

Averaging RTD Sensors

These averaging RTD sensors are used to provide temperature measurement across a specified sensing length and cross sectional area. The sensor is supplied with a stainless steel protecting sheath and an output conforming to a Pt 100 Ω element with $0.00385 \Omega / \Omega / ^\circ\text{C}$ temperature coefficient. During installation the protective sheath of the sensor is routed to cover the surface area to be measured. The averaging RTD sensor is then mounted directly at the sensing area or remote mounted to a location for termination. The averaging RTD sensor can be supplied in a 3-wire or 4-wire configuration.

Applications

- Heating, Ventilation and Air Conditioning (HVAC)
- Building Automation
- Air Handling Systems

Features

- CSA approved
- Wide temperature range
- Customized sensing length
- Transmitter or analogue output
- Robust design for industrial use
- Flexible design for installation

Description

The WIKA Averaging RTD sensors are industrial assemblies supplied with or without a termination head. An extensive range of connection heads, transmitters, insertion lengths, sensing lengths, and process connections can be individually selected for the appropriate application.



Model TR10 Averaging RTD Sensor

Averaging RTDs in this series can be inserted directly into process ducting or air handling units for averaging or stratification temperature measurement.

Replacement sensors can also be configured for this averaging RTD sensor model.

Specifications

Tolerance value: $\pm 0.3^{\circ}\text{C}$ @ 0°C , ($\pm 0.55^{\circ}\text{F}$ @ 32°F)

Measuring element: Conforms to Pt 100 Ω element
0.00385 $\Omega / \Omega / ^{\circ}\text{C}$ temperature coefficient

Temperature Range: Measuring range -40°C ... $+200^{\circ}\text{C}$ (-40°F ... 392°F)

Connection method: 1x 3-wire and 1x 4-wire

Sheath material: 316SS

Sheath diameter: $\varnothing 4.8\text{ mm}$ ($\varnothing 3/16''$), $\varnothing 6.4\text{ mm}$ ($\varnothing 1/4''$)

Flex armour: $\varnothing 6.4\text{ mm}$ ($\varnothing 1/4''$) stainless steel

Ordering Options, Model TR10 / TR15 Averaging

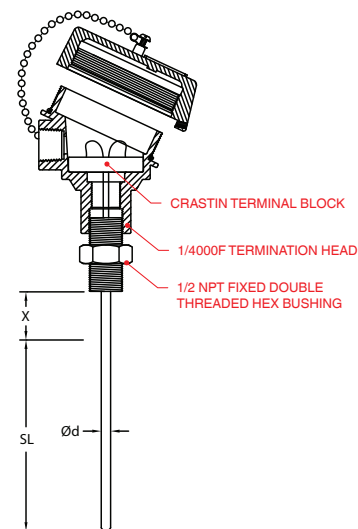
Field No.	Code	Description
Sensor Wiring		
①	3	1 x 3-wire
	4	1 x 4-wire
Sensor diameter ($\varnothing d$-dim)		
②	18	$\varnothing 4.8\text{ mm}$ ($\varnothing 3/16''$)
	25	$\varnothing 6.4\text{ mm}$ ($\varnothing 1/4''$)
Sensing Length (SL-dim)		
③	48.0	48 inch / 4 feet (1.2m)
	84.0	84 inch / 7 feet (2.1m)
	180.0	180 inch / 15 feet (4.6m)
	XXX.X	Specify length in inch **
Extension Length (X-dim)		
④	Maximum length (SL-dim + X-dim) = 240" / 20 feet (6.1m)	
	6.0	Default length 6 inch (150mm)
	XXX.X	Specify length in inch ¹
Process connection		
⑤	B	1/2 NPT compression fitting with SS ferrule ²
	D	1/2 NPT fixed double threaded hex bushing
	Z	Without
Terminal block / transmitter		
⑥	1	Crastin terminal block
	5	T15, digital transmitter, 4...20mA programmable
	Z	Without
Connection Head		
⑦	1	1/4000 (Aluminum) 1/2 NPT instrument x 3/4 NPT conduit
	Z	Without
Flex length (W-dim)		
⑧	Maximum 1200 inch / 100 feet (30.5m)	
	XXXX	Specify length in inch
	Z	Without
		TR15 ONLY

1 - Non-standard selection, Factory will verify order details

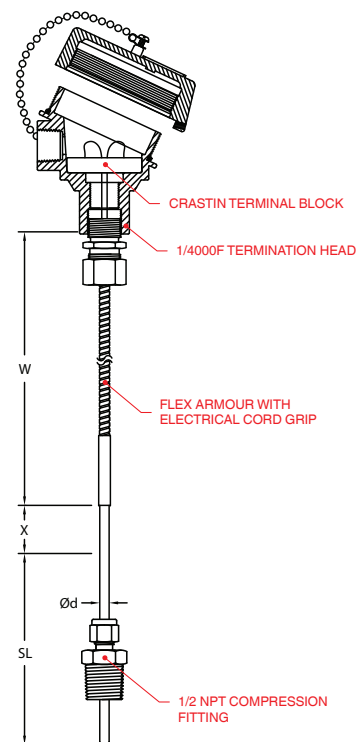
2 - Compression fitting supplied loose on sensor

** Please contact your local sales representative for other options

Order Code: TR10 (AVG)	①	②	③	④	⑤	⑥	⑦	⑧
Order Code: TR15 (AVG)								



TR10 Averaging RTD
TR10 (AVG) - X - XX - XXXX - 60 - D - 1 - 1



TR15 Averaging RTD
TR15 (AVG) - X - XX - XXXX - 60 - B - 1 - 1 - XXXX