

T9275A Electronic Temperature Controller

Smartronic70 Series

INSTALLATION INSTRUCTIONS

Dimensions: 730 mm (width), 85 mm (height), 32 mm (depth).
Terminal Block: 1 2 3 4 5 6 7 8. Locking Plug for wiring use.

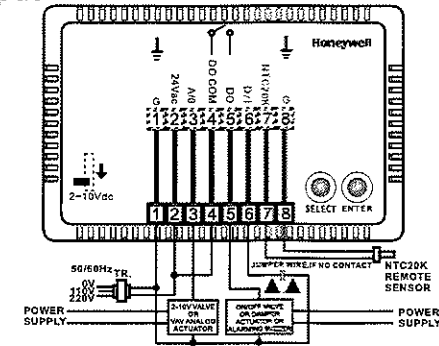
Wall Mounting: A series of five diagrams showing the controller being inserted into a wall-mounted terminal block.

DIN Rail Mounting: A series of four diagrams showing the controller being inserted into a DIN rail.

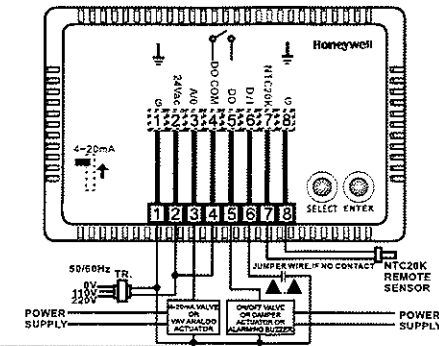
Front Panel Mounting: A series of four diagrams showing the controller being inserted into a front panel cutout.

T9275A Electronic Temperature Controller

2-10Vdc Output



4-20mA Output

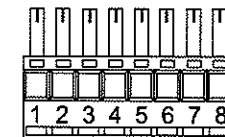


Remark:

- ① ALL WIRING MUST COMPLY WITH LOCAL WIRING AND ORDINANCES
- ② ADD JUMP WIRE BETWEEN TERMINAL 6 AND TERMINAL 1 IF NO LOAD IS CONNECTED
- ③ SOME WIRE CONNECTION MAY NOT REQUIRED IF NO PERIPHERAL EQUIPMENT EXISTS
- ④ IT IS RECOMMENDED TO USE SEPARATE POWER SUPPLY AS THE MAIN POWER FOR PERIPHERAL EQUIPMENTS

Locking Plug

- ① LOCKING PLUG IS FOR WIRING USE
- ② PLEASE CONNECT THE WIRING PER THE MARKED NUMBER ON LOCKING PLUG THEN LOCK IT WITH THE HEAD BLOCK TERMINAL ON CONTROLLER



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T9275A1002 簡易操作:

- 一、使用冰水空調(MODE 0)或熱水(MODE 1)
 1. 開機前確認接線及電源(24Vac)是否正確無誤。
 2. 第一次送電後LCD顯示OFF(有DIGIT IN)或OPEN(無DIGIT IN),有DIGIT IN時按SELECT鍵3秒即開啟,以後每次送電只要DIGIT IN有信號,會依上次的使用狀態決定是開機或關機。若無DIGIT IN請確認是否無DI(例如:風車狀態為停),或將DI短路。
 3. 開機後,按UP或DOWN一次即可更改設定溫度1°C(連續按2秒,會連續快速變更);選取欲設定溫度後,需按ENTER鍵一次,數字閃爍表示完成。
- 二、按"SELECT"鍵,選取其他功能再按"UP"或"DOWN"更改,再按"ENTER"鍵即儲存。
- 三、各種功能及代號說明(按"SELECT"鍵循環切換下列功能):
 - Z BAND <零能源帶>:預設1.5°C,可切換至3.0°C
同時使用冰水及熱水(電熱)時,本功能才有作用,溫度在Band內時,不作控制以節約能源。
 - DIFF <動作偏差>:預設值0°C,可調範圍0~3°C
同時使用冰水及熱水(電熱)時,其中一點需使用DO控制時,可設定Differential value使溫度控制於偏差範圍內。
 - P BAND <比例帶> 預設值2°C,可調範圍2~19°C
可依不同需求,變更比例輸出之動作範圍。
 - OFFSET <溫度補償校正>:預設值0°C,可調範圍-3~+3°C
欲校正感測溫度時,可利用此參數。
 - MODE <常用模式>:預設0,共有0~5六個模式可供選擇

MODE 0	AO: COOLING	DO: X
MODE 1	AO: HEATING	DO: X
MODE 2	AO: COOLING	DO: HEATING
MODE 3	AO: HEATING	DO: COOLING
MODE 4	AO: COOLING	DO: LOW TEMP. LIMIT
MODE 5	AO: HEATING	DO: HIGH TEMP. LIMIT
 - SENSOR <溫度感測器選擇>:預設0,可更改為1
 - 0: 內建溫度感測器(溫度設定範圍10~60°C)
 - 1: 外接NTC20K溫度感測器(溫度設定範圍-20~110°C)
 - REVERSE <反向輸出>:預設0,可更改為1
 - 0: OUTPUT 1 正向輸出2~10V or 4~20mA
 - 1: OUTPUT 1 反向輸出10~2V or 20~4mA
 - DISPLAY <°C, %顯示切換>:預設0,可更改為1
 - 0: LCD 上方顯示環境溫度°C,下方顯示設定溫度°C
 - 1: LCD 下方顯示OUTPUT 1輸出%,下方顯示環境溫度°C
 - MANUAL <手動操作>:預設0,可更改為1
 - 0: 自動控制
 - 1: 手動操作,此模式可手動操作OUTPUT 1(0~100%)
 - F1 <積分時間>:預設15秒,可調範圍0.1~60秒
可依不同需求,變更積分時間。
 - F2 <高低溫警報>:預設30°C,可調範圍(SENSOR 0, 10~60°C)(SENSOR 1, -20~110°C)
可依不同需求,設定高低溫警報點。

T9275A1002 Quick Setting Manual

1. Turn On/Off the Controller
 - 1) Before turning on, please make sure that the wires and the power line (24 Vac) are connected properly
 - 2) Electrified for the first time, the LCD displays OFF (with DIGIT IN) or OPEN (without DIGIT IN). With DIGIT IN, press the SELECT button and hold it for 3 seconds to start the system. After the first time to electrify, every time to power on the controller, system will decide the operation mode automatically according to the setting status before the power is cut off. If there is no DIGIT IN, please check whether there's no input on DI(emergency input, eg. FAN motor is OFF). If the DI has no use, please add a jump wire on it.
 - 3) While the system is on, one push-down of the UP or DOWN button makes a change of 1°C (hold it for 2 seconds for faster change). Then push down the ENTER button, the temperature is set when the digits are flashing.
 - 4) Press the SELECT button and hold it for 3 seconds again to turn off the controller.
2. Press the SELECT button to choose other functions. After changing settings with UP or DOWN, then press ENTER to save.
3. Functions and Codes (press SELECT to select and set each parameter)
 - **Z BAND:** Default=1.5°C, Changeable to 3.0°C
Only applicable to cooling/heating changeover status
No control in the Z BAND temperature for energy saving
 - **DIFF:** Default=0°C, Range=0~3°C
When DO is used, Differential Value can be set to keep the temperature within the range.
 - **P BAND:** Default=2°C, Range=2~19°C
Proportional band is adjustable based on different requirements
 - **OFFSET:** Default=0°C, Range=-3~+3°C
Adjust temperature deviation
 - **MODE:** Default=0°C, 6 modes in total (0~5)

MODE 0	AO: COOLING	DO: X
MODE 1	AO: HEATING	DO: X
MODE 2	AO: COOLING	DO: HEATING
MODE 3	AO: HEATING	DO: COOLING
MODE 4	AO: COOLING	DO: LOW TEMP.LIMIT
MODE 5	AO: HEATING	DO: HIGH TEMP.LIMIT
 - **SENSOR:** Default=0, Changeable to 1
 - 0: Internal Temperature Sensor (Temp. Range: 10~60°C)
 - 1: external NTC20K temperature sensor (Temp. Range: -20~110°C)
 - **REVERSE:** Default=0, Changeable to 1
 - 0: OUTPUT 1 Obverse Output=2~10V or 4~20 mA
 - 1: OUTPUT 1 Reverse Output=10~2V or 20~4 mA
 - **DISPLAY:** Default=0, Changeable to 1
 - 0: LCD Upper Part: Environment Temp.
Lower Part: Set Temp.
 - 1: LCD Upper Part: Output Percentage
Lower Part: Environment Temp.
 - **MANUAL:** Default=0, Changeable to 1
 - 0: Auto Control
 - 1: Manual Control (0~100%)
 - **F1:** Default=15 sec, Range=0.1~60 sec
Integral calculation time is adjustable according to different requirements
 - **F2:** Default=30°C, Range=10~60 °C (Sensor 0), -20~110 °C (Sensor 1)
Setting temperature alert according to different requirements