

Operating and Instruction Manual:

DTC-4308-RS

Specifications:

- Input: Pt/Pt-RH13%(R-type) OR Pt/Pt-RH10%(S-type)
- Output: Relay 5A/230VAC Resistive
- Op. Temperature: 0~50 Deg.
- Supply: 230V AC +/- 15%
- Resolution: 1 °C
- Range: S-type ->0~1700
R-type ->0~1700
- Accuracy: 0.25% +/- 1LC.
- No. Of Set-Points: 1/2/3
- PV Offset: settable from -99~99°C
- For Set-1:
 - Control Action: On/Off or Proportional
 - Proportional Band: 1~99°C
 - Cycle Time: 1~99 seconds
 - Manual Reset: 1~99°C
 - Hysteresis: 1~99°C
- For Set-2:
 - Control Action: On/Off only
 - Control Logic: Heat/Cool/Alarm High/Alarm-Low/deviation AI-HI/deviation Alarm Low/deviation AI -HI and Low
- Hysteresis: 1~99°C
- Range Limit: Similar to Set-1 (settable)
- Dimensions:
 - Cutout: 92mm (W) x 92mm (H)
 - Overall: 96mm(W) x 96mm(H) x 90mm (D)

Configuration Setting:

Turn Off the Instrument. Now Short the terminals marked configuration and turn ON the Instrument. Now change/read the configuration parameters as below. After setting, turn OFF the Instrument, remove the shorting and turn ON the Instrument to apply the new settings.

Key Press	Display	Description
1. To select the input sensor type		
Upper Display	INP	
Sensor Type	r	(0~1700 °C)
Press Set +△	S	(0~1700°C)
2. Press ▽ to change the process value offset if required.		
Upper Display	PUoS	Process offset
	0000	°C
Press Set + ▽ to change the offset value. Refer Table-1 for limits for various input types.		
3. Press ▽ to select Control Mode for set-1		
Upper Display	Cnt1	
Control Mode	On	On-Off
Press Set +▽	Pr	Time Proportional
4. Press ▽ to set Hysteresis value if Cnt1 = "ON"		
Upper Display	HYS1	
Hysteresis	01	(0.1~99.9° C for P1)
This parameter determines the value of the Process value at which the Relay must turn ON in On/off mode and can be changed by pressing Set+△ or Set + ▽.		
5. Press ▽ To set Proportional Band in °C if Cnt1 = "Pr"		
Upper Display	P	
Proportional Band	01	(1~99° C)
This parameter determines the value of the Process value below the Set Value at which the Proportional Action will start. Change value by pressing Set+△ or Set + ▽.		

Key Press	Display	Description
6. Press ▽ To set Cycle Time in seconds if Cnt1 = "Pr"		
Upper Display	CYCT	
Cycle Time	20	(1~99 sec.)
This parameter determines the total cycle time for the Proportional Action. Change value by pressing Set+△ or Set + ▽.		
7. Press ▽ To determine the maximum set point limit for Set1		
Upper Display	rn61	
Set point Limit	1200	°C
Press Set + ▽ to change the Set point limit. Refer Table-1 for limits for various input types.		
8. Press ▽ to select Lock mode		
Upper Display	LcF	
Press Set +▽	0000	(0 to 2)
This parameter determines whether the manual reset parameter/set-2 should be accessible from the front panel to the user. If Lck = 0 : disable all. If Lck = 1 : show manual reset only. If Lck = 2 : show manual reset and set-2 only.		
9. To select control action for Set-2		
Upper Display	Cnt2	
	HEAt	Heat (For) logic
Press Set +△	Cool	Cool(Rev) Logic
Press Set+△	A-HI	Alarm high logic
Press Set+△	A-Lo	Alarm Low logic
Press Set+△	d-HI	Deviation hi logic
Press Set+ △	d-Lo	Deviation Low logic
Press Set+ △	both	Both dev. HI and low
10. Press ▽ To set Hysteresis value of Set-2		
Upper Display	HYS2	
Hysteresis	01	(1~99° C for P1)
Change by pressing Set+△ or Set+ ▽.		

Key Press	Display	Description
11. Press ▽ To determine the maximum set point limit for Set2		
Upper Display	rn62	
Set point Limit	0450	°C
Press Set + ▽ to change the Set point limit. Refer Table-1 for limits for various input types.		
Changing Set-1 Value:		
Turn On the Instrument. The upper display will show the Process temperature and the lower display will show the Set-1 temperature. To change the Set-1, press Set +△ to increase the value or Set + ▽ to decrease the value. The upper display will show 'Set1' as shown below.		
Press ▽ to change the Set-1 value		
Upper Display	SEt1	
	1200	°C
Press Set + ▽ or Set+ △ to change the Set-1 temperature values. Refer Table-1 for limits for various input types.		
Changing Manual Reset/Set-2/Set-3:		
Turn On the Instrument. The upper display will show the Process temperature and the lower display will show the Set-1 temperature. To enter editing mode Press and hold △ + ▽ for 3~4 seconds. The upper display will show as below:		
Upper Display	MAN	
	0000	°C
Press Set + ▽ or Set+ △ to change the Manual Reset values.		
Press ▽ to display the Set-2 value		
Upper Display	SEt2	
	0200	°C
Press Set + ▽ or Set+ △ to change the Set-2 temperature values. After changing the required values, Press and hold △ + ▽ for 3~4 seconds to come out of the editing mode. Note that the parameters displayed in this mode is dependent upon the Lock ('Lck') parameter in the configuration mode. Also note that if none of the keys are pressed for more than 10~12 seconds, the unit will automatically come out of this mode.		

Table -1

This table shows the maximum set point limit ranges for different inputs:

- R-type : 0 ~ 1700 °C
- S-type : 0 ~ 1700 °C

Limits for R/S-type Input:

- Hysteresis : 0 ~99°C
- Proportional Band : 1~99°C
- Cycle time : 1~99°C
- Process offset : -99~99°C
- Manual Reset : 0~99°C

Default Factory Set Values:

INP	r
Cnt1	On
HYS1	01
P	20
CYCT	20
MAN	00
rn61	1700
rn62	1700
HYS2	01
Cnt2	d-HI
SEt1	1200
SEt2	0020