![Schneider Electric logo]

# Expansion Module Reference

30-3001-883 Rev E.1
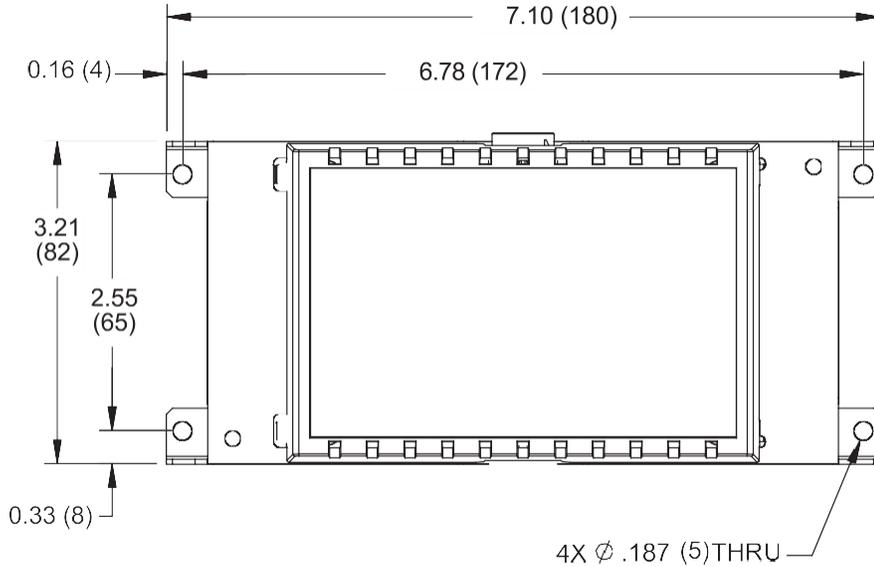
Note:

This enclosure is intended for field installation within the enclosure of another product.
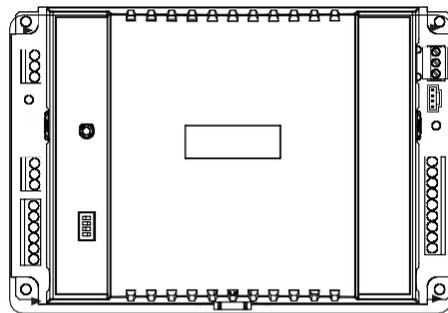
**bCX1 Series Controller
or
ACX 57xx Series Controller**
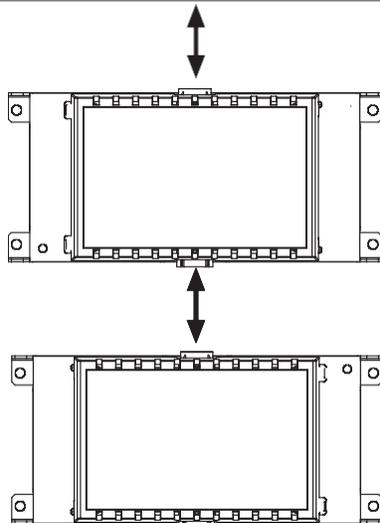
Modules Plug Together

Power must be disconnected from controller before installing any xPB module.

Adding expansion modules to the bCX1 96xx or ACX 57xx controller requires the controller to be cold started before it will recognize the module.

UL 294 7ᵗʰ Edition Compliance

| UL 294 Feature	Level
Destructive Attack	I
Line Security	I
Endurance (Access control)	IV
Standby Power	I

⚠ **WARNING:** This product can expose you to chemicals including lead which is known to the State of California to cause cancer and which is known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov

Basic Expansion Limitations

The number of expansion modules is limited by the controller firmware and the capacity of the power supply current available from the controller. The firmware supports a maximum of two modules plus the xPDisplay as long as the power consumption does not draw more current than the controller can supply.

bCX1 Series Controllers: Maximum current available is 400mA.
ACX 57xx Series Controllers: Maximum current available is 400mA.

Module	Function	Current Draw @ 24VDC
xPBA4	4 Universal Inputs, 4 Analog Voltage Outputs	60mA
xPBD4	4 Universal Inputs, 4 Relay Outputs	125mA
xPDISPLAY	Keypad/Display Module	70mA

Normal CPU LED Pattern

Expansion module connected closest to the controller will blink at 2Hz rate.
A module connected to the first one will display two short blinks every two seconds.
Incompatible or malfunctioning modules may display a steady ON or a short ON then completely OFF.

Universal Inputs

Thermistor — IN x / RTN

V DC Voltage — IN x / RTN
Max DC Input Voltage = 5V

Contact Closure — IN x / RTN
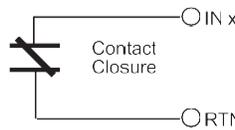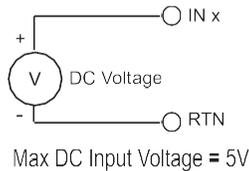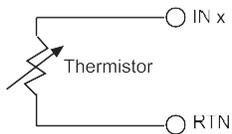
Analog Outputs

Voltage Output
0 - 10VDC, 5mA max.

Device Load Resistance ≥ 2KΩ — V / GND
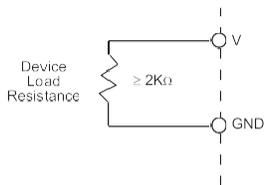
Output Override Control
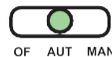
OFF — The output is set to zero volts. Programs and the setting on the potentiometer have no effect on the output Device when the switch is in this position.

AUTO — The analog signal is generated as a direct result of program control. The setting on the potentiometer has no effect on the output Device when the switch is in this position.

MANUAL — The analog signal generated by the module is controlled manually by adjusting the potentiometer. Programs have no effect on the output when the switch is in this position.

This is a variable control that allows you to manually adjust the output of the analog signal when the override switch is in the MANUAL position. Insert the tip of a small screwdriver to use this control. Turning to the right (clockwise) increases the output. Turning left (counterclockwise) decreases the output.

Relay Outputs

LOAD — NC
C
LOAD — NO
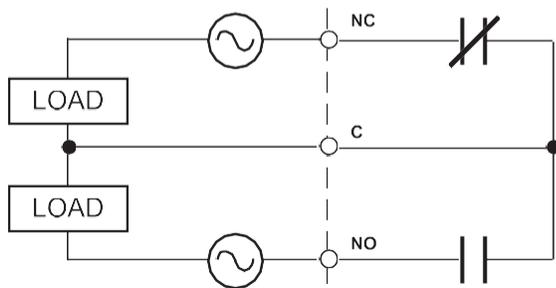
Contact Rating: 3A @ 24 VAC
3A @ 30 VDC

Output Override Control
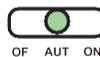
OFF — The output relay is de-energized to an 'OFF' state manually by setting the switch to OFF. Programs have no effect on the output when the switch is in this position.

AUTO — The action of the output relay is determined as a direct result of program control.

ON — The output relay is energized to an 'ON' state manually by setting the switch to ON. Programs have no effect on the output when the switch is in this position.