



# Submission Data Sheet

## CPC-3 CONSTANT PRESSURE CONTROLLER

Job Name: \_\_\_\_\_

Equipment Rep: \_\_\_\_\_

Contractor: \_\_\_\_\_

Prepared By: \_\_\_\_\_

Arch./Engr.: \_\_\_\_\_

Date: \_\_\_\_\_

**Description**

The CPC-3 is a microprocessor-based control that can simultaneously control both draft and/or combustion air pressures. It typically controls the operation and speed of an Auto-Draft® Inducer and/or a Universal Blower to maintain draft or pressure set points. A third function provides for an interface with a motorized louver. The CPC-3 also serves as the safety interlock with associated burner controls.

**Features**

The CPC-3 has an 80 character vacuum florescent display that provides real-time system status and a soft touch keypad. All primary functions can be programmed via distinct buttons, eliminating scrolling through multiple screens. Included are four burner interlock terminal strips that can interface with millivolt, 24 Volt, 115 Volt or 230 Volt burner control circuits. The addition of up to three EXP-4E Expansion Modules allows up to 16 separate burners to be interlocked. LED status indicators on the face of the keypad show which interlocked burner is calling for heat and when the CPC-3 safety circuits approve burner operation. Additional LED's indicate venter limit(s) status and VFD operation and fault status. Correct venter rotation can be determined by display prompts and changed through a dip switch on the circuit board. Included quick connect cabling completes all control circuit connections between the CPC-3 and VFD. Features system fault diagnosis with date and time reference for easy troubleshooting. Built in alarm alerts building maintenance personnel if system faults. Alarm relay also allows interface with building management system.

**Programming Options**

Draft Pressure Set Point, Combustion Air Pressure Set Point, Pre and Post purge, Automatic or Manual operation. Combustion air modes of operation include "Open" room pressure or ducted "Sealed" pressure for sealed combustion burners.

**Operation**

Upon a call for heat from an interlocked burner the CPC-3 references the vent system draft and/or combustion air pressure as measured by the TD-Series Pressure Transducer(s) and activates the Variable Frequency Drive. The VFD quickly speeds up the inducer/blower until the vent system draft and/or combustion air set point is reached. When the set point is reached the CPC-3 completes the circuit to the interlocked appliance allowing the normal firing sequence to resume. Additional burner stages will create a momentary decrease in vent system pressures, causing the inducer/blower to speed up to maintain the set point. If sufficient natural draft and/or combustion air is present the CPC-3 will deactivate the inducer/blower until it is needed. The interlocked burners will be deactivated if the vent system draft set point cannot be maintained within 0.01" w.c. during predefined time limits based on combustion air or draft modes of operation.

**Material**

The housing is made from 18 gauge aluminized steel and is painted with an industrial powder coating. It has NEMA class 1 construction.

**Listings**

ETL Listed # 56826  
UL508 - Standard for industrial control equipment

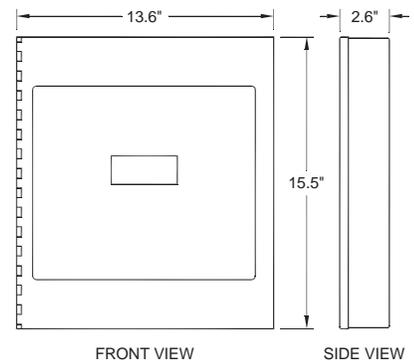
CSA C22.2 No. 14-95 - Standard for industrial control equipment

**Warranty**

2 year warranty



**IMPORTANT: FOR "OPEN" COMBUSTION AIR APPLICATIONS WHERE THE CPC-3 IS CONTROLLING THE MECHANICAL ROOM PRESSURE.**  
The system will not maintain room pressure unless doors have sweeps and all obvious voids to spaces outside the mechanical room are sealed.



CPC-3 CONTROLLER	
Power Supply	115 / 208-230 / 50 - 60 Hz / 0.5 Amp
Control Signal	Drive: 2 each 0 - 10 VDC, 10 mA each Sensor: 5 each 0 - 10 VDC, 0.25 mA each 1 Digital Input 3.4 - 5.0 VDC, 24 mA max 1 Digital Output 3.4 - 5.0 VDC, 24 mA max
Sensor Supply	4 each 24 VDC, 420 mA total
Inducer Range of Operation	+0.15 to -0.60 In WC / +37 to -159 Pa
Combustion Air Range of Operation	Open System: +0.15 to -0.60 In WC / +37 to -159 Pa Sealed System: +0.10 to -0.10 In WC / +24 to -24 Pa
Pressure Tolerance	0.0002 In WC / 0.05 Pa
Operating Temperature	32° to 122° F / 0° to 50° C
Appliance / Pump / AUX Relays	General Purpose 20 A, 240 VAC Motor: 1 HP, 125 VAC 2 HP, 250 VAC
Alarm Relay	2 A, 125 VAC
Dimensions, H x W x D	15.5 x 13.6 x 2.6 in 394 x 345 x 66 mm
Weight	9.5 lbs / 4.3 kg