



NENUTEC is proud to offer the NPC 680 series. It features a 3-wire floating (incremental) and 0-10 VDC control output and comes with an 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.

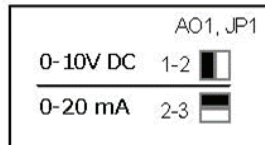
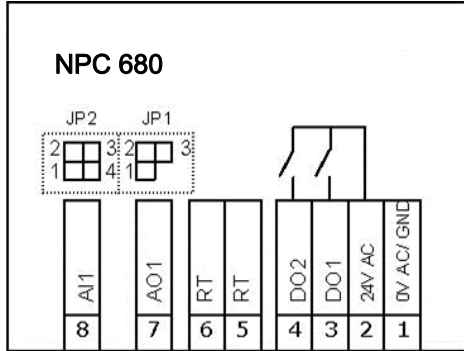
Feature

- 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
- Can be use with External Passive or Active Sensor, NTS Series (Optional)
- User Programmable

Specifications

Model	NPC 680—3 Point Floating and Modulating Control Dual Output, Cooling Only and Heating Only, 2-pipe or 4 Pipe System. Pressure or Humidity with 2 Stage Control NPC 681—2 Modulating Control Output, Cooling Only and Heating Only, 2-pipe or 4 Pipe System. Pressure or Humidity with 2 Analogue Output
Power Supply	AC 24V
Set Point Range	-40 to 140°C for Temperature, 0 to 100% for Humidity or -40 to 215 for Pressure Controls
Adjustable Proportional Band	0-10K
Sensor Element	NTC Thermistor 10KΩ at 25°C
Analogue Input	DC 0-10V, DC 0-5V or 0...20mA
Analogue Output	DC 0-10V or 0...20mA
Digital Triac Output	AC 24V 1A max.
Body Material	Self-extinguishing, Molded ABS
Finish	Off White Color
IP Protection	IP30
Ambient Temperature	-20°...50° as per IEC721-3-3
Ambient Humidity	5...95% rH (non Condensing)
Inventory Temperature	+70°C as per IEC 721-3-2
Certification	CE and ISO 9000 (EN...requirements)

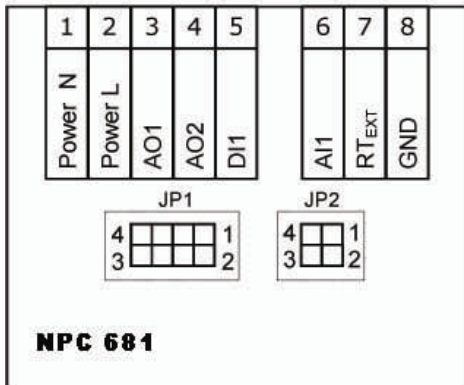
Wiring Diagram and Dimension



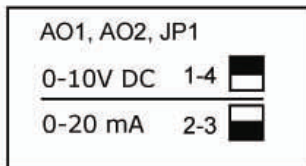
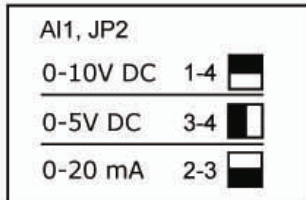
Terminal

- 1—Power Supply Common
 - 2—Power Supply AC/DC 24V
 - 3—Digital Output 1
 - 4—Digital Output 2
 - 5 and 6 —Passive Temperature NTC sensor
 - 7—Analog Output : 0...10Vdc or 0...20 mA
 - 8—Analog Input 1: 0...10V, 0...5V or 0...20mA
- For active sensor
Note: Dip switch for internal or external sensor can be adjusted on the back of controller

Connection terminals



Jumper Settings

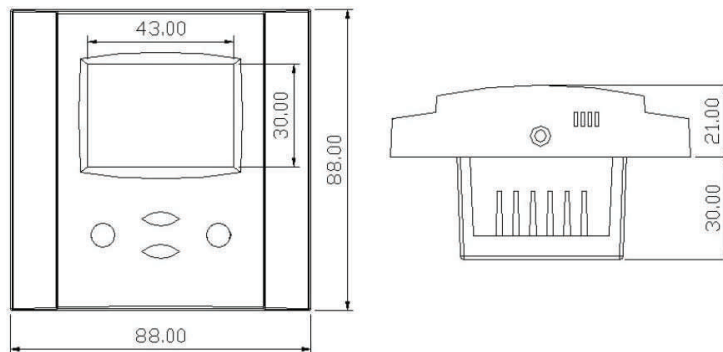


- 1—Power Supply Common
 - 2—Power Supply AC/DC 24V
 - 3—Analog Output 1 : 0...10Vdc or 0...20 mA
 - 4—Analog Output 2 : 0...10Vdc or 0...20 mA
 - 5—Digital Input, Dry Contact to Ground
 - 6—Analog Input 1: 0...10V, 0...5V or 0...20mA
 - 7—Temperature Sensor NTC
 - 8—Ground internally linked to terminal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

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



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