

Characteristics

1510 - RTD - TC - IO-LINK -

	- Input:	Pt100 / Thermocouple type J / K / N
	- Measurement range:	-50...+150 °C
	- Accuracy transmitter:	max. 0,3% of range
	- Operating temperature:	-20...+80 °C
	- Output:	IO-Link
	- Resolution:	16 bit
	- Setting:	via software (IO-Link interface)
	- Electrical connection:	M12x1, 4-pole
	- Internal protection:	inside completely potted
	- Material:	stainless steel 1.4571, PBT GF30
	- Protection class:	at least IP65

Technical Data

Input

Pt100:	Sensor:	1x Pt100
	Connection:	3-wire
	Nominal range:	-50...+150 °C
	Sensor current:	0,9 mA
Thermocouple:		
Type J:	Measurement range:	-50...150 °C
Type K:	Measurement range:	-50...150 °C
Type N:	Measurement range:	-50...150 °C
Type K with cross-band:	Measurement range:	-50...150 °C

Output

Interface:	IO-Link
Signal level:	0/24 V (as per IO-Link specification)
Sensor element:	Connections for resistance thermometer directly on plug, cable led out

Performance Parameters

Measurement amplifier:	Accuracy:	max. 0,3% of measurement range + sensor error
	Resolution:	16 bit
	Filter setting:	25 s
	Transient response:	linear mit Temperatur
	Switch-on delay:	<5 s
	Response time:	20 ms

Supply

Voltage:	24 VDC
Reverse voltage protection:	Yes (no function, no damage)

Applications

The MKTS-SPIO is well-suited for both storage and surface temperature measurements. The spring-loaded measuring tip provides for good contact with the measurement point. MKTS-SPIO has a compact and durable design. The transmitter is programmable and has IO-Link capability.



● Technical Data (Continued)

Environmental Conditions

Working temperature:	-20...+80 °C
Storage temperature:	-40...+85 °C
Medium temperature:	-50...+150 °C
System pressure:	not possible, process connection has no sealing function
Condensation:	uncritical

Mechanics

Dimensions:	see page 3
Fitting length:	45 mm / 65 mm / customized
Spring stroke:	14 mm, ±1 mm
Process connection:	3/8" / 1/2" / 3/4"
Electrical connection:	see page 3
Sensor pipe:	Ø6 mm
Material:	Sensor pipe: stainless steel 1.4571
	Process connection: knurled screw, stainless steel 1.4541
	Casing body: stainless steel 1.4571
	Compression spring: spring steel 1.4310
	Insulator body: PTFE white
	Electr. connection insert: PBT GF30
	Option: Stainless steel 1.4571
Weight:	approx. 200 g (1/2", 45 mm, M12)
Fitting position:	any
Device protection:	Protection class: at least IP65 (electronics)
	IP68 (sensor)
	Casing: inside completely potted

Configurable Parameter IO-Link

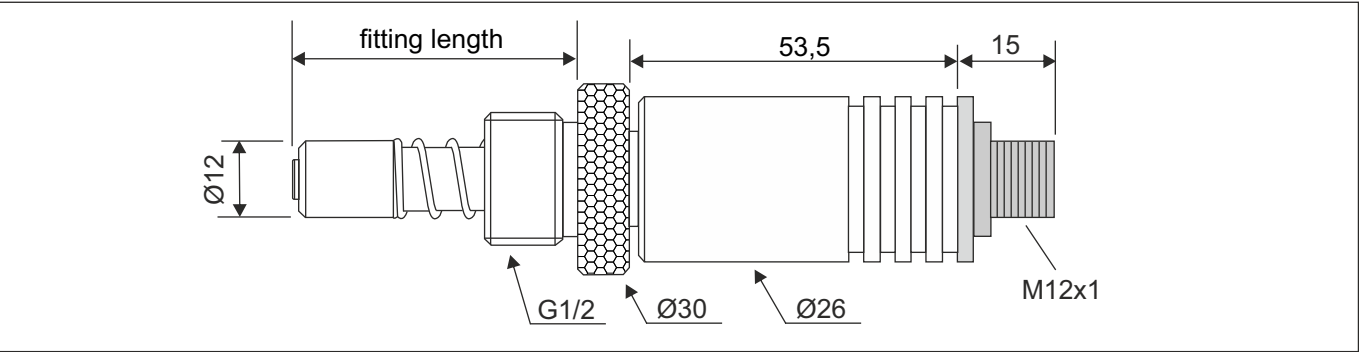
Measuring amplifier:	See Technical Overview IODD MKTS-SPIO
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● **Electrical Connection**

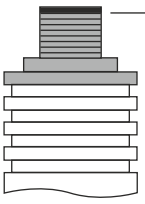
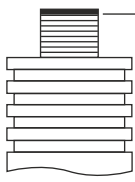
M12x1	
	
4-pole	
Connections with metal insert	
4-pole	

Pin assignment			
Connection at sensor	IO-Link U+ U- C/Q   		
	1	3	4

● **Dimensions, Connection (M12x1)**



● **Electrical Connection Insert**

Example M12x1	
 Insert plastic	 Insert metal
Standard	Option (surcharge)

● **Order Code**

M	Y	X	X	X	X	-	X	-	X	X	X	X	X	X
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Transmitter:	IO-Link	0												
Sensor:	Pt100	0												
	Type J	1												
	Type K	2												
	Type N	3												
	Type K with cross-band	4												
Sensor connection:	3-wire	0												
Fitting length:¹⁾	45 mm						45							
	65 mm						65							
	other length (please specify)						A							
Diameter sensor pipe:	6 mm (Standard)						6							
Process connection:	3/8"								2					
	1/2"								3					
	3/4"								4					
Insert electr. connection:²⁾	Plastic (standard)										1			
	Metal										2			
Electrical connection:	M12x1, 4-pole											1		
Configuration:	without												0	
	Factory setting ³⁾												1	
	customized (please specify) ⁴⁾												2	
Special model:	No													0
	Yes (please specify)													1

1): Other length allowed in 5 mm steps

2): see page 3 down

3): Factory setting: Nominal measurement range: -50...150 °C (LRL...URL) / Measurement range: 0...100 °C (LRV...URV) / Damping: 0 s

4): Please select details from within the range of available technical data.