INNOVATIVE INTERCONNECTION
INTELLIGENT FUTURE

SOLIDOT PRODUCTS

Comprehensive Selection Manual

Nanjing Solidot Electronic Technology Co., Ltd

CONTENTS

COMPANY INTRODUCTION

Solidot core team was founded in 2012 and developed the first generation of domestic sliced I/O module in the following year. In 2018, Solidot underwent business restructuring, focusing its strategic core on the research and development of automation bus technology and products. The company has now completed multiple rounds of equity financing, has successfully been selected for the list of unicorn enterprises in Nanjing, and has become a leading supplier of automation bus technology, products, and solutions in China.

Over the years, Solidot has focused on industrial bus technology to achieve interconnectivity of industrial products. The products have been widely used in industries and fields such as 3C, new energy, logistics, welding, water treatment, building control, and factory monitoring.

BUSINESS VISION

Leading Industrial interconnection, Making Smart Manufacturing easier.

DEVELOPMENT HISTORY

2022
Completed A round of financing and received favor from industrial capital, released sliced multi-channel temperature controller, which supports various bus protocols

2021
Included in the list of unicorn enterprises cultivated in Nanjing
Released the first sliced stepper driver in China
Can support various bus protocols

2020
Awarded high-tech enterprise certification
Released horizontal I/O with multiple protocol support

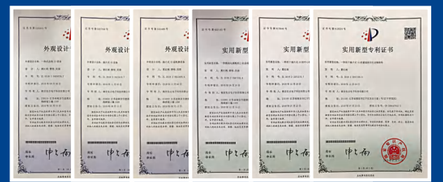
2019
Completed Pre-A round of financing led by well-known government capital
Released X-bus1.0 backplane protocol, based on which XB6 series high performance sliced I/O was released

2018
Core Team Acquires Solidot Technology
Released Vertical I/O, supporting multiple protocols
Completed angel funding round

CERTIFIED PATENTS

Certifications

Patent Certificates



Computer software copyright registration certificates

Association membership certificates

INDUSTRY APPLICATIONS

3C | Lithium | Photovoltaic | Intelligent Manufacturing | Logistics | Automotive | New Energy | Petrochemicals | Power Energy

EtherCAT PROFINET PROFIBUS EtherNet/IP IO-Link Modbus TCP

Sliced I/O

Innovative channel indicator light design, close to the channel, spring-loaded pluggable terminal, fast wiring, easy maintenance. The highest point density of a single module in the same product, saving more space. Multiple protocol support, high-speed backplane bus, 32 plug-ins, 1024 I/O points, scan period of no more than 1ms, support for star topology, and support for distributed clock.

Vertical I/O

102*72*25mm in size, small space, fast speed, fast wiring, pluggable wiring terminals, compatible with most manufacturers' main stations such as Mitsubishi, Siemens, Omron, simple configuration, protection level IP20.

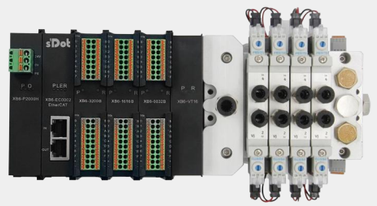
Horizontal I/O

Only 35mm high, 100M industrial Ethernet port, innovative channel indicator light design, clearly visible channel status, convenient for testing and maintenance. Support for major mainstream controllers. Adopting screw-fixed wiring terminals, stable and fast wiring.

CC-Link CC-Link IE Field Basic CC-Link IE TSN MECHATROLINK DeviceNet RTEX Realtime Express

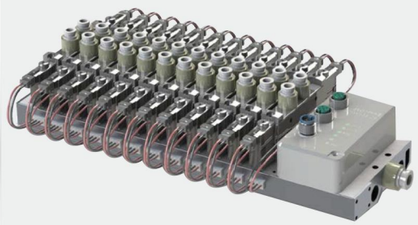
IP67 I/O Module

IP67 I/O module, supporting various bus protocols. The product size is 225*62*35, and the shell is made of PT-B+GF30% reinforced plastic material, which has excellent mechanical properties; the fully sealed design can be used in harsh working environments. There is a wide variety of signals available, providing a diverse range of options for on-site applications.



Sliced Valve Terminal

It can be used in conjunction with Solidot XB6 series sliced I/O mixing.The structure is more compact and the application is more flexible.



Integrated valve terminal

Custom base plate, Integrated full aluminum alloy design, more beautiful appearance, 24 points single output, using M12 aviation connector.

DISASSEMBLY DIAGRAM OF SLICED I/O

Power Supply + Coupler Kit

Rich coupler protocol types
- PROFINET
- EtherCAT
- EtherNet/IP
- CC-Link IE Field Basic
- CC-Link IE TSN
- RTEX
- PROFIBUS-DP
- MECHATROLINK-III …

Digital Modules

- 32, 16, 8 digital input/output
- 12-channel relay output
- Common terminal expansion module

Analog Modules

- 8、4-channel analog input/output, support voltage, current type
- 8、4-channel temperature acquisition, support TD/TC/RTD acquisition

Pulse Modules

- 4-channel high-speed pulse output, differential
- 2-channel high-speed encoder acquisition, differential

Extended Power Modules

- Extend system power supply and increase the number of expansion modules

Protocol conversion modules

- Modbus RTU
- RS485/RS422

Stepper Drive Modules

- Compact body, integrated with XB6 series remote I/O products
- Support open-loop and closed-loop stepping
- Support HM, PP, PV mode
- Supports two-phase hybrid stepper motors

MIL Connector Modules

- Small module size, supports 32 digital inputs/outputs, space saving
- Matching MIL connector cable and terminal block, fast and efficient connection, saving wiring

Terminal cover plate

- X-bus Backplane bus terminal

SLICED I/O NAMING RULE

COUPLER

XB 6 - EC 2 0 0 2 ST

BUS TYPE
XB：X-bus

PRODUCT LINE
6：Sliced I/O

INTERFACE TYPE
EC：EtherCAT
PN：PROFINET
EI：EtherNet/IP
CB：CC-Link IE Field Basic
CT：CC-Link IE TSN
RX：RTEX
PD：PROFIBUS-DP

POWER SUPPLY TYPE
Includes 2A power supply module

NUMBER OF ETHERNET PORTS
1：Single ethernet port
2：Dual ethernet ports

KITS
(including coupler, power supply, terminal cover)

DIGITAL

XB 6 - 16 16 A N

BUS TYPE
XB：X-bus

PRODUCT LINE
6：Sliced I/O

DIGITAL INPUT
(32、16、08、00)

DIGITAL OUTPUT
(32、16、12、08、00)

INPUT AND OUTPUT POLARITY
A ：NPN
B ：PNP
Blank：NPN&PNP
J ：Relays

SPECIAL DEFINITION
Blank: Standard type
N : Connector type
W : PNP output
0.25A version

ANALOG

XB 6 - A 8 0 V W

BUS TYPE
XB：X-bus

PRODUCT LINE
6：Sliced I/O

ANALOG

ANALOG INPUT
(8、4、0)

ANALOG OUTPUT
(8、4、0)

INPUT AND OUTPUT POLARITY
V : Voltage type
I ： Current type
TM : Temperature input

SPECIAL DEFINITION
Blank：±0.1% Precision
W：±0.3% Precision

SLICED I/O MODELS

DI=digital input, DO= digital output

Coupler		
1	XB6-PN2002ST	PROFINET Coupler kit (with power supply, cover plate)
2	XB6-EC2002ST	EtherCAT Coupler kit (with power supply, cover plate)
3	XB6-EI2002ST	EtherNet/IP Coupler kit (with power supply, cover plate)
4	XB6-CB2002ST	CC-Link IE Field Basic Coupler kit (with power supply, cover plate)
5	XB6-CT2002ST	CC-Link IE TSN Coupler kit (with power supply, cover plate)
6	XB6-RX2002ST	RTEX Coupler kit (with power supply, cover plate)
7	XB6-PD2002ST	PROFIBUS-DP Coupler kit (with power supply, cover plate)

Digital		
8	XB6-3200A	32DI, NPN, European style terminals
9	XB6-0032A	32DO, NPN, 0.25A, European style terminals
10	XB6-1616A	16DI 16DO, NPN, 0.25A, European style terminals
11	XB6-3200B	32DI, PNP, European style terminals
12	XB6-0032B	32DO，PNP，O.5A，European style terminals

13	XB6-0032BW	32DO, PNP, O.25A,European style terminals
14	XB6-1616B	16DI, 16DO, PNP, O.5A, European style terminals
15	XB6-1616BW	16DI, 6DO, PNP, O.25A, European style terminals
16	XB6-3200N	32DI, NPN&PNP, Connector type
17	XB6-0032AN	32DO, NPN, 0.25A, Connector type
18	XB6-1600A	16DI, NPN, European style terminals
19	XB6-0016A	16DO, NPN, 0.25A, European style terminals
20	XB6-1600B	16DI, PNP,European style terminals
21	XB6-0016B	16DO, PNP, 0.5A, European style terminals
22	XB6-0016BW	16DO, PNP, 0.25A, European style terminals
23	XB6-0800A	8DI, NPN, European style terminals
24	XB6-0008A	8DO, NPN, 0.25A, European style terminals
25	XB6-0800B	8DI, PNP, European style terminals
26	XB6-0008B	8DO, PNP, 0.5A, European style terminals
27	XB6-0008BW	8DO, PNP, 0.25A, European style terminals
28	XB6-0012J	12 DO, relay, 2A, European style terminals

Analog input		
29	XB6-A80V	U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
30	XB6-A80VW	U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.3% accuracy
31	XB6-A40V	U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
32	XB6-A40VW	U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.3% accuracy
33	XB6-A80I	I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
34	XB6-A80IW	I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.3% accuracy
35	XB6-A40I	I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
36	XB6-A40IW	I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.3% accuracy
37	XB6-A80TM	8RTD/TC
38	XB6-A40TM	4RTD/TC

Analog output		
39	XB6-A08V	U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
40	XB6-A08VW	U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.3% accuracy
41	XB6-A04V	U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
42	XB6-A04VW	U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.3% accuracy
43	XB6-A08I	I, 8 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
44	XB6-A08IW	I, 8 channel analog current output, 0~20mA/4-20mA, ±0.3% accuracy
45	XB6-A04I	I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
46	XB6-A04IW	I, 4 channel analog current output, 0~20mA/4-20mA, ±0.3% accuracy

Function Modules		
47	XB6-DS506C	Two-phase hybrid stepper motor driver, single axis
48	XB6-P20D	2-channel pulse input module
49	XB6-P04D	4-channel pulse output module
50	XB6-C01PT	1 channel serial transparent communication module
51	XB6-C01FP	1-channel serial free-port communication module
52	XB6-C01MR	1-channel serial ModbusRTU communication module

Other Modules		
53	XB6-P2000	Extended Power Module 2A
54	XX6-C18_2	Sliced I/O Common terminal expansion module
55	TM40-32AE	32-bit terminal block with lights, NPN
56	TM40-32BE	32-position terminal block with light, PNP
57	TM40-1000-1	Terminal block with matching cable 1m
58	TM40-3000-1	Terminal block with matching cable 3m
59	TM40-5000-1	Terminal block with matching cable 5m
60	TM40-1000-2	Terminal block with matching cable 1m (for PNP input)
61	TM40-3000-2	Terminal block with matching cable 3m (for PNP input)
62	TM40-5000-2	Terminal block with matching cable 5m (for PNP input)

INTEGRATED I/O NAMING RULE

DIGITAL

XX 4 - 16 16 B W

BUS TYPE
EC： EtherCAT
PN： PROFINET
EI ： EtherNet/IP
CC： CC-Link
CB： CC-Link IE Field Basic
MT： Modbus TCP
DN： DeviceNet

PRODUCT LINE
3： Horizontal
4： Vertical
7: IP67

DIGITAL INPUT
(32、24、16、08、00)

DIGITAL OUTPUT
(32、24、16、12、08、00)

INPUT AND OUTPUT POLARITY
A ： NPN
B ： PNP
Blank： NPN&PNP
J ： Relays

SPECIAL DEFINITION
Blank: Standard type
W : PNP output 0.25A version

ANALOG

XX 4 - A 8 0 V

BUS TYPE
EC： EtherCAT
PN： PROFINET
EI ： EtherNet/IP
CC： CC-Link
CB： CC-Link IE Field Basic
MT： Modbus TCP
DN： DeviceNet

PRODUCT LINE
3： Horizontal
4： Vertical
7: IP67

ANALOG

ANALOG INPUT
(8、4、0)

ANALOG OUTPUT
(8、4、0)

INPUT AND OUTPUT POLARITY
V : Voltage type
I： Current type

VERTICAL I/O

1. **Small size：** Only 102×72×25mm
2. **Fast：** High-speed ARM + dedicated ASIC
3. **High level of integration：**
   Up to 32 digital points
   Up to 8 channels of analog

Convenient to expand： Built-in dual Ethernet ports, modules can be cascaded
Easy to install： using 35mm standard DIN rail
Complete models： digital, analog, temperature, positioning, counting
Easy to install： 35mm standard DIN rail

EtherCAT · PROFINET · EtherNet/IP · CC-Link · CC-Link IE Field Basic · Modbus TCP · DeviceNet · IO-Link

VERTICAL I/O PRODUCT MODELS

EtherCAT

EtherCAT (Ethernet for Control Automation Technology) is an open architecture, Ethernet-based fieldbus system whose name is derived from the abbreviation for Control Automation Technology (CAT). EtherCAT was initially developed by Beckhoff, a German company.

Solidot EtherCAT compatible products can perfectly support most EtherCAT master products currently available on the market, including but not limited to the following master products:

BECKHOFF, OMRON, CODESYS, KUKA, PHOENIX CONTACT, TRIO, KEYENCE, ACS MOTION CONTROL, INOVANCE, XINJE, Kithara, ADVANTECH, SOFT SERVO, ADLINK Leading EDGE COMPUTING, ADTECH众为兴, ESA

DI=digital input, DO= digital output

Single-wire digital I/O		
1	EC4-3200A	EtherCAT, Intergrated I/O, 32DI, NPN
2	EC4-2408A	EtherCAT, Intergrated I/O, 24DI, 8DO, NPN, 0.25A
3	EC4-1616A	EtherCAT, Intergrated I/O, 16DI, 16DO, NPN, 0.25A
4	EC4-0824A	EtherCAT, Intergrated I/O, 8DI, 24DO, NPN, 0.25A
5	EC4-0032A	EtherCAT, Intergrated I/O, 32DO, NPN, 0.25A
6	EC4-1600A	EtherCAT, Intergrated I/O, 16DI, NPN
7	EC4-0808A	EtherCAT, Intergrated I/O, 8DI, 8DO, NPN, 0.25A
8	EC4-0016A	EtherCAT, Intergrated I/O, 16DO, NPN, 0.25A
9	EC4-3200B	EtherCAT, Intergrated I/O, 32DI, PNP
10	EC4-2408B	EtherCAT, Intergrated I/O, 24DI, 8DO, PNP, 0.5A
11	EC4-1616B	EtherCAT, Intergrated I/O, 16DI, 16DO, PNP, 0.5A
12	EC4-1616BW	EtherCAT, Intergrated I/O, 16DI, 16DO, PNP, 0.25A
13	EC4-0824B	EtherCAT, Intergrated I/O, 8DI, 24DO, PNP, 0.5A
14	EC4-0032B	EtherCAT, Intergrated I/O, 32DO, PNP, 0.5A
15	EC4-0032BW	EtherCAT, Intergrated I/O, 32DO, PNP, 0.25A
16	EC4-1600B	EtherCAT, Intergrated I/O, 16DI, PNP
17	EC4-0808B	EtherCAT, Intergrated I/O, 8DI, 8DO, PNP, 0.5A
18	EC4-0808BW	EtherCAT, Intergrated I/O, 8DI, 8DO, PNP, 0.25A
19	EC4-0016B	EtherCAT, Intergrated I/O, 16DO, PNP, 0.5A
20	EC4-0016BW	EtherCAT, Intergrated I/O, 16DO, PNP, 0.25A
21	EC4-0012J	EtherCAT, Intergrated I/O, 12DO, Relay, 2A
22	EC4-1612J	EtherCAT, Intergrated I/O, 16DI, 12DO, Relay, 2A

Analog input		
23	EC4-A40V	EtherCAT, Intergrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
24	EC4-A80V	EtherCAT, Intergrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
25	EC4-A40I	EtherCAT, Intergrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
26	EC4-A80I	EtherCAT, Intergrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy

Analog output		
27	EC4-A04V	EtherCAT, Intergrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
28	EC4-A08V	EtherCAT, Intergrated I/O, U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
29	EC4-A04I	EtherCAT, Intergrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
30	EC4-A08I	EtherCAT, Intergrated I/O, I, 8 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy

Function Modules		
31	EC4-P20D	EtherCAT, Intergrated I/O, 2-channel quadrature encoder interface module
32	EC4-P04D	EtherCAT, Intergrated I/O, 4-channel pulse output module

33	XX4-C10_4	Integrated public terminal expansion module

PROFINET

PROFINET was introduced by PROFIBUS International (PI) and is a new generation of automation bus standard based on industrial Ethernet technology. PROFINET provides a complete network solution for the automation communication field, including current hot topics in the automation field such as real-time Ethernet, motion control, distributed automation, fault safety, and network security. As a cross-vendor technology, it is fully compatible with industrial Ethernet and existing field bus technologies such as PROFIBUS.

Solidot has a long history of PROFINET development and its products mainly cover integrated I/O, plug-in I/O, and bus valve island, which are compatible with Siemens S7-1500, S7-1200, S7-200 SMART, and CNC systems and have a wide range of applications in many industries.

DI=digital input, DO= digital output

Single-wire digital I/O		
1	PN4-3200A	PROFINET, Intergrated I/O, 32DI, NPN
2	PN4-2408A	PROFINET, Intergrated I/O, 24DI, 8DO, NPN, 0.25A
3	PN4-1616A	PROFINET, Intergrated I/O, 16DI, 16DO, NPN, 0.25A
4	PN4-0824A	PROFINET, Intergrated I/O, 8DI, 24DO, NPN, 0.25A
5	PN4-0032A	PROFINET, Intergrated I/O, 32DO, NPN
6	PN4-1600A	PROFINET, Intergrated I/O, 16DI, NPN
7	PN4-0808A	PROFINET, Intergrated I/O, 8DI, 8DO, NPN, 0.25A
8	PN4-0016A	PROFINET, Intergrated I/O, 16DO, NPN, 0.25A
9	PN4-3200B	PROFINET, Intergrated I/O, 32DI, PNP
10	PN4-2408B	PROFINET, Intergrated I/O, 24DI, 8DO, PNP, 0.5A
11	PN4-1616B	PROFINET, Intergrated I/O, 16DI, 16DO, PNP, 0.5A
12	PN4-1616BW	PROFINET, Intergrated I/O, 16DI, 16DO, PNP, 0.25A
13	PN4-0824B	PROFINET, Intergrated I/O, 8DI, 24DO, PNP, 0.5A
14	PN4-0032B	PROFINET, Intergrated I/O, 32DO, PNP, 0.5A
15	PN4-0032BW	PROFINET, Intergrated I/O, 32DO, PNP, 0.25A
16	PN4-1600B	PROFINET, Intergrated I/O, 16DI, PNP
17	PN4-0808B	PROFINET, Intergrated I/O, 8DI, 8DO, PNP, 0.5A
18	PN4-0808BW	PROFINET, Intergrated I/O, 8DI, 8DO, PNP, 0.25A
19	PN4-0016B	PROFINET, Intergrated I/O, 16DO, PNP, 0.5A
20	PN4-0016BW	PROFINET, Intergrated I/O, 16DO, PNP, 0.25A
21	PN4-0012J	PROFINET, Intergrated I/O, 12DO, Relay, 2A
22	PN4-1612J	PROFINET, Intergrated I/O, 16DI, 12DO, Relay, 2A

Analog input		
23	PN4-A40V	PROFINET, Intergrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
24	PN4-A80V	PROFINET, Intergrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
25	PN4-A40I	PROFINET, Intergrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
26	PN4-A80I	PROFINET, Intergrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy

Analog output		
27	PN4-A04V	PROFINET, Intergrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
28	PN4-A08V	PROFINET, Intergrated I/O, U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
29	PN4-A04I	PROFINET, Intergrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
30	PN4-A08I	PROFINET, Intergrated I/O, I, 8 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy

Function Modules		
31	PN4-GW2MR	PROFINET to 232/485/422 Modbus RTU protocol
32	PN4-GW2FP	232/485/422 PROFINET to 232/485/422 Free Port Protocol

33	XX4-C10_4	Integrated public terminal expansion module

EtherNet/IP

The abbreviation "IP" in the name stands for "Industrial Protocol", which is an industrial Ethernet communication protocol developed by Rockwell Automation and managed by ODVA (Open DeviceNet Vendors Association). It can be used in program control and other automation applications and is part of the Common Industrial Protocol (CIP). Solidot is one of the earliest companies in China to develop EIP protocol and it mainly adapts the following master products:

Rockwell Automation | Schneider Electric | KEYENCE | OMRON

DI=digital input, DO= digital output

Single-wire digital I/O		
1	EI4-3200A	Ethernet/IP, Intergrated I/O, 32DI, NPN
2	EI4-2408A	Ethernet/IP, Intergrated I/O, 24DI, 8DO, NPN, 0.25A
3	EI4-1616A	Ethernet/IP, Intergrated I/O, 16DI, 16DO, NPN, 0.25A
4	EI4-0824A	Ethernet/IP, Intergrated I/O, 8DI, 24DO, NPN, 0.25A
5	EI4-0032A	Ethernet/IP, Intergrated I/O, 32DO, NPN
6	EI4-1600A	Ethernet/IP, Intergrated I/O, 16DI, NPN
7	EI4-0808A	Ethernet/IP, Intergrated I/O, 8DI, 8DO, NPN, 0.25A
8	EI4-0016A	Ethernet/IP, Intergrated I/O, 16DO, NPN, 0.25A
9	EI4-3200B	Ethernet/IP, Intergrated I/O, 32DI, PNP
10	EI4-2408B	Ethernet/IP, Intergrated I/O, 24DI, 8DO, PNP, 0.5A
11	EI4-1616B	Ethernet/IP, Intergrated I/O, 16DI, 16DO, PNP, 0.5A
12	EI4-1616BW	Ethernet/IP, Intergrated I/O, 16DI, 16DO, PNP, 0.25A
13	EI4-0824B	Ethernet/IP, Intergrated I/O, 8DI, 24DO, PNP, 0.5A
14	EI4-0032B	Ethernet/IP, Intergrated I/O, 32DO, PNP, 0.5A
15	EI4-0032BW	Ethernet/IP, Intergrated I/O, 32DO, PNP, 0.25A
16	EI4-1600B	Ethernet/IP, Intergrated I/O, 16DI, PNP
17	EI4-0808B	Ethernet/IP, Intergrated I/O, 8DI, 8DO, PNP, 0.5A
18	EI4-0808BW	Ethernet/IP, Intergrated I/O, 8DI, 8DO, PNP, 0.25A
19	EI4-0016B	Ethernet/IP, Intergrated I/O, 16DO, PNP, 0.5A
20	EI4-0016BW	Ethernet/IP, Intergrated I/O, 16DO, PNP, 0.25A
21	EI4-0012J	Ethernet/IP, Intergrated I/O, 12DO, Relay, 2A
22	EI4-1612J	Ethernet/IP, Intergrated I/O, 16DI, 12DO, Relay, 2A

Analog input		
23	EI4-A40V	Ethernet/IP, Intergrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
24	EI4-A80V	Ethernet/IP, Intergrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
25	EI4-A40I	Ethernet/IP, Intergrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
26	EI4-A80I	Ethernet/IP, Intergrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy

Analog output		
27	EI4-A04V	Ethernet/IP, Intergrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
28	EI4-A08V	Ethernet/IP, Intergrated I/O, U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
29	EI4-A04I	Ethernet/IP, Intergrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
30	EI4-A08I	Ethernet/IP, Intergrated I/O, I, 8 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy

31	XX4-C10_4	Integrated public terminal expansion module

CC-Link

CC-Link is an open field bus with large data capacity and selectable communication speeds. It is a composite, open, and adaptive network system that can adapt to different ranges from higher management networks to lower sensor networks. Led by Mitsubishi, common CC-Link masters currently include Mitsubishi FX5U, L, Q, IQ-R series PLCs. Solidot has a long history of CC-Link development and its products mainly cover integrated I/O, sliced I/O, and bus valve terminal.

DI=digital input, DO= digital output

Single-wire digital I/O		
1	CC4-3200A	CC-Link, Intergrated I/O, 32DI, NPN
2	CC4-1616A	CC-Link, Intergrated I/O, 16DI, 16DO, NPN, 0.25A
3	CC4-0032A	CC-Link, Intergrated I/O, 32DO, NPN, 0.25A
4	CC4-1600A	CC-Link, Intergrated I/O, 16DI, NPN
5	CC4-0808A	CC-Link, Intergrated I/O, 8DI, 8DO, NPN, 0.25A
6	CC4-0016A	CC-Link, Intergrated I/O, 16DO, NPN, 0.25A

Analog input		
7	CC4-A40V	CC-Link, Intergrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
8	CC4-A80V	CC-Link, Intergrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
9	CC4-A40I	CC-Link, Intergrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
10	CC4-A80I	CC-Link, Intergrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy

Analog output		
11	CC4-A04V	CC-Link, Intergrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
12	CC4-A08V	CC-Link, Intergrated I/O, U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
13	CC4-A04I	CC-Link, Intergrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
14	CC4-A08I	CC-Link, Intergrated I/O, I, 8 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy

15	XX4-C10_4	Integrated public terminal expansion module

CC-Link IE Field Basic

CC-Link IE Field Basic is a new member of the CC-Link IE protocol and is a bus network based on the standard 100Mbps Ethernet, specifically designed to provide a low-cost control network for small-scale systems that do not require high-speed control. Solidot has been a long-term partner of CLPA and has developed CC-Link and CC-Link IE compatible products. CC-Link IE Field Basic products can be used with Mitsubishi FX5U, L, Q, IQ-R PLCs.

DI=digital input, DO= digital output

Single-wire digital I/O		
1	CB4-3200A	CC-Link IE Field Basic, Integrated I/O, 32DI, NPN
2	CB4-2408A	CC-Link IE Field Basic, Integrated I/O, 24DI, 8DO, NPN, 0.25A
3	CB4-1616A	CC-Link IE Field Basic, Integrated I/O, 16DI, 16DO, NPN, 0.25A
4	CB4-0824A	CC-Link IE Field Basic, Integrated I/O, 8DI, 24DO, NPN, 0.25A
5	CB4-0032A	CC-Link IE Field Basic, Integrated I/O, 32DO, NPN, 0.25A
6	CB4-1600A	CC-Link IE Field Basic, Integrated I/O, 16DI, NPN
7	CB4-0808A	CC-Link IE Field Basic, Integrated I/O, 8DI, 8DO, NPN, 0.25A
8	CB4-0016A	CC-Link IE Field Basic, Integrated I/O, 16DO, NPN, 0.25A
9	CB4-0012J	CC-Link IE Field Basic, Integrated I/O, 12DO, Relay, 2A
10	CB4-1612J	CC-Link IE Field Basic, Integrated I/O, 16DI, 12DO, Relay, 2A

Analog input		
11	CB4-A40V	CC-Link IE Field Basic, Integrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
12	CB4-A80V	CC-Link IE Field Basic, Integrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
13	CB4-A40I	CC-Link IE Field Basic, Integrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
14	CB4-A80I	CC-Link IE Field Basic, Integrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy

Analog output		
15	CB4-A04V	CC-Link IE Field Basic, Integrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
16	CB4-A08V	CC-Link IE Field Basic, Integrated I/O, U, 8 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
17	CB4-A04I	CC-Link IE Field Basic, Integrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
18	CB4-A08I	CC-Link IE Field Basic, Integrated I/O, I, channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy

Modbus TCP

Modbus is a serial communication protocol published by Modicon (now Schneider Electric) in 1979 for communication with programmable logic controllers (PLCs). Modbus has become a de facto standard communication protocol in the industrial field and is now a common way to connect industrial electronic devices. There are versions of the Modbus protocol for serial ports, Ethernet, and other networks supporting Internet protocols. Solidotl Modbus TCP products have built-in Ethernet switches for easier wiring. They are usually used with PLCs from Labview, Siemens, Beckhoff, and Schneider Electric.

DI=digital input, DO= digital output

Single-wire digital I/O		
1	MT4-3200A	Modbus TCP, Integrated I/O, 32DI, NPN
2	MT4-1616A	Modbus TCP, Integrated I/O, 16DI, 16DO, NPN, 0.25A
3	MT4-0032A	Modbus TCP, Integrated I/O, 32DO, NPN, 0.25A
4	MT4-1600A	Modbus TCP, Integrated I/O, 16DI, NPN
5	MT4-0808A	Modbus TCP, Integrated I/O, 8DI, 8DO, NPN, 0.25A
6	MT4-0016A	Modbus TCP, Integrated I/O, 16DO, NPN, 0.25A
7	MT4-1616B	Modbus TCP, Integrated I/O, 16DI, 16DO, PNP, 0.5A
8	MT4-1616BW	Modbus TCP, Integrated I/O, 16DI, 16DO, PNP, 0.25A
9	MT4-A40V	Modbus TCP, Integrated I/O, U, 4 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
10	MT4-A80V	Modbus TCP, Integrated I/O, U, 8 channel analog voltage input,-10~+10V / 0~+10V, ±0.1% accuracy
11	MT4-A40I	Modbus TCP, Integrated I/O, I, 4 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
12	MT4-A80I	Modbus TCP, Integrated I/O, I, 8 channel analog current input, 0~20mA / 4~20mA, ±0.1% accuracy
13	MT4-A04V	Modbus TCP, Integrated I/O, U, 4 channel analog voltage output, -10~+10V / 0~+10V, ±0.1% accuracy
14	MT4-A08V	Modbus TCP, Integrated I/O, I, 8 channel analog voltage output, 0~20mA/4-20mA, ±0.1% accuracy
15	MT4-A04I	Modbus TCP, Integrated I/O, I, 4 channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
16	MT4-A08I	Modbus TCP, Integrated I/O, I, 8- channel analog current output, 0~20mA/4-20mA, ±0.1% accuracy
17	XX4-C10_4	Integrated public terminal expansion module

DeviceNet

DeviceNet is a field bus standard for automation technology developed by Allen-Bradley in 1994. DeviceNet uses controller area network (CAN) as its underlying communication protocol, and has defined profiles for different devices at its application layer. Its main applications include information exchange, safety equipment, and large control systems. It has a high market share in the United States. Solidot DeviceNet products include integrated I/O, which is used with Omron CJ series PLC and ABB robots.

DI=digital input, DO= digital output

Single-wire digital I/O		
1	DN4-3200A	DeviceNet, Integrated I/O, 32DI, NPN
2	DN4-1616A	DeviceNet, Integrated I/O, 16DI, 16DO, NPN, 0.25A,
3	DN4-0032A	DeviceNet, Integrated I/O, 32DO, NPN, 0.25A
4	DN4-1600A	DeviceNet, Integrated I/O, 16DI, NPN
5	DN4-0808A	DeviceNet, Integrated I/O, 8DI, 8DO, NPN, 0.25A
6	DN4-0016A	DeviceNet, Integrated I/O, 16DO, NPN, 0.25A
7	DN4-1616BW	DeviceNet, Integrated I/O, 16DI, 16DO, PNP, 0.25A
8	XX4-C10_4	Integrated public terminal expansion module

HORIZONTAL TYPE I/O

1. Digital input signals are compatible with NPN & PNP
2. The height is only 35 mm
3. Innovative channel indicator light design, Close to the channel, the channel status is clear at a glance, convenient for detection and maintenance

100 Mbps industrial Ethernet port. Simple configuration and support for major controllers. DIN 35 mm standard rail mounting, using screw-fixed wiring terminal, stable and fast wiring.

HORIZONTAL TYPE I/O MODELS

DI=digital input, DO= digital output

Single-wire digital I/O		
1	EI3-3200	Ethernet/IP, Integrated I/O, 32DI, NPN & PNP compatible, Screw terminals
2	EI3-1616A	Ethernet/IP, Integrated I/O, 16DI, 16DO, NPN, 0.5A, Screw terminals
3	EI3-1616B	Ethernet/IP, Integrated I/O, 16DI, 16DO, PNP, 0.5A, Screw terminals
4	EI3-0032A	Ethernet/IP, Integrated I/O, 32DO, NPN, 0.5A, Screw terminals
5	EI3-0032B	Ethernet/IP, Integrated I/O, 32DO, PNP, 0.5A, Screw terminals
6	PN3-3200	PROFINET, Integrated I/O, 32DI, NPN & PNP compatible, Screw terminals
7	PN3-1616A	PROFINET, Integrated I/O, 16DI, 16DO, NPN, 0.5A, Screw terminals
8	PN3-1616B	PROFINET, Integrated I/O, 16DI, 16DO, PNP, 0.5A, Screw terminals
9	PN3-0032A	PROFINET, Integrated I/O, 32DO, NPN, 0.5A, Screw terminals
10	PN3-0032B	PROFINET, Integrated I/O, 32DO, PNP, 0.5A, Screw terminals
11	EC3-3200	EtherCAT, Integrated I/O, 32DI, NPN & PNP compatible, Screw terminals
12	EC3-1616A	EtherCAT, Integrated I/O, 16DI, 16DO, NPN, 0.5A, Screw terminals
13	EC3-1616B	EtherCAT, Integrated I/O, 16DI, 16DO, PNP, 0.5A, Screw terminals
14	EC3-0032A	EtherCAT, Integrated I/O, 32DO, NPN, 0.5A, Screw terminals
15	EC3-0032B	EtherCAT, Integrated I/O, 32DO, PNP, 0.5A, Screw terminals
16	CC3-3200	CC-Link, Integrated I/O, 32DI, NPN & PNP compatible, Screw terminals
17	CC3-1616A	CC-Link, Integrated I/O, 16DI, 16DO, NPN, 0.5A, Screw terminals
18	CC3-1616B	CC-Link, Integrated I/O, 16DI, 16DO, PNP, 0.5A, Screw terminals
19	CC3-0032A	CC-Link, Integrated I/O, 32DO, NPN, 0.5A, Screw terminals
20	CC3-0032B	CC-Link, Integrated I/O, 32DO, PNP, 0.5A, Screw terminals
21	CB3-3200	CC-Link IE Field Basic, Integrated I/O,32DI, NPN & PNP compatible, Screw terminals
22	CB3-1616A	CC-Link IE Field Basic, Integrated I/O, 16DI, 16DO, NPN, 0.5A, Screw terminals
23	CB3-1616B	CC-Link IE Field Basic, Integrated I/O, 16DI, 16DO, PNP, 0.5A, Screw terminals
24	CB3-0032A	CC-Link IE Field Basic, Integrated I/O, 32DO, NPN, 0.5A, Screw terminals
25	CB3-0032B	CC-Link IE Field Basic, Integrated I/O, 32DO, PNP, 0.5A, Screw terminals

IP67 I/O MODULE

1. The shell is made of PBT+GF30% reinforced plastic material, with excellent mechanical properties and good electrical insulation
2. Power supply interface adopts M12-L code, maximum over-current 16A
3. Rich I/O types, covering various signal types
4. Universal I/O and bus interface, no need to order cables, high compatibility
5. Rich indicator function design, module status is clear at a glance
6. A firmware upgrade interface is reserved, making product upgrades more convenient

P67 I/O module, supporting various bus protocols. The product size is 225*62*35, and the shell is made of PTB+GF30% reinforced plastic material, which has excellent mechanical properties; the fully sealed design can be used in harsh working environments. There is a wide variety of signals available, providing a diverse range of options for on-site applications.

EtherCAT PROFINET CC-Link

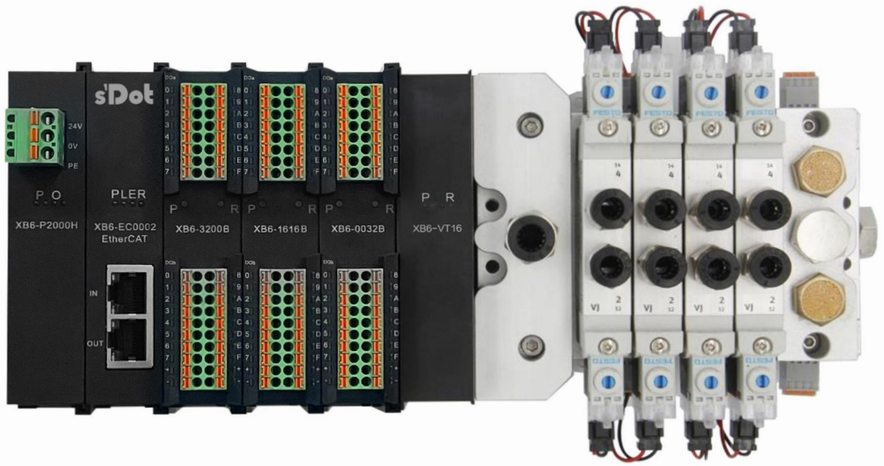
IP67 I/O MODULE MODELS

DI=digital input, DO= digital output

Single-wire digital I/O		
1	EC7-1600A	EtherCAT, Integrated I/O, 16DI, NPN
2	EC7-1600B	EtherCAT, Integrated I/O, 16DI, PNP
3	EC7-0016A	EtherCAT, Integrated I/O, 16DO, NPN
4	EC7-0016B	EtherCAT, Integrated I/O, 16DO, PNP
5	EC7-0808A	EtherCAT, Integrated I/O, 8DI, 8DO, NPN, 0.5A
6	EC7-0808B	EtherCAT, Integrated I/O, 8DI, 8DO, PNP, 0.5A
7	CC7-1600A	CC-Link, Integrated I/O, 16DI, NPN
8	CC7-1600B	CC-Link, Integrated I/O, 16DI, PNP
9	CC7-0016A	CC-Link, Integrated I/O, 16DO, NPN, 0.5A
10	CC7-0016B	CC-Link, Integrated I/O, 16DO, PNP, 0.5A
11	CC7-0808A	CC-Link, Integrated I/O, 8DI, 8DO, NPN, 0.5A
12	CC7-0808B	CC-Link, Integrated I/O, 8DI, 8DO, PNP, 0.5A
13	PN7-1600A	PROFINET, Integrated I/O, 16DI, NPN
14	PN7-1600B	PROFINET, Integrated I/O, 16DI, PNP
15	PN7-0016A	PROFINET, Integrated I/O, 16DO, NPN, 0.5A
16	PN7-0016B	PROFINET, Integrated I/O, 16DO, PNP, 0.5A
17	PN7-0808A	PROFINET, Integrated I/O, 8DI, 8DO, NPN, 0.5A
18	PN7-0808B	PROFINET, Integrated I/O, 8DI, 8DO, PNP, 0.5A

VALVE TERMINAL

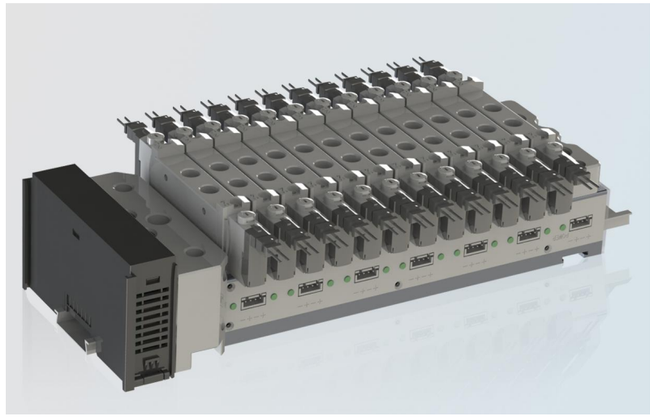
1. Supports multiple buses
2. Easy access to major manufacturers
3. Save wiring, only one communication cable is needed
4. Support mainstream solenoid valve models



The valve terminal, which is the first of its kind in China and has strong universality, was independently developed and has a more compact structure and greater flexibility in application.
It can be customized according to the type and quantity of the customer's required solenoid valves. Support PROFINET, EtherCAT, EtherNet/IP, CC-Link IE Field Basic and other bus protocols.
The conventional collecting plate can be used, and input and output modules can be freely expanded to achieve closed-loop control of the solenoid valve.
Customized base plate, integrated full aluminum alloy design, aesthetically pleasing appearance.

SMC FESTO CKD AirTAC

SLICED VALVE TERMINAL MODELS



Sliced Valve Terminal

Features.
It can be used in conjunction with Solidot XB6 series sliced I/O mixing. The structure is more compact and the application is more flexible.

XB6 - (VUVG-L14) - 16 - G - N
① ② ③ ④ ⑤

① **Code:** Used bus protocol

Code	XB6
Protocol	X-bus

② **Code:** The specific model of the solenoid valve (rated voltage DC24V, and the wire lead-out method is selected as the wire-out type). If single or double electric control valve exists at the same time, only single electric control valve will be filled in. This valve island is adapted to the following series of solenoid valves.

Brands	Series
FESTO	VUVG -L10/LK10
	VUVG -L14/LK14
SMC	SY3□20
	SY5□20
	SY7□20
Ardeche	4V100M
	4V200M
	7V0500M
	7V100M
	7V200M
CKD	4GD1
	4GD2

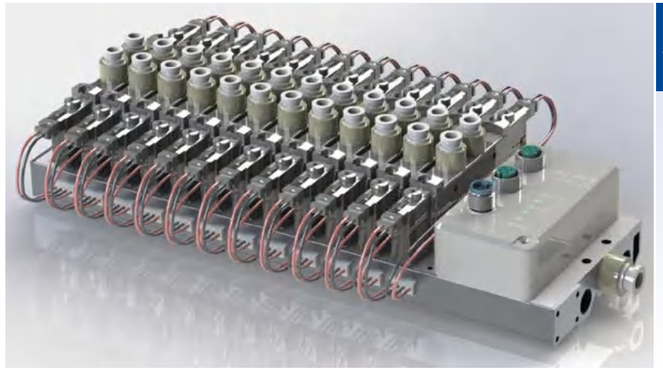
③ **Code:** All solenoid valve bits, 04-16 (single electric control supports up to 16 bits, dual electric control supports up to 16 bits).
④ **Code:** Inlet and outlet threads of the manifold (the default type is the same as the type of solenoid valve teeth)

Code	G	R	N	M
Thread	G Thread	RC Thread	NPT Thread	Metric thread

⑤ **Code:** Provide gaskets and screws for solenoid valve installation (By default, the customer provides their own solenoid valveown solenoid valve)

Customer's own	Need our company to provide
Y	N

INTEGRATED VALVE TERMINAL MODELS



Integrated Valve Terminal

Features:
Custom base plate, ntegrated full aluminum alloy design, more beautiful appearance, 24-point single output, using M12 aviation connector.

C2-EC-(VUVG-L14-B52-T-G18-1H2L-W1)-12-A0B12-PL-G-N

① ② ③ ④ ⑤ ⑥

① **Code:** Used bus protocol

Codes	EC	PN	EI	CC	MT
Protocol	EtherCAT	PROFINET	EtherNet/IP	CC-Link	MODBUS

② **Code:** specific model of solenoid valve (rated voltage DC24V, choose wire lead-out method for socket type). If single and double electric control valves exist at the same time, only single electric control valve will be filled in. This valve terminal is adapted to the following series of solenoid valves.

Brands	Series
FESTO	VUVG -L10/LK10
	VUVG -L14/LK14
SMC	SY3□20
	SY5□20
	SY7□20
Ardeche	4V100M
	4V200M
	7V0500M
	7V100M
	7V200M
CKD	4GD1
	4GD2

Similar in installation size to the aforementioned solenoid valve, can also be customized.

③ **Code:** All solenoid bits, 04-24 (single electric control supports up to 24 bits, dual electric control supports up to 12 bits).

④ **Code:** The number of single / double electronically controlled solenoid valves (need to meet A + 2B ⩽ 24)

A (single electric control)	B (dual electric control)
0-24	0-12

⑤ **Code:** Inlet and outlet threads of the manifold (the default type is the same as the type of solenoid valve teeth)

Codes	G	R	N	M
Thread	G Thread	RC Thread	NPT Thread	Metric thread

⑥ **Code:** Provide gaskets and screws for solenoid valve installation (By default, the customer provides their own solenoid valveown solenoid valve)

Customer's own	Need our company to provide
Y	N

PRODUCT PARAMETER

Power Module Parameters

Parameter Name	Technical Specification
Rated supply voltage	24V DC (18V...36V)
Output current	2A
Protection measures	Reverse connection protection, short circuit protection
External connection method	Spring-type terminal block
Physical dimensions	XB6-P2000H：106×61×22.5 mm XB6-P2000：106×73×25.7mm
Weight	About 110g
Mounting method	DIN 35mm rail
Altitude	Below 2000m (Reference sea level operating altitude)
Protection level	IP20
Operating environment	Avoid dust, oil mist and corrosive gases
Operating temperature	-10 ~ +60°C
Operating humidity	95 %RH
Storage temperature	-20°C ~+75°C
Storage humidity	<95%，Non-condensing

Network interface parameters

Bus protocol	EtherCAT	EtherNet/IP	PROFINET	Modbus TCP	CC-Link IE Field Basic	CC-Link					DeviceNet		
Number of Slave Stations	Depends on the number of slaves supported by the master					Remote I/O stations: up to 64 stations Remote device stations: up to 42 stations					Maximum 64 stations		
Data transmission medium	Ethernet/EtherCAT CAT5 cable					CC-Link dedicated cable (three-core shielded stranded cable)					DeviceNet-specific cables		
Transmission rate	100Mb/s					10Mbps / 5Mbps / 2.5Mbps / 625kbps / 156kbps					500kbps / 250kbps / 156kbps		
Transmission distance	⩽ 100m (station-to-station distance)					10 Mbps	5 Mbps	2.5 Mbps	625 kbps	156 kbps	500 kbps	250 kbps	156 kbps
						⩽ 100m	⩽ 160m	⩽ 400m	⩽ 900m	⩽ 1200m	⩽ 100m	⩽ 250m	⩽ 500m
Bus Interface	XX7 series：2xM12-D,4pin XX3, XX4, XX6 series：2×RJ45					XX3 series: bullet type terminal block, 4P XX4 series: bullet type terminal block, 7P XX7 series: 2xM12-D,4pin					Spring-loaded terminal block, 7P		
Configuration mode	Configure on the master station software												
Rated supply voltage	24V DC (18V...36V)												
Power consumption	XX3 series: max. 3.0W, 125mA	XX4 series: max. 3.0W, 125mA	XX6 series: max. 2.7W, 540mA	XX7 series: max. 1.2W, 50mA									
Power contacts	IP20：Max 24V DC/10A IP67：Max 24V DC/16A												
Power supply protection measures	Short circuit protection; reverse connection protection												
Physical dimensions	XX3 series：100×96×32mm	XX4 series：102×72×25mm	XX6 series：106×61×22.5mm	XX7 series：225×62×35mm									
Weight	XX3 series: about 170g	XX4 series: about 140g	XX6 series: about 80g										
Mounting method	DIN 35mm rail												
Altitude	Below 2000m (Reference sea level operating altitude)												
Protection level	XX3、XX4、XX6 series：IP20 XX7 series：IP67												
Operating environment	Avoid dust, oil mist and corrosive gases												
Operating temperature	IP20：-10 ~ +60°C IP67：-25~70° C												
Operating humidity	95 %RH												
Storage temperature	-20°C ~+75°C												
Storage humidity	<95%，Non-condensing												

Digital input parameters

Parameter Name	Technical Specification	
Number of channels	32 channels / 16 channels / 8 channels	
Signal Type	NPN (drain type)/PNP (source type)	
Rated supply voltage	24V DC (18V...36V)	
Input filtering	Default 3ms (1ms, 2ms, 3ms can be set)	
ON Voltage/ON Current	NPN：9V/2.7mA PNP：15V/2.8mA	
OFF Voltage/OFF Current	NPN：11V/2.3mA PNP：5V/0.9mA	
Input Response Time	ON → OFF	⩽ 73us
	OFF → ON	⩽ 8us
Input Impedance	5.57kΩ	
Isolation withstand voltage	500V AC	
Isolation method	Optocoupler isolation	
I/O external connection method	IP20: pop-up terminal block, MIL connector, screw type terminal block IP67: M12-A, 5pin	
Common terminal method	8 points / 16 points, maximum current 8A per common terminal (depending on the specific model)	
Channel protection	Optocoupler	
Physical dimensions	XX3 series：100×96×32mm XX4 series：102×72×25mm XX6 series：106×73×25.7mm XX7 series：225×62×35mm	
Weight	XX3 series：about 170g XX4 series：about 140g XX6 series：about 约 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	XX3、XX4、XX6 series：IP20 XX7 series：IP67	
Operating environment	Avoid dust, oil mist and corrosive gases	
Operating temperature	IP20：-10 ~ +60°C IP67：-25~70° C	
Operating humidity	95 %RH	
Storage temperature	-20°C ~+75°C	
Storage humidity	<95%，Non-condensing	

Transistor output parameters

Parameter Name	Technical Specifications	
Number of channels	32 channels / 16 channels / 8 channels	
Signal Type	NPN (drain type)/PNP (source type)	
Rated supply voltage	24V DC (18V...36V)	
Single channel load current	A type, BW type: Max.0.25A B type: Max.0.5A	
Leakage current at OFF	A type:4uA BW type:6uA B type:6uA	
Residual Voltage	A type:0.4V BW type:0.2V B type:0.2V	
Output response time	ON → OFF	⩽ 191us
	OFF → ON	⩽ 40us
Isolation method	Optocoupler isolation	
Isolation withstand voltage	500V DC	
Load Type	Resistive load, inductive load, lamp load	
I/O external connection method	IP20: pop-up terminal block, MIL connector, screw type terminal block IP67: M12-A, 5pin	
Common terminal method	8 points / 16 points a common terminal, each common terminal maximum current 2A/4A/8A (depending on the specific model)	
Channel protection	Overcurrent, short circuit protection	
Physical dimensions	XX3 series：100×96×32mm XX4 series：102×72×25mm XX6 series：106×73×25.7mm XX7 series：225×62×35mm	
Weight	XX3 series：about 170g XX4 series：about 140g XX6 series：about 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	XX3、XX4、XX6 series：IP20 XX7 series：P67	
Operating environment	Avoid dust, oil mist and corrosive gases	
Operating temperature	95 %RH	
Storage temperature	-20℃ ~+75℃	
Storage humidity	<95%，Non-condensing	

Relay output parameters

Parameter Name	Technical Specifications	
Number of channels	12 channels	
Rated supply voltage	24V DC (18V...36V)	
Rated Switching Voltage	24V DC	
Rated switching current	2A/1 point; 8A/1 common terminal	
Output response time	ON → OFF	⩽ 10ms
	OFF → ON	⩽ 5ms
Max. switching frequency	50HZ	
Relay life	More than two million times	
Isolation withstand voltage	500V AC	
Maximum Surge Voltage	6kV	
Load Type	Resistive load, lamp load, inductive load	
I/O external connection method	XX4、XX6 series：Slug type terminal block	
Common terminal method	8 point 1 public end	
Physical dimensions	XX4 series：102×72×25mm XX6 series：106×73×25.7mm	
Weight	XX4 series：about 140g XX6 series：about 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	XX4、XX6 series：IP20	
Operating environment	Avoid dust, oil mist and corrosive gases	
Operating temperature	-10 ~ +60℃	
Operating humidity	95 %RH	
Storage temperature	-20℃ ~+75℃	
Storage humidity	<95%，Non-condensing	

Analog input parameters

Parameter Name	Technical Specifications	
Number of channels	8 channels / 4 channels	
Rated supply voltage	24V DC (18V.... .36V)	
Input method	Single-ended	
Range	Voltage type	-10 V ~ +10 V，0V~10V
	Current type	0~20 mA，4~20mA
Maximum limit value	Voltage type	-10 V ~ +10 V，0V~10V
	Current type	0~20 mA，4~20mA
Resolution	16bit	
Sampling frequency	⩽ 1 ksps	
Accuracy	±0.1%	
Input Filtering	Default 10 times (configuration range 1 - 200 times)	
Conversion Time	800us/8 channels, 400us/4 channels	
Input Impedance	Voltage type	400kΩ
	Current type	100Ω
Isolation withstand voltage	500V AC	
Channel Protection	Over-voltage protection	
I/O external connection method	Spring-type terminal block	
Physical dimensions	XX4 series：102×72×25mm XX6 series：106×73×25.7mm	
Weight	XX4 series：about 140g XX6 series：about 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	IP20	
Operating environment	Avoid dust, oil mist and corrosive gas	
Operating temperature	-10 ~ +60℃	
Operating humidity	95 %RH	
Storage temperature	-20℃ ~+75℃	
Storage humidity	<95%，Non-condensing	

Analog output parameters

Parameter Name	Technical Specifications	
Number of channels	8 channels / 4 channels	
Rated supply voltage	24V DC (18V...36V)	
Range	Voltage type	-10 V ~ +10 V，0V~10V
	Current type	0~20 mA，4~20mA
Resolution	16bit	
Accuracy	±0.1%	
Load Impedance	⩾ 2 kΩ	
Isolation withstand voltage	500V AC	
Channel Protection	Short circuit protection	
I/O external connection method	Spring-type terminal block	
Physical dimensions	XX4 series：102×72×25mm XX6 series：106×73×25.7mm	
Weight	XX4 series：about 140g XX6 series：about 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	XX4、XX6 series：IP20	
Operating environment	Avoid dust, oil mist and corrosive gases	
Operating temperature	-10 ~ +60℃	
Operating humidity	95 %RH	
Storage temperature	-20℃ ~+75℃	
Storage humidity	<95%，Non-condensing	

Temperature acquisition module parameters

Parameter Name	Technical Specifications		
Number of channels	8 channels / 4 channels		
Rated supply voltage	24V DC (18V...36V)		
Sensor type	Thermocouple (TC)	RTD (Thermal Resistance Device)	Resistance (TD)
Wiring method	2-wire system	2-wire system/3-wire system	2-wire system
Range	K：-200~1370℃ J：-200~1200℃ E：-200~1000℃ S：-50~1690℃ B：50~1800℃	Pt100：— 200~850℃ Pt200：— 200~600℃ Pt500：— 200~600℃ Pt1000：— 200~600℃	15Ω~3kΩ
Accuracy	±0.5%	±1℃	±0.1%
Sensitivity	0.1℃		±0.1 Ω
Resolution	16 bit (int type)		
Conversion time (single channel)	201 ms	26 ms	
Cycle time (all channels)	(single channel refresh time + disconnection detection time) * number of channels		
Input filtering	Single-channel filtering, configurable (number of smoothing stages 1 to 10)		
Break detection	Support	Not supported	
Break detection time	2ms	/	
Maximum allowed input voltage per channel	30V		
Electrical isolation	500Vrms, no isolation between channels		
I/O external connection method	Spring-type terminal block		
Physical dimensions	106×73×25.7mm		
Weight	Approx. 110g		
Mounting method	DIN 35mm rail		
Altitude	Up to 2000m (Reference sea level operating altitude)		
Protection level	IP20		
Operating environment	Avoid dust, oil mist and corrosive gas		
Operating temperature	-10 ~ +60° C		
Operating humidity	95 %RH		
Storage temperature	-20°C ~ +75°C		
Storage humidity	<95%, non-condensing		

Stepper driver Module Parameters

Parameter Name	Technical Specifications	
Number of axes	Single-axis	
Adaptable motor	Two-phase hybrid stepper motor	
Driver power supply	Max. flange 86mm	
Output current	DC 24V or 48V	
Drive method	4A~6.0A/phase (peak)	
Device initialization time	Full-bridge bipolar PWM drive	
Input signal	2-channel high-speed input signal 100us	Optocoupler isolated, input voltage: H = 3.5 - 26V , L = 0 - 0.8V ON current 5 - 8mA
	3-channel general-purpose input signal 1ms	Optocoupler isolated, input voltage: H = 24V , L = 0 - 0.8V ON current 3~6mA
Output signal	2-channel general-purpose output signal	Opto-isolated output, maximum withstand voltage 30VDC, maximum saturation current 500mA
	1-channel brake output	Opto-isolated output, maximum withstand voltage 30VDC, maximum saturation current 500mA
I/O external connection method	Spring-type terminal block	
Physical dimensions	106×73×25.7mm	
Weight	Approx. 110g	
Mounting method	DIN 35mm rail	
Altitude	Below 2000m (Reference sea level operating altitude)	
Protection level	IP20	
Operating environment	Avoid dust, oil mist and corrosive gas	
Operating temperature	-10 ~ +55° C	
Operating humidity	< 85 % RH, Non-condensing	
Storage temperature	-20° C ~ +75° C	
Storage humidity	< 95%, Non-condensing	
Heat dissipation	Installed in a ventilated environment When the current setting is greater than 3A or ambient temperature ⩾ 45° C, forced air cooling is required	

Pulse input module parameters

Parameter Name	Technical Specifications	
Number of channels	2 channels	
Rated supply voltage	24V DC (18V.... .36V)	
Encoder type	Incremental encoder, Orthogonal	
Encoder power supply	5V DC	
Type of Acquisition signal	Differential signals	
Signal type	RS422	
Process data volume	Upstream	20Byte
	Downstream	12Byte
Counting rate	<=500KHZ	
Z-phase zeroing	Support	
Hardware latch	Latching signal configurable	
Comparison output	Not supported	
Calculate magnification setting	4x/2x/1x (default 4x)	
Resolution setting	0-65535(default 0)	
Circular counting	(0-resolution *count multiplier count multiplier -1)	
Linear counting	0-4294967295	
Counting initial value setting	Support	
Hardware filtering	0-15 (default 7)	
Counting range selection	0-4294967295	
Reverse Counting	Support	
I/O external connection method	Spring-type terminal block	
Input signal	Signal Type	NPN (drain) & PNP (source) compatible
	Number of Channels	1 pulse channel / 2 points
	ON Voltage/ON Current	NPN：9V/2.7mA PNP：15V/2.8mA
	OFF Voltage/OFF Current	NPN：11V/2.3mA PNP：5V/0.9mA
Output signal	Signal Type	PNP (source type)
	Number of Channels	1 pulse channel / 2 points
	Single channel load current	Max.0.5A
	Load Type	Resistive load, inductive load, lamp load

I/O external connection method	Spring-type terminal block
Physical dimensions	XX4 series：102×72×25mm XX6 series：106×73×25.7mm
Weight	XX4 series：about 140g XX6 series：about 110g
Mounting method	DIN 35mm rail
Altitude	Below 2000m (Reference sea level operating altitude)
Protection level	IP20
Operatin environment	Avoid dust, oil mist and corrosive gases
Operating temperature	-10 ~ +60℃
Operating humidity	95 %RH
Storage temperature	-20℃ ~+75℃
Storage humidity	<95%, Non-condensing

LEADING INDUSTRIAL CONNECTIVITY
MAKING SMART MANUFACTURING EASIER

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