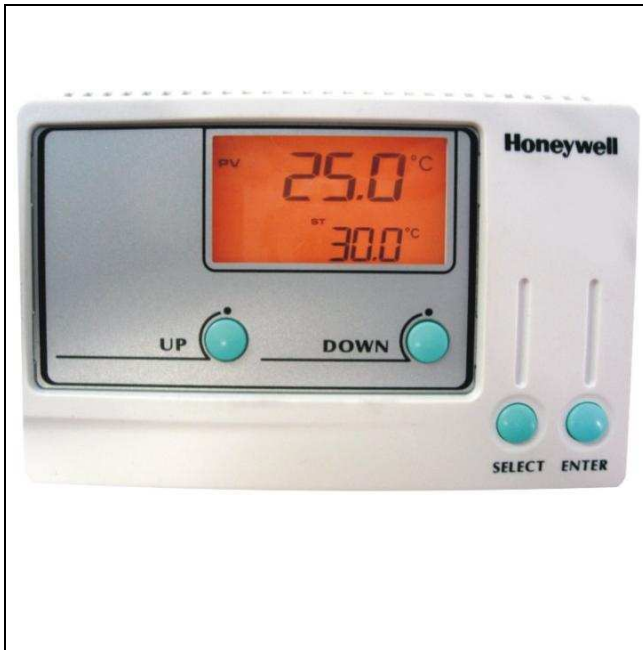


## T9275B1001 TEMPERATURE CONTROLLER WITH MODBUS

### SPECIFICATION DATA



### Application

This microprocessor based LCD temperature controller provides proportional plus integral (P+I) and on/off temperature control for commercial Heating, Ventilating and Air Conditioning systems such as Hydronic Heating, Air Handling Unit, Heating Exchanger or Condensing Tower.

The T9275B1001 has a modulating analog 2 to 10Vdc or 4 to 20mA output and a 2A on/off output to realize various optional control functions including cool/heat changeover, cool/heat sequence control, emergency interlocking and auto-alarming control.

The modern design with its easy to operate user interface and large LCD allows complete flexibility of control system design, accurate parameter setting, and display of actual temperature value, setpoints and outputs.

All the parameters in the controller can be read/write by the facility management system (FMS) like Honeywell SymmetrE via Modbus RTU protocol (9600bps, 1 stop bit, none parity).

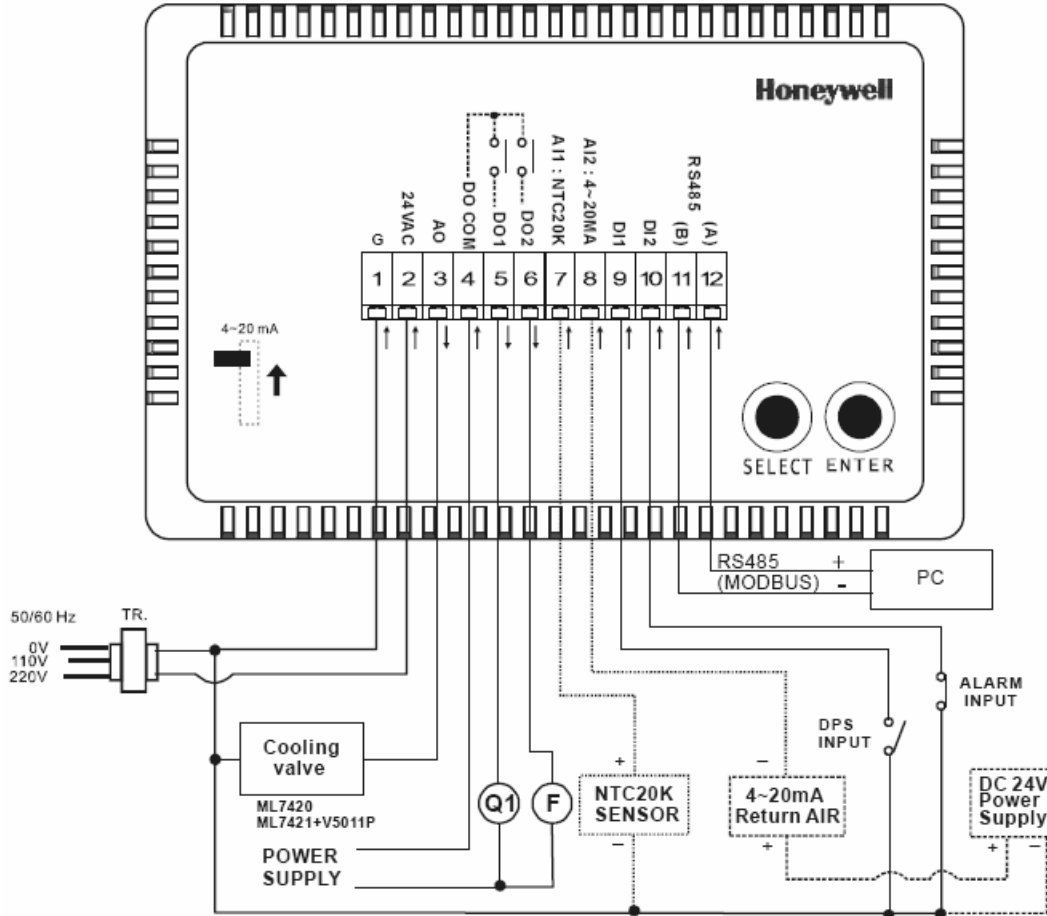
### Features

- PI (proportional plus integral) control action provides accurate, stable and comfortable temperature control.
- Big backlight LCD to display both setting and measured value together features friendly user interface.
- Adjustable Zero Energy Band, On/Off Differential, Proportional Band and Temperature Offset.
- Analog output is manually setting available to be convenient for installation commission
- Optional 2 to 10Vdc or 4 to 20mA and reversible analog output
- Selectable internal and external temperature sensor.
- Meet various mounting requirements—direct wall mounting, front panel mounting and standard DIN rail mounting.
- Concisely designed push button for easy operation
- Compact size and slim design provide elegant and attractive modern style appearance.
- Alarm interlock and remote control for air handling unit (AHU) control.
- Modbus® interface for FMS monitoring/control.

### Specifications

Dimension:	See Fig. 1
Mounting:	Standard DIN rail or control panel mounting compatible or Wall mount
Wiring:	Maxima Wiring Run from Controller to All devices: 20 AWG
Setting ranges:	SP1: 0~60°C SP2: -25°C~110°C SP3: -999~999°C
Working ranges:	0 ~ 50°C 5% ~ 95% (non-condensing)
Memory:	EEPROM
Power supply:	24 Vac, 50/60Hz
Input:	DI x 2: Alarm, DPS(FanStatus) AI x 2: (selectable) 4~20mA or NTC20K or built in sensor
Output:	DO x 2: DO1(heat/cool), DO2(FanStart) AO x 1: Cooling Valve and so on
RS-485:	Modbus® RTU protocol ( 9600bps, 1 stop bit, none parity)

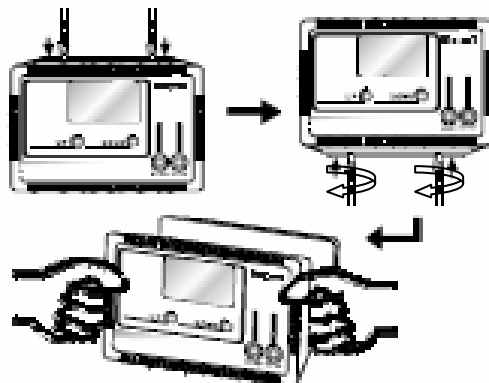
## Terminal Overview



## Installation

### When Installing this Product...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced service technician.
4. After installation is complete, check out product operation as provided in these instructions.
5. if you want to disclose the controller, please insert and rotate screw driver in the gap between front and back covers.



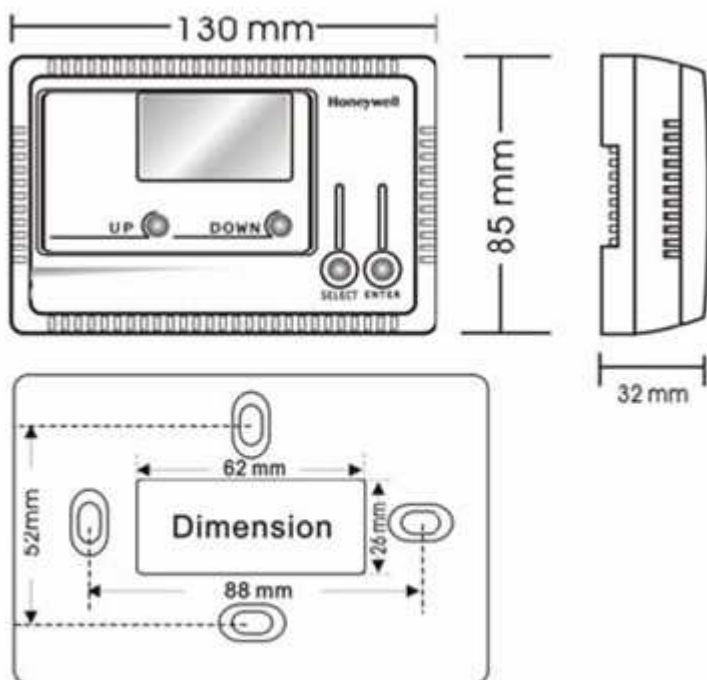


fig1 dimensions

## Operating Overview

Display and Operation Element  
The user interface is shown in Fig. 2 & 3

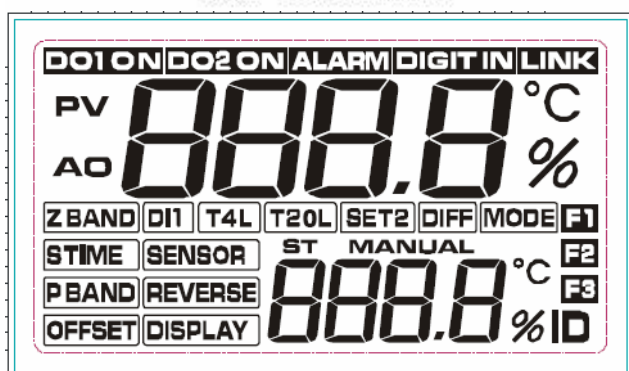


Fig. 2 LCD Screen

### LCD Screen Description

A. Status Indication Area	
DO1ON	Digit output for cooling or heating
DO2ON	Digit output for Fan start
ALARM	Digit input for alarm interlock
DIGITIN	Digit input for Fan status
LINK	Link status of RS-485
AO	Analog output for cooling or heating
PV	Present Value for temperature

B. Setting Status Area	
ZBAND	Zero Energy Band
STIME	Sampling Time Setting
PBAND	Proportional Parameter Setting
OFFSET	Temperature Offset Setting
DI1	DI1 mode for Fan start
SENSOR	Sensor select for temperature
REVERSE	Output Mode Setting for AO
DISPLAY	Display mode
T4L	-999~+999 The minimum value of sensor
T20L	-999~+999 The maximum value of sensor
SET2	Set point 2
DIFF	Differential setting
MODE	AO/DO Mode Setting
ST	Set point for temp. or AO output
MANUAL	Manual Mode Setting
ID	ID address of Modbus®

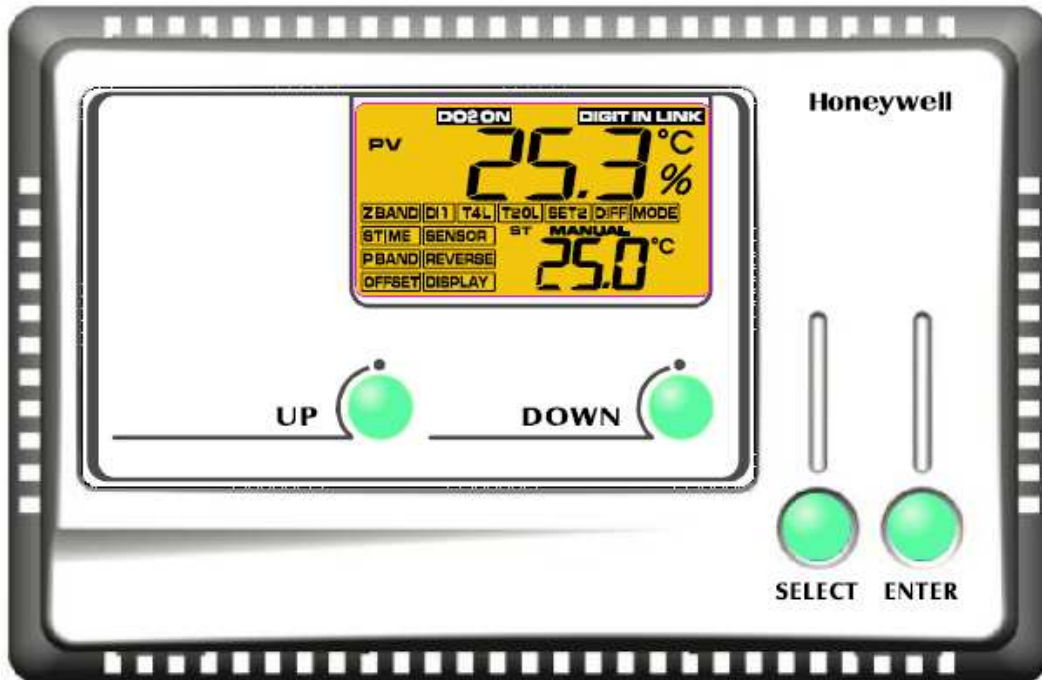


Fig. 3 Setting Buttons

### Button Description

1. **SELECT:**
  - a. Setting and configure Item selections.
  - b. configure sequence:  
ZBAND → STIME → PBAND → OFFSET → DI1 → SENSOR → REVERSE → DISPLAY → T4L → T20L  
→ SET2 → DIFF → MODE → MANUAL → ID → F1 → ZBAND....
2. **UP/DOWN:**  
Adjust the value of setting
3. **ENTER:**
  - a. Confirm or save setting
  - b. Press ENTER for 3 sec to toggle DO2 ON/OFF for Fan Start/Stop (when setting for DPS=2)

## Honeywell

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