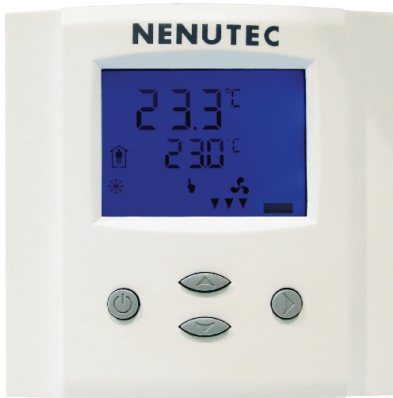


# NPC 680 SERIES TEMPERATURE CONTROLLER WITH LCD

TEMPERATURE CONTROLLER INTELLIGENT PROGRAMMABLE



## NPC 680 SERIES

NPC 680 series feature a 3-wire floating (incremental) and 0-10 VDC control output and come with a Liquid Crystal Display. The controllers are designed for use in 2-pipe or 4-pipe air handling units, and a variety of heating and cooling applications controlled by water valves and damper actuator.

## PRODUCT FEATURE

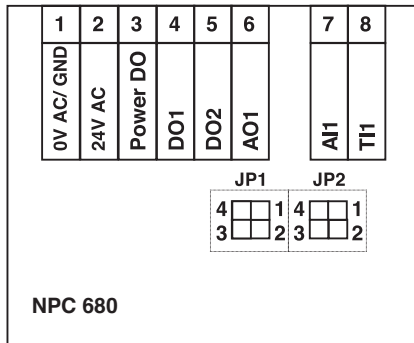
- Aesthetic Design with LCD
- 3 Point Floating and Modulating 0 - 10Vdc in 1 controller
- Temperature, Pressure or RH with 2 stage controls
- Internal NTC thermistor Sensor
- Able to be use with External Passive or Active sensor, NTS Series (Optional)
- User Programmable

## TECHNICAL SPECIFICATION

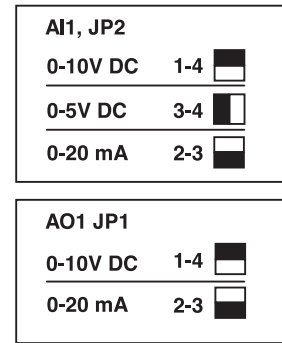
MODEL NUMBER	NPC 680	3 Point Floating and Modulating Control Dual Output, Cooling and heating only, 2-pipe or 4-pipe system. Pressure or Humidity with 2 stage Control
	NPC 681	2 Point Modulating Control Output, Cooling and heating only, 2-pipe or 4-pipe system. Pressure or Humidity with 2 Analogue Output
<b>POWER SUPPLY</b>	AC 24V	
<b>SET POINT RANGE</b>	-40 to 140°C for Temperature, 0 to 100% for Humidity or 40 to 215 for Pressure Controls	
<b>ADJUSTABLE PROPORTIONAL BAND</b>	0 - 10K	
<b>SENSOR ELEMENT</b>	NTC Thermistor 10K $\Omega$ at 25°C	
<b>ANALOGUE INPUT</b>	DC 0-10 V, DC 0-5 V or 0...20 mA	
<b>ANALOGUE OUTPUT</b>	DC 0-10 V or 0...20 mA	
<b>DIGITAL TRIAC OUTPUT</b>	AC 24 V 1A max	
<b>BODY MATERIAL</b>	Self-extinguishing, Molded ABS	
<b>FINISH</b>	Off White Color	
<b>IP PROTECTION</b>	IP30	
<b>AMBIENT TEMPERATURE</b>	-20°C...50° as per IEC721-3-3	
<b>AMBIENT HUMIDITY</b>	5...95% rH (non Condensing)	
<b>INVENTORY TEMPERATURE</b>	+70°C as per IEC 721-3-2	
<b>CERTIFICATION</b>	CE and ISO 9000 (EN...requirements)	

## WIRING DIAGRAM

### CONNECTION TERMINALS



### JUMPER SETTINGS



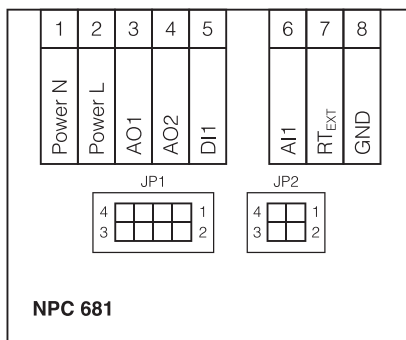
### TERMINAL

1	Power Supply Common
2	Power Supply 24V AC
3	Power Supply Digital Outputs
4	Digital Output 1
5	Digital Output 2
6	Analog Output 1: 0...10V or 0...20mA
7	Analog Input 1: 0...10V, 0...5V or 0...20mA
8	Thermistor Input Sxx-Tn10

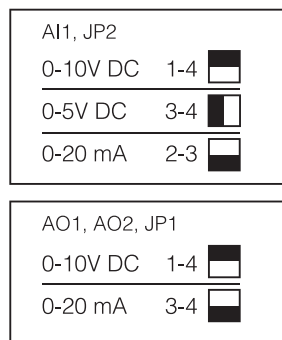
For active sensor

Note: Dip switch for internal or external sensor can be adjusted on the back of controller.

### CONNECTION TERMINALS



### JUMPER SETTINGS



### TERMINAL

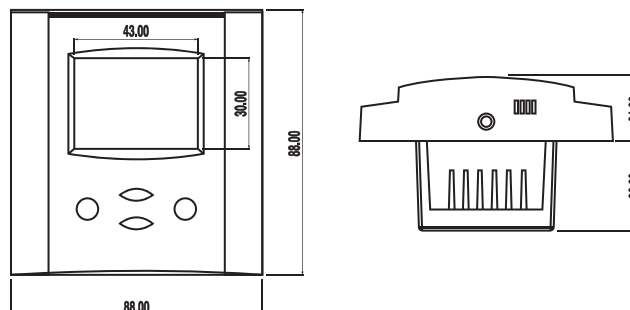
1	Power Supply Common
2	Power Supply AC/DC 24V
3	Analog Output 1: 0...10Vdc or 0...20mA
4	Analog Output 2: 0...10Vdc or 0...20mA
5	Digital Input, Dry Contact to Ground
6	Analog Input 1: 0...10V, 0...5V or 0...20mA
7	Temperature Sensor NTC
8	Ground internally linked to terminal 1

For active sensor

Note: Dip switch for internal or external sensor can be adjusted on the back of controller.

Connection Diagram, half wave rectified

## DIMENSION (mm)



## APPLICATION OVERVIEW

The NPC 680 Programmable Controller feature both 3 Point Floating Controls and 0-10Vdc Modulating and can be use for Temperature, RH and Pressure Control. The Controller can be ordered with NENUTEC valve actuator NVC/NAV... and NTS external sensor for a complete HVAC solution. For more information on programming the NPC 680, kindly refer to the instruction manual.