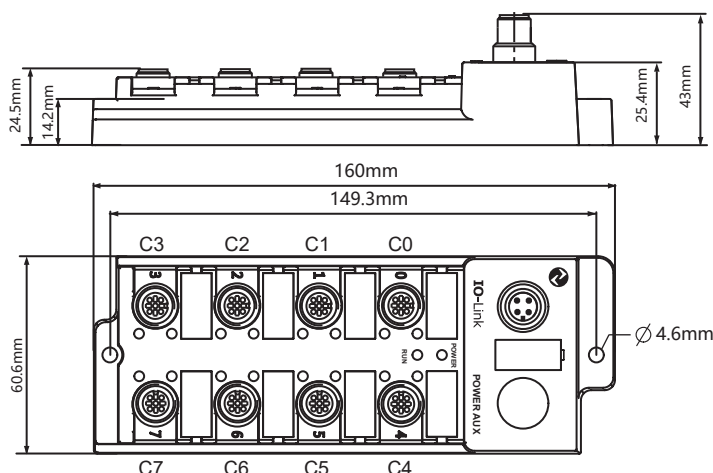


I/O Hub for Connecting Digital Signals to IO-Link Master

SIOL-M12A-8DIOP 8 Digital PNP inputs/8 Digital PNP outputs

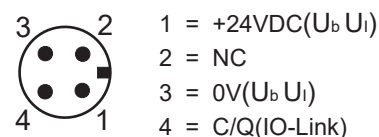
SIOL-M12A-8DION 8 Digital NPN inputs/8 Digital PNP outputs



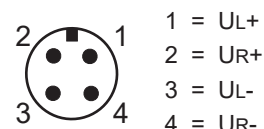
- IO-Link remote I/O device
- 8 Digital inputs Channels, M12, 5-pin
- 8 Digital outputs Channels, Max. 0.2A per output
- IO-Link Protocol 1.1
- IO-Link class A, M12, A-code
- Impact and vibration resistance
- Fully potted module electronics
- Copper-plated nickel connector
- Protection classes IP67

Modle	SIOL-M12A-8DIOP、SIOL-M12A-8DION
Supply voltage	24VDC $\pm$ 10%
Operating current	< 100mA (U_b)
Current required for the auxiliary power supply	< 4A Note: IO-Link Master provides power, Master parameters need to be considered
Input	
Number of channels	8(C0-C3)
Connectivity inputs	M12, 5-pin
Input type	PNP or NPN
Input impedance	3K
Input rated current	7mA
Input delay	3ms
Switch threshold	2mA/4mA 7V/11V
Electrical Isolation mode	Optocoupler isolation
Sensor power supply	Maximum150mA C0...C3 Total current max 1.2 A
Output	
Number of channels	8(C4-C7)
Output type	The common terminal is 0V
Output current	0.2A ; Max. 0.5A ; Total max current <4 A
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	66144(0x010260)
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 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 °C

IO-Link M12 interface

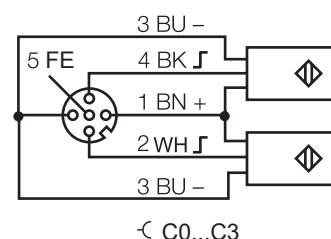


POWER AUX M12 interface

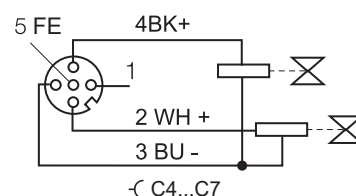


UL+ and UL- provide power for C0-C3 ports
UR+ and UR- provide power for C4-C7 ports

Input Digital I/O M12 interface



Output Digital I/O M12 interface



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

BYTE	Bit offset							
	7	6	5	4	3	2	1	0
0(Input)	C3P2	C3P4	C2P2	C2P4	C1P2	C1P4	C0P2	C0P4
0(Output)	C7P2	C7P4	C6P2	C6P4	C5P2	C5P4	C4P2	C4P4

Note:The C * P * represents the *th pin of the C * port; for example: The 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	0x01 2
0	0x0B 11	Device ID(low)	1Byte	Read	0x10 96

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-M12-8DIO
0x13 19	0	Device ID	7Byte	Read	6614401
0x14 20	0	Device description	29Byte	Read	I/O Module 8 digital Input and 8 digital Output
0x15 21	0	Serial-Number	9Byte	Read	661440101
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;

