

RIC500 Temperature transmitter for industrial processes

With the Riels® RIC500 temperature sensors it is possible to perform wide range temperature measurements (-40°C to 600°C) for monitoring various industrial processes.

The transmitter is compatible with solid surfaces, but also with liquids, gases and vapors.

RIC500 is composed of a powerful and resistant electronic compensation /switching circuit and a high precision sensor that makes it a device with excellent performances of high sensitivity, stability and accuracy.

Application

- Chemical machinery temperature control
- Compressor temperature measurement
- Boiler temperature measurement and control

Feature

- Measuring range: -40÷600°C
- Accuracy: 0.1%FSO; 0.25%FSO; 0.5%FSO
- Manufactured using Pt100 or Pt1000
- Variety of mechanical interface
- output: 4÷20mA, option RS485



Technical specifications

Parameter	Value	Notes
Measuring media	gas or liquids compatible stainless steel	
Material	AISI 304SS	
Measuring range	-40÷600°C	
Output signal	4÷20mA (option RS485)	
Accuracy	0.1%FSO; 0.25%FSO; 0.5%FSO	1,2
Power supply	12÷36Vdc	
Long-term stability	<0.3%FS/year	1
Ambient temperature range	-40÷85°C	
Protection	IP65	
Insulation resistance	100MΩ@100VDC	
Response time	≤30s	
Mechanical interface	G1/2, G1/4, M20x1.5 or other	
Electrical interface	DIN43650 (other types of connections are also available and the possibility of installing an LCD/LED display)	
Probe diameter	∅ 6mm(standard), ∅ 8mm, ∅ 10mm	

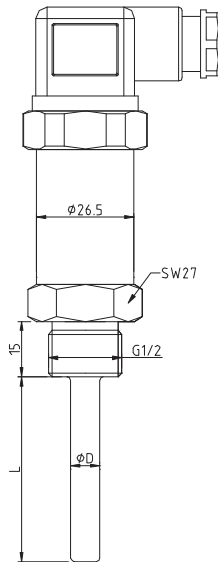
Notes

1. All values measured at 25°C (77°C)
2. Including non-linearity, hysteresis and repeatability
3. measuring temp ≥ 150°C, need to increase the heat sink

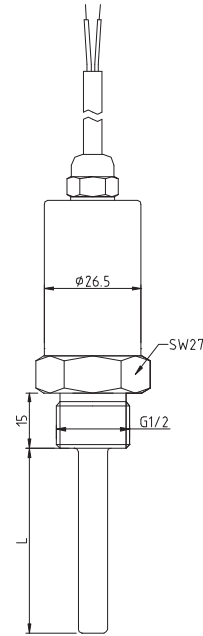
The listed specifications and dimensions are subject to change without prior notice.

Electrical connections and dimensions

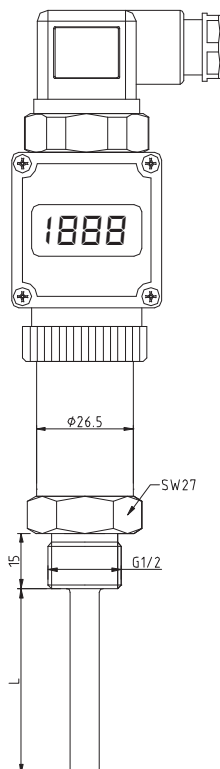
Connector DIN43650



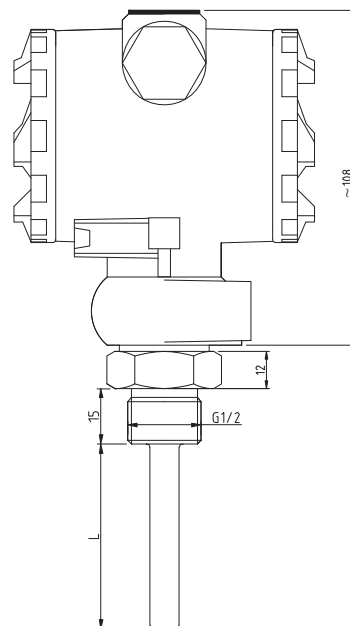
Cable outlet with PVC-cable



DIN43650,3-1/2 digits LCD/LED indicator



2088 housing LCD LED indicator



Order codes

Model								
RIC500	Temperature transmitter							
Temperature Range								
0040	-40÷100°C							
0100	0÷100°C							
0200	0÷200°C							
0300	0÷300°C							
0400	0÷400°C							
0500	0÷500°C							
0600	0÷600°C							
Customized range								
Output Signal								
42	4÷20mA							
R	RS485							
Accuracy								
01	0.1%FS							
02	0.25%FS							
05	0.50%FS							
Mechanical interface								
M2	M20x1.5							
G4	G1/4							
G2	G1/2							
N1	1/4 NPT							
Customized								
Electrical Interface								
D	DIN43650							
H1	DIN43650,3-1/2 digits LCD indicator							
H2	DIN43650,3-1/2 digits LED indicator							
C	Cable outlet with PVC-cable,length=1.5m							
P1	2088 LCD indicator							
P2	2088 LED indicator							
Probe diameter								
D6	Ø6mm							
D8	Ø8mm							
D10	Ø10mm							
Customized								
Probe length								
L=50mm Customized								
RIC500	0200	42	05	G2	D8	D	50	RIC500-0200-42-05-G2-D8-D-50