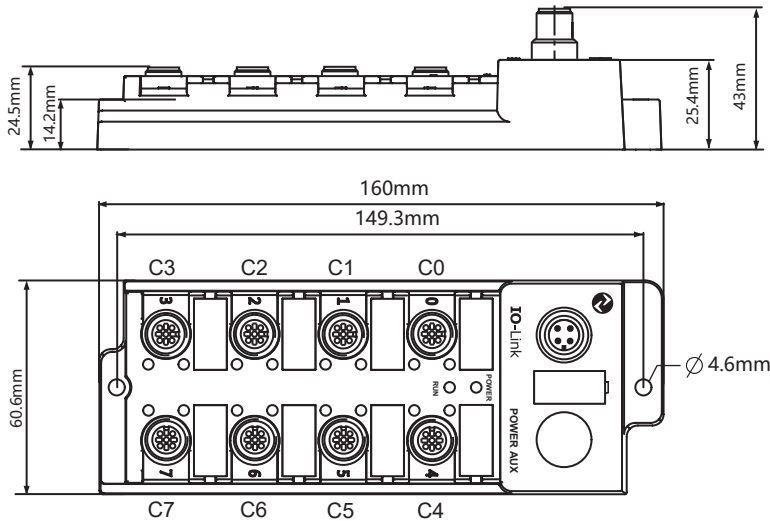




I/O Hub for Connecting Analog Signals to IO-Link Master

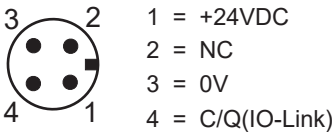
SIOL-M12-8AI 8 Analog Signals Inputs



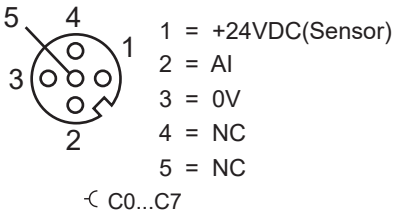
- IO-Link remote I/O device
- 8-channel 4-20mA/0-20mA input, M12, 5-pin
- IO-Link Protocol 1.1
- IO-Link class A, M12, A-code
- Impact and vibration resistance
- Fully potted module electronics
- Copper-plated nickel connector
- Protection classes IP67

Model	SIOL-M12-8AI
Supply voltage	24VDC $\pm$ 10%
Operating current	<100mA
Maximum current consumption	2.4A
Analog Input	
Number of channels	8
Connectivity inputs	M12, 5-pin
Input type	4-20mA/0-20mA analog input
input resolution	$\leq$ 14 bits
input range	0-22mA
Sensor power supply	Maximum 300mA C0...C3 Total current max 1.2 A C4...C7 Total current max 1.2 A The total C0-C7 current is limited to the maximum current of the Master port
IO-Link	
Vendor ID	1317 (0x0525)
Device ID	66066(0x010212)
Number of ports	1
IO-Link specification	V1.1
IO-Link port type	Class A
IO-Link input byte	16 bytes (2 bytes for each analog channel)
Frame type	TYPE_2_2
Transmission rate	COM2 38.4 kbit/s
Minimum cycle time	2400us
ISDU	Supported
Block parameter operation	Not support
Data storage (DS)	Supported
Data storage lock	Supported
Note: This function is supported for compatibility, but the device will not perform this operation.	
Operating temperature	-20-55 $^{\circ}$ C

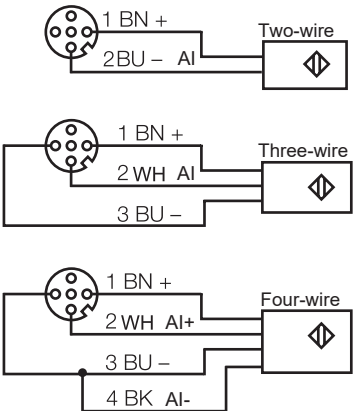
IO-Link M12 interface



Input signal connection M12



Sensor Connection



LED state

Power	Green LED lights:	ON: The module power supply (Ub) 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 Data

Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Port	C0	C0	C1	C1	C2	C2	C3	C3	C4	C4	C5	C5	C6	C6	C7	C7
describe	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)	High (8bit)	Low (8bit)

Note: The 16-bit data of each port is unsigned data in units of uA;
For example: Byte0:0x0F Byte1:0xA0 represents the current input of C0 port 4000uA (0x0FA0) or 4mA;
Byte8:0x4E Byte9:0x20 represents the current input of C4 port 20000uA (0x4E20) or 20mA;

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	0x01 2
0	0x0B 11	Device ID(low)	1Byte	Read	0x10 18

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 Device reset 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	14Byte	Read	SIOL-M12-16DI
0x13 19	0	Device ID	7Byte	Read	6606601
0x14 20	0	Device description	29Byte	Read	I/O Module 16 digital input
0x15 21	0	Serial-Number	9Byte	Read	660660101
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;

