

S-MKTS-SPIO Modular temperature sensors with spring IO-Link

Modular Temperature Sensors Spring IO-Link S-MKTS-SPIO

● Characteristics

1510 - RTD - TC - IO-LINK -

	- Input:	Pt100 / Thermocouple type J / K / N
	- Measurement range:	-50...+150 °C
	- Accuracy transmitter:	max. 0,02% 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. 0,02% 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.



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● 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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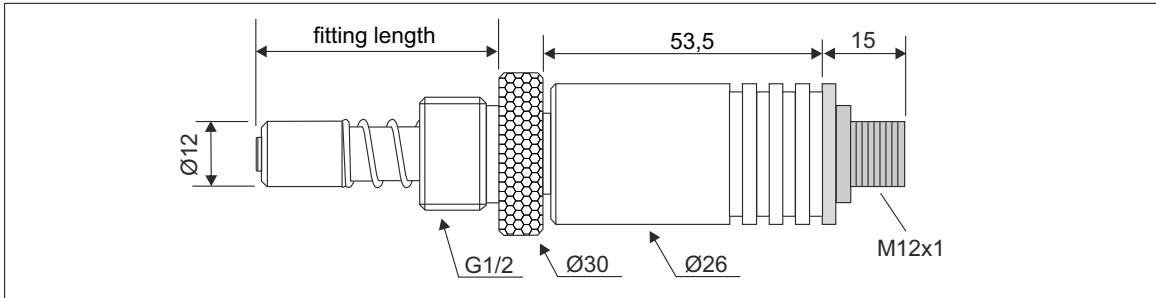
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● Electrical Connection

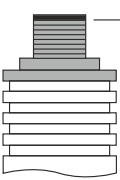
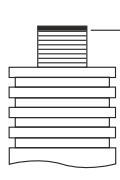
M12x1	
	
4-pole	
Connections with metal insert	
4-pole	

Pin assignment											
	<table border="1"> <tr> <th colspan="3">IO-Link</th> </tr> <tr> <td>U+</td> <td>U-</td> <td>C/Q</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </table>		IO-Link			U+	U-	C/Q			
IO-Link											
U+	U-	C/Q									
Connection at sensor											
M12, 4-pole	1	3 4									

● Dimensions, Connection (M12x1)



● Electrical Connection Insert

Example M12x1	
	Insert plastic
	Insert metal
Standard	Option (surcharge)

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● **Order Code**

		M	Y	X	X	X	X	-	X	-	X	X	X	X	X	X
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.