is a national high-tech enterprise integrating technology research and development, production and sales and service. The company is committed to providing industrial bus solutions with I/O modules as the core. As a leading automation service provider in China, Decowell Automation products are widely used in 3C, new energy, logistics, food, medicine, automotive, environmental protection, teaching and learning, rail transportation, machine tools, metallurgy, chemical industry and other industries.

Headquartered in Nanjing, Jiangsu Province, Decowell Automation has set up dual R&D centers in Wuxi and Nanjing, and has offices in Shanghai, Shenzhen, Guangzhou, Wuhan, Suzhou, Wuxi, Qingdao, Hangzhou, Chengdu, Jinan, etc., to ensure supply and after-sales service. Decowell Automation has served more than 5,000 customers at home and abroad, and has established business relationships with many of the world's top 500 companies.

The company has passed the certification of “National High-tech Enterprise”, “specialized and new” Enterprise of Jiangsu Province and Nanjing Enterprise Technology Center, and participated in the formulation of national standards such as “Data Space Integration Model of Automation System and Integrated Manufacturing Enterprise” and “Classification and Coding of R&D and Design Resources for Equipment Manufacturing Industry”. At present, the company owns more than 100 intellectual property rights, and its products have passed UL certification, CE certification and product consistency certification of ETG, PI and CLPA.

In the rapid development of automation technology and increasingly fierce market competition today, Decowell Automation advances with the times, constantly increasing the research and development of new technologies and investment, and continues to provide customers with highly reliable industrial bus products and solutions.

10000+
Number of clients

200+
Agent City Coverage

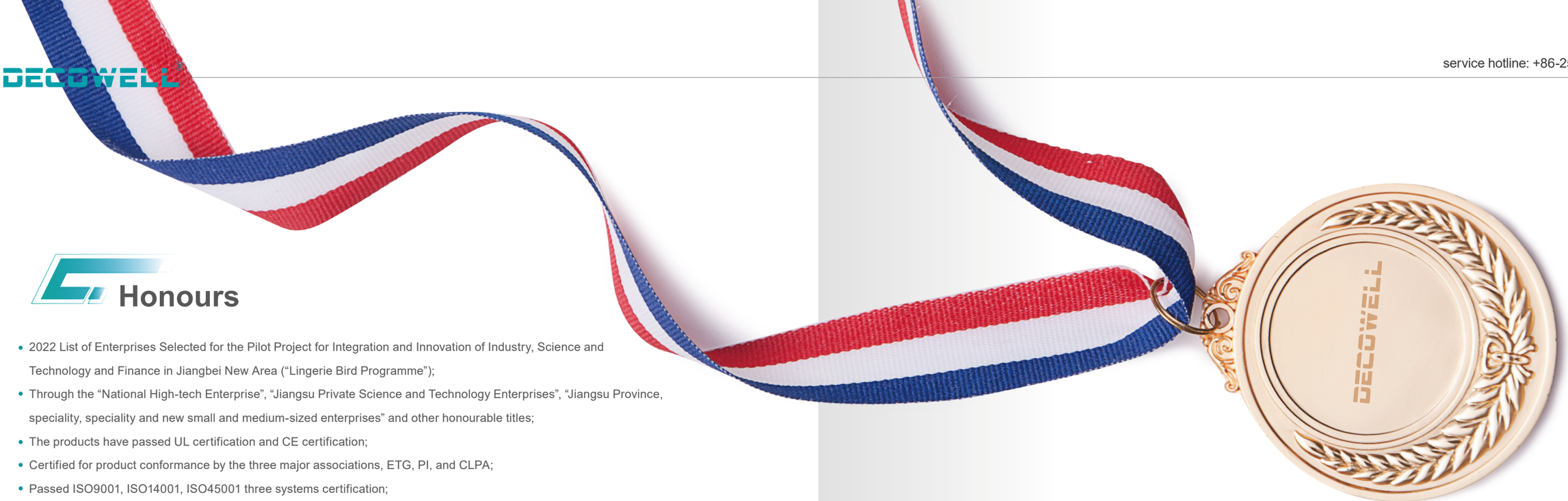
100+
Channel Partners

10+
Overseas countries/areas

100+
intellectual property rights

2
R&D Centre

*The above statistics are as of 2024



Honours

- 2022 List of Enterprises Selected for the Pilot Project for Integration and Innovation of Industry, Science and Technology and Finance in Jiangbei New Area (“Lingerie Bird Programme”);
- Through the “National High-tech Enterprise”, “Jiangsu Private Science and Technology Enterprises”, “Jiangsu Province, speciality, speciality and new small and medium-sized enterprises” and other honourable titles;
- The products have passed UL certification and CE certification;
- Certified for product conformance by the three major associations, ETG, PI, and CLPA;
- Passed ISO9001, ISO14001, ISO45001 three systems certification;
- Various intellectual property rights100+









CE Certification









UL Certification | IS09001 | IS014001 | IS045001









Product conformance certified by ETG, PI, CLPA





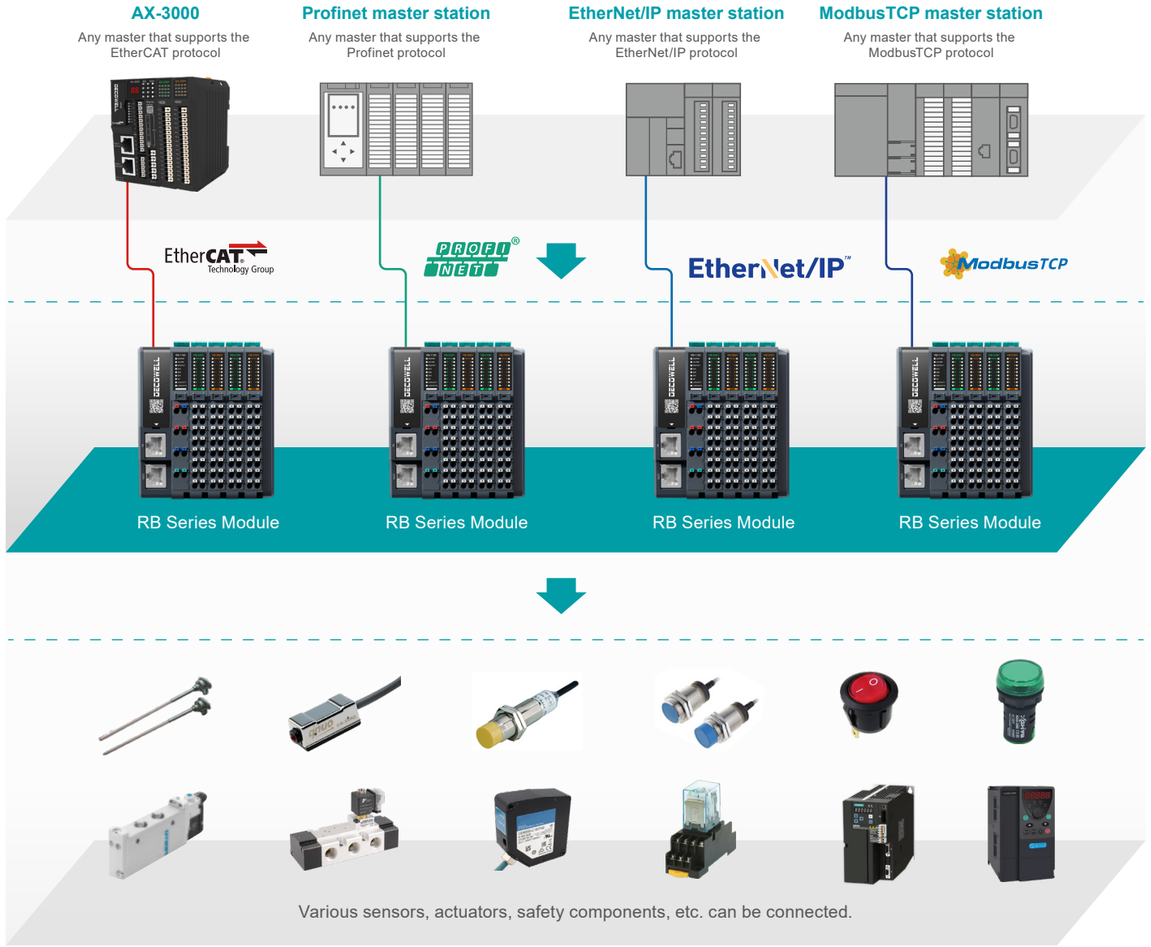




Patent Certification

Multi-function Expansion Module-RB Series

RB series ultra-thin I/O is a new generation of three-segment card-type modules, supporting mainstream fieldbus protocols, such as PROFINET, EtherCAT, EtherNet/IP and so on. The single piece module is as thin as 12mm, saving space in the electrical cabinet; the three-segment structure design, terminals can be detached, the module supports hot-swapping, convenient for on-site maintenance and replacement, and the system operates normally without any influence while the module is being replaced. The module responds quickly and reliably collects input signals and issues output signals. With module-level diagnostics, quickly locate the problem module; rich variety of modules, including digital input and output, analog input and output, temperature acquisition, encoder modules, communication modules, etc., to meet the needs of customers with more programs.



Multi-function Expansion Module RB Series

Three-stage structure | Ultra-slim size | Hot-swappable support



EtherCAT Technology Group | PROFINET | EtherNet/IP

CC-Link | CC-Link IE Field Basic | ModbusTCP

Product Naming Rule

RB- 1100

RB Series I/O Module

1st place

- 1: adapter

2nd place

- 0: serial port
- 1: 100Gb Ethernet port
- 2: Gigabit Ethernet port

reserve

3rd place

- If bit 2 is 0 then bit 3 indicates the adapter bus protocol
  - 1: DEVICENET
  - 2: PROFIBUS-DP
  - 3: Modbus-RTU
  - 4: CC-LINK
  - 5: CANopen
- If bit 2 is 1 then bit 3 indicates the adapter bus protocol
  - 0: EtherCAT
  - 1: Profinet
  - 2: EtherNet/IP
  - 3: Modbus-TCP
  - 4: CC-Link IE Field Basic

RB- 2118

RB Series I/O Module

1st place

- 0: System power supply and I/0 power supply module
- 2: Digital Input Module
- 3: Digital Output Module
- 4: Analog Input Module
- 5: Analog Output Module

2nd place

- If the first bit is 2/3, then this bit indicates a different type of digital input/output module
  - 0: NPN type
  - 1: PNP type
  - 2: Relay type
- If the first bit is 4/5, the bit indicates different types of analog input/output modules.
  - 0: Range 0-10v/bis 10v
  - 4: 4-20mA/0-20mA

3rd place

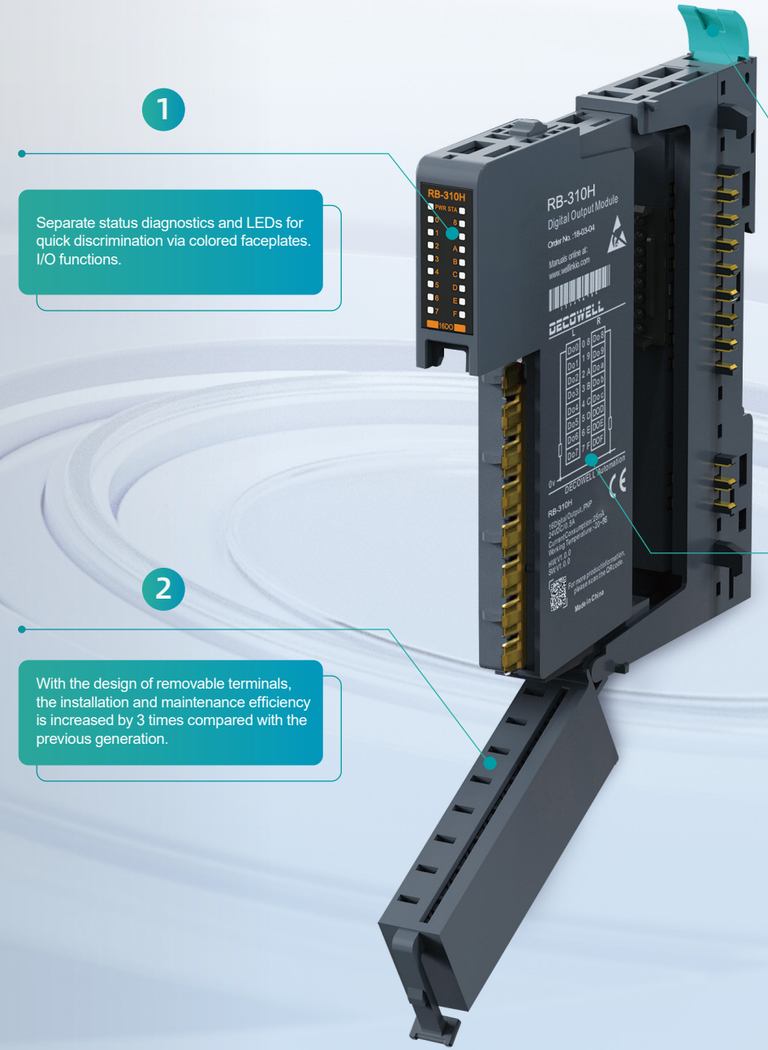
- If the first bit is 2/3, the third bit indicates the wiring type of the digital input/output module.
  - 0: 1-wire
  - 1: 2/3-wire
- If the first bit is 4/5, the third bit indicates the analog input/output module with different performance.
  - 5: 16-bit resolution with 0.05% accuracy

4th place

- If the first bit is 1 then the fourth bit indicates a different protocol under the same adapter for the same protocol
- If bit 1 is 2/3 then bit 4 indicates the number of digital input/output module channels
  - 4: 4 signal points
  - 8: 8 signal points
  - H: 16 signal points
  - S: 32 signal points

Three-section design flexible disassembly

Multi-function Expansion Module-RB Series



1

Separate status diagnostics and LEDs for quick discrimination via colored faceplates. I/O functions.

2

With the design of removable terminals, the installation and maintenance efficiency is increased by 3 times compared with the previous generation.

3

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

4

Module comes with wiring diagram

Product Features

Comparison of RB Series and Conventional I/O Usage

RB series



Three section design, with detachable terminal blocks andmain body Support hot plugging/ maintenance without stopping the machine



Large aperture terminal, quick wiring, installation wiring No need for tool assistance



Thin only 12mm, saving cabinet volume

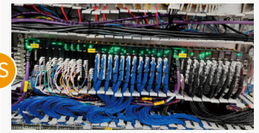
Traditional I/O



When a module malfunctions, shut down for maintenance Low production efficiency



Module wiring/disassembly requires tool assistance inefficiency



The module has a large volume and limited layout

Comprehensive structural optimization Best partner for efficient installation

RB series

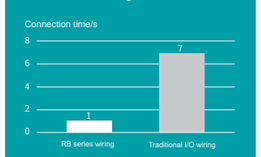


Large aperture terminal, tool free wiring



Snap on installation, lock with just one tap, no tools required

Shorten wiring time 70%



Traditional I/O

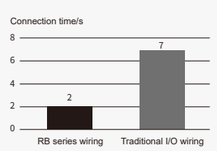


Tool wiring, low efficiency

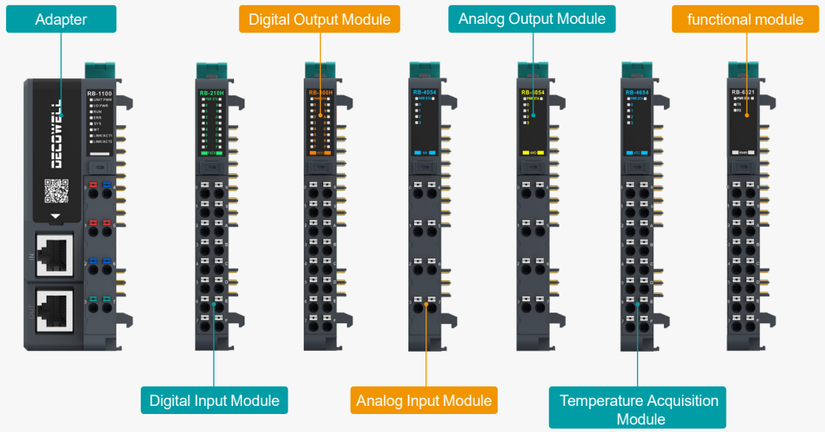


The installation process is complicated, laborious, and time-consuming Installation requires the use of tools

Reduced module installation time 50%



Rich variety of modules to meet the application of each scene

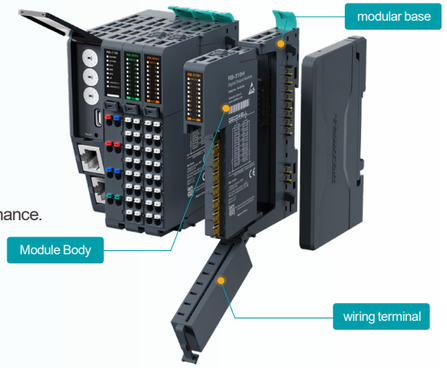


- Supports up to 32 I/O module

easy maintenance

Three-stage structure design/quick wiring/simple maintenance

- Powerful diagnostic function, support module-level and channel-level diagnostics
- Hot-swappable function, online maintenance without downtime
- DIP code and reset, convenient for on-site commissioning and after-sales maintenance.
- DIP switches can quickly assign device names or station numbers without the need to operate through the host computer software.
- Module failure can be quickly replaced without the host computer

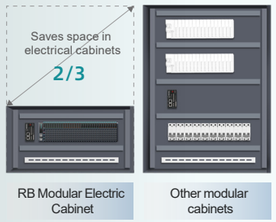




Dramatic increase in reliability Stable operation in harsh environments

- Rigorous electromagnetic testing: anti-surge, EFT, ESD, lightning, EMC, etc.
- Comprehensive reliability testing: high and low temperature, salt spray, shock resistance, drop resistance, etc. High temperature (70 ℃), low temperature (-20 ℃)
- Multi-protection: over-current protection, power supply anti-reverse connection protection
- Channel indicator: pinpoint faults, reduce maintenance time
- Gold-plated process anti-corrosion, anti-oxidation

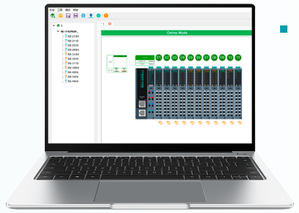
space-saving



Paper-thin, space-saving electrical cabinet

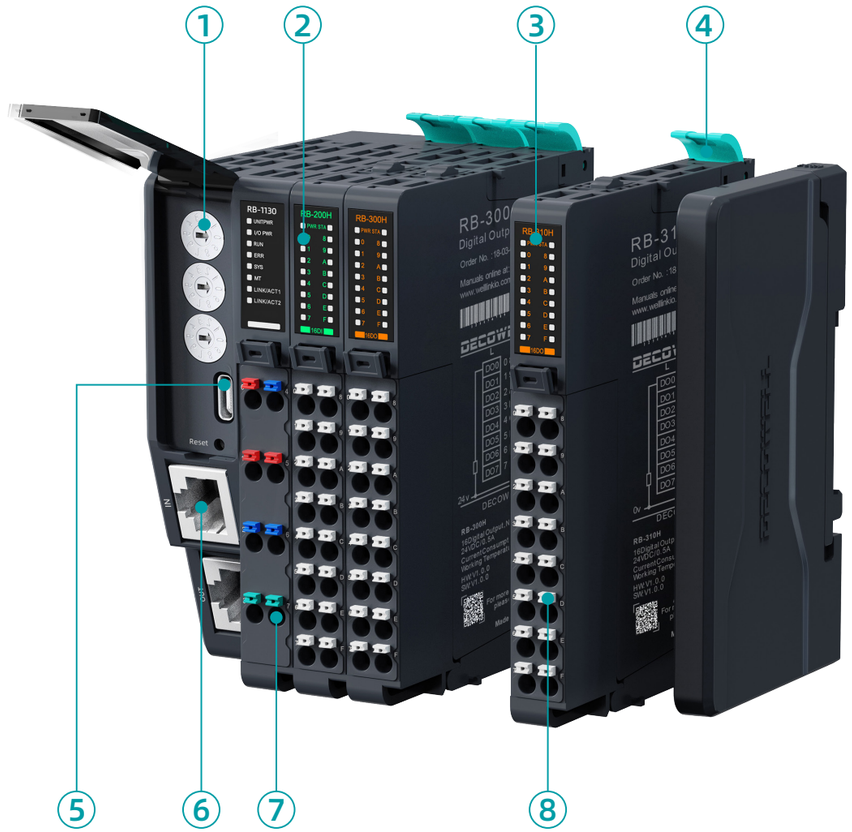
- Module thickness as thin as 12mm
- Saves electrical cabinet space by 2/3

Quick Installation



- We provide the software IOTesterTool for customers to Module debugging, support parameter modification, support parameter modification, pointing, module diagnosis and other functions.

Interface Description



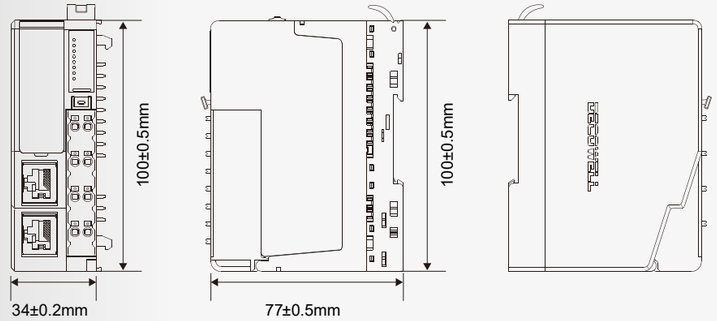
① Adapter Dialing Settings | ② status indicator | ③ Color face stickers for fast I/O resolution | ④ Mounting and dismounting clips

⑤ Firmware Upgrade Port | ⑥ communication interface | ⑦ power port | ⑧ Removable terminal block

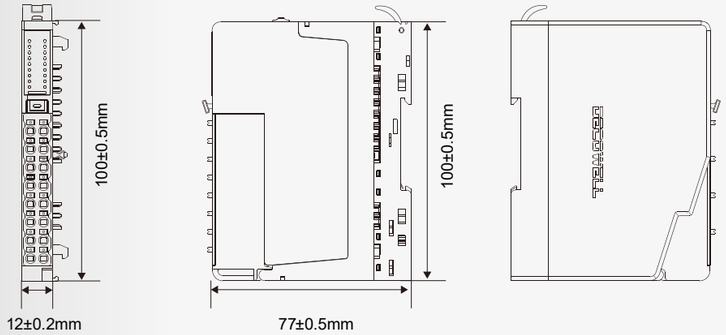
Color Code for Module Model

- Digital Input Module
- Digital Output Module
- Analog Input Module
- Analog Output Module
- Temperature Module
- functional module
- Auxiliary Module

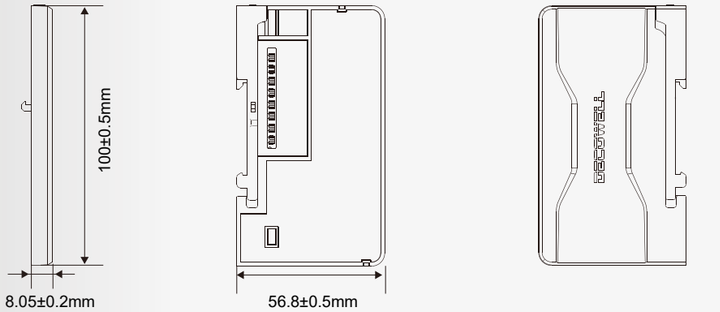
Product Size



adapter



I/O Module



Auxiliary Module

Product Parameters adapter

Product Model	RB-1040	RB-1100	RB-1110	RB-1120
				
Pseudolaric acid	CC-Link adapter	EtherCAT adapter	Profinet adapter	EtherNet/IP adapter
Address Settings	According to the master	According to the master	According to the master	According to the master
Expansion I/O Quantity	32	32	32	32
Input/Output Maximum Bytes	RX/RY max. 896 points each RWr/RWw max. 128 words each (occupying 4 stations, 8 times expansion cycle setting)	Input: 1024 Byte/Output: 1024 Byte	Input: 1015 Byte/Output: 1015 Byte	Input: 504 Byte/Output: 504 Byte
communication rate	156K/625K/2.5M/5M /10Mbps	100Mbps	100Mbps	100Mbps
transmission distance	1200m/600m/200m/150m /100m	100m (station to station distance)	100m (station to station distance)	100m (station to station distance)
System Side Power Input	DC24V(18 ～ 36V)	DC24V(18～36)	DC24V(18～36)	DC24V(18～36)
System side supply current	2A(Max)	2A（Max）	2A（Max）	2A（Max）
I/O port side power input	DC24V(±20%)	DC24V（±20%）	DC24V（±20%）	DC24V（±20%）
I/O port side output current	10A（Max）	10A（Max）	10A（Max）	10A（Max）
System-side electrical isolation	AC500V	AC500V	AC500V	AC500V
power protection	Over-current protection, over-voltage protection, anti-reverse connection protection	Over-current protection, over-voltage protection, anti-reverse connection protection	Over-current protection, over-voltage protection, anti-reverse connection protection	Over-current protection, over-voltage protection, anti-reverse connection protection
size specification	34×100×77mm	34×100×77mm	34×100×77mm	34×100×77mm
operating temperature	140g	140g	140g	140g
storage temperature	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20	IP20
part number	18-01-01	18-01-05	18-01-04	18-01-06

Product Model	RB-1130	RB-1140	RB-1240
			
Pseudolaric acid	Modbus-TCP adapter	CC-Link IEFB adapter	CC-LinkIE TSN/Field adapter
Address Settings	According to the master	According to the master	According to the master
Expansion I/O Quantity	32	32	32
Input/Output Maximum Bytes	—	RX/RY 256 points each RWr/ RWw 128 points each	504 bytes/504 bytes
communication rate	100Mbps	100Mbps	1Gbps
transmission distance	100m (station to station distance)	100m (station to station distance)	100m (station to station distance)
System Side Power Input	DC24V(18 ～ 30V)	DC24V(18 ～ 36V)	DC24V(18 ～ 36V)
System side supply current	2A(Max)	2A(Max)	2A(Max)
I/O port side power input	24V(18 ～ 30V)	24V(18 ～ 30V)	24V(18 ～ 30V)
I/O port side output current	10A（Max）	10A（Max）	10A（Max）
System-side electrical isolation	AC500V	AC500V	AC500V
power protection	Over-current protection, over-voltage protection, anti-reverse connection protection	Over-current protection, over-voltage protection, anti-reverse connection protection	Over-current protection, over-voltage protection, anti-reverse connection protection
size specification	34×100×77mm	34×100×77mm	34×100×77mm
operating temperature	140g	140g	140g
storage temperature	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20
part number	18-01-07	18-01-02	18-01-03

Digital Input Modules

Product Model	RB-2008	RB-2018	RB-2108
			
Pseudolaric acid	8-channel digital input module NPN type	8-channel digital input module NPN type (2/3W)	8-channel digital input module PNP type
current consumption	17mA	37mA	20mA
Number of input channels	8	8	8
Input Signal Type	NPN	NPN	PNP
Input Rated Voltage	DC0V (±3%)	DC0V (±3%)	DC24V (±25%)
Input logic 1 signal	-3～5V	-3～5V	11～30V
Input logic 0 signal	11～30V	11～30V	-3～5V
Input response time OFF to ON	5μs	5μs	5μs
Input response time ON to OFF	3μs	3μs	3μs
Isolated Withstand Voltage	500V	500V	500V
Isolation method	Optocoupler Isolation	Optocoupler Isolation	Optocoupler Isolation
Time to Shake	Configurable: 1 to 10ms, default: 3ms	Configurable: 1 to 10ms, default: 3ms	Configurable: 1 to 10ms, default: 3ms
public-purpose approach	8 points 1 common (common: coupler I/O supply)	8 points 1 common (common: coupler I/O supply)	8 points 1 common (common: coupler I/O supply)
size specification	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g
storage temperature	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20
part number	18-02-01	18-02-05	18-02-03

Product Model	RB-2118	RB-200H	RB-210H
			
Pseudolaric acid	8-channel digital input module PNP type	16-channel digital input module NPN type	16-channel digital input module PNP type
current consumption	16mA	57mA	62mA
Number of input channels	8	16	16
Input Signal Type	PNP	NPN	PNP
Input Rated Voltage	DC24V（±25%）	DC0V（±3%）	DC24V（±25%）
Input logic 1 signal	11 ~ 30V	-3 ~ 5V	11 ~ 30V
Input logic 0 signal	-3 ~ 5V	11 ~ 30V	-3 ~ 5V
Input response time OFF to ON	5μs	5μs	5μs
Input response time ON to OFF	3μs	3μs	3μs
Isolated Withstand Voltage	500V	500V	500V
Isolation method	Optocoupler Isolation	Optocoupler Isolation	Optocoupler Isolation
Time to Shake	Configurable: 1 to 10ms, default: 3ms	Configurable: 1 to 10ms, default: 3ms	Configurable: 1 to 10ms, default: 3ms
public-purpose approach	8 points 1 common (common: coupler I/O supply)	16 points 1 common (common: coupler I/O supply)	16 points 1 common (common: coupler I/O supply)
size specification	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g
storage temperature	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃	-25℃～60℃/-40℃～80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20
part number	18-02-06	18-02-02	18-02-04

Digital Output Module

Product Model	RB-3018	RB-3118	RB-300H	RB-310H
				
Pseudolaric acid	8-Channel Digital Output Module NPN type	8-Channel Digital Output Module PNP type	16-Channel Digital Output Module NPN type	16-Channel Digital Output Module PNP type
current consumption	88mA	88mA	72mA	72mA
Number of output channels	8	8	16	16
Output Signal Type	NPN	PNP	NPN	PNP
Output Rated Voltage	DC0V (±3%)	DC24V（±25%）	DC0V(±3%)	DC 24V (±25%)
Output response time OFF to ON	5μs	15μs	5μs	15μs
Output response time OFF to ON	3μs	18μs	3μs	18μs
Maximum load current	Single channel max. 0.5A/per successive channel 8-channel load current max. 2A	Single channel max. 0.5A/per successive channel 8-channel load current max. 2A	Single channel max. 0.5A/per successive channel 8-channel load current max. 2A	Single channel max. 0.5A/per successive channel 8-channel load current max. 2A
Maximum surge current	Overload protection function	Overload protection function	Overload protection function	Overload protection function
Isolated Withstand Voltage	500V	500V	500V	500V
Isolation method	Optocoupler Isolation	Optocoupler Isolation	Optocoupler Isolation	Optocoupler Isolation
public-purpose approach	8 points 1 common (Common: Coupler IO power supply)	8 points 1 common (Common: Coupler IO power supply)	16 points 1 common (Common: Coupler IO power supply)	16 points 1 common (Common: Coupler IO power supply)
size specification	12×100×77mm	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g	70g
storage temperature	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20	IP20
part number	18-03-05	18-03-06	18-03-02	18-03-04

Product Model	RB-3204
	
Pseudolaric acid	Relay Output Module
Signal Type	relay (electronics)
current consumption	20mA
Number of output channels	4
driving ability	5A 30VDC/5A 250VAC
minimum load	5V DC 1mA
Maximum switching current	5A
Maximum switching voltage	250VAC/30VDC
Maximum switching power	250VAC/150W
Load Type	Resistive loads, inductive loads, lamp loads
Isolated Withstand Voltage	500V
Isolation method	Optocoupler Isolation
size specification	12×100×77mm
operating temperature	70g
storage temperature	-25℃ ~ 60℃/-40℃ ~ 80℃
relative humidity	5% ~ 95%
protection class	IP20
part number	18-04-01

Analog Input Modules

Product Model	RB-4054	RB-4058	RB-4454	RB-4458
				
Pseudolaric acid	4-Channel Analog Input Module(Voltage type)	8-channel analog input module(Voltage type)	4-channel analog input module(Current type)	8-channel analog input module(Current type)
current consumption	82mA	26mA	82mA	90mA
Number of input channels	4	8	4	8
Analog range	-10~10V/-5~5V/0~5V/ 0~10V switchable	-10~10V/-5~5V/0~5V/ 0~10V switchable	0-20mA/4-20mA switchable	0-20mA/4-20mA switchable
filter rating	Configurable:0-3, default: 1	Configurable:0-3, default: 1	Configurable:0-3, default: 1	Configurable:0-3, default: 1
Input Impedance	> 500KΩ	> 500KΩ	100Ω	100Ω
resolution (of a photo)	16-bit	16-bit	16-bit	16-bit
Conversion accuracy ambient temperature (25±5°C)	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%
Conversion accuracy ambient temperature (0~55°C)	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%
Conversion speed	Voltage output type, channel max Conversion time 40μs	Voltage output type, channel max Conversion time 50μs	Current output type, channel max Conversion time 40μs	Current output type, channel max Conversion time 40μs
Absolute Maximum Input	±15V	±15V	30mA	30mA
corresponding code value	-27648~27648/0~30000 / -15000~15000/-32767~32767 Switchable	-27648~27648/0~30000 / -15000~15000/-32767~32767 Switchable	0~27648/0~30000/ 0~32767 Switchable	0~27648/0~30000/ 0~32767 Switchable
Isolated Withstand Voltage	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels
accurate	0.1%	0.1%	0.1%	0.1%
size specification	12×100×77mm	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g	70g
storage temperature	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20	IP20
part number	18-05-01	18-05-07	18-05-02	18-05-08

Analog Output Module

Product Model	RB-5054	RB-5058	RB-5454	RB-5458
				
Pseudolaric acid	4-channel analog output module(Voltage type)	8-channel analog output module(Voltage type)	4-channel analog output module(Current type)	8-channel analog output module(Current type)
current consumption	21mA	30mA	21mA	30mA
Number of output channels	4	8	4	8
Analog range	-10~10V/-5~5V/0~5V/ 0~10V switchable	-10~10V/-5~5V/0~5V/ 0~10V switchable	0-20mA/4-20mA switchable	0-20mA/4-20mA switchable
Load Type	resistive load	resistive load	resistive load	resistive load
load capacity	> 10KΩ	> 10KΩ	< 500Ω	< 100Ω
resolution (of a photo)	16-bit	16-bit	16-bit	16-bit
Conversion accuracy ambient temperature (25±5°C)	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%
Conversion accuracy ambient temperature (0~55°C)	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%	Satisfy within ±0.1%
Conversion speed	Voltage output type, channel max Conversion time 10μs	Voltage output type, channel max Conversion time 10μs	Current output type, channel max Conversion time 10μs	Current output type, channel max Conversion time 10μs
Absolute Maximum Input	±12V	±12V	0-25mA	0-25mA
corresponding code value	-27648~27648/0~30000 / -15000~15000/-32767~32767 Switchable	-27648~27648/0~30000 / -15000~15000/-32767~32767 Switchable	0~27648/0~30000/ 0~32767 Switchable	0~27648/0~30000/ 0~32767 Switchable
Isolated Withstand Voltage	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels	500V on field and digital side No isolation between channels
accurate	0.1%	0.1%	0.1%	0.1%
size specification	12×100×77mm	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g	70g
storage temperature	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃	-25℃~60℃/-40℃~80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20	IP20
part number	18-07-01	18-07-07	18-07-02	18-07-08

Temperature Module

Product Model	RB-4654



Pseudolaric acid	4-Channel Thermocouple (TC) Input Module
current consumption	41mA
Number of output channels	4
filter rating	Configurable:0-3, default: 1
Supported Sensor Types	K、J、T、E、N、S、R、B、C、U、L、mv
temperature range	mV voltage measurement/depends on the measurement range of each sensor Default setting: Type K: -100 to +1370°C
resolution (of a photo)	0.1°C/digit
Conversion speed	50ms/channel
accurate	0.5% (full scale)
Isolated Withstand Voltage	No isolation between 500V channels on the field side and digital side
disconnection detection	there are
overpressure protection	be in favor of
size specification	12×100×77mm
operating temperature	70g
storage temperature	-25℃～60℃/-40℃～80℃
relative humidity	5% ~ 95%
protection class	IP20
part number	18-06-02

Product Model	RB-4754



Pseudolaric acid	4-channel resistance thermistor (RTD)
current consumption	38mA
Number of output channels	4
filter rating	Configurable:0-3, default: 1
Supported Sensor Types	PT100 / PT1000/ PT200 / PT500 / Cu100 / KTY84-130 / KTY83-122 / NTC5K/NTC10K/NTC10K221/resistance2000Ω/Ni120
temperature range	Resistance measurement / -200 to + 800°C (PT sensor) -79 to + 309°C (NI sensor)
resolution (of a photo)	0.1°C/digit
Conversion speed	50ms/channel
accurate	±1℃
Isolated Withstand Voltage	No isolation between 500V channels on the field side and digital side
disconnection detection	there are
overpressure protection	be in favor of
size specification	12×100×77mm
operating temperature	70g
storage temperature	-25℃~60℃/-40℃~80℃
relative humidity	5% ~ 95%
protection class	IP20
part number	18-06-01

Encoder Module

Product Model	RB-6002	RB-6022
		
Pseudolaric acid	Dual-channel single-ended encoder signal acquisition module	Dual channel differential encoder signal acquisition module
current consumption	79mA	42mA
Encoder power supply	24V	5V
Latch Trigger Signal	NPN/PNP	NPN
Number of input channels	2	2
counting mode	Linear counter form, Ring counter form	Linear counter form, Ring counter form
Counting range	0~4294967296 or -2147483648~2147483647	0~4294967296 or -2147483648~2147483647
Counting function selection	Z-phase zeroing function, preset function, comparison function, latch function, power-down save count value, frequency measurement function, counting function	Z-phase zeroing function, preset function, comparison function, latch function, power-down save count value, frequency measurement function, counting function
Maximum Input Frequency	1MHz	1MHz
Counting multiplier setting	Single Phase Pulse (1x/2x) CW/CCW (1x) AB Quadrature (1x/2x/4x) Default Single Phase Pulse 1x Mode	Single Phase Pulse (1x/2x) CW/CCW (1x) AB Quadrature (1x/2x/4x) Default Single Phase Pulse 1x Mode
Pulse Input Mode	AB Orthogonal (ABZ), Directional Pulse (Pul+Dir), Double pulse (CW/CCW)	AB Orthogonal (ABZ), Directional Pulse (Pul+Dir), Double pulse (CW/CCW)
Input Impedance	>500kΩ	>500kΩ
electrical isolation	Optocoupler Isolation	Optocoupler Isolation
Maximum connection distance of signal cable	2m	2m
size specification	12×100×77mm	12×100×77mm
operating temperature	70g	70g
storage temperature	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃
relative humidity	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20
part number	18-08-01	18-08-06

PWM output module

Product Model	RB-6512
	
pseudolaric acid	Dual channel PWM pulse output module
current consumption	59mA
number of output channels	2
output connector type	PWM output and push-pull output stage
maximum output current	0.5A
output frequency	1Hz~1MHz (default 250Hz)
output duty cycle	0%~100%
minimum pulse width	20ns
module functions	FM function, duty cycle function, synchronization function
size specification	12×100×77mm
operating temperature	70g
storage temperature	-25℃~60℃/-40℃~80℃
relative humidity	5% ~ 95%
protection class	IP20
part number	18-08-10

communication module

Product Model	RB-6301	RB-6311	RB-6321
			
Pseudolaric acid	RS485 Free Port Communication Module	RS232 free port communication module	Modbus RTU Master Module
current consumption	28mA	28mA	28mA
channel number	single channel	single channel	single channel
baud	Optional: 1200, 2400, 4800, 9600 (default), 14400, 19200, 38400, 57600, 115200kbps	Optional: 1200, 2400, 4800, 9600 (default), 14400, 19200, 38400, 57600, 115200kbps	Optional: 1200, 2400, 4800, 9600 (default), 14400, 19200, 38400, 57600, 115200kbps
data bit	8-bit	8-bit	8-bit
check digit	No parity (default), odd parity, even parity	No parity (default), odd parity, even parity	No parity (default), odd parity, even parity
stop bit	1 (default), 2 stop bits	1 (default), 2 stop bits	1 (default), 2 stop bits
automatic timed sending function	Timed sending intervals are: 50ms, 100ms, 200ms, 400ms, 600ms, 800ms,1s(default), 1.5s, 2s, 3s, 4s, 5s, 6s,8s, 10s	Timed sending intervals are: 50ms, 100ms, 200ms, 400ms, 600ms, 800ms,1s(default), 1.5s, 2s, 3s, 4s, 5s, 6s,8s, 10s	After the master sends a command, wait for the slave to respond, configurable range 1-65535, default is 1000, unit ms
reception mode	Receive by character interval/Receive by length/Receive by special character ending	Receive by character interval/Receive by length/Receive by special character ending	Character interval selectable: 1.5/3.5/5 (default) /10/20/50/100/200 characters
master-slave mode	M/S (Master/Slave)default master mode	M/S (Master/Slave)default master mode	master station
size specification	12×100×77mm	12×100×77mm	12×100×77mm
operating temperature	70g	70g	70g
storage temperature	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃	-25℃ ~ 60℃/-40℃ ~ 80℃
relative humidity	5% ~ 95%	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20	IP20
part number	18-08-11	18-08-12	18-08-14

Auxiliary Module

Product Model	RB-0100	RB-TER01
		
Pseudolaric acid	System power supply and I/O power module	Terminal Module
RB system side supply voltage	24V	—
Output System Voltage	5V	—
Output system current	2A	—
I/O Port Supply Voltage	24V	—
I/O Port Output Current	10A	—
size specification	12×100×77mm	8.05×100×56.8mm
operating temperature	-25℃ ~ 60℃	-25℃ ~ 60℃
storage temperature	-40℃ ~ 80℃	-40℃ ~ 80℃
relative humidity	5% ~ 95%	5% ~ 95%
protection class	IP20	IP20
part number	18-09-01	18-09-02

Product Model Checklist

Gateway Adapter

Pseudolaric acid	Product Description	part numbers
RB-1040	CC-Link Adapter	18-01-01
RB-1100	EtherCAT Adapter	18-01-05
RB-1110	Profinet Adapter	18-01-04
RB-1120	EtherNet/IP Adapter	18-01-06
RB-1130	Modbus-TCP Adapter	18-01-07
RB-1140	CC-LinkIEF Basic Adapter	18-01-02
RB-1240	CC·LinkIE TSN/Field Adapter	18-01-03

Digital Input Module

Pseudolaric acid	Product Description	part numbers
RB-2008	8-channel digital input module NPN type, single wire	18-02-01
RB-200H	16-Channel Digital Input Module NPN Type, Single Wire	18-02-02
RB-2108	8-channel digital input module PNP type, single wire	18-02-03
RB-210H	16-channel digital input module PNP type, single wire	18-02-04
RB-2018	8-channel digital input module NPN type (2W)	18-02-05
RB-2118	8-channel digital input module PNP type (2W)	18-02-06

Digital Output Module

Pseudolaric acid	Product Description	part numbers
RB-300H	16-channel digital output module NPN type, single wire	18-03-02
RB-310H	16-channel digital output module PNP type, single wire	18-03-04
RB-3018	8-channel digital output module NPN type (2W)	18-03-05
RB-3118	8-channel digital output module PNP type (2W)	18-03-06
RB-3204	4-channel relay output module (2A)	18-04-01

Analog Input Module

Pseudolaric acid	Product Description	part numbers
RB-4054	4-channel analog input module (±10V, ±5V, 0~5V, 0~10V, default 0~10V), 16-bit, 0.1% accuracy	18-05-01
RB-4454	4-channel analog input module (0-20mA, 4-20mA, default 4-20mA), 16-bit, 0.1% accuracy	18-05-02

Analog Input Module

Pseudolaric acid	Product Description	part numbers
RB-4058	8-channel analog input module (±10V, ±5V, 0~5V, 0~10V, default 0~10V), 16-bit, 0.1% accuracy	18-05-07
RB-4458	8-channel analog input module (0-20mA, 4-20mA, default 4-20mA), 16-bit, 0.1% accuracy	18-05-08

Analog Output Module

Pseudolaric acid	Product Description	part numbers
RB-5054	4-channel analog output module (±10V, ±5V, 0~5V, 0~10V, default 0~10V), 16-bit, 0.1% accuracy	18-07-01
RB-5454	4-channel analog output module (0-20mA,4-20mA ,default 4-20mA), 16-bit, 0.1% accuracy	18-07-02
RB-5058	8-channel analog output module (±10V, ±5V, 0~5V, 0~10V, default 0~10V), 16-bit, 0.1% precision	18-07-07
RB-5458	8-channel analog output module (0-20mA,4-20mA,default 4-20mA), 16-bit, precision 0.1%	18-07-08

Temperature Module

Pseudolaric acid	Product Description	part numbers
RB-4754	4-channel RTD input module, RTD input module (2/3-wire) supports Pt100, PT200, Pt500, Pt1000, Cu100, KTY84, NTC5K, NTC10K type, default PT100 type, KTY84, NTC5K, NTC10K type,Pt500, Pt1000, Cu100, KTY84, NTC5K, NTC10K types, default PT100 type	18-06-01
RB-4654	4-channel thermocouple (TC) input module, supports K, J, T, E, N, S, R, B, C, default type K	18-06-02

Encoder Module

Pseudolaric acid	Product Description	part numbers
RB-6002	2-channel encoder 200K~1MHz inputs, support incremental encoder inputs	18-08-01
RB-6022	2-channel differential encoder module	18-08-06

PWM output module

Pseudolaric acid	Product Description	part numbers
RB-6512	Pulse Width Modulation Module (2-channel PWM, push-pull output, 0.5A)	18-08-10

communications modul

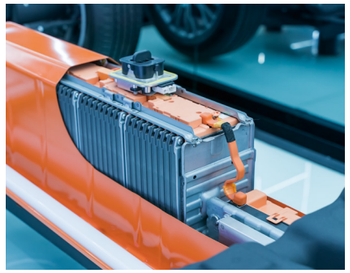
Pseudolaric acid	Product Description	part numbers
RB-6301	1 channel 485 communication module free communication	18-08-11
RB-6311	1 channel 232 communication module free communication	18-08-12
RB-6321	Modbus-RTU master communication module	18-08-14

Auxiliary Module

Pseudolaric acid	Product Description	part numbers
RB-TER01	Terminal Module	18-09-02
RB-0100	System power supply and I/O power module	18-09-01

Product Application Industry

Decowell Automation's various industrial communication products can be widely used in new energy, 3C electronics, logistics, automotive, semiconductor, food, medicine, packaging, railway Transportation, machine tools, home appliances, laser,equipment manufacturing, petrochemical, iron and steel, electric power, water conservancy, environmental protection, construction and other fields, won the favour of the majority of customers!



New Energy Industry



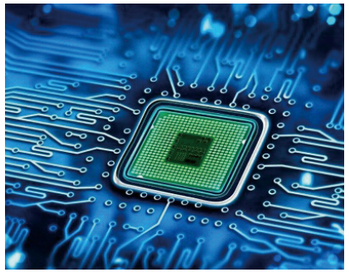
3C Electronics Industry



logistics Industry



Automotive Manufacturing Industry



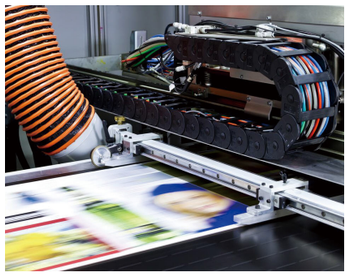
Semiconductor Industry



Food Industry



Pharmaceutical Industry



Packaging Industry



Power Industry

Our Services

Sales Support

Decowell automation sales engineers have received professional technical training, with extensive product knowledge and a wealth of experience in industry applications, according to customer site requirements to quickly develop solutions.

After-Sales Service

Decowell Automation provides perfect after-sales service, our professional after-sales personnel can promptly go to the customer's site for troubleshooting.

On-Site Services

Decowell Automation's service network is nationwide, we provide free prototype testing and on-site installation support and maintenance training, and can quickly arrive at the site to serve our customers when they need it.

