

# NPC 680 SERIES CONTROLLER WITH LCD


Intelligent Programmable


# NENUTEC<sup>®</sup>


INNOVATIVE MEMBER OF SWIS<sup>+</sup>TEC

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# NPC 680 SERIES CONTROLLER WITH LCD

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## 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.

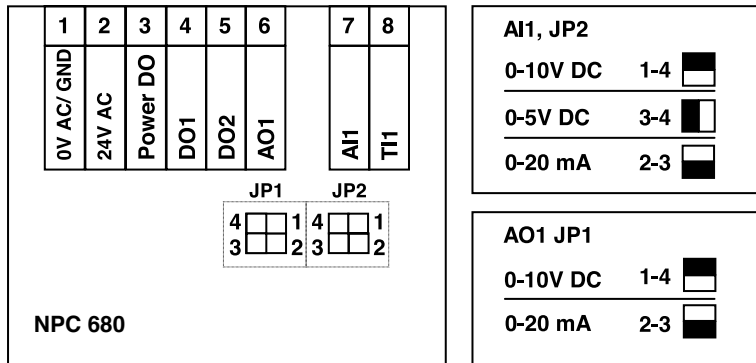
## PRODUCT FEATURE

- 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
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 10K $\Omega$ at 25°C	
ANALOGUE INPUT	DC 0-10 V, DC 0-5 V or 0...20 mA	
ANALOGUE OUTPUT	DC 0-10 V or 0...20 mA	
DIGITAL TRIAC OUTPUT	AC 24 V 1A max	
BODY MATERIAL	Self-extinguishing, Molded ABS	
FINISH	Off White Color	
IP PROTECTION	IP30	
AMBIENT TEMPERATURE	-20°C...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



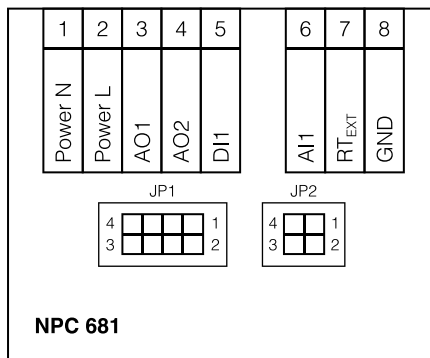
## TERMINAL

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

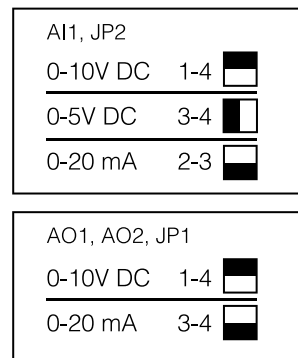
For active sensor

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

## CONNECTION TERMINALS



## JUMPER SETTINGS



## TERMINAL

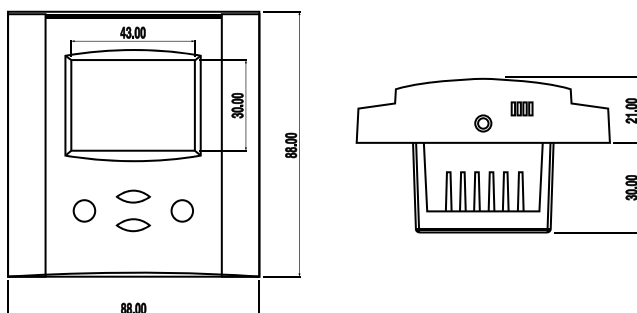
1	Power Supply Common
2	Power Supply AC/DC 24V
3	Analog Output 1: 0...10Vdc or 0...20mA
4	Analog Output 2: 0...10Vdc or 0...20mA
5	Digital Input, Dry Contact to Ground
6	Analog Input 1: 0...10V, 0...5V or 0...20mA
7	Temperature Sensor NTC
8	Ground internally linked to terminal 1

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 NENU TEC 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.

The performance specifications are nominal and conform to acceptable industry standards. NENU TEC shall not be liable for damages resulting from misapplication or misuse of its products.