

Operating and Instruction Manual:

DTC-4303 /4203/4403/4503/4603

Version 2.0

Specifications:

1. Input: J / K / Pt-100 selectable
2. Control Action: On-Off / Time Proportional
3. Output: Relay 5A/230VAC Resistive
4. Op. Temperature: 0~50 Deg.
5. Supply: 230V AC +/- 15%
6. Resolution: 1 Deg./0.1 deg for Pt-100
7. Range: Pt-100 -> -50.0~400.0 Deg.
J-type -> 0~600 Deg.
K-type -> 0~1250 Deg.
8. Hysteresis: 0~99 Deg./0~99.9 deg.
9. Proportional Band: 0~99 Deg.
10. Cycle Time: 1~99 seconds.
11. Manual Reset : 0~99 Deg.
12. Control Direction : Heat / Cool
(For On/Off only)
13. Cutout: 92mm (W) x 92mm (H) for DTC-4303
68mm(W) x 68mm (H) for DTC-4203
44mm (W) x 44mm (H) for DTC-4503
92mm(W) x 44mm (H) for DTC-4403
44mm(W) x 92mm (H) for DTC-4603

14. Overall: 96mm(W) x 96mm(H) x 90mm (D)
for DTC-4303
72mm(W) x 72mm(H) x 115mm(D)
for DTC-4203
48mm(W) x 48mm(H) x 100mm (D)
for DTC-4503
96mm(W) x 48mm(H) x 70mm(D)
for DTC-4403
48mm(W) x 96mm(H) x 70mm(D)
for DTC-4603

Configuration Setting:

Turn Off the Instrument. Now Short the terminals marked configuration and turn ON the unit. Now change 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
●. To select the Input sensor type		
(Display)	INP	for 2 seconds)
Sensor Type	J	(0~600° C)
Press Set +△	F	(0~1250°C)
Press Set +△	Pt 1	(-50.0~400.0°C)
Press Set +△	Pt 2	(-50~400°C)
●. Press ▽ To set Offset for Process value		
(Display)	Pu05	for 2 seconds)
Offset	01	(-99.9~99.9° C)
This parameter is added to the Process value to compensate for any offset error due to the sensor. It can be changed by pressing Set+△ or Set + ▽ .		
●. Press ▽ to select Control Mode		
(Display)	Ctrlr	for 2 seconds)
Control Mode	On	On-Off
Press Set +▽	Pr	Time Proportional
●. Press ▽ To set Hysteresis value If Cntr = "ON"		
(Display)	HYS	for 2 seconds)
Hysteresis	01	(1~99° C)
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 + ▽ .		
●. Press ▽ To set Proportional Band In °C If Cntr = "Pr"		
(Display)	Pb	for 2 seconds)
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
●. Press ▽ To set Cycle Time In seconds If Cntr = "Pr"		
(Display)	CYC	for 2 seconds)
Cycle Time	20	(1~99 sec.)
This parameter determines the total cycle time for the Proportional Action .Change value by pressing Set+△ or Set + ▽ .		
●. Press ▽ To set Relay Logic		
(Display)	RLY	for 2 seconds)
Relay logic	HEAt	Forward
Press Set +▽	COOL	Reverse
Press Set +▽	A-HI	Alarm-High
Press Set +▽	A-LO	Alarm-Low
●. Press ▽ To determine the maximum set point limit		
(Display)	rn6	for 2 seconds)
Set point Limit	0450	°C
Press Set + ▽ to change the Set point lmt. Refer Table-1 for limits for various Input types.		
●. Press ▽ to select Lock mode		
(Display)	LcF	for 2 seconds)
Lock Mode	0	Enable
Press Set +▽	1	Disable
This parameter determines whether the manual reset parameter should be accessible from the front panel to the user. If Lck = en, then the user is prohibited from entering the manual reset mode and vice versa.		
Press ▽ to return to parameter -1 (Input).		
●. Press ▽ To select Instrument reset		
(Display)	rSt	for 2 seconds)
Reset Value	0	
Press Set + △ to scroll from 0 to 8. Set to '6' for resetting the Instrument to default values as given below.		

Default Reset Values:

INP	J
Pu05	0000
Ctrlr	On
HYS	01
Pb	20
CYC	20
RLY	HEAt
rn6	0600
rSt	0
LcF	0

Note that the Set Point remains unaffected even on Instrument reset.

Table -1

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

1. J-type : 0 ~ 600 °C
2. K-type : 0~1250 °C
3. Pt-100 : -50.0~400.0 °C

Programming Set Point:

To view set point, press any one key .
To Increase Set Point: Press 'Set + △ '
To decrease Set Point Press Set+ ▽ '

Programming Manual Reset:

To view Manual Reset, Press and hold △ and ▽ for 3~4 seconds.

(Display)	rAn	for 2 seconds)
Manual Reset	00	(1~99° C)

This parameter compensates for the offset created by the controller when controlling the process value near the set point.

To Increase Man. reset, Press 'Set + △ '
To decrease Man. Reset ,Press Set+ ▽ '
To come out of the mode, press ▽ .

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Press Set +△	Pt 1	(-50.0~400.0°C)
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●. Press ▽ To set Offset for Process value		
(Display)	Pu05	for 2 seconds)
Offset	01	(-99.9~99.9° C)
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●. Press ▽ to select Control Mode		
(Display)	Ctrlr	for 2 seconds)
Control Mode	On	On-Off
Press Set +▽	Pr	Time Proportional
●. Press ▽ To set Hysteresis value If Cntr = "ON"		
(Display)	HYS	for 2 seconds)
Hysteresis	01	(1~99° C)
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 + ▽ .		
●. Press ▽ To set Proportional Band In °C If Cntr = "Pr"		
(Display)	Pb	for 2 seconds)
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
●. Press ▽ To set Cycle Time In seconds If Cntr = "Pr"		
(Display)	CYC	for 2 seconds)
Cycle Time	20	(1~99 sec.)
This parameter determines the total cycle time for the Proportional Action .Change value by pressing Set+△ or Set + ▽ .		
●. Press ▽ To set Relay Logic		
(Display)	RLY	for 2 seconds)
Relay logic	HEAt	Forward
Press Set +▽	COOL	Reverse
Press Set +▽	A-HI	Alarm-High
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