

● Characteristics

1510 - RESISTANCE THERMOMETER - RTD - TC - IO-LINK -

	- Input:	Pt 100 / thermocouple type J / K / N
	- Measurement range:	-50...+200 °C maximum
	- Accuracy transmitter:	max. 0,02% of range
	- Operating temperature:	-20...+80 °C
	- Output:	IO-Link
	- Resolution:	16 bit
	- Configuration:	via software (IO-Link interface)
	- Electrical connection:	Several plugs, cable
	- 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...+200 °C
	Sensor current:	0,9 mA
Thermocouple:		
Type J:	Measurement range:	-50...200 °C
Type K:	Measurement range:	-50...200 °C
Type N:	Measurement range:	-50...200 °C
Type K with cross-band:	Measurement range:	-50...200 °C

Output

Interface:	IO-Link
Signal level:	0/24 V (as per IO-Link specification)

Performance Parameters

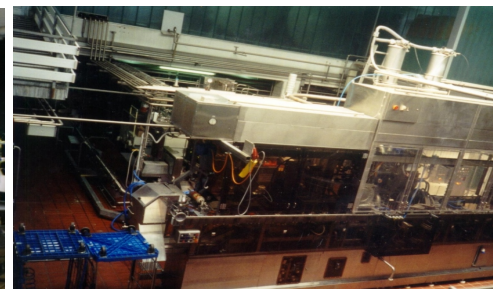
Measurement amplifier:	Accuracy:	max. 0,02% of measurement range + sensor error
	Resolution:	16 bit
	Filter setting:	25 s
	Transient response:	linear mit Temperatur
	Switch-on delay:	<5 s
	Response time:	20 ms

Supply

Voltage:	24 VDC
Current:	Standard: <30 mA
	Switching current (SIO): max. 100 mA
	Total current consumption: max. 130 mA
Reverse voltage protection:	Yes (no function, no damage)

● Applications

For use in air conditioning plants, ventilating plants and heating installations. The sensor with its compact and robust design features a programmable transmitter with an IO-Link interface. The transmitter reduces stock levels considerably.



● **Technical Data (Continued)**

Environmental Conditions

Operating temperature:	-20...+80 °C
Storage temperature:	-40...+85 °C
Medium temperature:	-50...+200 °C
System pressure:	25 bar maximum
Condensation:	uncritical

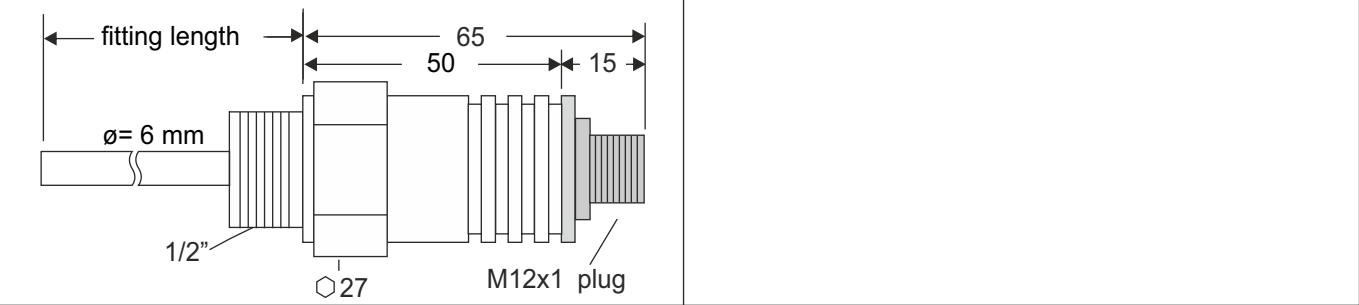
Mechanics

Dimensions:	see page 3
Process connection:	without / 1/4" / 3/8" / 1/2" / 3/4" / 1" / 1/4NPT / 3/8NPT / 1/2NPT
Electrical connection:	see page 3
Sensor measuring pipe:	Ø6 mm
Material:	Sensor pipe: stainless steel 1.4571
	Process connection: stainless steel 1.4571
	Casing body: stainless steel 1.4571
	Electr. connection insert: PBT GF30
	Option: Stainless steel 1.4571
Weight:	approx. 200 g (1/2", 45 mm, M12)
Fitting position:	any
Equipment protection:	Protection class: at least IP65 (electronics)
	IP68 (sensor)
	Casing: inside completely potted

Configurable Parameter IO-Link

Measuring amplifier:	See Technical Overview IODD MKTS-IO
----------------------	-------------------------------------

● **Dimensions, Connection (M12x1)**



● **Electrical Connection Insert**

Example M12x1	
Insert plastic	Insert metal
Standard	Option (surcharge)

● **Electrical Connection**

M12x1	
4-pole	
Connections with metal insert	
4-pole	

Pin assignment			
		IO-Link U+ U- C/Q   	
Connection at sensor			
M12, 4-pole		1	3 4

● **Order Code**

M	X	X	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													
Sensor connection:	3-wire	0													
Fitting length:¹⁾	50 mm														50
	100 mm														100
	160 mm														160
	200 mm														200
	250 mm														250
	400 mm														400
	600 mm														600
	1000 mm														A00
Diameter sensor pipe:	6 mm (standard)														6
Process connection:	without														0
	1/4"														1
	3/8"														2
	1/2"														3
	3/4"														4
	1"														5
	1/4NPT														7
	3/8NPT														8
	1/2NPT														9
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): For coding see price list, lengths are in 5 mm Schritten

2): see page 3, „Electrical Connection Insert“

3): Factory setting: Nominal measurement range: -50...200 °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.