



Modular electronic control system

System 450™

Modular electronic controls

System 450™ is a family of modular, digital electronic controls that is easily assembled and set up to provide reliable temperature, pressure, and humidity control for a wide variety of Heating, Ventilating, Air Conditioning and Refrigeration (HVACR) and commercial/industrial process applications.

The System 450 control system is designed to replace System 350™ control system and System 27, and provide many additional features and benefits with less than a dozen model variations.

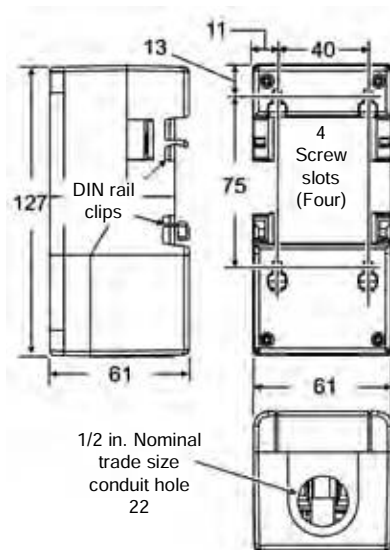
All System 450 control modules are multipurpose and field configurable out-of-the-box; each module is designed for use in temperature, pressure, and humidity systems. A System 450 control system can be easily assembled and configured to monitor and control temperature, pressure, and humidity simultaneously.

A single C450 control module can be set up as a stand-alone control or connected to expansion modules to control up to ten outputs based on any of the three available inputs.

A control system may consist of relay outputs (Single-Pole, Double-Throw [SPDT]), analog outputs (0–10 VDC or 4–20 mA), or any combination of relay and analog outputs.

Features

- ▶ Durable, compact modular design with plug-together connectors and DIN rail or direct wall mount capability
- ▶ Multipurpose, field-configurable modules designed for global use
- ▶ Backlit Liquid Crystal Display (LCD) and four-button touchpad user interface
- ▶ Up to three inputs and up to ten outputs (relay or analog)
- ▶ Versatile, all-in-one, stand-alone control modules
- ▶ An extensive suite of compatible temperature and humidity sensors as well as pressure transducers
- ▶ High input signal selection
- ▶ Differential control
- ▶ Adjustable user-defined reset setpoint (C450R Only)
- ▶ Adjustable minimum and maximum setpoint temperature (C450R only)
- ▶ Selectable warm weather shutdown temperature (C450R only)
- ▶ Adjustable setback temperature (C450R only)



Dimensions in mm

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Ordering information

System 450 control modules are capable of monitoring up to three input sensors and controlling up to ten outputs that can be any combination of relay and analogue outputs (provided by expansion modules).

Codes	Description
C450 control module types	
C450CBN-3C	Control module 1 stage
C450CCN-3C	Control module 2 stage
C450CEN-1C	Control module with Ethernet communications, LCD, and four-button touchpad UI. (No onboard outputs available on control modules with network communications capabilities.)
C450CRN-1C	Control module with RS485 Modbus communications, LCD, and four-button touchpad UI. (No onboard outputs available on control modules with network communications capabilities.)
C450CPN-3C	Control module - 1 analog output (PI)
C450QCN-3C	Control module - 2 analog Output (PI)
C450RBN-1C	Reset control module - 1 relay stage
C450RCN-1C	Reset control module - 2 relay stage
C450RBN-3C	Reset control module with LCD, four-button touchpad UI, and SPDT relay output; provides one SPDT output relay. One A99BC-25C temperature sensor with 0.25 m silicon leads and one A99BC-300C temperature sensor with 3 m silicon leads are included in the box with the reset control module.
C450RCN-3C	Reset control module with LCD, four-button touchpad UI, and SPDT relay output; provides two SPDT output relays. One A99BC-25C temperature sensor with 0.25 m silicon leads and one A99BC-300C temperature sensor with 3 m silicon leads are included in the box with the reset control module.
C450 expansion module types	
C450SBN-3C	Expansion module 1 relay stage
C450SCN-3C	Expansion module 2 relay stage
C450SPN-1C	Expansion module - 1 analog output (PI)
C450SQN-1C	Expansion module - 2 analog output (PI)
C450 power module	
C450YNN-1C	Power module 230/24 VAC - 50/60 Hz
C450 sensor types	
A99	Temperature sensors, all models, Range -40 / 120 °C
P499RCP-401C	Pressure transmitter - Range -1 / 8 bar
P499RCP-402C	Pressure transmitter - Range -1 / 15 bar
P499RCP-404C	Pressure transmitter - Range 0 / 30 bar
P499RCP-405C	Pressure transmitter - Range 0 / 50 bar
HE-67S3-ON00P	Humidity transmitter duct mount (include A99)
HE-67S3-ON0BP	Humidity transmitter wall mount (include A99)
DPT2650-OR5D-AB	Delta P transmitter 0 to 1 mbar
DPT2650-0I0D-AB	Delta P transmitter 0 to 25 mbar

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Specifications SPDT relay output contacts

- ▶ AC motor ratings at 208/240 VAC
- ▶ Full-load Amperes: 4,9 Amp
- ▶ Locked-rotor Amperes: 29,4 Amp
- ▶ Non-inductive load at 24/240 VAC: 10 Amp
- ▶ Pilot duty at 24/240 VAC: 125 VA

A99	All A99 models can be used on the C450	
P499	P499RCP-401C	Range -1 to 8 bar
	P499RCP-402C	Range -1 to 15 bar
	P499RCP-404C	Range 0 to 30 bar
	P499RCP-405C	Range 0 to 50 bar
HE	HE-67S3-ON00P	Hum transmitter duct mount (include A99)
	HE-67S3-ON0BT	Hum transmitter wall mount (include A99)
DTP	DPT2650-OR5D-AB	Delta P transmitter 0 to 0,5 INWC (or 0 to 1 mbar)
	DPT2650-010D-AB	Delta P transmitter 0 to 10 INWC (or 0 to 25 mbar)

