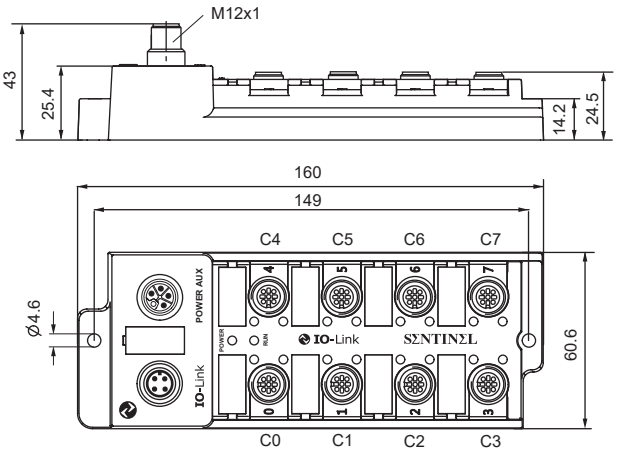
IO-Link

I/O Hub for Connecting Digital Signals to IO-Link Master

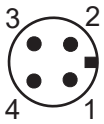
SIOL-M12-8DO 8-Channel Output



- IO-Link remote I/O device
- 8 Digital outputs Channels，Max. 2 A per output
- IO-Link V1.1
- IO-Link class A，M12，A-code
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

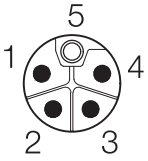
Model	SIOL-M12-8DO
Supply voltage	24VDC ± 10%
Operating current	< 100mA
Current required for the auxiliary power supply	> 16A
Output	
Number of channels	8 (C0-C7 port 4 pins)
Output type	The common terminal is 0V (Control 24V)
Output current	2A
Output protection	Overload protection, overheating protection
Output protection reaction time	Approximately 20ms
Switching frequency	100Hz
Output voltage drop	≈ 0.6V
Electrical Isolation mode	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
Minimum cycle time	2400us
ISDU	Supported
Block parameter operation	Not supported
Data storage（DS）	Supported
Data storage lock	Supported
	Note: This function is supported for compatibility, but the device does not perform this operation.
Operating temperature	-20...+55℃

IO-Link M12 interface



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

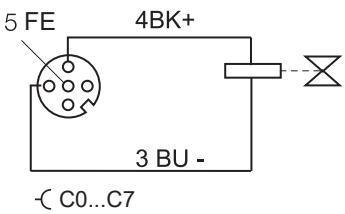
POWER AUX M12 interface



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

Note: Load power supply
U1: provide power for C0-C3 ports
U2: provide power for C4-C7 ports

Digital I/O M12 interface



User Manual

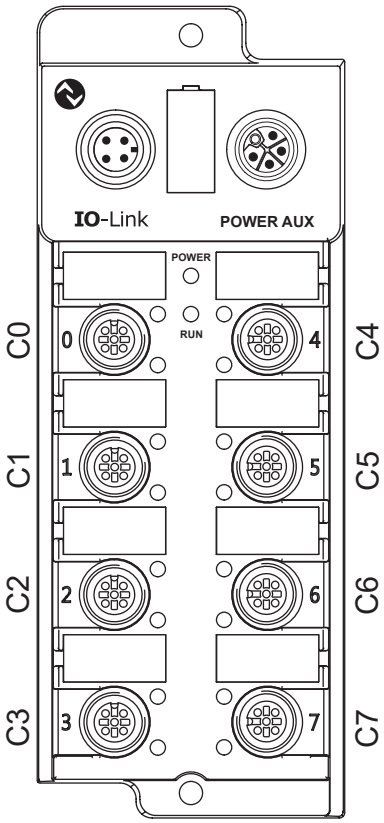
LED state

Power	Green LED lights:	ON: The module power supply is normal OFF: The module power supply is disconnected
Run	Green LED lights:	ON: The IO-Link communication is normal OFF: The IO-Link communication is not established Flash: Communication is being established, but not yet established
C0..C7	Yellow LED lights:	ON: Input active OFF: Input inactive

Process data input

BYTE	Bit offset							
	7	6	5	4	3	2	1	0
0	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P2	C0P4
1	null	null	null	null	null	null	null	null

Note: C * P * represents the *th pin of the C * port; for example: C2P4 represents pin 4 of the C2 port;



Direct Parameter

Direct parameters are used to identify the device. Direct parameters are operated by index 0. The Subindex 0 represents operating the entire index; Subindex 1represents address 0; Subindex 16 represents address 0x0F.

Index	Address	Parameter name	Length	Authority	Description
0	0x07 7	Vendor ID(High)	1Byte	Read	0x05 5
0	0x08 8	Vendor ID(Low)	1Byte	Read	0x25 37
0	0x09 9	Device ID(High)	1Byte	Read	0x01 1
0	0x0A 10	Device ID(Median)	1Byte	Read	0x02 2
0	0x0B 11	Device ID(Low)	1Byte	Read	0x22 34

Parameter data / Request data/ISDU indexed service data unit

Index	Subindex	Parameter name	Length	Authority	Description
0x02 2	0	System command	1Byte	Write	0x80 128 Reset device 0x82 130 Restore factory settings
0x10 16	0	Manufacturer name	8Byte	Read	Sentinel
0x11 17	0	Manufacturer description	41Byte	Read	Sentinel Industrial Ethernet manufacturer
0x12 18	0	Device name	13Byte	Read	SIOL-M12-16DO
0x13 19	0	Device ID	7Byte	Read	6608201
0x14 20	0	Device description	28Byte	Read	I/O Module 16 digital Output
0x15 21	0	Serial-Number	9Byte	Read	660820101
0x16 22	0	Hardware version	8Byte	Read	HW-V0.01
0x17 23	0	Software release	8Byte	Read	FW-V0.01
0x18 24	0	ApplicationSpecificTag	maximum 32Byte	Read Write	This item is defined in the IODD file, Included in the DataStorage (DS)
0x19 25	0	Function Tag	maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x1A 26	0	Local Tag	maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x24 36	0	Device state	1Byte	Read	0: The equipment is operating normally; 1: Need to maintain; 2: Running incorrect environment or parameters; 3: Device abeyance; 4: Device failed to run;