

# DUSTRONIX™ Pressure Differential Meter

## Model DNC-PS700-A10

### FEATURES

- 51 element tri-color LED meter movement
- $\Delta P$  control relay output: programmable, normally open or normally closed
- $\Delta P$  alarm relay output: programmable, normally open or normally closed
- Cleaning status LED
- Alarm status LED
- 0-10" w.c.  $\Delta P$  range
- Source or sink 4 to 20 mA  $\Delta P$  output
- 1/4 DIN panel mountable
- NEMA 4 compatible
- 3-digit, 7-segment alpha-numeric display
- Removable finger-safe terminations
- Replaces most popular  $\Delta P$  switches/gauges
- Non-volatile memory
- User selectable program access code
- Universal input voltage

### Programmable Parameters:

- Alarm Low/High setpoints
- Cleaning Low/High setpoints
- Alarm relay (normally open or normally closed)
- Cleaning relay (normally open or normally closed)
- Units of measure (inches, w.c. or kPa)
- Security code (user settable)
- $\Delta P$  offset compensation capability

The DUSTRONIX Pressure Differential Meter is designed to interface with NCC dust collector controls as well as other controllers. This meter is capable of measuring differential pressure and displaying that value in both analog bargraph and digital displays. Both Low/High Cleaning and Low/High Alarm setpoints can be programmed with relay outputs. The Cleaning relay will energize when the measured pressure exceeds the High Cleaning Setpoint, and will de-energize when the pressure goes below the Low Cleaning Setpoint. The Alarm relay will energize whenever the measured pressure exceeds the High or Low Alarm Setpoint.

The DUSTRONIX Pressure Differential Meter will accept either a 0 to 10" w.c. pressure input or a 4 to 20 mA input. A 4 to 20 mA output loop is provided when the internal pressure sensor is used. A 3-digit security code is also provided to prevent unauthorized changes. The meter is equipped with non-volatile memory which will store all operating parameters when power is removed.

**Operating Logic:** The DUSTRONIX Pressure Differential Meter is shipped with factory default settings (see details below). A pressure or 4 to 20 mA input needs to be connected, outputs wired as required, and power applied to have a functioning system. Program parameters can now be set for the specific application.

### SPECIFICATIONS

#### FACTORY DEFAULT SETTINGS

Low Alarm Setpoint = 1.0  
High Alarm Setpoint = 8.0  
Low Cleaning Setpoint = 2.0  
High Cleaning Setpoint = 4.0  
Alarm Relay = AnO  
Cleaning Relay = CnO  
Units = IN  
Security Code = 0.0.0.

#### INPUTS

**Voltage:** 100-240 VAC, 50/60 Hz  
**Power Consumption:** 5 VA max. at 240 VAC

#### OUTPUTS

**Alarm Output Type:** Form A relay contact, programmable normally open or normally closed  
**Alarm Output Rating:** 5 A at 240 VAC/30 VDC  
**Control Output Type:** Form-A relay contact, programmable normally open or normally closed  
**Control Output Rating:** 5 A at 240 VAC/30 VDC

#### CURRENT LOOP

**Type:** 4 to 20 mA current loop, switch selectable sink/source, represents 0 to 10" w.c.  $\Delta$  pressure  
**Accuracy:**  $\pm 0.3$  mA of displayed pressure  
**Measurement:** Current of 4 to 20 mA or pressure of 0 to 10 in. water

#### MECHANICAL

**Enclosure:** 1/4 DIN meter face  
**Material:** 304 stainless steel  
**Electrical Terminations:** Removable screw terminals, 14-22 AWG  
**Pressure Terminations:** Removable 0.125" hose-barb type fittings

#### PRESSURE SENSOR

**Type:** Silicon piezoresistive transducer  
**Measurement Range:** 0.0 to 10.0 in. water (0-2.5 kPa)

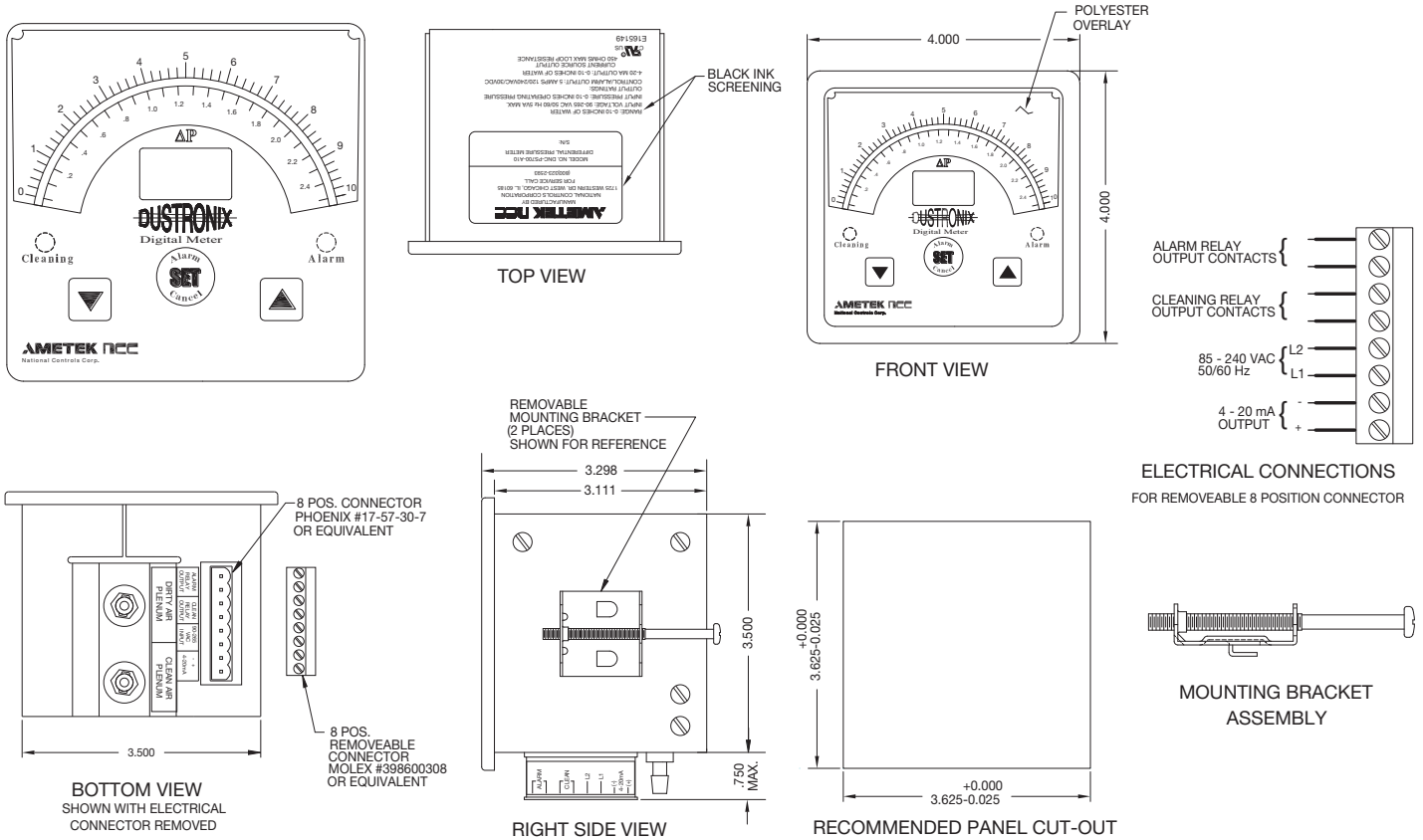


The PS700 may be purchased separately as an accessory to NCC Dust Collector Controls, as well as other controllers

### ORDERING INFORMATION

INPUT VOLTAGE	PART NUMBER
100 to 240 VAC	DNC-PS700-010

ACCESSORY	DIMENSIONS	PART NUMBER
NEMA 4 enclosure for DNC-PS700-010	8" x 6" x 3.5"	BOX-A0806-CHNF



**Accuracy:** ±2% of full scale at 77°F (25°C); ±5% of full scale over temperature and voltage range  
**Maximum Continuous Pressure:** 10 psi

**DISPLAYS**

**Units:** Programmable for in. water or kPa  
**Bargraph Display:** 51 element tri-color LED analog differential pressure bargraph

Green = Differential pressure  
 Yellow = Cleaning setpoints

Red = Alarm setpoints

**Digital Display:** 3-digit, 7-segment differential pressure display, 0.3 in. tall

**Range:** 00.0 to 10.0 in. (00.0 to 02.5 KPa), shows "OPn" with no sensor connected or with vacuum applied

**Discrete LED Indicators:**

Cleaning = Green  
 Alarm = Red / Yellow

**ENVIRONMENTAL**

**Operating Temperature Range:** 32° to 150°F (0° to 65°C)

**Protection:** Conformal coating on PCB for humidity and vibration

**Caution:**

1. Do not mount controls in high vibration areas without shock mounts.
2. Do not mount controls in areas of high dust or corrosive atmospheres without a protective enclosure.
3. Do not use a converter or inverter for the power source.
4. Do not mount control in high transient voltage areas without an isolation transformer.
5. Do not leave control box open.
6. Do not allow a local repair shop to repair the controls, as we employ some very sophisticated components that could be further damaged. For service, call us directly: 800-323-2593.