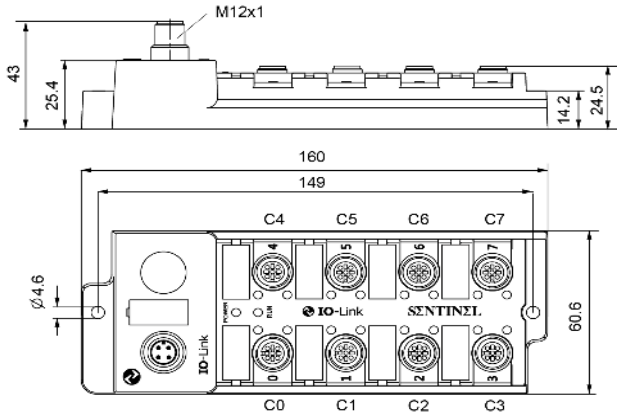
IO-Link Remote Thermocouple (TC) Module

SIOL-M12-8TCK 8-channel K-type input
SIOL-M12-8TCC 8-channel C-type input
SIOL-M12-8TCJ 8-channel J-type input



- IO-Link remote TC input device
- 8-channel TC input, M12 5-pin female
- IO-Link V1.1
- M12 A-coded, IO-Link standard class A interface
- Outer shell made of glass fiber reinforced material
- Impact and vibration resistance
- Electronic circuitry encapsulated with epoxy resin
- Protection class IP67

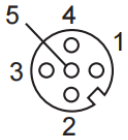
Model	SIOL-M12-8TCK, SIOL-M12-8TCC, SIOL-M12-8TCJ
Supply voltage	24VDC ± 10%
Operating current	< 100mA
TC Input	
Number of input	8
Input signal type	K-Type, C-Type, J-Type (depending on model)
Interface type	M12,5-pin female
Measure range	K-Type: -200...1370℃ C-Type: 0...2300℃ J-Type: -200...1200℃
Input accuracy	%0.2F.S
IO-LINK	
Vendor ID	1317 (0x0525)
Device ID	66105 (0x010239)
Number of ports	1
IO-Link protocol version	V1.1
IO-Link port type	Class A
IO-Link input bytes	16 bytes (2 bytes per TC channel)
Frame type	TYPE_2_V
Transmission rate	COM2 38.4kbps/s
Minimum cycle time	8400us
ISDU (Index Service)	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)

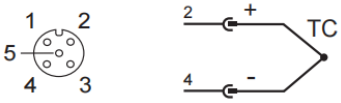
Input Signal Connector M12



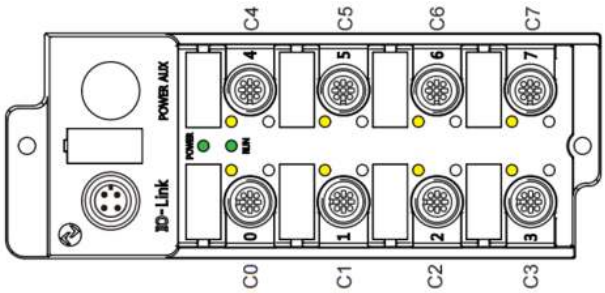
1 = NC
2 = TC+
3 = NC
4 = TC-
5 = NC

C0...C7
NC: **no use**

TC Connection Method



User Manual



LED State

Power	Green On:Power is normal Off:Power failure
RUN	Green Solid:IO-Link communication established Off:Communication not established Blinking: Attempting to establish communication
C0...C7	Yellow On:Signal Input Off:No signal input or incorrect wiring

Process Data Input Data

BYTE	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Channel	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:Each port's 16-bit data is an unsigned value in ℃;The range corresponds to the temperature range of K, C, and J type thermocouples, multiplied by a factor of 10(When temperature data is invalid, the value will be 0xF000)

Direct Parameter page 1

Direct parameters are used to identify the device.Direct parameters are operated by index0.
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	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	0x39 57

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-M12-8TCX
0x13 19	0	Device ID	7Byte	Read	6610501
0x14 20	0	Device description	26Byte	Read	I/O Module 8 Port TC Iutput
0x15 21	0	Serial-Number	9Byte	Read	661050101
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;