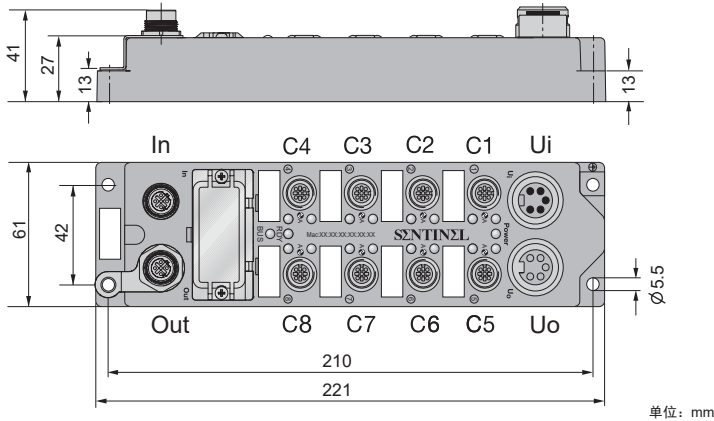


Compact I/O Module for **CC-Link IE Field Basic**

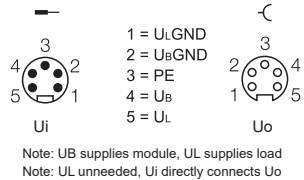
8 IO-Link Master Channels ELBC-8IOL-0001



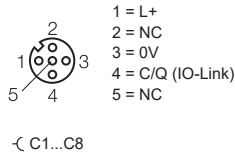
- CC-Link IE Field Basic remote I/O module
- Integrated Ethernet Switch
- Support 100Base-TX
- 2XM12,4-pin,D-code,Ethernet Fieldbus connection
- 8 IO-Link Master Channels
- IO-Link Protocol 1.1
- IO-Link master port class A
- M12 ports for IO-Link master, 5-pin
- Impact and vibration resistance
- Fully potted module electronics
- Copper-plated nickel connector
- Protection classes IP67

Model	ELBC-8IOL-0001
Supply voltage	24VDC \pm 10%
Operating current	< 200mA
Supply current	>8A
IO-LINK port parameters	
Number of ports	8 (C1...C8)
Connectivity inputs	M12 , A-code , 5-pin
Common IO	Not supported, Pin 2 needs to be empty
Current supply per port	Maximum 2A C1...C4 Total current max 4 A C5...C8 Total current max 4 A
IO-LINK parameters	
SIO model	Not Supported (Pin 4 cannot be used as common IO)
IO-Link Pin definition	Pin 4 in IOL mode
IO-Link Port type	Class A
IO-Link specification	Version 1.1
Frame type	Supports all specified frame types
Support Device	Maximum 32Bytes Input / 32Bytes Output
Transmission rate	4.8kbps(COM1) / 38.4kbps(COM2) / 230.4kbps(COM3)
CC-LINK IE Field Basic	
Number of communication interface	2
Transmission standard	100Base-TX
Auto-negotiation	Supported
Auto-MDI/MDIX	Supported
Maximum transmission rate	100Mbit/s
Fieldbus connection technology	2x M12, 4-pin, D-coded
Number of occupied stations	1...4
Default IPv4 address	192.168.3.* (* is the hexadecimal number corresponding to the rotary code switch)
IP address setting function	Support IPAddressSet port number: 61451; only the network segment can be changed
Default subnet mask	255.255.255.0
Communication data format	the binary
Operating temperature	-20...+55℃

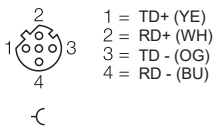
Power Supply Connector 7/8"



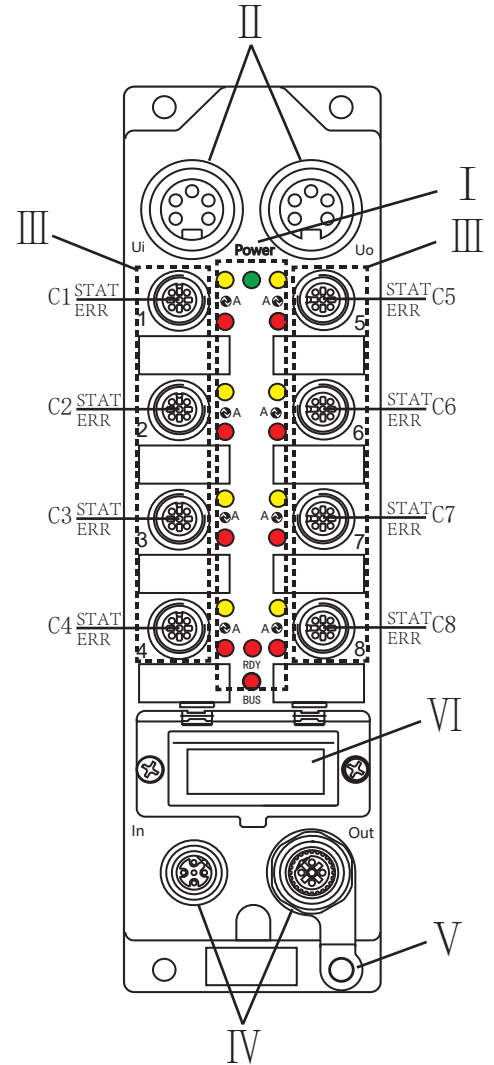
IO-LINK Port Connector M12



Bus Connector M12



		Description																									
I	Module LEDs	LED name	Detailed introduction																								
		Power	Green LED: ON:The module power supply (Ub) is normal OFF:The module power supply is disconnected																								
		Bus	Green LED ON:CC-Link IEF Basic normal communication Red LED ON:CC-Link IEF Basic no communication																								
		RDY	Red LED ON:IO-Link port error, inconsistent with configuration																								
		STAT	Yellow LED: IO-Link communication status (C1 - C8) ON: IO-Link communication is normal OFF: IO-Link communication is not established;																								
		ERR	Red LED: IO-Link working status (C1-C8) ON: The port is working abnormally; please check the IO-Link cable or the IO-Link port setting in the DIP OFF: The port is normal; the IO-Link communicates normally or the port is closed or disabled during dialing																								
II	Power supply	Ui (left) : Power supply input , 7/8", 5-pin , male Uo (right) : Power supply output , 7/8", 5-pin , female																									
III	IO-Link PORT	<ul style="list-style-type: none">M12 A-code, 5-pin female connector; 4th pin is IO-Link, not compatible with SIO or standard IO mode. 2nd pin is vacant, no external signals allowed.In the diagram, "C"" denotes a port. "STAT" and "ERR" represent communication and work status indicators, respectively. For instance, C1 ^{STAT} _{ERR} signifies PORT1, with the upper right LED indicating STAT, and the lower LED indicating ERR. Detailed instructions are in "I". <ul style="list-style-type: none">There are eight independent IO-Link Class A ports, each with its own STAT and ERR. Class B devices require an external power supply. Note: Please turn off unused ports via rotary code, avoiding red lights on the module.																									
IV	Bus	In(left):CC-Link IEF Basic Bus in,M12,D-Code,4-pin,female Out(right):CC-Link IEF Basic Bus out,M12,D-Code,4-pin,female																									
V	PE	Ground connection																									
VI	Network status LEDs	LINK2	Bus in , Green LED: ON:This port communication rate is 100M OFF:This port communication rate is not 100M																								
		ACT2	Bus in , Yellow LED: ON:connected; OFF:no connection; Flashing: data exchange																								
		LINK1	Bus out , Green LED: ON:This port communication rate is 100M OFF:This port communication rate is not 100M																								
		ACT1	Bus out , Yellow LED: ON:connected; OFF:no connection; Flashing: data exchange																								
	IP address setting	The default IP address is 192.168.3.*; * refers to the hexadecimal number corresponding to the rotary encoding switch; ADDR_H is the high bit of the hexadecimal number of the address; ADDR_L is the low bit of the hexadecimal number of the address; For example: ADDR_H is A, ADDR_L is 9, then ADDR is 0xA9 IP address is: 192.168.3.169; ADDR_H is 2, ADDR_L is 8, then ADDR is 0x28 IP address is: 192.168.3.40; Note: After the rotation code is changed, it will take effect after re-powering																									
	Number of occupied stations	Rotary Code STATION: Sets the number of stations occupied; adjustable range 1~4. According to protocol specifications, one station will allocate RX 64 bits, RY 64 bits, RWr 32 characters, RWw 32 characters. Note: Changes to this rotary code will take effect upon power reset.																									
IO-Link port control	Rotary code PORT_H PORT_L: Control to open or close 8 IO-Link ports																										
	<table><tr><td>Rotary code</td><td colspan="4">PORT_H</td><td colspan="4">PORT_L</td></tr><tr><td>Port</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td><td>3</td><td>2</td><td>1</td></tr></table> <p>For example: PORT_H:0x02; PORT_L:0x05; the corresponding binary is: 0010 0101 means: open ports C1, C3, C6, and close other ports; Note: After the rotation code is changed, it will take effect after re-powering</p>										Rotary code	PORT_H				PORT_L				Port	8	7	6	5	4	3	2
Rotary code	PORT_H				PORT_L																						
Port	8	7	6	5	4	3	2	1																			



IO-Link Port Byte Mapping

IO-Link status

	Record (1 for disconnected, 0 otherwise)								IO-Link status (1 for communication, 0 none.)							
RX	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0
Port	C8	C7	C6	C5	C4	C3	C2	C1	C8	C7	C6	C5	C4	C3	C2	C1
	C4 port disconnection times				C3 port disconnection times				C2 port disconnection times				C1 port disconnection times			
RX	1F	1E	1D	1C	1B	1A	19	18	17	16	15	14	13	12	11	10
	C8 port disconnection times				C7 port disconnection times				C6 port disconnection times				C5 port disconnection times			
RX	2F	2E	2D	2C	2B	2A	29	28	27	26	25	24	23	22	21	20
	Byte Swap (1: Swap high and low bytes of the port 0: No swap, default byte order)															
RY	7	6	5	4	3	2	1	0								
Port	C8	C7	C6	C5	C4	C3	C2	C1								

IO-Link cyclic data

Occupies 1station 8bytes/port			Occupies 2station 16bytes/port			Occupies 3station 24bytes/port			Occupies 4station 32bytes/port		
Port	RW _r /RW	wregister	Port	RW _r /RW	wregister	Port	RW _r /RW	wregister	Port	RW _r /RW	wregister
C1	00h-03h		C1	00h-07h		C1	00h-0Bh		C1	00h-0Fh	
C2	04h-07h		C2	08h-0Fh		C2	0Ch-17h		C2	10h-1Fh	
C3	08h-0Bh		C3	10h-17h		C3	18h-23h		C3	20h-2Fh	
C4	0Ch-0Fh		C4	18h-1Fh		C4	24h-2Fh		C4	30h-3Fh	
C5	10h-13h		C5	20h-27h		C5	30h-3Bh		C5	40h-4Fh	
C6	14h-17h		C6	28h-2Fh		C6	3Ch-47h		C6	50h-5Fh	
C7	18h-1Bh		C7	30h-37h		C7	48h-53h		C7	60h-6Fh	
C8	1Ch-1Fh		C8	38h-3Fh		C8	54h-5Fh		C8	70h-7Fh	

Note: RW_r: Slave-to-master input; RW_w: Master-to-slave output. Units: RW_r/RW_w - characters; IO-Link - bytes.

Below: character-byte relationship.

IO-Link BYTE1 High Byte									IO-Link BYTE0 Low Byte								
RW _r /RW _w	F	E	D	C	B	A	9	8	7	6	5	4	3	2	1	0	

