

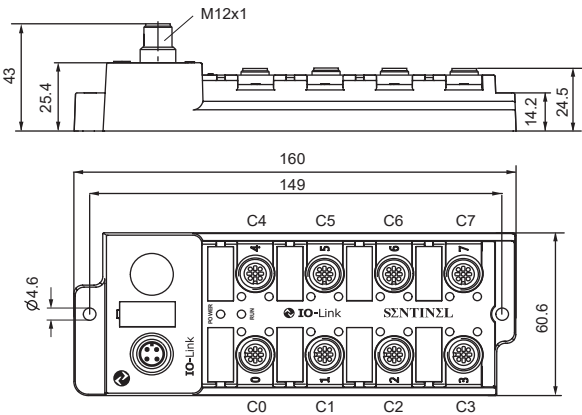
# IO-Link Remote RTD Module

SIOL-M12-8PT12

8-Channel Pt100 Input

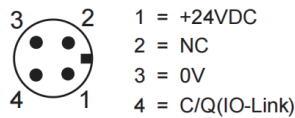


- IO-Link remote RTD device
- 8-channel Pt100 input, M12, 5-pin
- IO-Link V1.1
- IO-Link class A, M12, A-code
- Fiberglass housing
- Impact and vibration resistance
- Fully potted module electronics
- Protection class IP67

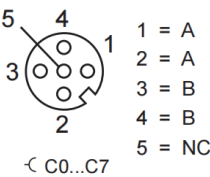


Model	SIOL-M12-8PT12
Supply voltage	24VDC $\pm$ 10%
Operating current	< 100mA
RTD Input	
Number of channels	8
Input signal type	Pt100, 2/3/4
Connectivity type	M12, 5-pin
Measuring range	-200 - 600°C
Input accuracy	$\pm$ 0.5°C
IO-Link	
Vendor ID	1317 (0x0525)
Device ID	66104 (0x010238)
Number of ports	1
IO-Link specification	V1.1
IO-Link port type	Class A
IO-Link input bytes	16 bytes(Each channel Pt100 occupies 2 bytes)
Frame type	TYPE_2_V
Transmission rate	COM2 38.4 kbit/s
Minimum cycle time	8400us
ISDU	Supported
Block parameter operation	Not support
Data storage (DS)	Supported
Data storage lock	Supported
Operating temperature	-20-55°C

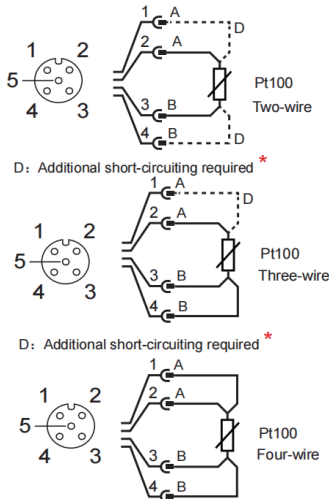
## IO-Link M12 interface



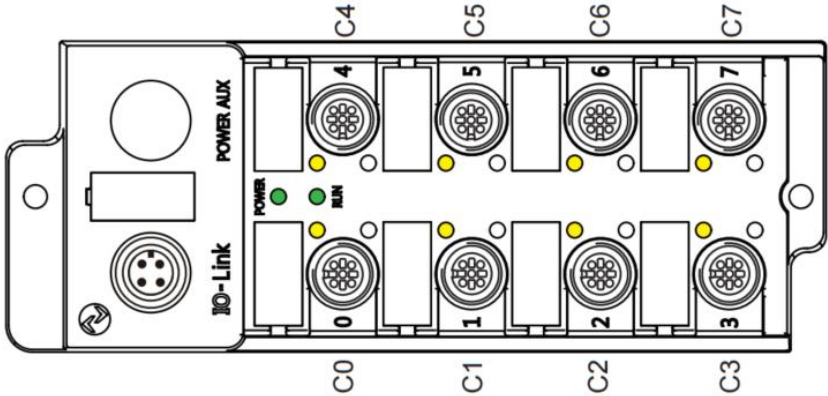
## Input signal connection M12



## RTD Connection



\*: It is recommended to short-circuit the PT100 side. If it is short-circuited at the module input port, the sensor measurement accuracy will be reduced.



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 or Not wired according to the correct wiring method

Process data Input data

Byte	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Port Number	C0	C0	C1	C1	C2	C2	C3	C3	C4	C4	C5	C5	C6	C6	C7	C7
Description	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 a signed number in °C, ranging from -2000 to 6000, that is the actual temperature is amplified by 10 times.  
(When the temperature data is invalid, the data is -4096)

## 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 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	0x02 2
0	0x0B11	Device ID(Low)	1Byte	Read	0x38 56

## Parameter data/Request data/ISDU indexed service data unit

Index	Subindex	Parameter name	Length	Authority	Description
0x022	0	System command	1Byte	Write	0x80 128 Reset device 0x82 130 Restore factory settings
0x1016	0	Manufacturer name	8Byte	Read	Sentinel
0x1117	0	Manufacturer description	41Byte	Read	Sentinel Industrial Ethernet manufacturer
0x1218	0	Device name	14Byte	Read	SIOL-M12-8PTXX
0x1319	0	Device ID	7Byte	Read	6610401
0x1420	0	Device description	27Byte	Read	I/O Module 8 Port RTD Input
0x1521	0	Serial-Number	9Byte	Read	661040101
0x1622	0	Hardware version	8Byte	Read	HW-V0.01
0x1723	0	Software release	8Byte	Read	FW-V0.01
0x1824	0	ApplicationSpecific Tag	Maximum 32Byte	Read Write	This item is defined in the IODD file, Included in the DataStorage(DS)
0x1925	0	Function Tag	Maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x1A26	0	Local Tag	Maximum 32Byte	Read Write	This item is not defined in the IODD file, It can be set directly through Index.
0x2436	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;