

## 4-4 DUST COLLECTOR CONTROLS

# AC Input, Pulse Cleaning of Bag House Dust Collectors Models DNC-T2003 through DNC-T2032

## FEATURES

- **Digital Timing Circuitry:** allows for stable timing from -40°C to 65°C temperature range
- **Pulse Time:** line synchronized to eliminate 8 millisecond triac turn off variation
- **10 A-400/600V Output Triacs:** for maximum protection against output shorts. 200 VA load rating
- **Conformally coated for protection against vibration, humidity, and contamination**
- **2 Modes of Operation:** can be operated Continuously or On Demand via external pressure switch
- **Field Selectable:** for numbers of outputs required
- **LED Indicators:** for compartment being cleaned indication
- **Rugged Timing Adjustments:** large stable potentiometers are used for ON and OFF time adjustments
- **Metal Chassis Provided:** for mounting directly into NEMA 4 box
- **Timer Functionally Tested for 24 Hours:** to eliminate field failures
- **Input Protection:** 30 joule metal oxide varistor
- **One Year Warranty:** warranted to be free from defects in materials or workmanship for one year from date of manufacture
- **UL File #E65038**

**Operating Logic:** The control can function in 2 modes.

In Continuous Mode, the pressure switch terminals are shorted. Upon application of input voltage, the control activates output #1 after the preset off time. It will continue to activate outputs sequentially until input voltage is removed.

In On Demand Mode, the pressure switch terminals are connected to an isolated set of contacts of a differential pressure switch. The control will activate the outputs sequentially whenever the pressure switch contacts are closed. When the pressure switch contacts open, the output sequencing stops. Re-closing of the contacts will cause the control to resume activating the outputs.

Program wire allows the user to select the maximum number of outputs to be activated.

*Note: Controls are shipped with jumper across pressure switch terminals*

## SPECIFICATIONS

### TIME DELAY

**ON-Time:** Adjustable from 50 to 500 ms

### OFF-Time:

Range A: adjustable from 1.5 to 30 seconds

Range B: adjustable from 8.5 to 180 seconds

*Note: Range S designates customer specified time range. Consult factory for parameters*

**Repeatability:** ±3% over temperature and voltage ranges

### INPUT

**Operating Voltage:** 120 ±10%, 220 ±10% VAC

**Frequency:** 50/60 Hz

**Power Consumption:** 2 VA max.

### OUTPUT

**Type:** Solid state switch (triac)

**Switch Rating:** 200 VA maximum per output

### PROTECTION

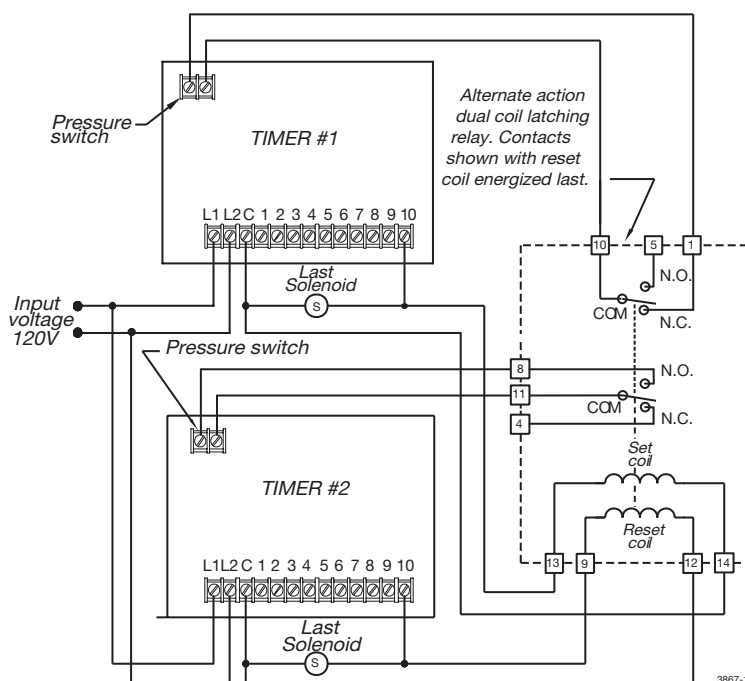
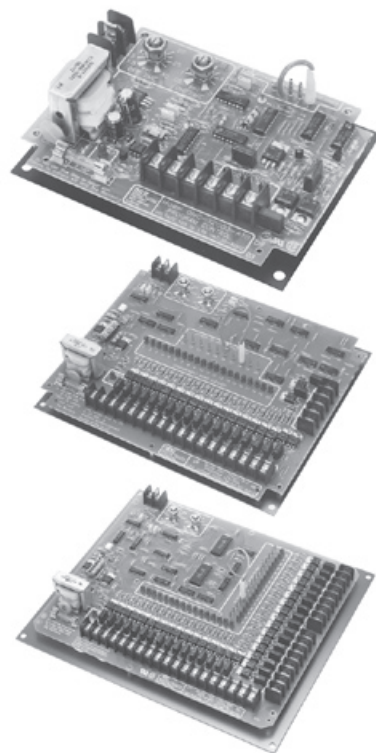
**Transient Voltage:** 30 joule metal oxide varistor

**Short Circuit Protection:** 3 A fuse

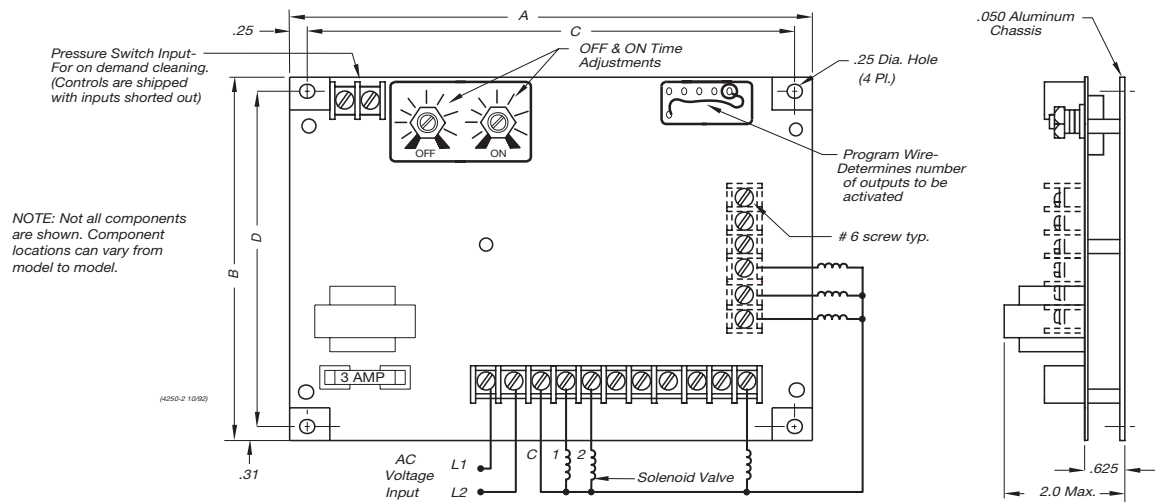
### ENVIRONMENTAL

**Operating Temperature:** -40°C to 65°C

**Storage Temperature:** -40°C to 70°C



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## ORDERING INFORMATION

MAX. NO. OF OUTPUTS	DIMENSIONS				SIZE OF NEMA 4 ENCLS. REQUIRED	PROGRAM- MABLE NO. OF OUTPUTS	OFF TIME	PART NUMBER
	A	B	C	D				
DNC-T2003 THROUGH DNC-T2032 120 VAC INPUT VOLTAGE								
3	6.75	4.875	6.25	4.25	8" x 6" x 3.5"	1-3	1.5 to 30 sec.	DNC-T2003-A10
							8.5 to 180 sec.	DNC-T2003-B10
6	8.75	6.875	8.25	6.25	10" x 8" x 4"	2-6	1.5 to 30 sec.	DNC-T2006-A10
							8.5 to 180 sec.	DNC-T2006-B10
10	8.75	6.875	8.25	6.25	10" x 8" x 4"	3-10	1.5 to 30 sec.	DNC-T2010-A10
							8.5 to 180 sec.	DNC-T2010-B10
20	10.75	8.875	10.25	8.25	12" x 10" x 5"	11-20	1.5 to 30 sec.	DNC-T2020-A10
							8.5 to 180 sec.	DNC-T2020-B10
32	12.75	10.875	12.25	10.25	14" x 12" x 6"	17-32	1.5 to 30 sec.	DNC-T2032-A10
							8.5 to 180 sec.	DNC-T2032-B10
DNC-T2006 THROUGH DNC-T2032 220 VAC INPUT VOLTAGE								
6	8.75	6.875	8.25	6.25	10" x 8" x 4"	2-6	1.5 to 30 sec.	DNC-T2006-A220
							8.5 to 180 sec.	DNC-T2006-B220
10	8.75	6.875	8.25	6.25	10" x 8" x 4"	3-10	1.5 to 30 sec.	DNC-T2010-A220
							8.5 to 180 sec.	DNC-T2010-B220
20	10.75	8.875	10.25	8.25	12" x 10" x 5"	11-20	1.5 to 30 sec.	DNC-T2020-A220
							8.5 to 180 sec.	DNC-T2020-B220
32	12.75	10.875	12.25	10.25	14" x 12" x 6"	17-32	1.5 to 30 sec.	DNC-T2032-A220
							8.5 to 180 sec.	DNC-T2032-B220

Note: Special time ranges are available with the following maximum to minimum time ratio restrictions: ON Time-10:1; OFF Time-20:1

ACCESSORY	DIMENSIONS	PART NUMBER
Enclosure for DNC-T2003	8" x 6" x 3.5"	BOX-A0806-CHNF
Enclosure for DNC-T2006	10" x 8" x 4"	BOX-A1008-CHNF
Enclosure for DNC-T2010	10" x 8" x 4"	BOX-A1008-CHNF
Enclosure for DNC-T2020	12" x 10" x 5"	BOX-A1210-CHNF
Enclosure for DNC-T2032	14" x 12" x 6"	BOX-A1412-CHNF

ACCESSORY	DIMENSIONS	PART NUMBER
Pilot Lamp	NEMA 4 Rated Red Light	ASL-00RED-NEMA-4
On/Off Switch	NEMA 4 Rated with Legend Plate	MSW-0DPST-001
Alternate Action Dual Coil Latch Relay	—	KDD-LATCH-120AC
Socket For Latch Relay	—	MSO-0D11P-012

AMETEK NCC offers NEMA 4 type enclosures for mounting our controls. These enclosures are made of heavy gauge steel and have a continuous hinge cover. All seams are continuously welded. The finish is gray hammer-tone enamel inside and out, over phosphatized surfaces.

### 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.