

Fixed Point RTD or T/C Simulator (TestKit TK 18591)



The Fixed Point RTD or T/C Simulator (TK 18591) is a handy instrument which simulates either RTD or T/C sensor. It has 12 discrete calibration points (CPs) for the calibration of electronic temperature indicators, recorders and controllers. In case of T/C sensors, the simulator also incorporates automatic Cold Junction Compensation (CJC). They are suitable for cost-effective mass calibration & on site quick calibration of RTD & T/C indicators.

Features

- ▶ Simulates one RTD or T/C
- ▶ Very good accuracy, reliability & longevity
- ▶ 12 discrete calibration points (CPs)
- ▶ Ultralow temp coefficient (0.002% of rdg/°C)
- ▶ RTD simulation in 2-wire or 3-wire mode
- ▶ Automatic T/C cold junction compensation (CJC)
- ▶ Compact in size and built for toughest environments
- ▶ Unique self-check facility ensures reliable operations
- ▶ Powered by 2 AAA sized batteries (T/C TestKits only)

Applications

- ▶ Simulates RTD (2-wire/3-wire) or T/C (Auto CJC)
- ▶ Calibrates temp indicators with RTD or T/C input
- ▶ Calibrates temperature controllers and transmitters



Sensor			Available Range Codes (see table below)						
Type	Name	Code	A	B	C	D	E	F	G
RTD ^[1]	Pt-46	Q	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>				
	Pt-100	P	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	Cu-53	C	<input checked="" type="checkbox"/>						
T/C ^[2]	Type B	B						<input checked="" type="checkbox"/>	
	Type E	E			<input checked="" type="checkbox"/>				
	Type J	J		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
	Type K	K		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	Type N	N		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
	Type R	R					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Type S	S					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Type T	T		<input checked="" type="checkbox"/>						

User specified requirements^[3]


Range Code	12 Calibration Points (CPs)											
	CP1	CP2	CP3	CP4	CP5	CP6	CP7	CP8	CP9	CP10	CP11	CP12
A	-50	-25	0	25	50	75	100	125	150	175	200	225
B	-50	-25	0	25	50	100	150	200	250	300	350	400
C	-50	0	50	100	150	200	250	300	350	400	500	600
D	-50	0	50	100	150	200	300	400	500	600	700	800
E	0	50	100	150	200	300	400	500	600	800	1000	1200
F	0	200	400	600	800	1000	1100	1200	1300	1400	1600	1750

[1] RTDs conform to IEC751/DIN43760 standard [2] T/Cs conform IEC584/ITS-90 standard [3] Contact us with for specific requirements

Technical Specifications $22 \leq T_A \leq 32^\circ\text{C}$; $V_{\text{LOBAT}} \leq V_s \leq 3\text{V}$ (T/C TestKit only); 1 year of calibration validity

Accuracy		$\pm 0.05\%$ FS	
Temp Coefficient		< 0.002% of rdg / $^\circ\text{C}$	
T/C TestKit Only	Battery	Type	2 AAA sized batteries
		Life	72 - 84 Hrs. of continuous use
		Status	Displays battery level using LED glow
	CJ Compensation	Automatic	
	CJ Error	1°C for $5 \leq T_A \leq 55^\circ\text{C}$	
Storage Temperature		0 to 70°C w/o batteries	
Humidity		Less than 90% Rh (Non-condensing)	
Operating Temperature		5 to 55°C	
Enclosure Size		160(L) x 70(W) x 25(H) mm	
Enclosure Finish		Powder coated	
Weight		200g w/o batteries	

Standard Accessories

Accessories	Included	BS-5(4mm) probes, crocodile clips, leather case, 2 AAA sized dry batteries	
	Optional	2 AAA sized Ni-Mh batteries, external battery charger	
Documentation	Included	Warranty certificate ^[1] , Calibration certificate ^[2] , User manual, RTD & T/C temp tables	
	Optional	NABL Calibration certificate	

Ordering Information

Model No.	Sensor Code	Range Code
18591	X	X
Example	Specify 18591PA to order the RTD TestKit to simulate Pt-100 with a range of -50 to 400°C	

[1] Valid for 2 years against mfg defects.

[2] Traceable to NABL, India.