
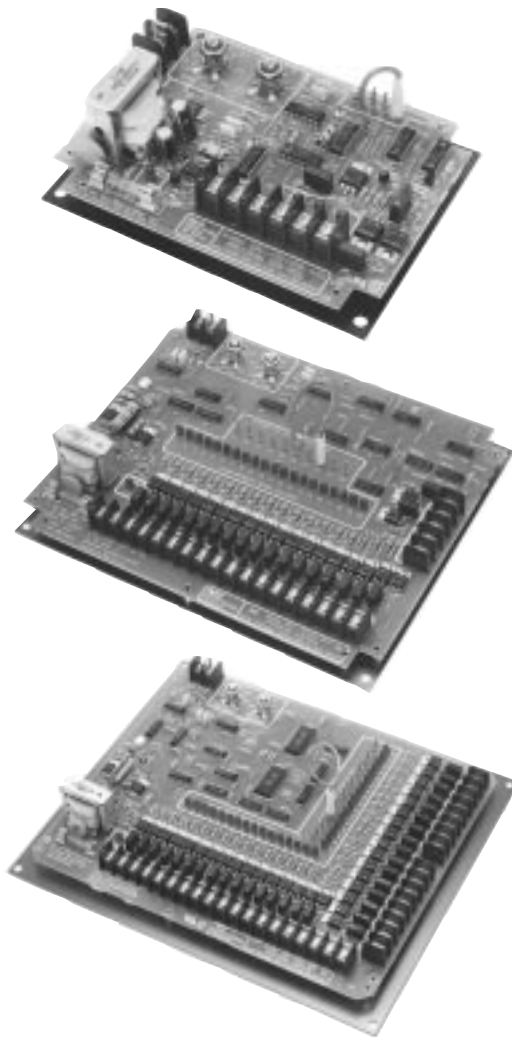


Features

-  File #E65038
- Digital Timing Circuitry: Allows for stable timing from -40°F to 150°F temperature range
- Pulse Time: Line synchronized to eliminate 8 millisecond triac turn off variation
- 10 Amp-400/600V Output Triacs: For maximum protection against output shorts. 200 VA load rating.
- RTV Coating: 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 Life 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 purchase
- Made in USA



Dust Collector Controls

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AC Input, Pulse Cleaning of Bag House Dust Collectors

Models DNC-T2003 thru DNC-T2032

Operating Logic: The control can function in 2 modes:

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

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 milliseconds

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.

Wiring diagram to Facilitate Expanded Output Mode

To expand the number of outputs in "continuous cleaning mode", any two timers can be connected via a dual coil alternate action latch relay as shown in the diagram to the right.

The output pulse from the last compartment of Timer No. 1 activates the latch coil opening the reset contacts connected to pressure switch terminals of Timer No. 1, causing Timer No 1 to stop sequencing. At the same time, the latch contacts connected to pressure switch Timer No. 2 close which will cause Timer No. 2 to start sequencing until the last output activation causes the reset coil to unlatch the relay and Timer No. 1 begins sequencing. This cycle will continue until voltage is removed from the system.

Output

Type: Solid-state switch (Triac)

Switch Rating: 200 VA maximum per output

Protection

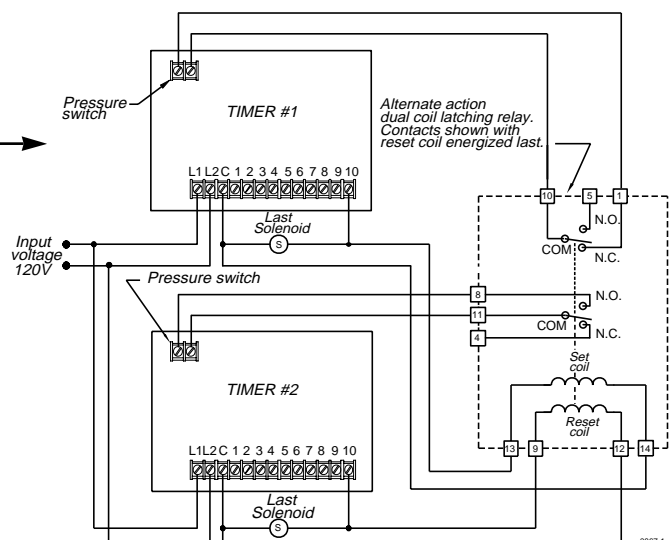
Transient Voltage: 30 joule metal oxide varistor

Short Circuit Protection: 3 Amp. fuse

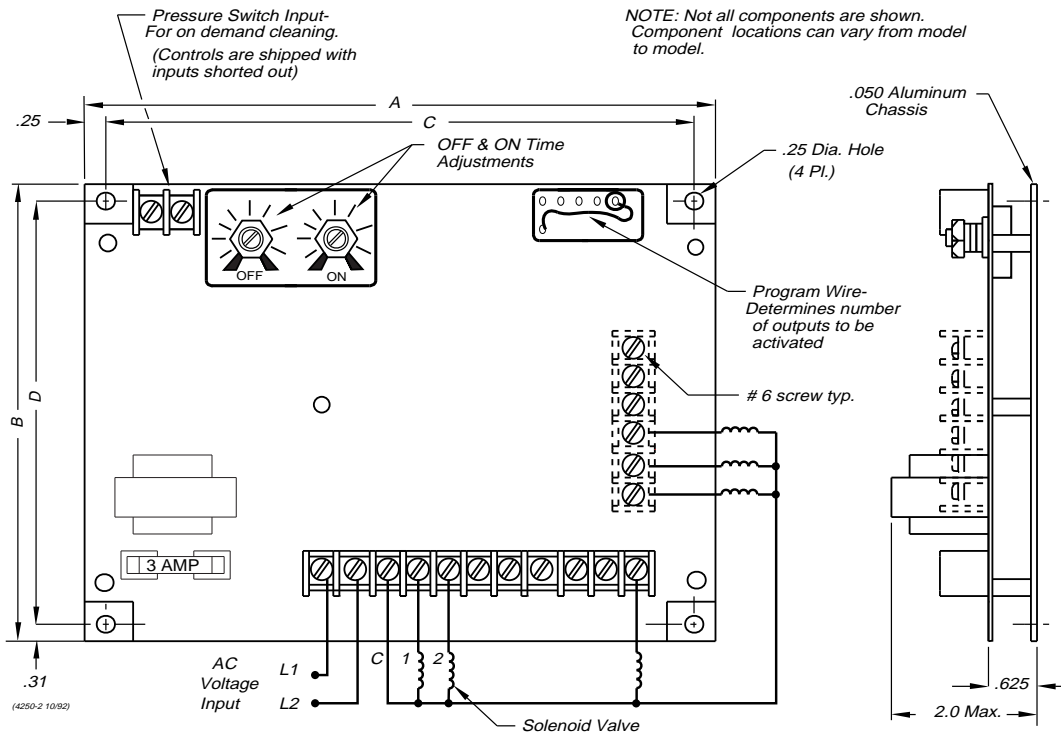
Environmental

Operating Temperature: -40°C to 66°C

Storage Temperature: -40°C to 70°C



3867-1



DNC-T2003 THRU T2032
WIRING DIAGRAM

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DNC-T2003 through DNC-T2032 120VAC Input Voltage

Maximum No. of Outputs	Dimensions				Size of NEMA-4 Encls. Required	Programmable No. of Outputs	Off Time In Seconds	Part Number
	A	B	C	D				
3	6 ³ / ₄ "	4 ⁷ / ₈ "	6 ¹ / ₄ "	4 ¹ / ₄ "	8" x 6" x 3 ¹ / ₂ "	1 - 3	1.5 - 30	DNC-T2003-A10
							8.5 - 180	DNC-T2003-B10
6	8 ³ / ₄ "	6 ⁷ / ₈ "	8 ¹ / ₄ "	6 ¹ / ₄ "	10" x 8" x 4"	2 - 6	1.5 - 30	DNC-T2006-A10
							8.5 - 180	DNC-T2006-B10
10	8 ³ / ₄ "	6 ⁷ / ₈ "	8 ¹ / ₄ "	6 ¹ / ₄ "	10" x 8" x 4"	3 - 10	1.5 - 30	DNC-T2010-A10
							8.5 - 180	DNC-T2010-B10
20	10 ³ / ₄ "	8 ⁷ / ₈ "	10 ¹ / ₄ "	8 ¹ / ₄ "	12" x 10" x 5"	11 - 20	1.5 - 30	DNC-T2020-A10
							8.5 - 180	DNC-T2020-B10
32	12 ³ / ₄ "	10 ⁷ / ₈ "	12 ¹ / ₄ "	10 ¹ / ₄ "	14" x 12" x 6"	17 - 32	1.5 - 30	DNC-T2032-A10
							8.5 - 180	DNC-T2032-B10

DNC-T2006 through DNC-T2032 220VAC Input Voltage

Maximum No. of Outputs	Dimensions				Size of NEMA-4 Encls. Required	Programmable No. of Outputs	Off Time In Seconds	Part Number
	A	B	C	DD				
6	6 ³ / ₄ "	4 ⁷ / ₈ "	6 ¹ / ₄ "	4 ¹ / ₄ "	10" x 8" x 4"	2 - 6	1.5 - 30	DNC-T2006-A220
							8.5 - 180	DNC-T2006-B220
10	6 ³ / ₄ "	4 ⁷ / ₈ "	6 ¹ / ₄ "	4 ¹ / ₄ "	10" x 8" x 4"	3 - 10	1.5 - 30	DNC-T2010-A220
							8.5 - 180	DNC-T2010-B220
20	10 ³ / ₄ "	8 ⁷ / ₈ "	10 ¹ / ₄ "	8 ¹ / ₄ "	12" x 10" x 5"	11 - 20	1.5 - 30	DNC-T2020-A220
							8.5 - 180	DNC-T2020-B220
32	12 ³ / ₄ "	10 ⁷ / ₈ "	12 ¹ / ₄ "	10 ¹ / ₄ "	14" x 12" x 6"	17 - 32	1.5 - 30	DNC-T2032-A220
							8.5 - 180	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

Accessories:

Enclosure For:	Dimensions	Part Number
DNC-T2003	8" x 6" x 3 ¹ / ₂ "	BOX-A0806-CHNF
DNC-T2006	10" x 8" x 4"	BOX-A1008-CHNF
DNC-T2010	10" x 8" x 4"	BOX-A1008-CHNF
DNC-T2020	12" x 10" x 5"	BOX-A1210-CHNF
DNC-T2032	14" x 12" x 6"	BOX-A1412-CHNF

Pilot Lamp	NEMA-4 Rated Red Light	ASL-00RED-NEMA4
On/Off Switch	NEMA-4 Rated w/Legend Plate	MSW-0DPST-011
Alternate Action Dual Coil Latch Relay		KDD-LATCH-120AC
Socket For Latch Relay		MSO-0D11P-012

National Controls Corporation 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.

Note: In order to keep abreast of the latest technology, National Controls Corporation reserves the right to change components and/or design of controls without notice.

Important Notice to Users:

Our timers are capable of use in a wide array of devices and in various applications. Any device or system incorporating a timer should be so designed that, in the event of failure, malfunction or normal wear-out of the timer, the system will become inoperative in a manner which will prevent property damage or bodily injury.

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