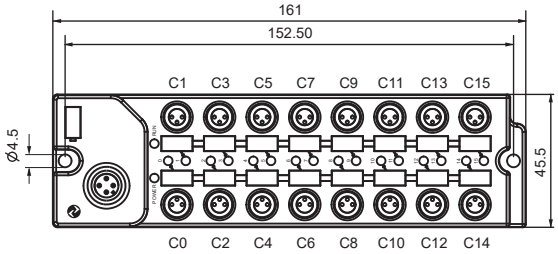
IO-Link

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

SIOL-M8-16DIP 16-Channel PNP Input

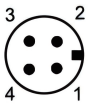
SIOL-M8-16DIN 16-Channel NPN Input



- IO-Link remote I/O device
- 16 digital input channels, 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

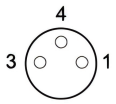
Model	SIOL-M8-16DIP SIOL-M8-16DIN
Supply voltage	24VDC ± 10%
Operating current	< 100mA
Maximum Supply current	2.4A
Input	
Number of channels	16
Connectivity inputs	M8, 3-pin
Input type	PNP or NPN (Depends on the model)
Input impedance	≈3K
Input rated current	≈7mA
Input delay	3ms
Switch threshold	2mA/4mA 7V/11V
Electrical Isolation mode	Optocoupler isolation
Sensor power supply	Maximum 150mA The total C0-C15 current is limited to the maximum current of the Master port
IO-Link	
Vendor ID	1317 (0x0525)
Device ID	65810 (0x010112)
Number of ports	1
IO-Link specification	V1.1
IO-Link port type	Class A
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℃

IO-Link M12 interface

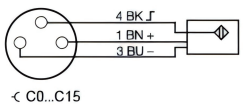


1 = +24VDC
2 = NC
3 = 0V
4 = C/Q(IO-Link)

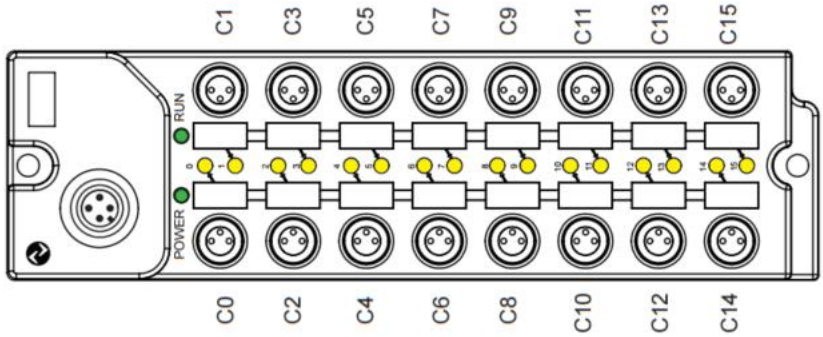
Digital I/O M8 interface



1 = +24VDC
3 = 0V
4 = Signal In



User Manual



LED state

Power	Green LED ligths: ON: The module power supply is normal OFF: The module power supply is disconnected
Run	Green LED ligths: 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...C15	Yellow LED ligths: ON: Input active OFF: Input inactive

Process data

Byte	Bit offset							
	7	6	5	4	3	2	1	0
0	C7P4	C6P4	C5P4	C4P4	C3P4	C2P4	C1P4	C0P4
1	C15P4	C14P4	C13P4	C12P4	C11P4	C10P4	C9P4	C8P4

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

Index	Address	Parameter name	Length	Authority	Description
0	0x077	Vendor ID(High)	1Byte	Read	0x05 5
0	0x088	Vendor ID(Low)	1Byte	Read	0x25 37
0	0x099	Device ID(High)	1Byte	Read	0x01 1
0	0x0A10	Device ID(Median)	1Byte	Read	0x01 1
0	0x0B11	Device ID(Low)	1Byte	Read	0x12 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 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	15Byte	Read	SIOL-M8-16DIP_N
0x13 19	0	Device ID	7Byte	Read	6581001
0x14 20	0	Device description	30Byte	Read	I/O Module M8 16 digital Input
0x15 21	0	Serial-Number	9Byte	Read	658100101
0x16 22	0	Hardware version	8Byte	Read	HW-V0.01
0x17 23	0	Software release	8Byte	Read	FW-V0.01
0x18 24	0	ApplicationSpecific Tag	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 operating normally; 1: Need to maintain; 2: Running incorrect environment or parameters; 3: Device abeyance; 4: Device failed to run;