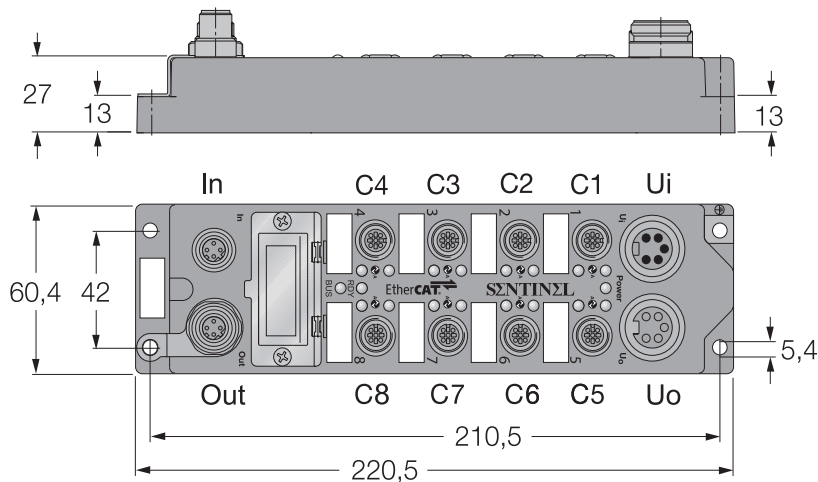


# Compact I/O Module for EtherCAT<sup>®</sup>

## 8 IO-Link Master Channels

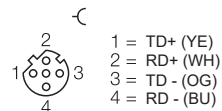
ELCT-8IOL-0001



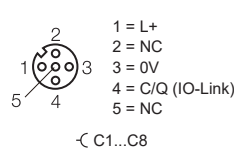
- EtherCAT remote I/O module
- Integrated Ethernet Switch
- Support 100Base-TX
- 2XM12,4-pin,D-code,Ethernet Fieldbus connection
- 8 IO-Link Master Channels
- IO-Link Protocol 1.1
- IO-Link master port class A
- M12 ports for IO-Link master, 5-pin
- Impact and vibration resistance
- Fully potted module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

Modle	ELCT-8IOL-0001
Supply voltage	24VDC ± 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
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)
EtherCAT	
Number of communication interface	2
Transmission standerd	100Base-TX
Auto-negotiation	YES
Auto-MDI/MDIX	YES
Maximum transmission rate	100Mbit/s
Autoscan	The EtherCAT scanning function can automatically scan the IO-Link Device connected to the port
Operating temperature	-20...+55 °C

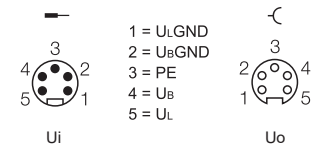
Bus Connector M12



IO-LINK Port Connector M12

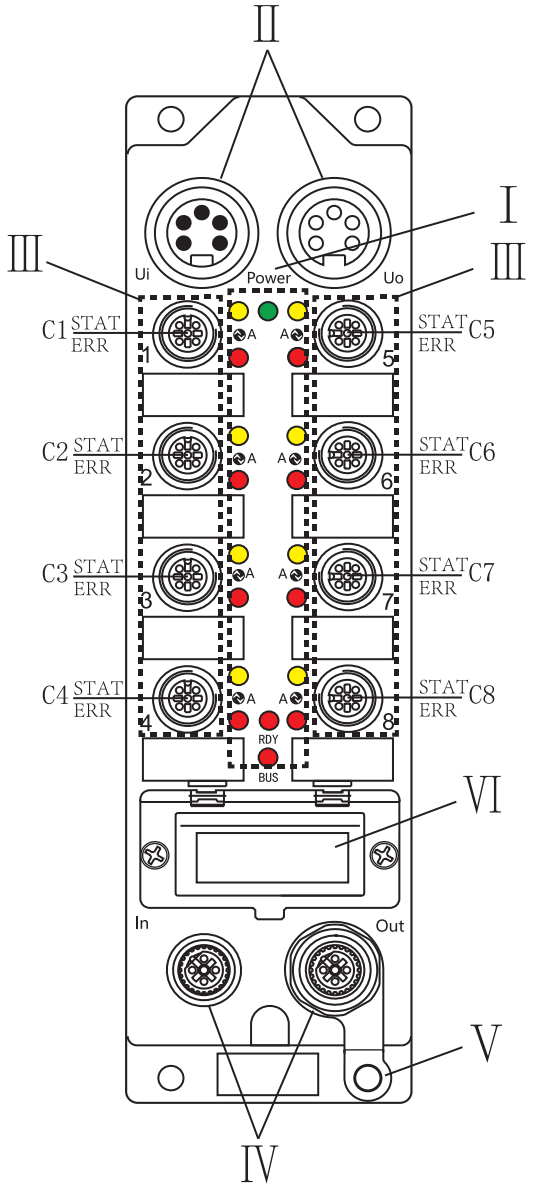


Power Supply Connector 7/8"



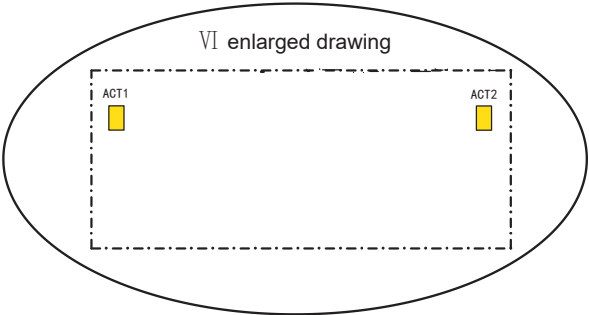
Note: UB is the module power supply, and UL is the load power supply  
Note: UL is not used inside the module, so it is unnecessary to connect it.  
Ui to Uo is directly connected

		Description	
I	Module LEDS	LED name	Detailed introduction
		POWER	Green LED lights: ON:The module power supply (Ub) is normal OFF:The module power supply is disconnected
		BUS	Green LED lights: OFF:The module is in the "INIT" state Fast flash:The module is in the "Pre-operational" state Slow flash:The module is in the "Safe-operational" state ON: The module is in the "OP" state
		RDY	Red LED lights: Flash: IO-Link is not ready OFF: IO-Link is ready ON: There is an error in the IO-Link port, which is inconsistent with the configuration
		STAT	Yellow LED lights : The IO-Link communication status of the port ( C1 - C8 ) ON : The IO-Link communication is normal OFF: The IO-Link communication is not established
		ERR	Red LED light: Working state of the port ON : The port is working abnormally: please Check the IO-Link cable and parameter setting of IO-Link in configuration OFF: No error in this port: IO-Link Communication is normal OR this port is closed or deactivated in EtherCAT configuration
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"> <li>M12 A-code 、 5-pin ; Pin 4 is IO-LINK ; Pin2 is empty , No external signals can be connected.</li> <li>C* in the figure represents the *th port ; The STAT represents the communication status indicator lamp ; The ERR represents the working status indicator lamp.</li> <li>For example, C1<sup>STAT</sup><sub>ERR</sub> represents that the port is PORT1, The LED above the right of the port is STAT and the LED below is ERR.</li> <li>Totally is 8 IO-link port A,every port is independent lamp for START &amp; ERR.</li> </ul> <p>Note : Please close the port in the EtherCAT configuration when not used , Try not to let the module have a red light.</p>	
IV	Bus	In ( left ) : EtherCAT Bus in , M12 , D-Code , 5-pin , female Out ( right ) : EtherCAT Bus out , M12 , D-Code , 5-pin , female	
V	PE	Ground connection	
VI	Network status LEDS	ACT1	Bus in ,Green LED lights : ON : Physical connections have been established OFF: No connection Flash: This port has data exchange
		ACT2	Bus out ,Green LED lights : ON : Physical connections have been established OFF: No connection Flash: This port has data exchange



IO-Link Device Status

Name	Data type	Description
8 Port IO-Link Current Status	USINT	<p>Status of 8 IO-Link ports    0: Communication is interrupted    1: Normal communication</p> <p>Bit0 : PORT1 current state    Bit4 : PORT5 current state Bit1 : PORT2 current state    Bit5 : PORT6 current state Bit2 : PORT3 current state    Bit6 : PORT7 current state Bit3 : PORT4 current state    Bit7 : PORT8 current state</p>
8 Port IO-Link Error Status	USINT	<p>Error Status of 8 IO-Link ports    0: There is no error    1: Error occurred</p> <p>Bit0 : PORT1 Error status    Bit4 : PORT5 Error status Bit1 : PORT2 Error status    Bit5 : PORT6 Error status Bit2 : PORT3 Error status    Bit6 : PORT7 Error status Bit3 : PORT4 Error status    Bit7 : PORT8 Error status</p>
Error Times_Port1 Error Times_Port2 Error Times_Port3 Error Times_Port4 Error Times_Port5 Error Times_Port6 Error Times_Port7 Error Times_Port8	USINT	<p>Number of port errors</p> <p>Starting from module power-on, Accumulate the number of times the IO-LINK device is cut off.</p> <p>The module is powered on again, and the number of errors is cleared.</p>



### Automatic scanning function

After the module is powered on, it automatically detects and establishes communication with the IO-Link Device connected to the 8 ports.If the EtherCAT does not communicate properly at this time, you will scan the EtherCAT module and the IO-Link Device for each port.You can also manually make changes to the Slots in the EtherCAT module.

Note: If EtherCAT has normal communication with EtherCAT Master, the module will connect to eight IO-Link ports following the Slots parameter in the configuration.If you want to scan the 8-port connected Device, first remove the configuration of the EtherCAT module, disconnect it from the EtherCAT Master, and then repower on the EtherCAT module before performing automatic scanning.