2026

IO-Link and I/O modules catalog

Focus on industrial automation solutions

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SENSING YOUR MIND!

- I/O modules with IP67
- I/O modules with IP20
- Multi-protocol IO-Link Master
- IO-Link M12 Device
- IO-Link M8 Device
- IO-Link Device with IP20

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Experiences

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Customers

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15+
Overseas regions

SINCE 2008

Tianjin Sentinel was established in Tianjin Hi-Tech Zone in 2008. The company initially focused on the research and development and manufacturing of sensors and fieldbus equipment to meet the needs of industrial applications.

2010

In 2010, the company successfully developed and mass-produced inductive proximity switches, solidifying its position in the industrial sensor field. In 2011, it expanded its production facilities to support future business growth.

2013

In 2013, the company developed and mass-produced flow, temperature, and pressure sensors, expanding its product line.

2015

In 2015, the company further entered the field of fieldbus and industrial Ethernet by launching remote I/O modules. The application of this technology significantly enhanced the intelligence level of factory automation.

2019

In 2019, the company made a significant breakthrough in IO-Link technology by successfully launching IO-Link Master and Device products, achieving standardized data transmission and digital management from field sensors to the central control system.

2023

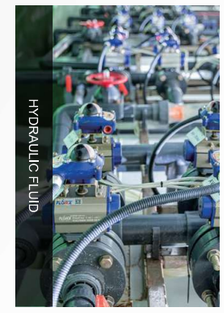
In 2023, the company further enhanced IO-Link technology by launching sensor products with IO-Link functionality, making them more efficient in industrial automation and equipment management. In the future, the company will continue to innovate in sensor and IO technologies, driving the development of Industry 4.0 and smart manufacturing.

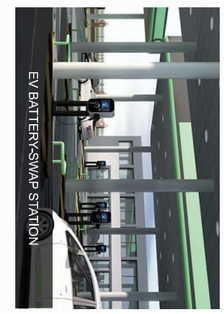
*The above data is accurate as of 2023.

INDUSTRIES

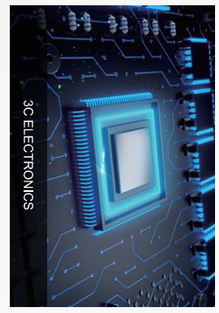
The solution covers major fields such as machine tool industry, automobile manufacturing, new energy, 3C electronics, EV battery-swap station, warehousing, printing and packaging, and steel. SENTINEL focuses on providing customers with customized products and services,continuously innovating and upgrading products, and gaining the recognition and trust of customers in the field of industrial automation product segmentation.

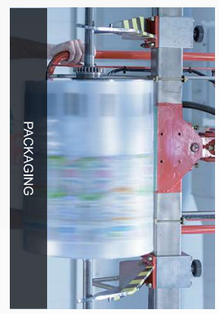

PHARMA


HYDRAULIC FLUID


EV BATTERY-SWAP STATION

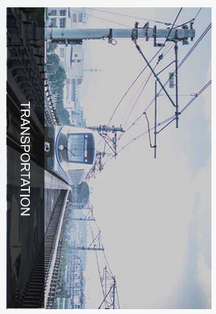

WAREHOUSE LOGISTICS


3C ELECTRONICS


PACKAGING


SOLAR ENERGY


AUTOMOTIVE


TRANSPORTATION

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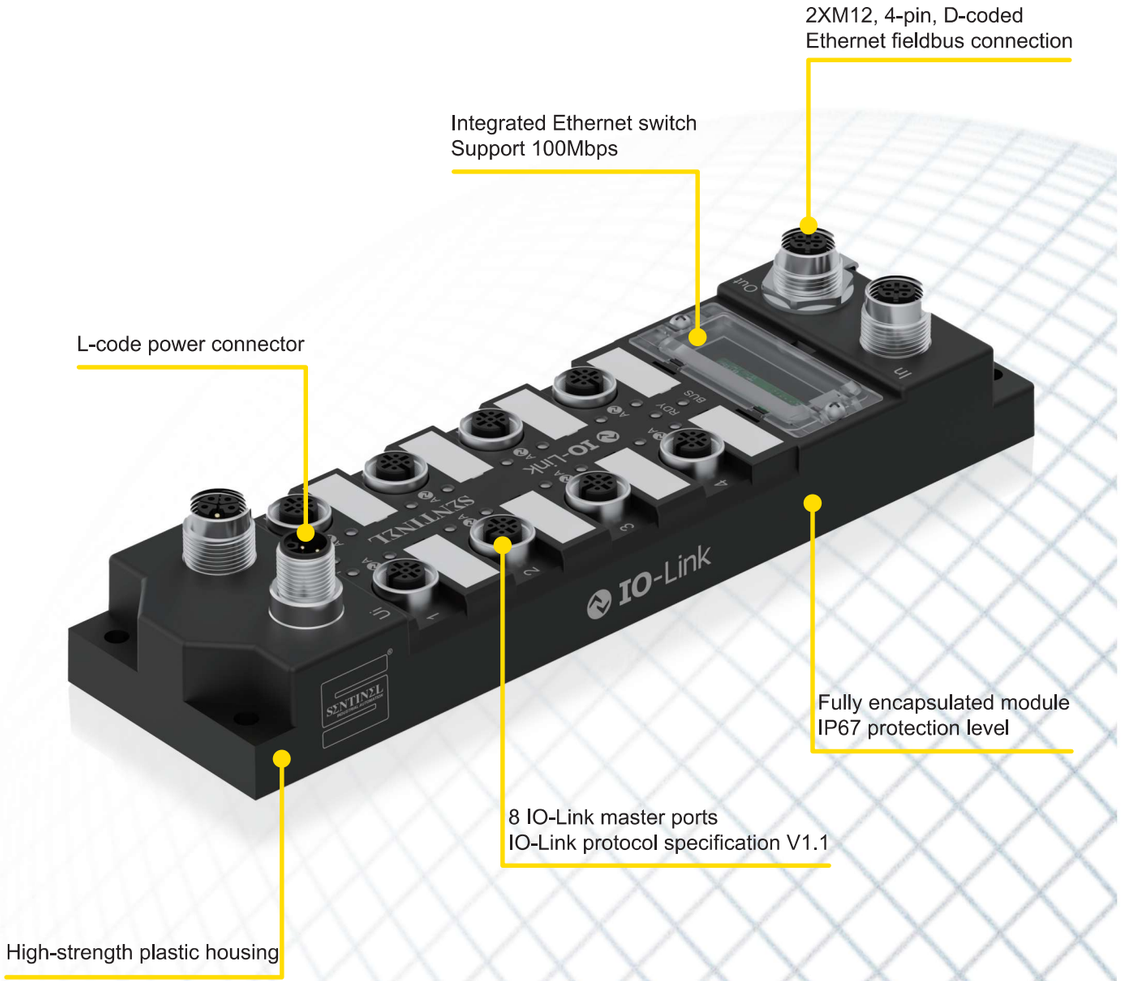
IO-Link Master



Pain Points

Traditional I/O systems have complex wiring and lack intelligent communication, making fault diagnosis manual and time-consuming. Additionally, there is no remote management capability, limiting industrial automation.

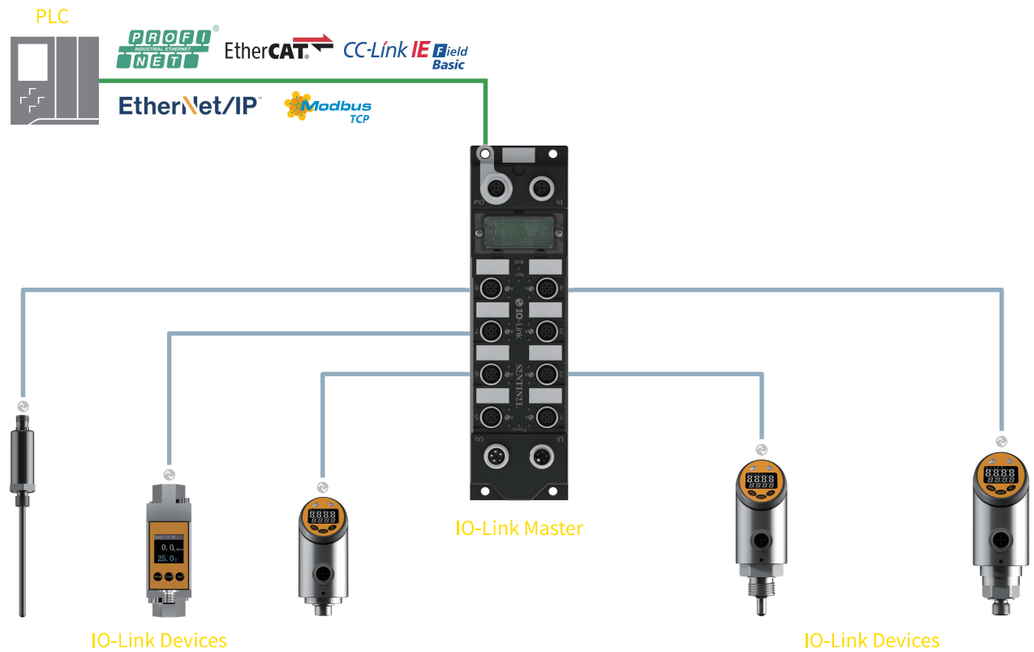
- Each sensor and actuator requires separate connections, leading to messy wiring.
- Faults require manual checks, increasing downtime.
- Traditional I/O cannot provide real-time operational data.

Advantages

IO-Link Master simplifies wiring with standardized interfaces, supports real-time diagnostics, and enables remote data transmission for efficient maintenance.

- **Standardized interfaces, fewer wiring errors.**
- **Intelligent diagnostics, real-time status monitoring.**
- **Remote data collection, smart management.**

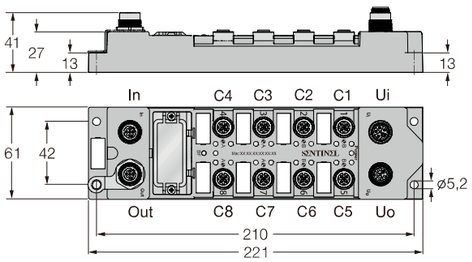
Solution



- Star topology simplifies wiring.
- Supports multiple protocols for easy integration.

IO-Link Master with Profinet interface

L-coded Power Supply,classA/classB

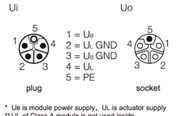


IP67

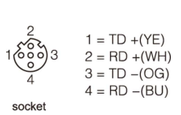
- PROFINET device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- 8 ports IO-Link Master
- IO-Link V1.1
- 5-pin M12,L-coded male connector for power supply
- IO-Link master port Class A or Class B
- Nickel-plated brass connector,Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection class IP67

Type	ELPN-8IOL-L001	ELPN-8IOL-L04B
Information	IO-Link Master port ClassA	IO-Link Master port ClassA and CalssB
Interface		
Ethernet protocol	PROFINET	PROFINET
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Module current(UB)	>8A	≤8A
Actuator current(UL)	—	≤8A
IO-Link port		
Number of ports	8 ports Class A	4 ports Class A+4 ports Class B
Process connection	M12 A-coded	M12 A-coded
Module/Sensor supply(UB)	max.2A ,supply from pin1	rated current 1A,max.2A per slot,supply from pin1 and pin3
	sum(C1 to C4) ≤4A,sum(C5 to C8) ≤4A	sum(C1 to C4) ≤4A, sum(C5 to C8) ≤4A
Aactuator supply(UL)	—	max.2A per slot,supply from pin2 and pin5
		sum(C1 and C2) ≤4A, sum(C5 and C6) ≤4A
Common I/O function	non-supported,pin 2 not used	—
IO-Link parameter		
SIO mode	non-supported(pin 4 cannot be used as common I/O)	
IO-Link definition	Pin 4 in IO-Link mode	Pin 4 in IO-Link mode
IO-Link port type	Class A	Class A(C3 C4 C7 C8)+Class B(C1 C2 C5 C6)
IO-Link specification	V1.1	V1.1
Frame type	Supports all specified frame types	Supports all specified frame types
Supported devices	Max.32Bytes Input/32Bytes Output per port	
Transmission rate	4.8kbps(COM1)/38.4kbps(COM2)/230.4kbps(COM3)	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

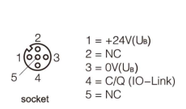
M12x1 Power Supply



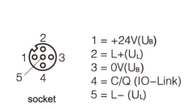
M12x1 Ethernet



IO-Link Class A M12x1

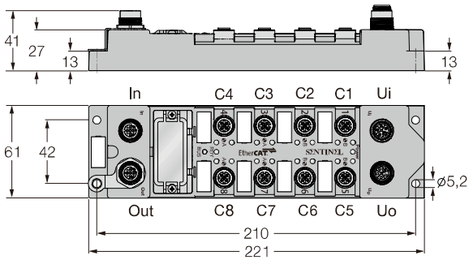


IO-Link Class B M12x1



IO-Link Master with EtherCAT interface

L-coded Power Supply,classA/classB

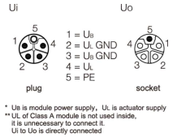


IP67 EtherCAT

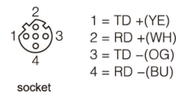
- EtherCAT device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- 8 ports IO-Link Master
- IO-Link V1.1
- 5-pin M12,L-coded male connector for power supply
- IO-Link master port Class A or Class B
- Nickel-plated brass connector,Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection class IP67

Type	ELCT-8IOL-L001	ELCT-8IOL-L04B
Information	IO-Link Master port ClassA	IO-Link Master port ClassA and CalssB
Interface		
Ethernet protocol	EtherCAT	EtherCAT
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Auto Scanning	Using scanning function, IO-Link devices connected to ports can be automatically scanned	
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Module current(UB)	>8A	≤8A
Actuator current(UL)	—	≤8A
IO-Link port		
Number of ports	8 ports Class A	4 ports Class A+4 ports Class B
Process connection	M12 A-coded	M12 A-coded
Module/Sensor supply(UB)	max.2A ,supply from pin1	rated current 1A,max.2A per slot,supply from pin1 and pin3
	sum(C1 to C4) ≤4A,sum(C5 to C8) ≤4A	sum(C1 to C4) ≤4A, sum(C5 to C8) ≤4A
Aactuator supply(UL)	—	max.2A per slot,supply from pin2 and pin5
		sum(C1 and C2) ≤4A, sum(C5 and C6) ≤4A
Common I/O function	non-supported,pin 2 not used	—
IO-Link parameter		
SIO mode	non-supported(pin 4 cannot be used as common I/O)	
IO-Link definition	Pin 4 in IO-Link mode	Pin 4 in IO-Link mode
IO-Link port type	Class A	Class A(C3 C4 C7 C8)+Class B(C1 C2 C5 C6)
IO-Link specification	V1.1	V1.1
Frame type	Supports all specified frame types	Supports all specified frame types
Supported devices	Max.32Bytes Input/32Bytes Output per port	
Transmission rate	4.8kbps(COM1)/38.4kbps(COM2)/230.4kbps(COM3)	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

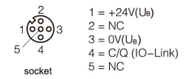
M12x1 Power Supply



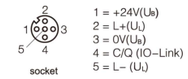
M12x1 Ethernet



IO-Link Class A M12x1

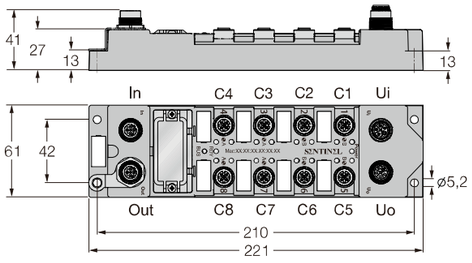


IO-Link Class B M12x1



IO-Link Master with CC-Link IEFB interface

L-coded Power Supply,classA/classB

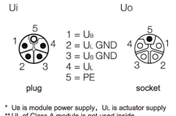


IP67 CC-Link IE Field Basic

- CC-Link IE Field Basic device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- 8 ports IO-Link Master
- IO-Link V1.1
- 5-pin M12,L-coded male connector for power supply
- IO-Link master port Class A or Class B
- Nickel-plated brass connector,Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection class IP67

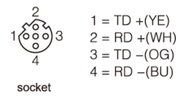
Type	ELBC-8IOL-L001	ELBC-8IOL-L04B
Information	IO-Link Master port ClassA	IO-Link Master port ClassA and CalssB
Interface		
Ethernet protocol	CC-Link IE Field Basic	CC-Link IE Field Basic
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Default IP add network segment	192.168.3.*	
IPAddress setting	Supported,port number:61451(only network segments can be changed)	
Default subnet mask	255.255.255.0	255.255.255.0
Communication data format	binary system	binary system
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Module current(UB)	>8A	≤8A
Actuator current(UL)	—	≤8A
IO-Link port		
Number of ports	8 ports Class A	4 ports Class A+4 ports Class B
Process connection	M12 A-coded	M12 A-coded
Module/Sensor supply(UB)	max.2A ,supply from pin1	rated current 1A,max.2A per slot,supply from pin1 and pin3
	sum(C1 to C4) ≤4A,sum(C5 to C8) ≤4A	sum(C1 to C4) ≤4A, sum(C5 to C8) ≤4A
Aactuator supply(UL)	—	max.2A per slot,supply from pin2 and pin5
		sum(C1 and C2) ≤4A, sum(C5 and C6) ≤4A
Common I/O function	non-supported,pin 2 not used	—
IO-Link parameter		
SIO mode	non-supported(pin 4 cannot be used as common I/O)	
IO-Link definition	Pin 4 in IO-Link mode	Pin 4 in IO-Link mode
IO-Link port type	Class A	Class A(C3 C4 C7 C8)+Class B(C1 C2 C5 C6)
IO-Link specification	V1.1	V1.1
Frame type	Supports all specified frame types	Supports all specified frame types
Supported devices	Max.32Bytes Input/32Bytes Output per port	
Transmission rate	4.8kbps(COM1)/38.4kbps(COM2)/230.4kbps(COM3)	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

M12x1 Power Supply

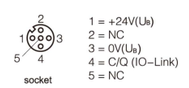


* Us is module power supply，UL is actuator supply
** UL of Class A module is not used inside,
it is unnecessary to connect it.
Ui to Uo is directly connected

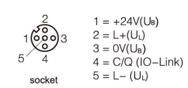
M12x1 Ethernet



IO-Link Class A M12x1

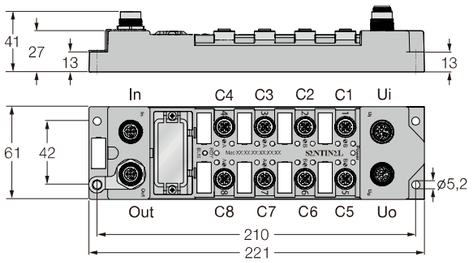


IO-Link Class B M12x1



IO-Link Master with EtherNet/IP interface

L-coded Power Supply,classA/classB

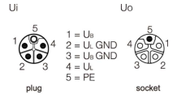


IP67 EtherNet/IP

- EtherNet/IP device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- 8 ports IO-Link Master
- IO-Link V1.1
- 5-pin M12,L-coded male connector for power supply
- IO-Link master port Class A or Class B
- Nickel-plated brass connector,Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection class IP67

Type	ELIP-8IOL-L001	ELIP-8IOL-L04B
Information	IO-Link Master port ClassA	IO-Link Master port ClassA and CalssB
Interface		
Ethernet protocol	EtherNet/IP	EtherNet/IP
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Default IP add network segment	192.168.3.*	192.168.3.*
IPAddress setting	Support DHCP	Support DHCP
Default subnet mask	255.255.255.0	255.255.255.0
Communication data format	binary system	binary system
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Module current(UB)	>8A	≤8A
Actuator current(UL)	—	≤8A
IO-Link port		
Number of ports	8 ports Class A	4 ports Class A+4 ports Class B
Process connection	M12 A-coded	M12 A-coded
Module/Sensor supply(UB)	max.2A ,supply from pin1	rated current 1A,max.2A per slot,supply from pin1 and pin3
	sum(C1 to C4) ≤4A,sum(C5 to C8) ≤4A	sum(C1 to C4) ≤4A, sum(C5 to C8) ≤4A
Aactuator supply(UL)	—	max.2A per slot,supply from pin2 and pin5
		sum(C1 and C2) ≤4A, sum(C5 and C6) ≤4A
Common I/O function	non-supported,pin 2 not used	—
IO-Link parameter		
SIO mode	non-supported(pin 4 cannot be used as common I/O)	
IO-Link definition	Pin 4 in IO-Link mode	Pin 4 in IO-Link mode
IO-Link port type	Class A	Class A(C3 C4 C7 C8)+Class B(C1 C2 C5 C6)
IO-Link specification	V1.1	V1.1
Frame type	Supports all specified frame types	Supports all specified frame types
Supported devices	Max.32Bytes Input/32Bytes Output per port	
Transmission rate	4.8kbps(COM1)/38.4kbps(COM2)/230.4kbps(COM3)	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

M12x1 Power Supply



* Us is module power supply，UL is actuator supply
** UL of Class A module is not used inside,
it is unnecessary to connect it.
Ui to Uo is directly connected

M12x1 Ethernet

1 = TD +(YE)
2 = RD +(WH)
3 = TD −(OG)
4 = RD −(BU)

IO-Link Class A M12x1

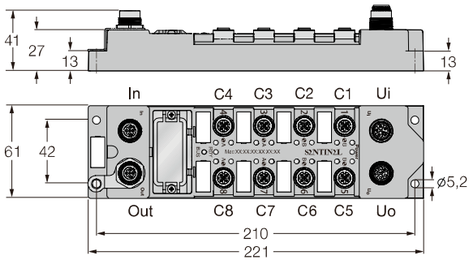
1 = +24V(Us)
2 = NC
3 = 0V(Us)
4 = C/Q (IO−Link)
5 = NC

IO-Link Class B M12x1

1 = +24V(Us)
2 = L+(UL)
3 = 0V(Us)
4 = C/Q (IO−Link)
5 = L− (UL)

IO-Link Master with Modbus TCP interface

L-coded Power Supply,classA/classB

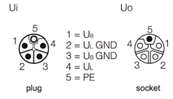


IP67

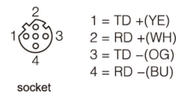
- Modbus TCP device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- 8 ports IO-Link Master
- IO-Link V1.1
- 5-pin M12,L-coded connector for power supply
- IO-Link master port Class A or Class B
- Nickel-plated brass connector,Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Protection class IP67

Type	ELMT-8IOL-L001	ELMT-8IOL-L04B
Information	IO-Link Master port ClassA	IO-Link Master port ClassA and CalssB
Interface		
Ethernet protocol	Modbus TCP	Modbus TCP
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Default IP add network segment	192.168.3.*	192.168.3.*
IPAddress setting	Support DHCP	Support DHCP
Default subnet mask	255.255.255.0	255.255.255.0
Communication data format	binary system	binary system
Cycle time range	2ms...2000ms	2ms...2000ms
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Module current(UB)	>8A	≤8A
Actuator current(UL)	—	≤8A
IO-Link port		
Number of ports	8 ports Class A	4 ports Class A+4 prots Class B
Process connection	M12 A-coded	M12 A-coded
Module/Sensor supply(UB)	max.2A ,supply from pin1	rated current 1A,max.2A per slot,supply from pin1 and pin3
	sum(C1 to C4) ≤4A,sum(C5 to C8) ≤4A	sum(C1 to C4) ≤4A, sum(C5 to C8) ≤4A
Aactuator supply(UL)	—	max.2A per slot,supply from pin2 and pin5
		sum(C1 and C2) ≤4A, sum(C5 and C6) ≤4A
Common I/O function	non-supported,pin 2 not used	—
IO-Link parameter		
SIO mode	non-supported(pin 4 cannot be used as common I/O)	
IO-Link definition	Pin 4 in IO-Link mode	Pin 4 in IO-Link mode
IO-Link port type	Class A	Class A(C3 C4 C7 C8)+Class B(C1 C2 C5 C6)
IO-Link specification	V1.1	V1.1
Frame type	Supports all specified frame types	Supports all specified frame types
Supported devices	Max.32Bytes Input/32Bytes Output per port	
Transmission rate	4.8kbps(COM1)/38.4kbps(COM2)/230.4kbps(COM3)	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

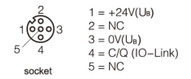
M12x1 Power Supply



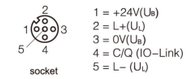
M12x1 Ethernet



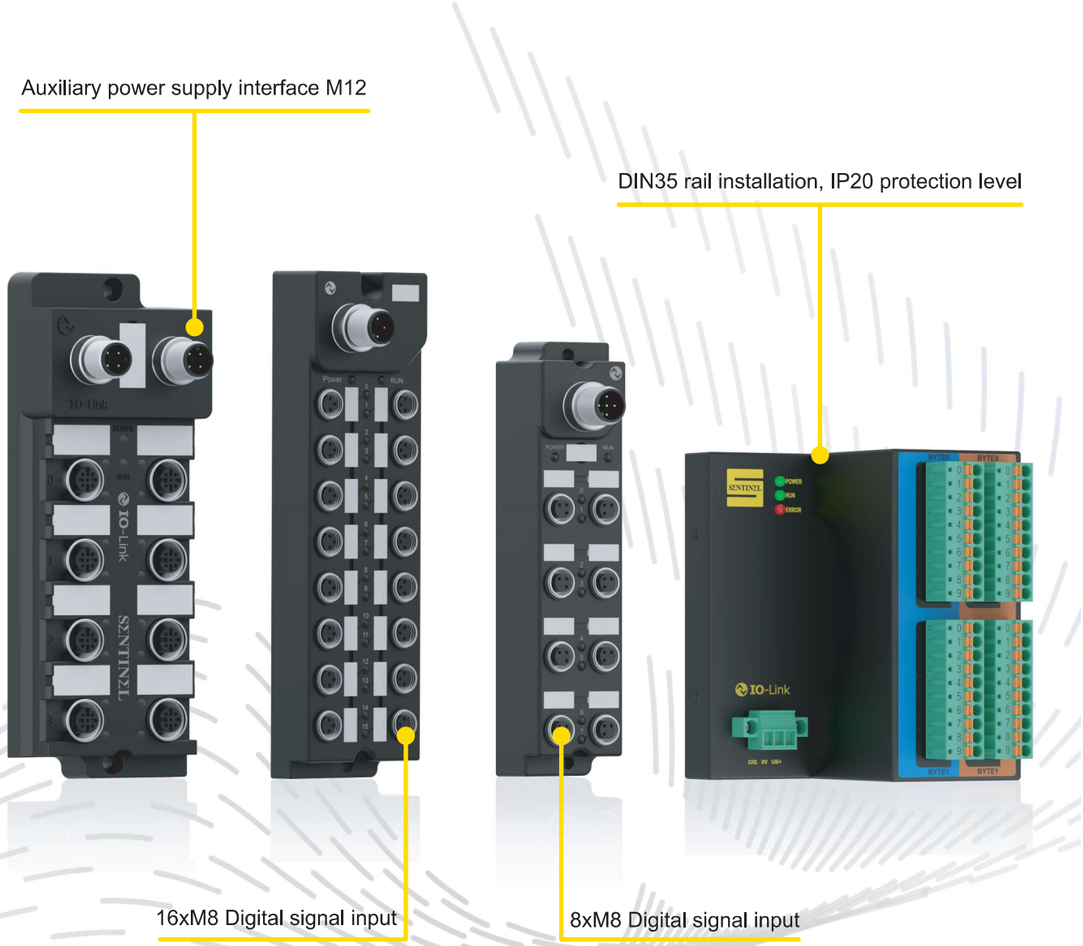
IO-Link Class A M12x1



IO-Link Class B M12x1



IO-Link Device



Pain Points

Traditional I/O systems have limited scalability, requiring new wiring for each expansion. Devices from different brands lack interoperability, making integration difficult.

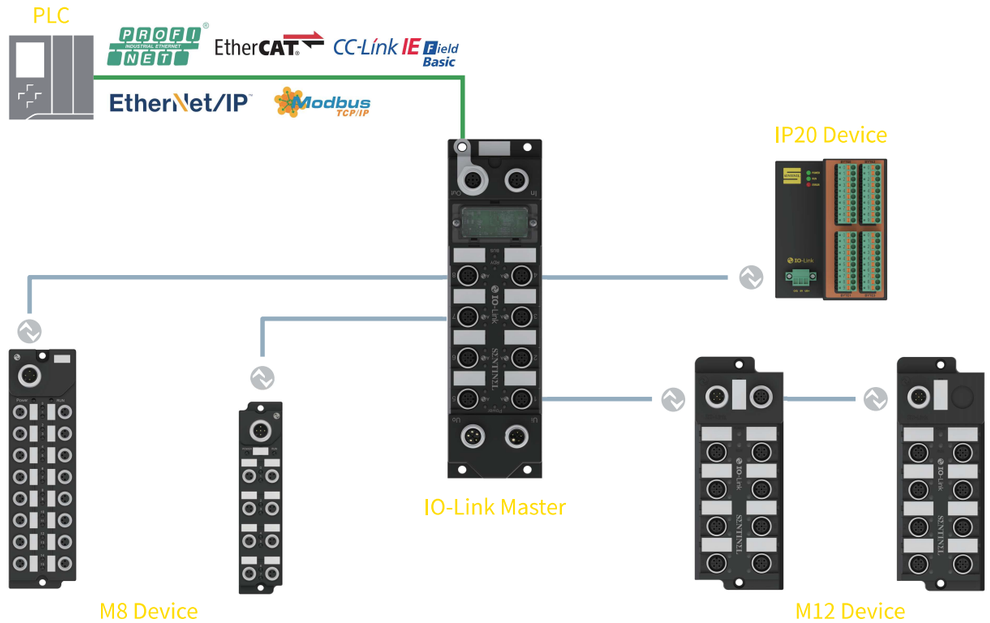
- Each additional I/O point needs separate cabling.
- Different protocols make cross-brand communication hard.
- Excessive cables take up space and complicate system design.

Advantages

IO-Link Devices support modular expansion, plug-and-play functionality, and high compatibility with various sensors and actuators, reducing wiring complexity.

- **Modular design, flexible I/O expansion.**
- **Plug-and-play, minimal setup time.**
- **High compatibility, supports various devices.**

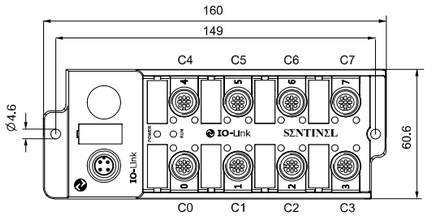
Solution



- Modular expansion to adapt to different devices.
- Unified management to improve system compatibility.

IO-Link M12 Device

16 digital inputs,Class A

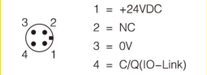


IP67 IO-Link

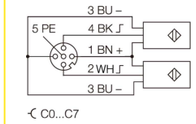
- IO-Link Device
- 16 digital inputs
- IO-Link V1.1 Calss A
- 2 digital channels per slot
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-16DIP	SIOL-M12-16DIN
Information	16 digital inputs,PNP	16 digital inputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Supply current	> 1.6A	> 1.6A
Inputs		
Number of inputs	16	16
Input type	PNP	NPN
Input impedance	3KΩ	3KΩ
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA	2mA/4mA
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A,SUM(C4 to C7)≤1.2A	
	SUM(C0 to C7) is limited to the max.current of the Master port	
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66066(0x010212)	66066(0x010212)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_2	TYPE_2_2
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

IO-Link M12x1

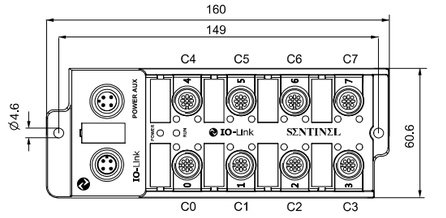


M12x1 Input



IO-Link M12 Device

16 digital outputs,Class A,max.1A per port



IP67 IO-Link

- IO-Link Device
- 16 digital outputs,max.1A
- IO-Link V1.1 Calss A
- 2 digital channels per slot
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-16DO	SIOL-M12-16DON
Information	16 digital outputs,PNP	16 digital outputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
AUX power current	> 8A	> 8A
Outputs		
Number of outputs	16	16
Output type	PNP	NPN
Output current	0.5A;max.1A;4A total(CO to C3);4A total(C4 to C7)	
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66082(0x010222)	66082(0x010222)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_4	TYPE_2_4
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

IO-Link M12x1

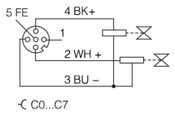
1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

POWER AUX M12x1

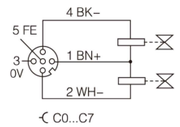
1 = UL+
2 = UR+
3 = UL−
4 = UR−

* Power Aux
UL+ and UL- supplie power to C0...C3 port
UR+ and UR-supplie power to C4...C7 port

M12x1 Output PNP

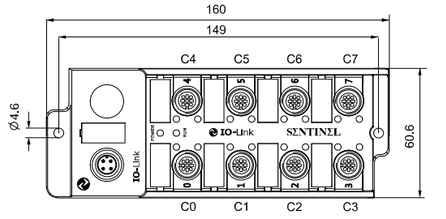


M12x1 Output NPN



IO-Link M12 Device

16 digital outputs,Class A,max.0.5A per port

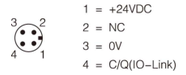


IP67 IO-Link

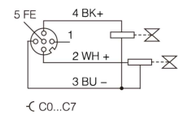
- IO-Link Device
- 16 digital outputs,max.0.5A
- module power supply shares with the load power supply
- IO-Link V1.1 Calss A
- 2 digital channels per slot
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12A-16DO	SIOL-M12A-16DON
Information	16 digital outputs,PNP	16 digital outputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A (UB UL) note:IO-Link Master provides power,Master parameters need to be considered	
Outputs		
Number of outputs	16	16
Output type	PNP	NPN
Output current	0.1A;max.0.5A;4A total(UL)	0.1A;max.0.5A;4A total(UL)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66082(0x010222)	66082(0x010222)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_4	TYPE_2_4
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

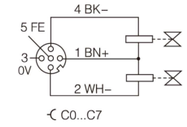
IO-Link M12x1



M12x1 Output PNP

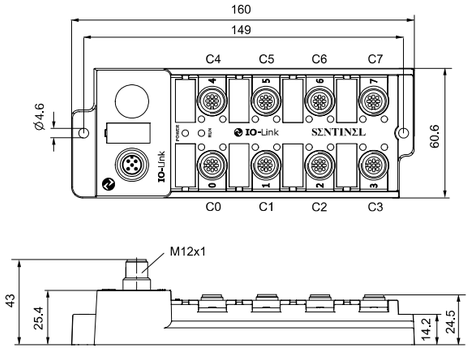


M12x1 Output NPN



IO-Link M12 Device

16 digital outputs,Class B,max.0.5A per port

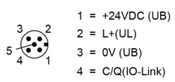


IP67 IO-Link

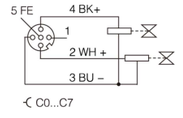
- IO-Link Device
- 16 digital outputs,max.0.5A
- IO-Link V1.1 Calss B
- 2 digital channels per slot
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12B-16DO	SIOL-M12B-16DON
Information	16 digital outputs,PNP	16 digital outputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A (UL) note:IO-Link Master provides power,Master parameters need to be considered	
Outputs		
Number of outputs	16	16
Output type	PNP	NPN
Output current	0.1A;max.0.5A;4A total(UL)	0.1A;max.0.5A;4A total(UL)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66082(0x010222)	66082(0x010222)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class B	Class B
Frame type	TYPE_2_4	TYPE_2_4
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

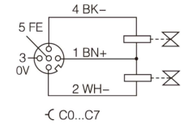
IO-Link M12x1



M12x1 Output PNP

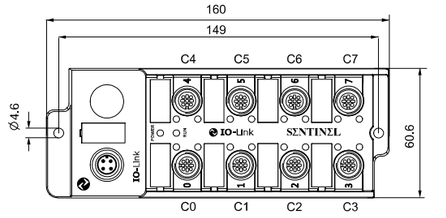


M12x1 Output NPN



IO-Link M12 Device

IN/OUT Self-Adaption Class A I/O Module



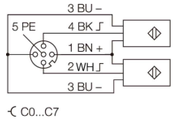
IP67 IO-Link

- 16-channel digital input, M12, 5-pin
- 16-channel 0.2A digital output
- IO-Link V1.1
- IO-Link class A, M12, A-code
- Shared power supply for module and load
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

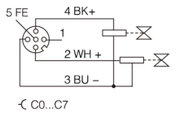
Type	SIOL-M12A-16SAP	SIOL-M12A-16SAN
Information	16 PNP Input or 16 PNP Output	16 NPN Input or 16 NPN Output
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A(UL UB) note:IO-Link Master provides power,Master parameters need to be considered	
Inputs		
Number of inputs	16(c0-c7)	16(c0-c7)
Input type	PNP	NPN
Input impedance	3K	3K
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA 7V/11V	2mA/4mA 7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A;SUM(C4 to C7)≤1.2A;The total C0-C7 current is limited to the maximum current of the Master port	
Outputs		
Number of outputs	16(c0-c7)	16(c0-c7)
Output type	PNP	NPN
Output current	0.2A;Max.0.5A;(Total max current<4A)	0.2A;Max.0.5A;(Total max current<4A)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66128 (0x010250)	66128 (0x010250)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	4000us	4000us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

IO-Link M12x1

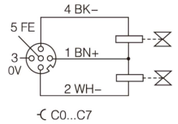
M12x1 Input



M12x1 Output PNP

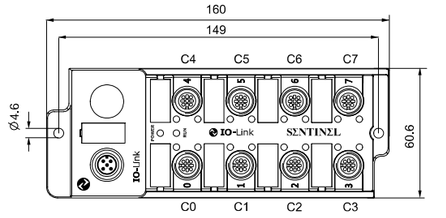


M12x1 Output NPN



IO-Link M12 Device

IN/OUT Self-Adaption Class B I/O Module

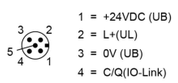


CE IP67 IO-Link

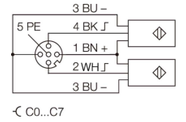
- 16-channel digital input, M12, 5-pin
- 16-channel 0.2A digital output
- IO-Link V1.1
- IO-Link class B, M12, A-code
- Shared power supply for module and load
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12B-16SAP	SIOL-M12B-16SAN
Information	16 PNP Input or 16 PNP Output	16 NPN Input or 16 NPN Output
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A(UL UB) note:IO-Link Master provides power,Master parameters need to be considered	
Inputs		
Number of inputs	16(c0-c7)	16(c0-c7)
Input type	PNP	NPN
Input impedance	3K	3K
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA 7V/11V	2mA/4mA 7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A;SUM(C4 to C7)≤1.2A;The total C0-C7 current is limited to the maximum current of the Master port	
Outputs		
Number of outputs	16(c0-c7)	16(c0-c7)
Output type	PNP	NPN
Output current	0.2A;Max.0.5A;(Total max current<4A)	0.2A;Max.0.5A;(Total max current<4A)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66128 (0x010250)	66128 (0x010250)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class B	Class B
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	4000us	4000us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

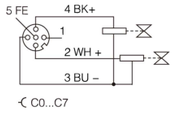
IO-Link M12x1



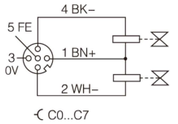
M12x1 Input



M12x1 Output PNP

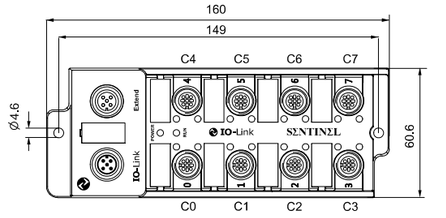


M12x1 Output NPN



IO-Link M12 Device

Self-Adaption and extend Class A I/O Module

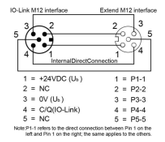


IP67 IO-Link

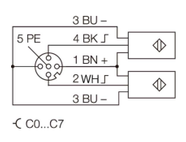
- 16-channel digital input, M12, 5-pin
- 16-channel 0.2A digital output
- IO-Link V1.1
- IO-Link class A, M12, A-code
- Shared power supply for module and load
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12A-16SAP/EX	SIOL-M12A-16SAN/EX
Information	16 PNP Input or 16 PNP Output	16 NPN Input or 16 NPN Output
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A(UL UB) note:IO-Link Master provides power,Master parameters need to be considered	
Inputs		
Number of inputs	16(c0-c7)	16(c0-c7)
Input type	PNP	NPN
Input impedance	3K	3K
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA 7V/11V	2mA/4mA 7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A;SUM(C4 to C7)≤1.2A;The total C0-C7 current is limited to the maximum current of the Master port	
Outputs		
Number of outputs	16(c0-c7)	16(c0-c7)
Output type	PNP	NPN
Output current	0.2A;Max.0.5A;(Total max current<4A)	0.2A;Max.0.5A;(Total max current<4A)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66148 (0x010264)	66148 (0x010264)
Number of ports	2	2
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM3 230.4 kbit/s	COM3 230.4 kbit/s
Mincycle time	3200us	3200us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

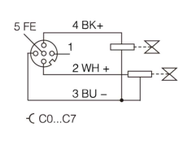
IO-Link M12x1



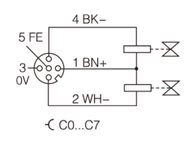
M12x1 Input



M12x1 Output PNP

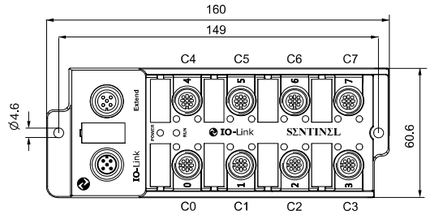


M12x1 Output NPN



IO-Link M12 Device

Self-Adaption and extend Class B I/O Module

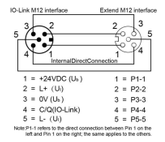


IP67 IO-Link

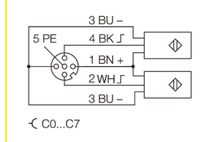
- 16-channel digital input, M12, 5-pin
- 16-channel 0.2A digital output
- IO-Link V1.1
- IO-Link class B, M12, A-code
- Shared power supply for module and load
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12B-16SAP/EX	SIOL-M12B-16SAN/EX
Information	16 PNP Input or 16 PNP Output	16 NPN Input or 16 NPN Output
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Actuator supply	≤4A(UL UB) note:IO-Link Master provides power,Master parameters need to be considered	
Inputs		
Number of inputs	16(c0-c7)	16(c0-c7)
Input type	PNP	NPN
Input impedance	3K	3K
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA 7V/11V	2mA/4mA 7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A;SUM(C4 to C7)≤1.2A;The total C0-C7 current is limited to the maximum current of the Master port	
Outputs		
Number of outputs	16(c0-c7)	16(c0-c7)
Output type	PNP	NPN
Output current	0.2A;Max.0.5A;(Total max current<4A)	0.2A;Max.0.5A;(Total max current<4A)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66148 (0x010264)	66148 (0x010264)
Number of ports	2	2
IO-Link specification	V1.1	V1.1
IO-Link port type	Class B	Class B
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM3 230.4 kbit/s	COM3 230.4 kbit/s
Mincycle time	3200us	3200us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

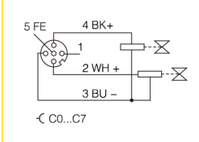
IO-Link M12x1



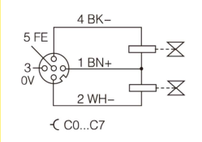
M12x1 Input



M12x1 Output PNP

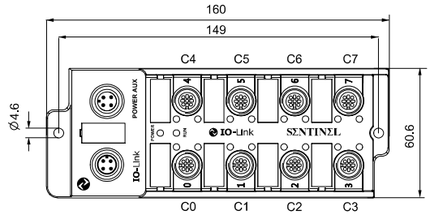


M12x1 Output NPN



IO-Link M12 Device

8inputs+8outputs,Class A ,max.1A per port

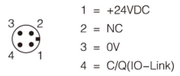


IP67 IO-Link

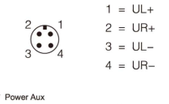
- IO-Link Device
- 8 digital inputs
- 8 digital outputs,max.1A
- IO-Link V1.1 Class A
- 2 digital channels per slot
- Fully potted module electronics
- Protection calss IP67

Type	SIOL-M12-8DIOP	SIOL-M12-8DION	SIOL-M12-8DIOPN	SIOL-M12-8DIONN
Information	8 PNP inputs+8 PNP outputs	8 NPN inputs+8 PNP outputs	8 PNP inputs+8 NPN outputs	8 NPN inputs+8 NPN outputs
Electrical data				
Supply Voltage	24VDC±10%	24VDC±10%	24VDC±10%	24VDC±10%
Operating current	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)
AUX power current	> 8A	> 8A	> 8A	> 8A
Inputs				
Number of inputs	8(C0-C3)	8(C0-C3)	8(C0-C3)	8(C0-C3)
Input type	PNP	NPN	PNP	NPN
Input impedance	3KΩ	3KΩ	3KΩ	3KΩ
Input rated current	7mA	7mA	7mA	7mA
Input delay	3ms	3ms	3ms	3ms
Switch threshold	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A		max.150mA;SUM(C0 to C3)≤1.2A	
Outputs				
Number of outputs	8(C4-C7)	8(C4-C7)	8(C4-C7)	8(C4-C7)
Output type	PNP	PNP	NPN	NPN
Output current	0.5A;max.1A;4A total(C4 to C7)		0.5A;max.1A;4A total(C4 to C7)	
Protection	overload/overheat protection	overload/overheat protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms	20ms	20ms
Switching frequency	100HZ	100HZ	100HZ	100HZ
Output voltage drop	0.6V	0.6V	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
IO-Link				
Vendor ID	1317(0x0525)	1317(0x0525)	1317(0x0525)	1317(0x0525)
Device ID	66144(0x010260)	66144(0x010260)	66144(0x010260)	66144(0x010260)
Number of ports	1	1	1	1
IO-Link specification	V1.1	V1.1	V1.1	V1.1
IO-Link port type	Class A	Class A	Class A	Class A
Frame type	TYPE_2_5	TYPE_2_5	TYPE_2_5	TYPE_2_5
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us	2400us	2400us
ISDU(indexs ervice)	supported	supported	supported	supported
Block parameter operation	non-supported	non-supported	non-supported	non-supported
Data storage(DS)	supported	supported	supported	supported
Data store lock	supported *This function is supported for compatibility,but the device will not perform this operation.			
Operating temperature	-20…55°C	-20…55°C	-20…55°C	-20…55°C
Protection class	IP67	IP67	IP67	IP67

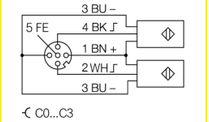
IO-Link M12x1



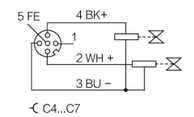
POWER AUX M12x1



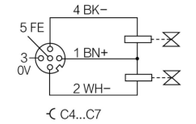
M12x1 Input



M12x1 Output PNP

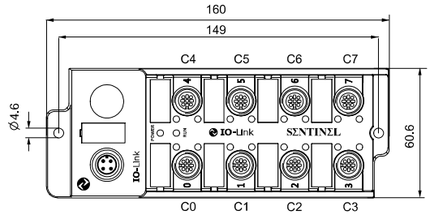


M12x1 Output NPN



IO-Link M12 Device

8inputs+8outputs,Class A ,max. 0.5A per port



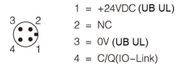
IP67 IO-Link

- IO-Link Device
- 8 digital inputs
- 8 digital outputs,max. 0.5A
- IO-Link V1.1 Class A
- 2 digital channels per slot
- Fully potted module electronics
- Protection calss IP67

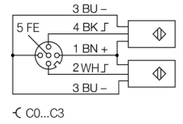



Type	SIOL-M12A-8DIOP	SIOL-M12A-8DION	SIOL-M12A-8DIOPN	SIOL-M12A-8DIONN
Information	8 PNP inputs+8 PNP outputs	8 NPN inputs+8 PNP outputs	8 PNP inputs+8 NPN outputs	8 NPN inputs+8 NPN outputs
Electrical data				
Supply Voltage	24VDC±10%	24VDC±10%	24VDC±10%	24VDC±10%
Operating current	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)
Module/Load supply	≤4A(UB UL) note:IO-Link Master provides power,Master parameters need to be considered			
Inputs				
Number of inputs	8(C0-C3)	8(C0-C3)	8(C0-C3)	8(C0-C3)
Input type	PNP	NPN	PNP	NPN
Input impedance	3KΩ	3KΩ	3KΩ	3KΩ
Input rated current	7mA	7mA	7mA	7mA
Input delay	3ms	3ms	3ms	3ms
Switch threshold	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
SensorSupply	max.150mA;SUM(C0 to C3)≤1.2A		max.150mA;SUM(C0 to C3)≤1.2A	
Outputs				
Number of outputs	8(C4-C7)	8(C4-C7)	8(C4-C7)	8(C4-C7)
Output type	PNP	PNP	NPN	NPN
Output current	0.2A;max.0.5A;4A total(C4 to C7)		0.2A;max.0.5A;4A total(C4 to C7)	
Protection	overload/overheat protection	overload/overheat protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms	20ms	20ms
Switching frequency	100HZ	100HZ	100HZ	100HZ
Output voltage drop	0.6V	0.6V	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
IO-Link				
Vendor ID	1317(0x0525)	1317(0x0525)	1317(0x0525)	1317(0x0525)
Device ID	66144(0x010260)	66144(0x010260)	66144(0x010260)	66144(0x010260)
Number of ports	1	1	1	1
IO-Link specification	V1.1	V1.1	V1.1	V1.1
IO-Link port type	Class A	Class A	Class A	Class A
Frame type	TYPE_2_5	TYPE_2_5	TYPE_2_5	TYPE_2_5
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us	2400us	2400us
ISDU(indexs ervice)	supported	supported	supported	supported
Block parameter operation	non-supported	non-supported	non-supported	non-supported
Data storage(DS)	supported	supported	supported	supported
Data store lock	supported *This function is supported for compatibility,but the device will not perform this operation.			
Operating temperature	-20…55°C	-20…55°C	-20…55°C	-20…55°C
Protection class	IP67	IP67	IP67	IP67

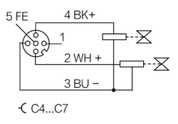
IO-Link M12x1



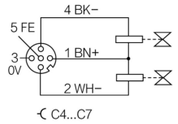
M12x1 Input



M12x1 Output PNP

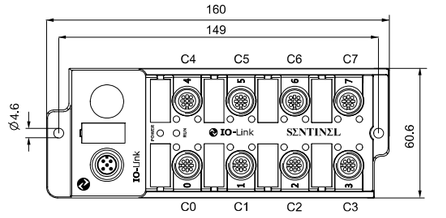


M12x1 Output NPN



IO-Link M12 Device

8inputs+8outputs,Class B ,max. 0.5A per port



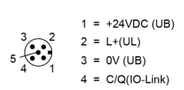
IP67 IO-Link

- IO-Link Device
- 8 digital inputs
- 8 digital outputs,max. 0.5A
- IO-Link V1.1 Class B
- 2 digital channels per slot
- Fully potted module electronics
- Protection calss IP67

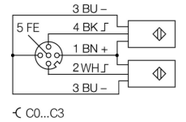



Type	SIOL-M12B-8DIOP	SIOL-M12B-8DION	SIOL-M12B-8DIOPN	SIOL-M12B-8DIONN
Information	8 PNP inputs+8 PNP outputs	8 NPN inputs+8 PNP outputs	8 PNP inputs+8 NPN outputs	8 NPN inputs+8 NPN outputs
Electrical data				
Supply Voltage	24VDC±10%	24VDC±10%	24VDC±10%	24VDC±10%
Operating current	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)	< 100mA(UB)
Load supply	≤4A(UL) note:IO-Link Master provides power,Master parameters need to be considered			
Inputs				
Number of inputs	8(C0-C3)	8(C0-C3)	8(C0-C3)	8(C0-C3)
Input type	PNP	NPN	PNP	NPN
Input impedance	3KΩ	3KΩ	3KΩ	3KΩ
Input rated current	7mA	7mA	7mA	7mA
Input delay	3ms	3ms	3ms	3ms
Switch threshold	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V	2mA/4mA,7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
SensorSupply	max.150mA;SUM(C0 to C3)≤1.2A		max.150mA;SUM(C0 to C3)≤1.2A	
Outputs				
Number of outputs	8(C4-C7)	8(C4-C7)	8(C4-C7)	8(C4-C7)
Output type	PNP	PNP	NPN	NPN
Output current	0.2A;max.0.5A;4A total(UL)		0.2A;max.0.5A;4A total(UL)	
Protection	overload/overheat protection	overload/overheat protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms	20ms	20ms
Switching frequency	100HZ	100HZ	100HZ	100HZ
Output voltage drop	0.6V	0.6V	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation	optocoupler isolation
IO-Link				
Vendor ID	1317(0x0525)	1317(0x0525)	1317(0x0525)	1317(0x0525)
Device ID	66144(0x010260)	66144(0x010260)	66144(0x010260)	66144(0x010260)
Number of ports	1	1	1	1
IO-Link specification	V1.1	V1.1	V1.1	V1.1
IO-Link port type	Class B	Class B	Class B	Class B
Frame type	TYPE_2_5	TYPE_2_5	TYPE_2_5	TYPE_2_5
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us	2400us	2400us
ISDU(indexs ervice)	supported	supported	supported	supported
Block parameter operation	non-supported	non-supported	non-supported	non-supported
Data storage(DS)	supported	supported	supported	supported
Data store lock	supported *This function is supported for compatibility,but the device will not perform this operation.			
Operating temperature	-20…55°C	-20…55°C	-20…55°C	-20…55°C
Protection class	IP67	IP67	IP67	IP67

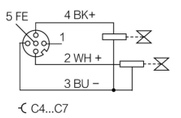
IO-Link M12x1



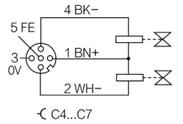
M12x1 Input



M12x1 Output PNP

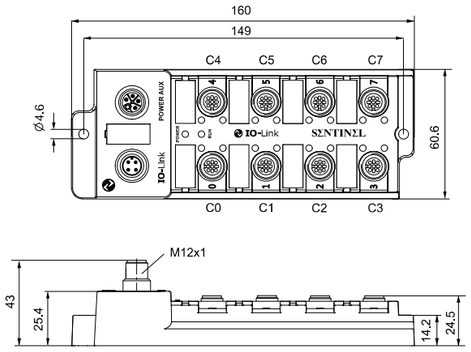


M12x1 Output NPN



IO-Link M12 Device

8 Digital outputs,Class A,max.2A per port



IP67 IO-Link

- IO-Link Device
- 8 digital outputs,max.2A
- IO-Link V1.1 Calss A
- 1 digital channels per slot
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-8DO
Information	8 digital outputs,PNP
Electrical data	
Supply Voltage	24VDC ± 10%
Operating current	< 100mA
AUX power current	> 16A
Outputs	
Number of outputs	8(C0...C7,Pin4)
Output type	PNP
Output current	2A
Protection	overload/overheat protection
Response time	20ms
Switching frequency	100HZ
Output voltage drop	0.6V
Electrical isolation	optocoupler isolation
IO-Link	
Vendor ID	1317(0x0525)
Device ID	66082(0x010222)
Number of ports	1
IO-Link specification	V1.1
IO-Link port type	Class A
Frame type	TYPE_2_5
Transmission rate	COM2 38.4 kbit/s
Mincycle time	2400us
ISDU(index service)	supported
Block parameter operation	non-supported
Data storage(DS)	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.
Operating temperature	-20...55°C
Protection class	IP67

IO-Link M12x1

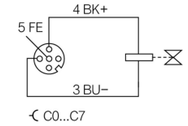
1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

POWER AUX M12x1

1 = +24VDC (U1)
2 = GND
3 = GND
4 = +24VDC (U2)

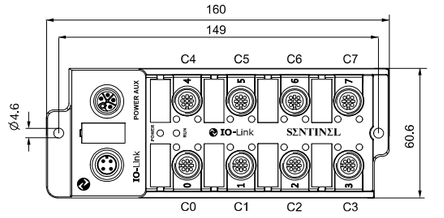
* Power Aux
U1: supplies power to C0...C3 port
U2: supplies power to C4...C7 port

M12x1 Output



IO-Link M12 Device

8inputs+4outputs,Class A,max.2A per port



IP67 IO-Link

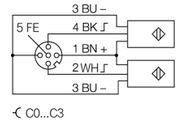
- IO-Link Device
- 8 digital inputs
- 4 digital outputs,max.2A
- IO-Link V1.1 Calss A
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-8DI4OP	SIOL-M12-8DI4ON
Information	8 PNP inputs+4 PNP outputs	8 NPN inputs+4 PNP outputs
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
AUX power current	> 8A	> 8A
Inputs		
Number of Inputs	8(C0-C3)	8(C0-C3)
INput type	PNP	NPN
Input impedance	3KΩ	3KΩ
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA,7V/11V	2mA/4mA,7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA;SUM(C0 to C3)≤1.2A	
Outputs		
Number of outputs	4(C4-C7,Pin4)	4(C4-C7,Pin4)
Output type	PNP	PNP
Output current	2A	2A
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66144(0x010260)	66144(0x010260)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_5	TYPE_2_5
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

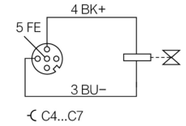
IO-Link M12x1

POWER AUX M12x1

M12x1 Input

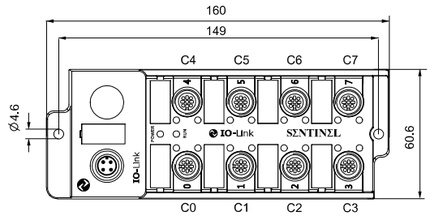


M12x1 Output



IO-Link M12 Device

8 analog inputs,Class A



IP67 IO-Link

- IO-Link Device
- 8 analog input,0-10V
- 8 analog input,4-20mA/0-20mA
- IO-Link V1.1 Calss A
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-8VI	SIOL-M12-8AI
Information	8 voltage inputs	8 current inputs
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA(UB)	< 100mA(UB)
Max Current Consumption	2.4A (related to the connected sensor)	2.4A (related to the connected sensor)
Analog Input		
Number of inputs	8	8
Input type	0-10V analog input	4-20mA/0-20mA analog input
Input resolution	≤13bit	≤14bit
Max input range	0-12V	0-22mA
Input impedance	1MΩ	——
Sensor current	max.300mA;SUM(C0 to C3)≤1.2A;SUM(C4 to C7)≤1.2A;	
	C0-C7 total current is limited by the maximum current of the Master port	
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	66112(0x010240)	66096(0x010230)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
IO-Link input byte	16bytes(2bytes per port)	16bytes(2bytes per port)
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM3 230.4 kbit/s	COM3 230.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

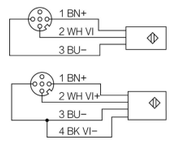
IO-Link M12x1

1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

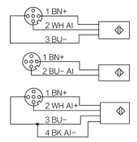
M12x1 Input

1 = +24V(sensor)
2 = VIorAI
3 = 0V
4 = NC
5 = NC

Sensor connection mode voltage

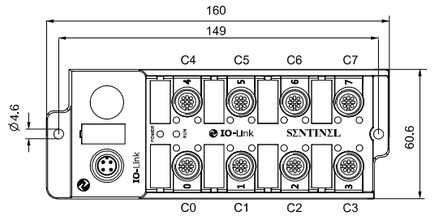


Sensor connection mode current



IO-Link M12 Device

8-Channel Pt100 Input

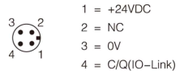


CE IP67 IO-Link

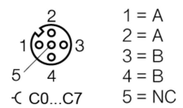
- IO-Link remote RTD device
- 8-channel Pt100 input, M12, 5-pin
- IO-Link V1.1
- IO-Link class A, M12, A-code
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M12-8PT12
Information	8-Channel Pt100 Input
Electrical data	
Supply Voltage	24VDC ± 10%
Operating current	< 100mA
RTD Input	
Number of inputs	8
Input type	Pt100, 2/3/4
Connectivity type	M12, 5-pin
Measuring range	-200...600°C
Input accuracy	±0.5°C
IO-Link	
Vendor ID	1317(0x0525)
Device ID	66104 (0x010238)
Number of ports	1
IO-Link specification	V1.1
IO-Link port type	Class A
IO-Link input bytes	16 bytes(Each channel Pt100 occupies 2 bytes)
Frame type	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s
Minimum cycle time	8400us
ISDU(index service)	supported
Block parameter operation	non-supported
Data storage(DS)	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.
Operating temperature	-20...55°C
Protection class	IP67

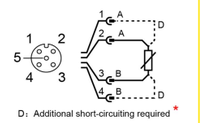
IO-Link M12x1



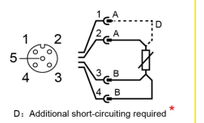
M12x1 Input



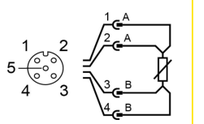
Pt100 Two-wire



Pt100 Three-wire



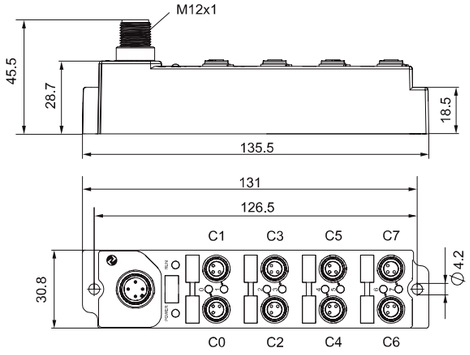
Pt100 Four-wire



It's recommended to short-circuit the PT100 side. Short-circuiting at the module input will reduce sensor accuracy.

IO-Link M8 Device

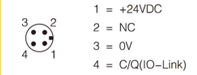
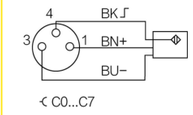
8 digital inputs,Class A



IP67 IO-Link

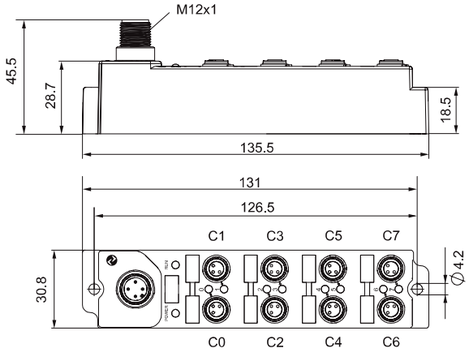
- IO-Link Device
- 8 digital outputs,M8 3-pin
- IO-Link V1.1 Calss A
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M8-8DIP	SIOL-M8-8DIN
Information	8 digital inputs,PNP	8 digital inputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA(UB)	< 100mA(UB)
Max.Supply current	1.4A	1.4A
Intputs		
Number of inputs	8	8
Input type	PNP	NPN
Input impedance	3KΩ	3KΩ
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA	2mA/4mA
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA	max.150mA
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	65808(0x010110)	65808(0x010110)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_1	TYPE_2_1
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	4000us	4000us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

IO-Link M12x1	M8x1 Input
 1 = +24VDC 2 = NC 3 = 0V 4 = C/Q(IO-Link)	

IO-Link M8 Device

8 digital outputs,Class A

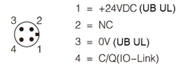


IP67 IO-Link

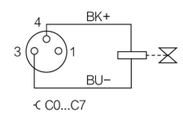
- IO-Link Device
- 8 digital outputs,M8 3-pin
- IO-Link V1.1 Calss A
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M8A-8DO	SIOL-M8A-8DON
Information	8 digital outputs,PNP	8 digital outputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA(UB)	< 100mA(UB)
Module/Load supply	≤4A (UB UL) note:IO-Link Master provides power,Master parameters need to be considered	
Outputs		
Number of outputs	8	8
Output type	PNP	NPN
Output current	0.2A;max.0.5A;4A total(UL)	0.2A;max.0.5A;4A total(UL)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	65824(0x010120)	65824(0x010120)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_3	TYPE_2_3
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

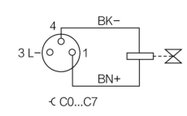
IO-Link M12x1



M8x1 Output PNP

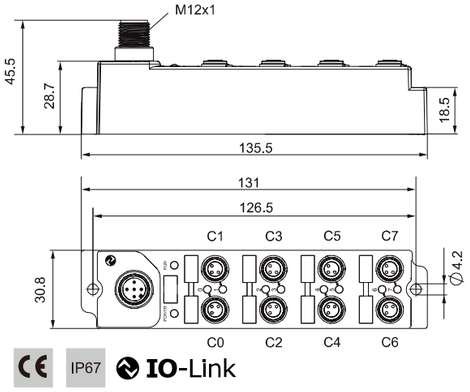


M8x1 Output NPN



IO-Link M8 Device

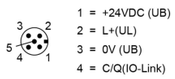
8 digital outputs,Class B



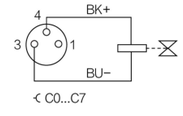
- IO-Link Device
- 8 digital outputs,M8 3-pin
- Output current max0.5A per port
- IO-Link V1.1 Calss B
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M8B-8DO	SIOL-M8B-8DON
Information	8 digital outputs,PNP	8 digital outputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA(UB)	< 100mA(UB)
Module/Load supply	≤4A (UB UL) note:IO-Link Master provides power,Master parameters need to be considered	
Outputs		
Number of outputs	8	8
Output type	PNP	NPN
Output current	0.2A;max.0.5A;4A total(UL)	0.2A;max.0.5A;4A total(UL)
Protection	overload/overheat protection	overload/overheat protection
Response time	20ms	20ms
Switching frequency	100HZ	100HZ
Output voltage drop	0.6V	0.6V
Electrical isolation	optocoupler isolation	optocoupler isolation
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	65824(0x010120)	65824(0x010120)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class B	Class B
Frame type	TYPE_2_3	TYPE_2_3
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

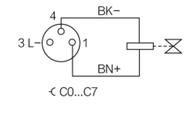
IO-Link M12x1



M8x1 Output PNP

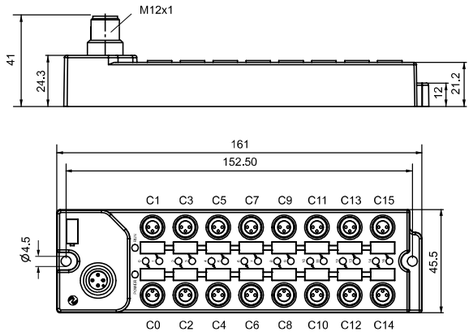


M8x1 Output NPN



IO-Link M8 Device

16 digital inputs,Class A



IP67 IO-Link

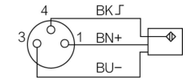
- IO-Link Device
- 16 digital input,M8 3-pin
- IO-Link V1.1
- IO-Link class A, M12, A-code
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

Type	SIOL-M8-16DIP	SIOL-M8-16DIN
Information	16 digital inputs,PNP	16 digital inputs,NPN
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 100mA	< 100mA
Maximum Supply current	1.4A	1.4A
Inputs		
Number of inputs	16	16
Input type	PNP	NPN
Input impedance	3KΩ	3KΩ
Input rated current	7mA	7mA
Input delay	3ms	3ms
Switch threshold	2mA/4mA 7V/11V	2mA/4mA 7V/11V
Electrical isolation	optocoupler isolation	optocoupler isolation
Sensor Supply	max.150mA	
	SUM(C0 to C15) is limited to the max.current of the Master port	
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	65810 (0x010112)	65810 (0x010112)
Number of ports	1	1
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
Frame type	TYPE_2_2	TYPE_2_2
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	2400us	2400us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20...55°C	-20...55°C
Protection class	IP67	IP67

IO-Link M12x1

1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

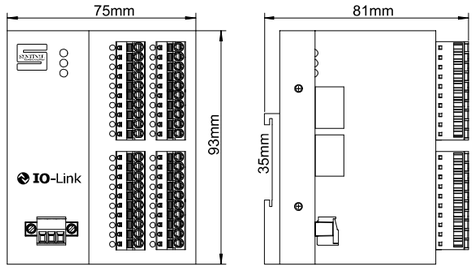
M8x1 Input



C0...C15

IO-Link Terminal connection type Device

32DI/32DO/16DI+16DO,Class A

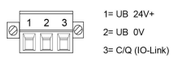


IP20 IO-Link

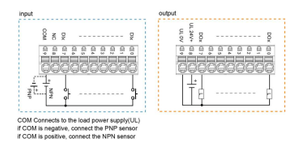
- IO-Link Device
- 32 digital inputs,PNP or NPN
- 32 digital outputs,max 0.2A
- Metal housing,DIN-rail mounting
- Protection class IP20
- I/O signals connect via spring-clip pluggable terminals
- 4 groups of I/O power supply, independent configuration

Type	SIOL-TL-32DI	SIOL-TL-32DO	SIOL-TL-16DIO
Information	32 digital inputs	32 digital outputs	16 inputs + 16 outputs
Electrical data			
Supply Voltage	24VDC±10%	24VDC±10%	24VDC±10%
Operating current	<100mA(UB)	<100mA(UB)	<100mA(UB)
Module/Actuator supply		UB and UL are internally isolated,separate supply	
Load power group		4 groups,separate supply	
Inputs			
Number of inputs	32	——	16
Input type	PNP or NPN	——	PNP or NPN
Input impedance	3KΩ	——	3KΩ
Input rated current	7mA	——	7mA
Input delay	3ms	——	3ms
Switch threshold	2mA/4mA,7V/11V	——	2mA/4mA,7V/11V
Electrical isolation	optocoupler isolation	——	optocoupler isolation
Outputs			
Number of outputs	——	32	16
Output type	——	PNP	PNP
Output current	——	0.2A	0.2A
Protection	——	overload/overheat protection	overload/overheat protection
Response time	——	20ms	20ms
Switching frequency	——	100HZ	100HZ
Output voltage drop	——	0.6V	0.6V
Electrical isolation	——	optocoupler isolation	optocoupler isolation
IO-Link			
Vendor ID	1317(0x0525)	1317(0x0525)	1317(0x0525)
Device ID	66321(0x010311)	66337(0x010321)	66384(0x010350)
Number of ports	1	1	1
IO-Link specification	V1.1	V1.1	V1.1
IO-Link port type	Class A	Class A	Class A
Frame type	TYPE_2_V	TYPE_2_V	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Mincycle time	4000us	4000us	4000us
ISDU(indexs ervice)	supported	supported	supported
Block parameter operation	non-supported	non-supported	non-supported
Data storage(DS)	supported(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility,but the device will not perform this operation.		
Operating temperature	-20…55°C	-20…55°C	-20…55°C
Protection class	IP20	IP20	IP20

Power Supply

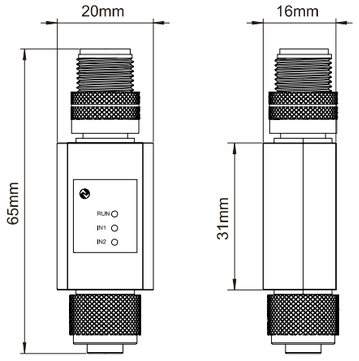


Wiring diagram



IO-Link converter

Current/Voltage Analog Input



IP65 IO-Link

- IO-Link Device Converter
- Current/Voltage Analog Input, M12 4-hole
- IO-Link Protocol Specification V1.1
- 4-pin M12 A-coded IO-Link Standard Class A Interface
- Semi-transparent housing, visible when the status LED is on

Type	CIOL-2AI-SC	CIOL-2VI-SC
Information	2-channel 4-20mA / 0-20mA Input	1-channel 0-10V Input
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 50mA	< 50mA
Supply current to the sensor	Maximum 500 mA (Note: supplied externally via pins 1 and 3 of the M12 hole)	
Analog Input		
Number of inputs	2	2
Connectivity type	M12,A-coded,4-pin	M12,A-coded,4-pin
Input type	4-20mA/0-20mA analog input	0-10V analog input
Input resolution	≤12bit	≤12bit
Measurement accuracy	0.5%F.S	0.5%F.S
Data format	data in uA	data in mV
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	262673(0x040211)	262673(0x040211)
Number of ports	1(M12 A-coded 4-pin)	1(M12 A-coded 4-pin)
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
IO-Link input bytes	4 bytes	4 bytes
Frame type	TYPE_2_V	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Minimum cycle time	4000us	4000us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-25...80°C	

IO-Link M12x1

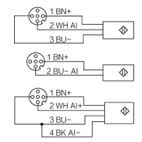
1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

Input M12x1

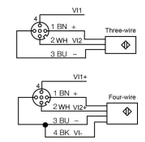
1 = +24VDC(Sensor)
2 = IN2
3 = 0V
4 = IN1

Note:
IN1: analog input channel 1
IN2: analog input channel 2

Sensor connector (current)

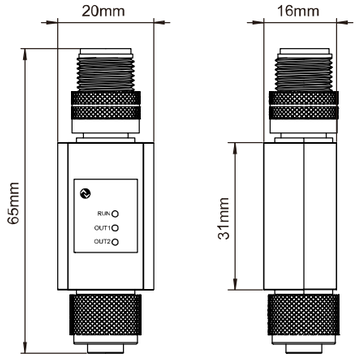


Sensor connector (voltage)



IO-Link converter

Current/Voltage Analog Output



IP65 IO-Link

- IO-Link Device Converter
- Current/Voltage Analog Output, M12 4-hole
- IO-Link Protocol Specification V1.1
- 4-pin M12 A-coded IO-Link Standard Class A Interface
- Semi-transparent housing, visible when the status LED is on

Type	CIOL-1AO-SC	CIOL-2VO-SC
Information	1-channel 4-20mA / 0-20mA Output	2-channel 0-10V Output
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 50mA	< 50mA
Supply current to the sensor	Maximum 500 mA (Note: supplied externally via pins 1 and 3 of the M12 hole)	
Analog Output		
Number of outputs	1	2
Connectivity type	M12,A-coded,4-hole	M12,A-coded,4-hole
Output type	4-20mA/0-20mA analog output	0-10V analog input
Output resolution	≤12bit	≤12bit
Measurement accuracy	0.1%F.S	0.5%F.S
Data format	data in uA	data in mV
Maximum load for analog output	500Ω	-
Minimum load impedance	-	4.7KΩ
IO-Link		
Vendor ID	1317(0x0525)	1317(0x0525)
Device ID	262690(0x040222)	262690(0x040222)
Number of ports	1(M12 A-coded,4-pin)	1(M12 A-coded,4-pin)
IO-Link specification	V1.1	V1.1
IO-Link port type	Class A	Class A
IO-Link input bytes	2 bytes	4 bytes
Frame type	TYPE_2_4	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s	COM2 38.4 kbit/s
Minimum cycle time	2400us	4000us
ISDU(index service)	supported	supported
Block parameter operation	non-supported	non-supported
Data storage(DS)	supported	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-25...80°C	-25...80°C

IO-Link M12x1

1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

Current output connector

1 = +24VDC
2 = OUT1
3 = 0V
4 = NC

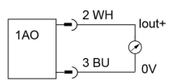
Note:
OUT1:Analog output channel
NC:Not connected

Voltage output connector

1 = +24VDC
2 = OUT2
3 = 0V
4 = OUT1

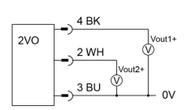
Note:
OUT1, OUT2: Analog output channels

Sensor connector (current)



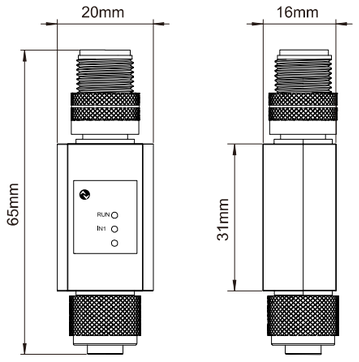
Three-wire 4–20 mA output

Sensor connector (voltage)



IO-Link converter

Single-channel Pt100 input

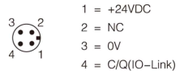


IP65 IO-Link

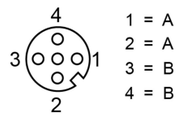
- IO-Link Device Converter
- Single-channel Pt100 input, M12 4-hole
- IO-Link Protocol Specification V1.1
- 4-pin M12 A-coded IO-Link Standard Class A Interface
- Semi-transparent housing, visible when the status LED is on

Type	CIOL-PT12-SC
Information	1-channel Pt100 Input
Electrical data	
Supply Voltage	24VDC ± 10%
Operating current	< 50mA
RTD Input	
Number of inputs	1
Input type	Pt100 2/3/4
Connectivity type	M12,A-coded,5-hole
Measurement range	-200…600°C
Input accuracy	±0.5°C
IO-Link	
Vendor ID	1317(0x0525)
Device ID	262674(0x040212)
Number of ports	1(M12 A-coded,4-pin)
IO-Link specification	V1.1
IO-Link port type	Class A
IO-Link input bytes	2 bytes
Frame type	TYPE_2_2
Transmission rate	COM2 38.4 kbit/s
Minimum cycle time	4000us
ISDU(index service)	supported
Block parameter operation	non-supported
Data storage(DS)	supported
Data store lock	supported *This function is supported for compatibility, but the device will not perform this operation.
Operating temperature	-25...80°C

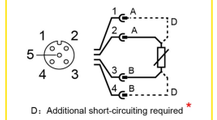
IO-Link M12x1



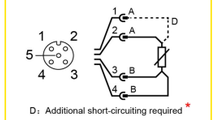
Input signal connector



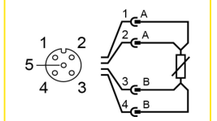
Pt100 TWO-wire



Pt100 Three-wire



Pt100 Four-wire



It's recommended to short-circuit the PT100 side. Short-circuiting at the module input will reduce sensor accuracy.

I/O Modules

Pain Points

Traditional I/O systems have complex wiring and lack intelligent communication, making fault diagnosis manual and time-consuming. Additionally, there is no remote management capability, limiting industrial automation.

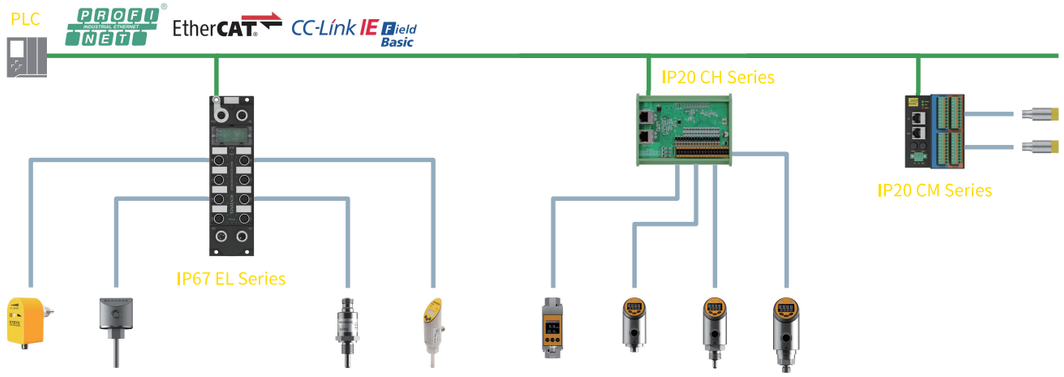
- Each sensor and actuator requires separate connections, leading to messy wiring.
- Faults require manual checks, increasing downtime.
- Traditional I/O cannot provide real-time operational data.

Advantages

Fieldbus uses digital communication, reducing wiring complexity, supporting long-distance transmission, and improving data reliability while ensuring compatibility with multiple protocols.

- **Less wiring, higher installation efficiency.**
- **Strong anti-interference, stable long-distance transmission.**
- **Multi-protocol support, high compatibility.**

Solution

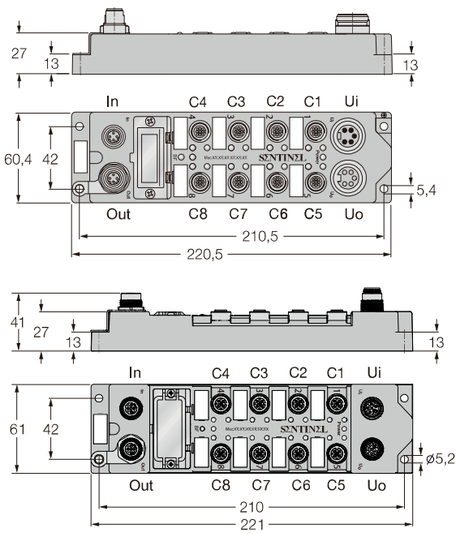


- Centralized management, reduced wiring.
- Long distance transmission, suitable for large equipment.

I/O modules with Profinet interface

ELPN Series 7/8"、L-coded Power Supply



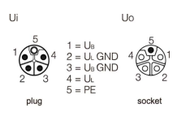



IP67

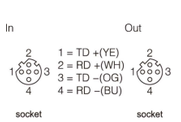
- PROFINET device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Nickel-plated brass connector
- Protection class IP67

Type	ELPN-IM16-0003	ELPN-OM16-0003	ELPN-IOM88-0003	ELPN-16SAP-L001
Information	16 digital inputs	16 digital outputs	8 digital inputs+ 8 digital outputs	16-channel configurable input/output
Interface				
Ethernet protocol	PROFINET	PROFINET	PROFINET	PROFINET
Number of ports	2	2	2	2
Transmission standard	100Base-TX	100Base-TX	100Base-TX	100Base-TX
Auto-negotiation	supported	supported	supported	supported
Auto-MDI/MDIX	supported	supported	supported	supported
Transmission rate	100Mbit/s	100Mbit/s	100Mbit/s	100Mbit/s
Electrical data				
Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA	< 200mA	< 200mA
Supply current(UL)	—	>8A	>8A	>8A
Inputs				
Number of inputs	16	—	8	16
Input type	PNP	—	PNP	PNP
Input impedance	3KΩ	—	3KΩ	3KΩ
Input rated current	7mA	—	7mA	7mA
Input delay	3ms	—	3ms	3ms
Switch threshold	2mA/4mA	—	2mA/4mA	2mA/4mA
Electrical isolation	optocoupler isolation	—	optocoupler isolation	optocoupler isolation
Outputs				
Number of outputs	—	16	8	16
Output type	—	PNP	PNP	PNP
Output current per port	—	0.5A	0.5A	0.5A
Protection	—	overload/overheat protection	overload/overheat protection	overload/overheat protection
Response time	—	20ms	20ms	20ms
Switching frequency	—	100Hz	100Hz	100Hz
Output voltage drop	—	0.6V	0.6V	0.6V
Electrical isolation	—	optocoupler isolation	optocoupler isolation	optocoupler isolation
Operating temperature	0...55°C	0...55°C	0...55°C	0...55°C
Protection class	IP67	IP67	IP67	IP67

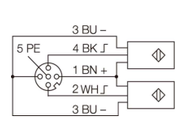
M12x1 Power Supply



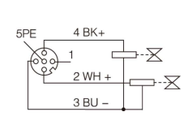
M12x1 Ethernet



M12x1 Input

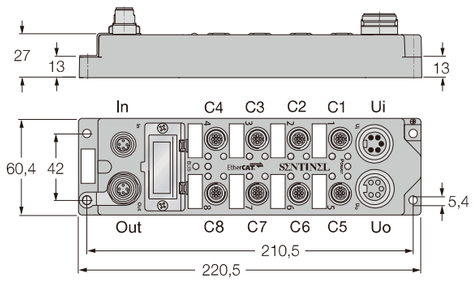


M12x1 Output



I/O modules with EtherCAT interface

ELCT Series 7/8" Power Supply

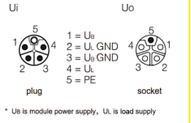


IP67 EtherCAT

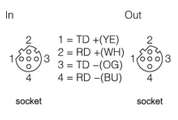
- EtherCAT device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Nickel-plated brass connector
- Protection class IP67

Type	ELCT-IM16-0001	ELCT-IM16-0003	ELCT-OM16-0001	ELCT-IOM88-0001
Information	16 digital PNP inputs	16 digital NPN inputs	16 digital PNP outputs	8 inputs+ 8 outputs
Interface				
Ethernet protocol	EtherCAT	EtherCAT	EtherCAT	EtherCAT
Number of ports	2	2	2	2
Transmission standard	100Base-TX	100Base-TX	100Base-TX	100Base-TX
Auto-negotiation	supported	supported	supported	supported
Auto-MDI/MDIX	supported	supported	supported	supported
Transmission rate	100Mbit/s	100Mbit/s	100Mbit/s	100Mbit/s
Electrical data				
Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA	< 200mA	< 200mA
Supply current(UL)	—	—	>8A	>8A
Inputs				
Number of inputs	16	16	—	8
Input type	PNP	NPN	—	PNP
Input standard type	IEC 61131-2 Type 3	IEC 61131-2 Type 3	—	IEC 61131-2 Type 3
Input delay	3ms	3ms	—	3ms
Voltage switch threshold	9.2V/10.4V	9.2V/10.4V	—	9.2V/10.4V
Current switch threshold	2.2mA	2.2mA	—	2.2mA
Electrical isolation	optocoupler isolation	optocoupler isolation	—	optocoupler isolation
Outputs				
Number of outputs	—	—	16	8
Output type	—	—	PNP	PNP
Output current per port	—	—	0.5A	0.5A
Protection	—	—	overload/overheat protection	overload/overheat protection
Response time	—	—	20ms	20ms
Switching frequency	—	—	100Hz	100Hz
Output voltage drop	—	—	0.6V	0.6V
Electrical isolation	—	—	optocoupler isolation	optocoupler isolation
Operating temperature	0...55°C	0...55°C	0...55°C	0...55°C
Protection class	IP67	IP67	IP67	IP67

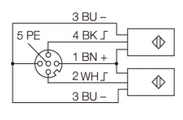
M12x1 Power Supply



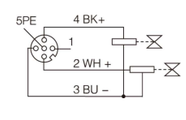
M12x1 Ethernet



M12x1 Input

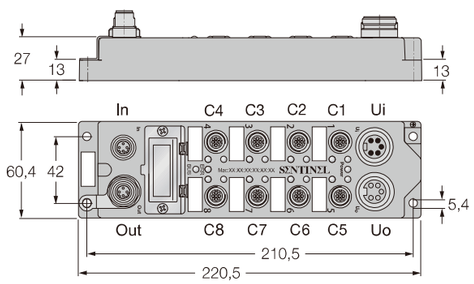


M12x1 Output



I/O modules with CC-Link IEFB interface

ELBC Series 7/8" Power Supply

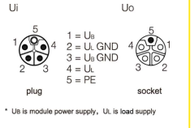


IP67 CC-Link IE Field Basic

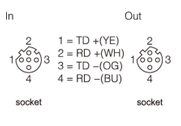
- CC-Link IE Field Basic device
- Integrated Ethernet switch
- Supports 100Base-TX
- 2xM12 Ethernet fieldbus connection
- Plastic reinforced housing
- Shock and vibration tested
- Fully potted module electronics
- Nickel-plated brass connector
- Protection class IP67

Type	ELBC-IM16-0001	ELBC-OM16-0001
Information	16 digital inputs	16 digital outputs
Interface		
Ethernet protocol	CC-Link IE Field Basic	CC-Link IE Field Basic
Number of ports	2	2
Transmission standard	100Base-TX	100Base-TX
Auto-negotiation	supported	supported
Auto-MDI/MDIX	supported	supported
Transmission rate	100Mbit/s	100Mbit/s
Occupied station	64bit	64bit
Default IPv4 address	192.168.3.* (* hexadecimal number)	192.168.3.* (* hexadecimal number)
IP Address setting	Supported,port number:61451(only network segments can be changed)	
Default subnet mask	255.255.255.0	255.255.255.0
Communication data format	binary system	binary system
Electrical data		
Supply Voltage	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA
Supply current(UL)	—	>8A
Inputs		
Number of inputs	16	—
Input type	PNP	—
Input standard type	IEC 61131-2 Type 3	—
Input delay	3ms	—
Voltage switch threshold	9.2V/10.4V	—
Current switch threshold	2.2mA	—
Electrical isolation	optocoupler isolation	—
Outputs		
Number of outputs	—	16
Output type	—	PNP
Output current per port	—	0.5A
Protection	—	overload/overheat protection
Response time	—	20ms
Switching frequency	—	100Hz
Output voltage drop	—	0.6V
Electrical isolation	—	optocoupler isolation
Operating temperature	0...55°C	0...55°C
Protection class	IP67	IP67

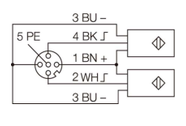
M12x1 Power Supply



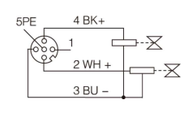
M12x1 Ethernet



M12x1 Input

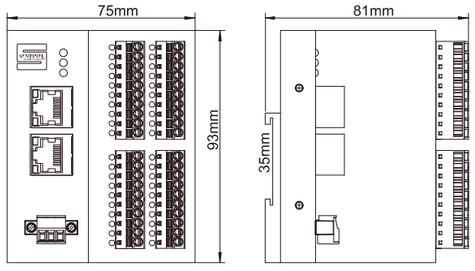


M12x1 Output



I/O modules with Profinet interface

CMPN Series Max.32 ports,input or output

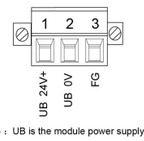


IP20

- I/O signal connection adopts pluggable shrapnel tightening terminal
- Power supply is connected with pluggable screw terminal strip
- RJ45 Ethernet communication port
- DIN-Rail Mounting
- Inputs and outputs are identified by two-color label
- Metal housing,Compact Size
- Protection class IP20

Type	CMPN-IM32-0001	CMPN-OM32-0001	CMPN-IOM16-0001
Information	32 digital inputs	32 digital outputs	16 inputs+16 outputs
Interface			
Ethernet protocol	PROFINET	PROFINET	PROFINET
Number of ports	2	2	2
Transmission standard	100Base-TX	100Base-TX	100Base-TX
Auto-negotiation	supported	supported	supported
Auto-MDI/MDIX	supported	supported	supported
Transmission rate	100Mbit/s	100Mbit/s	100Mbit/s
Electrical data			
Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Operating current	< 75mA	< 75mA	< 75mA
Block & Load supply		Internal isolation requires separate power supply	
Inputs			
Number of Inputs	32	—	16
Input type	PNP or NPN	—	PNP or NPN
Input impedance	3KΩ	—	3KΩ
Input rated current	6mA	—	6mA
Input delay	2.5ms	—	2.5ms
Switch threshold	7V/14V,2mA/4mA	—	7V/14V,2mA/4mA
Electrical isolation	optocoupler isolation	—	optocoupler isolation
Outputs			
Number of outputs	—	32	16
Output type	—	PNP	PNP
Output current	—	0.2A	0.2A
Protection	—	overload/overheat protection	overload/overheat protection
Mode of load	—	inductive load,resistive load,pilot lamp	
Switching frequency	—	100Hz	100Hz
Output voltage drop	—	0.6V	0.6V
Electrical isolation	—	optocoupler isolation	optocoupler isolation
Operating temperature	0...55°C	0...55°C	0...55°C
Protection class	IP20	IP20	IP20

Power Supply

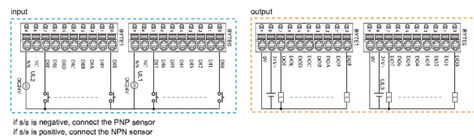


Note： UB is the module power supply

RJ45 Ethernet

1. YE 5. N/C
2. OG 6. BU
3. WH 7. N/C
4. N/C 8. N/C

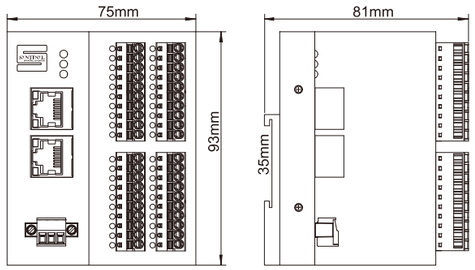
Connector Drawings



if s/s is negative, connect the PNP sensor
if s/s is positive, connect the NPN sensor

I/O modules with EtherCAT interface

CMCT Series Max.32 ports,input or output

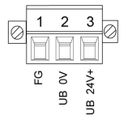


CE IP20 EtherCAT

- I/O signal connection adopts pluggable shrapnel tightening terminal
- Power supply is connected with pluggable screw terminal strip
- RJ45 Ethernet communication port
- DIN-Rail Mounting
- Inputs and outputs are identified by two-color label
- Metal housing,Compact Size
- Protection class IP20

Type	CMCT-IM32-0001	CMCT-OM32-0001	CMCT-IOM16-0001
Information	32 digital inputs	32 digital outputs	16 inputs+16 outputs
Interface			
Ethernet protocol	EtherCAT	EtherCAT	EtherCAT
Number of ports	2	2	2
Transmission standard	100Base-TX	100Base-TX	100Base-TX
Auto-negotiation	supported	supported	supported
Auto-MDI/MDIX	supported	supported	supported
Transmission rate	100Mbit/s	100Mbit/s	100Mbit/s
Station address Settings	non-supported,it needs to be assigned		
Electrical data			
Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA	< 200mA
Block & Load supply	UB,UL are internally isolated and need to be powered separately		
Load power group	4 groups,need separate power supply		
Inputs			
Number of Inputs	32	—	16
Input type	PNP or NPN	—	PNP or NPN
Input impedance	3KΩ	—	3KΩ
Input rated current	7mA	—	7mA
Input delay	5ms	—	5ms
Switch threshold	7V/14V,2mA/4mA	—	7V/14V,2mA/4mA
Electrical isolation	optocoupler isolation	—	optocoupler isolation
Outputs			
Number of outputs	—	32	16
Output type	—	PNP	PNP
Output current	—	0,2A	0,2A
Protection	—	overload/overheat protection	overload/overheat protection
Switching frequency	—	100Hz	100Hz
Output voltage drop	—	0.6V	0.6V
Electrical isolation	—	optocoupler isolation	optocoupler isolation
Operating temperature	0...55°C	0...55°C	0...55°C
Protection class	IP20	IP20	IP20

Power Supply

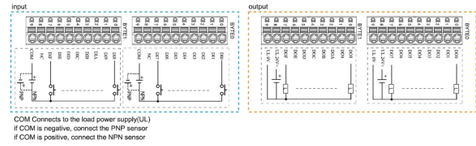


Note： UB is the module power supply

RJ45 Ethernet

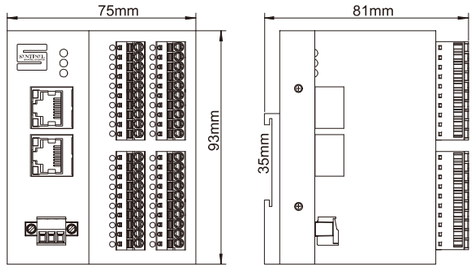
1. YE 5. N/C
2. OG 6. BU
3. WH 7. N/C
4. N/C 8. N/C

Connector Drawings



I/O modules with CC-Link IEFB interface

CMBC Series Max.32 ports,input or output

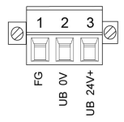


CE IP20 CC-Link IE Field Basic

- I/O signal connection adopts pluggable shrapnel tightening terminal
- Power supply is connected with pluggable screw terminal strip
- RJ45 Ethernet communication port
- DIN-Rail Mounting
- Inputs and outputs are identified by two-color label
- Metal housing,Compact Size
- Protection class IP20

Type	CMBC-IM32-0001	CMBC-OM32-0001	CMBC-IOM16-0001
Information	32 digital inputs	32 digital outputs	16 inputs+16 outputs
Interface			
Ethernet protocol	CC-Link IE Field Basic	CC-Link IE Field Basic	CC-Link IE Field Basic
Number of ports	2	2	2
Transmission standard	100Base-TX	100Base-TX	100Base-TX
Auto-negotiation	supported	supported	supported
Auto-MDI/MDIX	supported	supported	supported
Transmission rate	100Mbit/s	100Mbit/s	100Mbit/s
Occupied sation	64bit	64bit	64bit
Default subnet mask	255.255.255.0	255.255.255.0	255.255.255.0
Communication data format	binary system	binary system	binary system
Default IPv4 address	192.168.3.* (* hexadecimal number)		
IP Address setting	supported,port number:61451(only network segments can be changed)		
Electrical data			
Supply Voltage	24VDC ± 10%	24VDC ± 10%	24VDC ± 10%
Operating current	< 200mA	< 200mA	< 200mA
Block & Load supply	UB,UL are internally isolated and need to be powered separately		
Load power group	4 groups,need separate power supply		
Inputs			
Number of Inputs	32	—	16
Input type	PNP or NPN	—	PNP or NPN
Input impedance	3KΩ	—	3KΩ
Input rated current	7mA	—	7mA
Input delay	5ms	—	5ms
Switch threshold	7V/14V,2mA/4mA	—	7V/14V,2mA/4mA
Electrical isolation	optocoupler isolation	—	optocoupler isolation
Outputs			
Number of outputs	—	32	16
Output type	—	PNP	PNP
Output current	—	0.2A	0.2A
Protection	—	overload/overheat protection	overload/overheat protection
Switching frequency	—	100Hz	100Hz
Output voltage drop	—	0.6V	0.6V
Electrical isolation	—	optocoupler isolation	optocoupler isolation
Operating temperature	0...55°C	0...55°C	0...55°C
Protection class	IP20	IP20	IP20

Power Supply

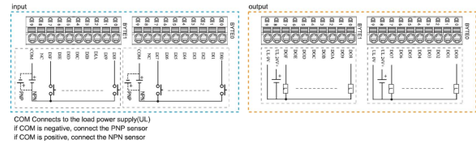


Note： UB is the module power supply

RJ45 Ethernet

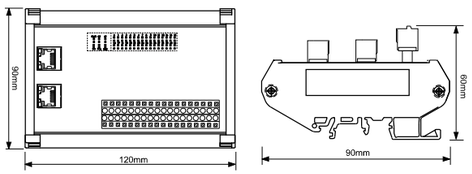
1. YE 5. N/C
2. OG 6. BU
3. WH 7. N/C
4. N/C 8. N/C

Connector Drawings



IP20 I/O Station with Profinet interface

CHPN Series 32 Analog Signals Inputs



IP20

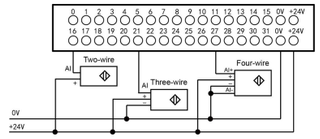
Type	CHPN-32AI-0001
Information	32 Analog Signals Inputs
Communication interface	
Ethernet protocol	PROFINET
Number of communication interface	2
Transmission mode	100Base-TX
Automatic consultation mechanism	supported
Automatic cross-flip	supported
Maximum transmission rate	100Mbit/s
Input	
Number of channels	32
Connectivity inputs	Pluggable spring clamp terminals
Input type	4-20mA/0-20mA
Input resolution	≤12bits
Input range	0-22mA
Operating temperature	0...55°C
Protection class	IP20

- 32-channel 4-20mA/0-20mA input
- Signal and power connections use pluggable spring clamp terminals
- Communication uses RJ45 network port connection
- DIN35 guide rail, G-type guide rail installation
- Protection class IP20

RJ45 Ethernet

1. YE
2. OG
3. WH
4. N/C
5. N/C
6. BU
7. N/C
8. N/C

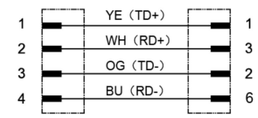
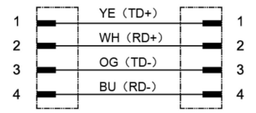
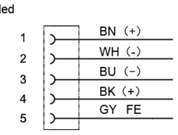
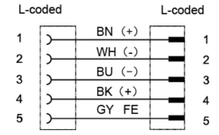
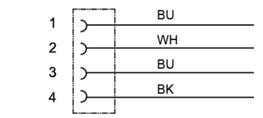
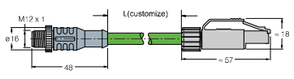
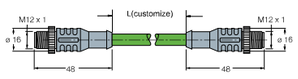
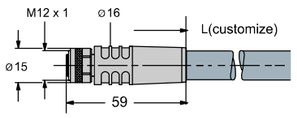
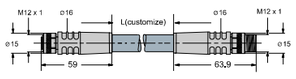
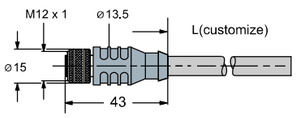
Wiring diagram



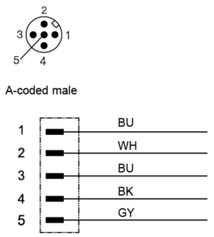
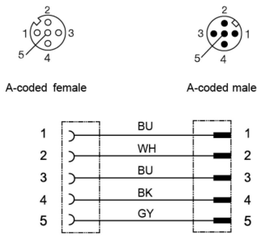
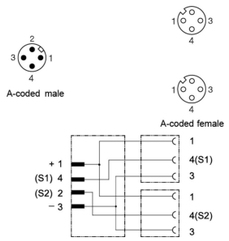
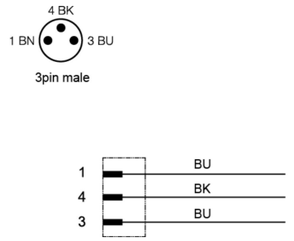
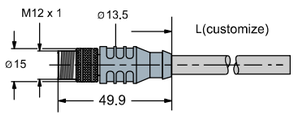
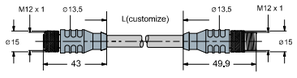
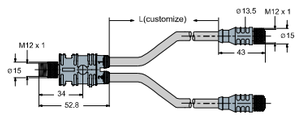
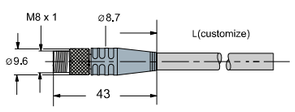
Accessories



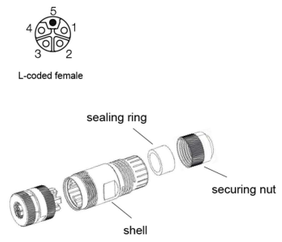
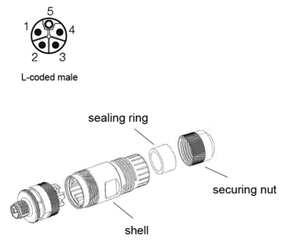
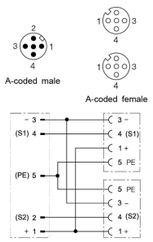
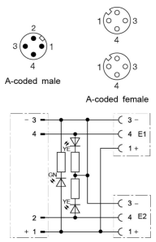
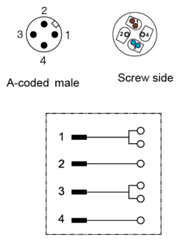
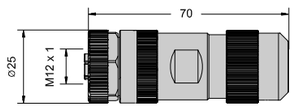
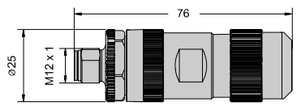
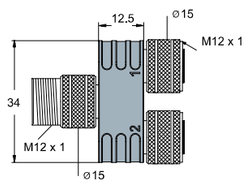
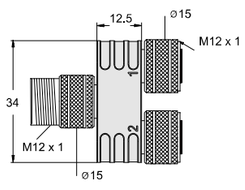
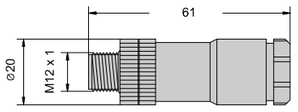


	Communication		Power cable		
Type	ZNS5-**-RJ45/PVC/PN/FLEX	ZNS5-**-ZNS5/PVC/PN/FLEX	ZLK5-**/PVC	ZLK5-**-ZLS5/PVC	ZAK4-**/PVC
Information	M12x1,male,4pin +RJ45	M12x1,Extension Cable	M12 L-coded,5pin	M12 L-coded,Extension Cable	M12 A-coded,4pin
Cable diameter	6.5mm,PVC (PUR optional)		8.7mm,PVC (PUR optional)		5.25mm,PVC (PUR optional)
Core cross-section	2x2x22AWG UL2464,CAT.5E		5x1.5mm²		4x0.25mm²
Material	Coupling nut:Brass,CuZn,Nickel-plated; Contacts:Brass,CuZn,Gold-plated		Coupling nut:Brass,CuZn,Nickel-plated; Contacts:Brass,CuZn,Gold-plated		
Operating voltage	30Vdc		250Vdc		
Temperature	Storage:-40~90°C; Operating:-20~80°C		Storage:-40~90°C; Operating;-20~80°C		
Wiring diagram	 D-coded male  RJ45 	 D-coded male  D-coded male 	 5pin female L-coded 	 5pin female L-coded  5pin male L-coded 	 A-coded female 
Dimensions					

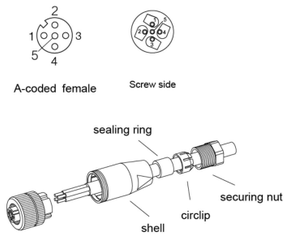
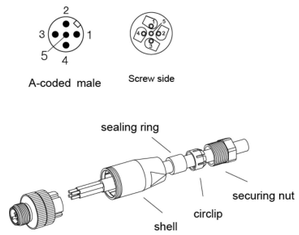
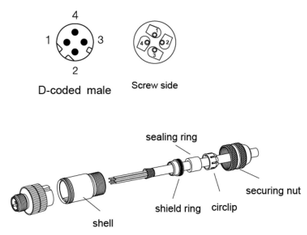
Accessories

	I/O cable		I/O cable	
Type	ZAS3-**/PVC;ZAS4-**/PVC;ZAS4.5-**/PVC	ZAK4-**-ZAS4/PVC;ZAK4.5-**-ZAS4.5/PVC	ZASY4-2ZAK3-**/PVC	ZBS3-**/PVC
Information	M12x1,male,3pin/4ipn/5pin	M12x1,Extension Cable	M12x1,Y-splitter	M8x1,male,3pin
Cable diameter	5.25mm,PVC (PUR optional)		5.25mm,PVC (PUR optional)	3.9mm,PVC
Core cross-section	3x0.25mm² ;4x0.25mm² ;5x0.25mm²	4x0.25mm² ;5x0.25mm²	3x0.25mm²	3x0.2mm²
Material	Coupling nut:Brass,CuZn,Nickel-plated; Contacts:Brass,CuZn,Gold-plated		Coupling nut:Brass,CuZn,Nickel-plated; Contacts:Brass,CuZn,Gold-plated	
Operating voltage	250Vdc		250Vdc	
Temperature	Storage:-40~90°C; Operating:-20~80°C		Storage:-40~90°C; Operating;-20~80°C	
Wiring diagram				
Dimensions				

Accessories

	Power connector		I/O connector		
Type	LKP5-PG11	LSP5-PG11	CYCS5-2AK4	CYDS4-2AK3	YSM4-D5ST
Information	L-coded Field-wireable connector,female,5pin	L-coded Field-wireable connector,male,5pin	M12x1,Y-splitter	M12x1,Y-splitter	screw connection,y-splitter
Operating voltage	10-30V	10-30V	10-30V	10-30V	10-30V
Current	Max.9A	Max.9A	Max.4A	Max.4A	Max.4A
Material	Coupling nut:Die-cast Zinc,GD-Zn,Nickel-plated Contacts:Brass,CuZn,Gold-plated		Coupling nut:Brass,CuZn,Nickel-plated Contacts:Brass,CuZn,Gold-plated		Coupling nut:GD-Zn Contacts:Brass,CuZn,Gold-plated
Housing	PA,black	PA,black	PVC	TPU,translucent	PA,black
Connection	screw connections	screw connections	—	—	screw connections
Cable feedthrough	PG11,5…10mm	PG11,5…10mm	—	—	4…6mm
Temperature	Storage:-40~90°C; Operating:-20~80°C		Storage:-40~90°C; Operating;-20~80°C		
Wiring diagram					
Dimensions					

Accessories

	I/O connector		Communication
Type	ZKM5-PG7	ZSM5-PG7	HSE4-PG9
Information	M12 Field-wireable connector,female,5pin	M12 Field-wireable connector,male,5pin	M12 Field-wireable connector,male,4pin
Operating voltage	10-30V	10-30V	10-30V
Current	Max.4A	Max.4A	Max.4A
Material	Coupling nut:Die-cast Zinc,GD-Zn,Nickel-plated Contacts:Brass,CuZn,Gold-plated		Coupling nut:Die-cast Zinc,GD-Zn,Nickel-plated Contacts:Brass,CuZn,Gold-plated
Housing	PA,black	PA,black	Die-cast Zinc, GD-Zn, Nickel-plated
Coded	A-coded	A-coded	D-coded
Cable feedthrough	PG7,3...6.5mm	PG7,3...6.5mm	PG9,4...8mm
Temperature	Storage:-40~90°C; Operating:-20~80°C		Storage:-40~90°C; Operating;-20~80°C
Wiring diagram			
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