AMETEK National Controls Corp.

DUST COLLECTOR CONTROLS

AC Input, Pulse Cleaning of Bag House Dust Collectors

Models DNC-T2003 through DNC-T2032



FEATURES

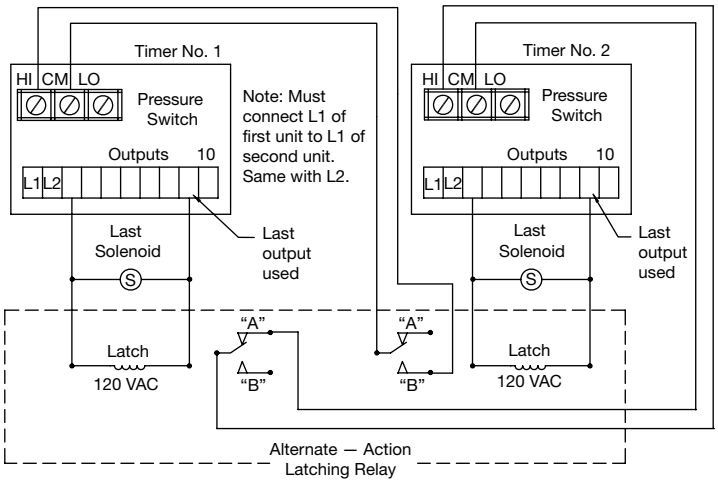
- *Universal voltage input: 95 to 265 VAC 50/60 Hz*
- *One SKU: covers all voltages and time ranges required in your application*
- *Advanced surface mount component technology: extremely reliable and trouble free operation*
- *Digital microprocessor controlled circuitry: for precise pulse timing*
- *Non-volatile memory: for retaining programmed settings*
- *3-digit, 7-segment numeric display: for ease of viewing controller operation*
- *Easily programmable: on/off times and last output used via keypad*
- *Small footprint: same size for 3, 6 and 10 output control*
- *Time ranges for all applications: On time: 50 ms to 600 sec; Off time: 1 to 999 sec*
- *2 modes of operation: can be operated continuously or on demand via external pressure switch*
- *Finger safe terminations: reliable electrical connections and increases safety*
- *RoHS construction: suited for global applications*
- *Supplied on metal chassis: for mounting directly in a NEMA 4 box*
- *Retrofit models available: for direct drop in replacement of former product*
- *File #E65038*

Operating Logic: The DNC-T2003 through DNC-T2032 controls are output sequencers with an adjustable ON TIME, OFF TIME, and LAST OUTPUT. Upon application of power to the L1 and L2 terminals with the high pressure switch contacts closed, the ON TIME is initiated. At the end of the preset ON TIME, the OUTPUT will turn OFF for the preset OFF TIME. The control will cycle through all selected outputs until the high and low pressure switch contacts are opened. If the pressure switch contacts open during the ON TIME, the output will complete the active ON cycle. The next time the high pressure switch is closed the next output in the sequence is fired. Pressure monitoring with no hysteresis is achieved by using only a high pressure switch. Placing a jumper across the high pressure input forces the control to run continuously.

Note: Controls are shipped with jumper across pressure switch terminals

Programming: Programming is accomplished using 3 buttons: down, up, and select.
Down: Decrements the active parameter
Up: Increments the active parameter
Select: Toggles amongst the adjustable parameters: on time, off time, and last output
Programming Mode Timeout: 60 seconds

Test & Default Modes: Test mode is entered by pressing and holding the select button for 3 seconds while the unit is in the normal operating mode. Once in test mode, the display will show tSt. Pressing the up or down arrow buttons toggles amongst outputs, and pressing select pulses the selected output for the preset ON TIME. Pressing the select button while the display shows tSt will change the display to dFt. While the display shows dFt, the up and down arrows toggle amongst y, n, and dFt. Pressing select when the message is y will set all adjustable parameters to the factory defaults. At any time in test and default modes, pressing and holding the select button for 1.5 seconds will revert the controller back to the normal operating mode.



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SPECIFICATIONS

INPUT

Input Voltage: 95 to 265 VAC 50/60 Hz

Power Consumption: 6.30 VA max plus load

Circuit Protection: 3.15 A fast-acting fuse and 72 J metal-oxide varistor at input

OUTPUT

Output: Solid state, 150 VA max

Off State Leakage: 1.5 mA max

On State Voltage Drop: 1.5 V max

ENVIRONMENTAL

Operating Temperature: -40° to 150°F (-40 to 66°C) Conformally coated with RTV to protect against moisture, corrosion, and vibration

DISPLAY

Display: 3 digit, 7 segment, green LED

Indicator LEDs: 5 green SMT (power, cleaning, on time, off time, last output)

TIME DELAY

On Time: 50 ms to 600 sec

Off Time: 1 to 999 sec

Resolution: 10 ms (50 ms to 10 sec), 100 ms (10 sec to 100 sec), 1 sec (100 sec to 600 sec)

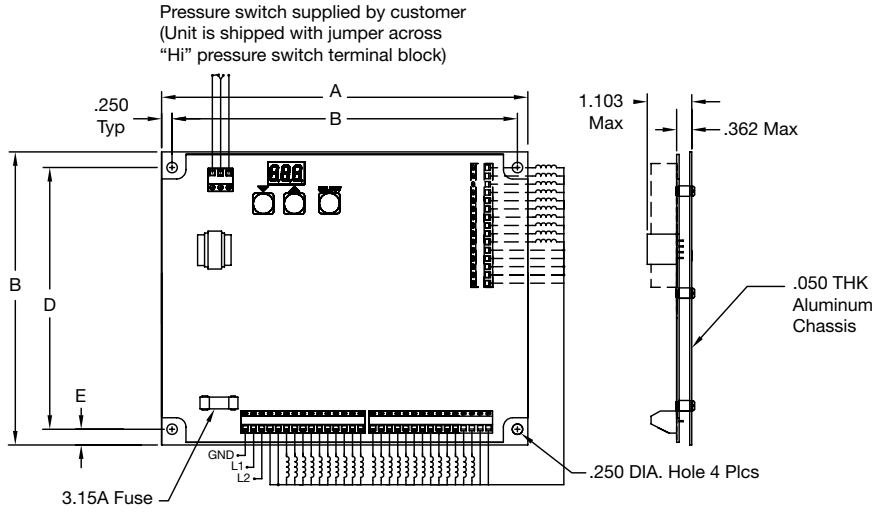
Accuracy and Repeatability: ±3% over temperature and voltage range

Default Settings:

On Time: 50 ms

Off Time: 15 sec

Last Output: Max. no. of outputs



ORDERING INFORMATION

Model	Max. No. of Outputs	Dimensions - Inch					Size of NEMA 4 Enclosure Reqd.
		A	B	C	D	E	
DNC-T2003-020	3	6.75"	4.75"	6.25"	4.25"	.250"	8" x 6" x 3.5"
DNC-T2006-020	6	6.75"	4.75"	6.25"	4.25"	.250"	8" x 6" x 3.5"
DNC-T2010-020	10	6.75"	4.75"	6.25"	4.25"	.250"	8" x 6" x 3.5"
DNC-T2020-020	20	8.75"	7.00"	8.25"	6.25"	.375"	10" x 8" x 4"
DNC-T2032-020	32	8.75"	7.00"	8.25"	6.25"	.375"	10" x 8" x 4"
DNC-T2006-R20	6	8.75"	6.875"	8.25"	6.25"	.313"	10" x 8" x 4"
DNC-T2010-R20	10	8.75"	6.875"	8.25"	6.25"	.313"	10" x 8" x 4"
DNC-T2020-R20	20	10.75"	8.875"	10.25"	8.25"	.312"	12" x 10" x 5"
DNC-T2032-R20	32	12.75"	10.875"	12.126"	10.251"	.312"	14" x 12" x 6"

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.

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