DUST COLLECTOR CONTROLS

DUST-7

DUSTRONIX™ Core-10/Expander-10 Dust Collector Controls

Models DNC-T2610-010/020

FEATURES

- Communicates via 2 wire CANbus network
- Universal input voltage 100-240 VAC, 50/60 Hz
- 10 outputs on-board, expands to 990 outputs (with expansion boards)
- Solenoid current sense:
 - allows automatic system setup
 - senses 3 solenoids per output
 - monitor up to 2970 solenoids
- Diagnostic/program LEDs for "at-aglance" system status indication
- Settable to read 0-10, 0-15, and 0-25 inches of differential pressure
- Finger-safe terminations

CORE-10 UNIQUE FEATURES

- Simple one knob programming
- Non-volatile memory for program and status storage
- On-Demand operation:
- with external pressure switch (not included)
- with external pressure sensor (not included)
- source/sink 4 to 20 mA sensor input
- 3-digit, 7-segment alpha-numeric display
- Settable alarm output relay normally open or normally closed

The Core-10 is the main control module in the DUSTRONIX line. The Core-10 is capable of operating as a standalone module controlling 1 to 10 solenoids, or in combination with the Expander-10 for up to 98 expansion modules for a total of 990 outputs. The Expander-10 is the expansion output board in the DUSTRONIX family. The Expander-10 operates in combination with the Core-10 Control Module.

ORDERING INFORMATION

INPUT VOLTAGE	PART NUMBER
100 to 240 VAC	DNC-T2610-010
100 to 240 VAC	DNC-T2610-020

Differential Press
Δ P

DRMATION

The Expander-10 communicates with the Core-10 on a twisted pair of wires using CANbus architecture which provides robust noise immunity. Two rotary switches on the Expander-10 are used to set and provide visual indication of the address assigned.

The Core-10 can operate in On-Demand mode with input from an external pressure sensor (4 to 20 mA) or a pressure switch (not included), or it can operate in the Continuous mode by use of a jumper across the pressure switch input. A switch can also be connected to the pressure switch input to act as a bypass switch. Input for a cycle down switch is also provided to allow for end-of-operation cleaning.

A unique feature of the Core-10 is its simple one-button programming. This single push-button/encoder is used to select operating parameters. LEDs indicate program function. The push-button is also used to view alarm conditions and cancel the alarm output. Operating and programming information is displayed on a 3-digit 7-segment display. The compact size of the Core-10 and the Expander-10 allows mounting in enclosures as small as 8" x 6".

Programmable Parameters:

- Solenoid ON-Time/OFF-Time
- Number of cycle down cycles
- Cycle down time delay
- Run/Standby: enable/disable outputs
- Differential pressure high setpoint/low setpoint
- Differential pressure high alarm setpoint/ low alarm setpoint
- Alarm contact (normally open or normally closed)
- Differential Pressure Sensor Select: 10, 15, 25 in. w.c.
- Output: 1 to 990 manual or auto-configured

Status LEDs: when illuminated • *Differential Pressure:* Display indicates



- Output: Display indicates current output
- Alarm (System Status): △ P or Solenoid Fault
- Output Pulsing: Display indicates output being pulsed
- Cycle Down: Unit in cycle down mode
- Output Status: Unit pulsing solenoids
- CANbus Status: CANbus transmission activity

DUSTRONIX "Kit" Configurations

- 1. DNC-T2610-N4A: Includes Core-10, PS700, 3-position switch, NEMA 4 10"x8"x6" metal enclosure with cutouts, bulkhead fittings, mounting chassis, mounting
- 2. DNC-T2610-N4XA: Same as above but mounted in fiberglass enclosure
- 3. DNC-T2610-N4B: Same as Kit 1 but also includes Expander-10 module
- **4. DNC-T2610-N4XB:** Same as Kit 3 but mounted in fiberglass enclosure

ACCESSORY	DIMENSIONS	PART NUMBER
Enclosure for DNC-T2610-010	10" x 8" x 6"	BOX-A1008-CHSC
		BOX-A1008-CHNF

DUST COLLECTOR CONTROLS

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SPECIFICATIONS

CORE-10

INPUTS

Supply: 100-240 VAC, 50/60Hz, 4 VA max. at

240VAC without loads **Fuse:** 3A fast, 5x20 mm

 Δ Pressure Sensor Input: 4 to 20 mA, sink/source, programmable 10.0", 15.0", 25.0" w.c.

Δ **Pressure Switch Input:** Dry contact, 4 mA at

13 VDC max.

Cycle Down Switch Input: Dry contact, 4 mA at

13 VDC max.

OUTPUTS
Solenoid Outputs: 10
Output Type: Triac

Output Rating: 150 VA (at max. ON, min. OFF, 1

output selected)

Timing Accuracy: -2mS, +10 mS or $\pm 1\%$ (whichever is greater), ON-time synchronized to AC line

Alarm Relay: Form-A contact, 3A at 250 VAC/30 VDC, programmable normally open or normally closed

DISPLAY INDICATORS

3-digit 7-segment LED display, 0.56 in. red

Program Parameters/Display Status/CANbus

Status: 17 green LEDs
Alarm: 1 red/yellow LED
Output Status: 1 red/green LED

PARAMETER RANGES

ON-Time: 0.050-600 sec. **OFF-Time:** 1-999 sec.

Timing Accuracy: -2 ms, +10 ms or $\pm 1\%$ (whichever is greater), ON-time synchronized to AC line

Cycle Down Cycles: 1-20, none Cycle Down Delay: 60-600 sec.

 Δ P High Setpoint: 0-10/15/25" w.c., none Δ P Low Setpoint: 0-10/15/25" w.c., none Δ P High Alarm: 0-10/15/25" w.c., none Δ P Low Alarm: 0-10/15/25" w.c., none

COMMUNICATIONS

Type: CANbus architecture

Terminations: Screw terminals, #12 to #28 AWG,

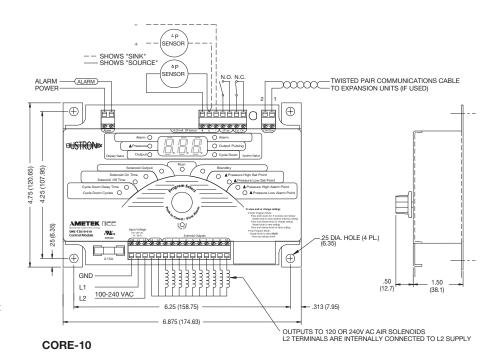
finger safe
ENVIRONMENTAL

Operating Temperature: -40°F to +150°F (-40°C

to +65°C)

Environmental Protection: Conformal coating

for humidity and vibration



TWISTED PAIR COMMUNICATIONS CABLE TO MAIN CONTROLLER AND OTHER EXPANSION UNITS (IF USED) .25 DIA. HOLE (4 PL.) (6.35) * * 0 **DUSTRONIX** (82.0)3.725 (94.6) 3.225 .25 (6.3) .**W**. \oplus GND OUTPUTS TO 120 OR 240V AC AIR SOLENOIDS L2 TERMINALS ARE INTERNALLY CONNECTED TO L2 SUPPLY 100-240 VAC 6.250 (158.75) - .313 (7.95) 6.875 (174.63)

EXPANDER-10

EXPANDER-10 SPECIFICATIONS

INDICATORS

Solenoid Pulse Indication: 10 green LEDs

CANbus Status: 1 green LED
Output Status1: 1 red/green LED

OUTPUTS

Solenoids: 10 per Expansion Module

Output Type: Triac

Output Rating: 150 VA (at max. ON, min. OFF, 1

output selected)

Timing Accuracy: -2 ms, +10 ms or $\pm 1\%$ (whichever is greater), ON-time synchronized to AC line

Caution:

- 1. Do not mount controls in high vibration areas without shock mounts.
- Do not mount controls in areas of high dust or corrosive atmospheres without a protective enclosure.
 Do not use a converter or inverter for the power
- 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.