Industrial Dust Collector Controller

Demand based controller for industrial dust collector pulse valves

Features

- On demand differential pressure cleaning of dust collectors

- Reduces dust collector compressed air use between 10-50%

- Metal Enclosure

- Differential pressure monitoring with tube clearing function

- Basic unit has 10 valves with extensions available for up to 60 valves

- Adjustable pressure levels

- Adjustable pulse duration

- Maintenance mode for pulse valve fault diagnosis

- Two voltage options –
  (i) 24vDC
  (ii) 100-240vAC

- Outputs -
  (ii) Alarm Relay
  (iii) 4-20mA for differential pressure

- Alarms
  (i) Solenoid Failure
  (ii) Differential Pressure
  (iii) Low pressure
  (iv) Broken bag detection (with optional dust sensor)

Standard industrial dust collectors use significant amounts of compressed air to clean the collector bags using time based controls. The Compressed Air Alliance controller uses demand based monitoring to pulse the bags only when cleaning is needed. Pulse control can save you up to 50% of the compressed air being used and increased filter life of up to 30%.

This dust collector differential pressure controller optimises baghouse productivity. Inbuilt sensors measure the performance of a dust collection installation then manage the number of pulse cleaning cycles.

The controller is can be retro-fitted to existing dust collectors in less than one hour and the savings start immediately.

Benefits of optimising baghouse productivity:

- Fewer cleaning cycles
- Reduced maintenance hours
- Use up to 50% less compressed air
- Extended filter life
- Reduced energy costs
- Reduced carbon emissions

sales@compressedairalliance.com
www.compressedairalliance.com

Specifications:

TIMER
− Number of valves .... 1 - 10
− Maximum number of valves .... Up to 60 with extension cards
− ON time........................... 50 - 999 ms
− OFF time 1........................ 1 - 999 s
− OFF time 2 (fast)................. 1 - 999 s
− Pulsing mode..................... Sequential or Arbitrary (user defined)
− Clean after shutdown............. 1 - 255 cycles
− Autocycle Forced Pulsing .... 1 - 24 hours

ON DEMAND CLEANER
− Differential Pressure (DP)........ KPa, mm H_2O or inWG
− Ultra low level ....
− Low level .... Pulsing stops
− High level 1 .... Pulsing starts
− High level 2 .... Pulses faster
− Alarm level .... Local and remote, General and Critical
− Tube Cleaner................... Duration (s) and interval (mins)

INPUTS
− Power Supply .... 100 to 240 VAC or 24 VDC. Others by request.
− Four (4) sensors .... Digital (dry contact) or analogue (4-20 mA)

OUTPUTS
− Solenoid valves .... 100 to 240 VAC or 24 VDC
− System active relay .... Dry contact (NO/NC)
− Three (3) configurable alarms .... Dry contact (NO/NC)
− Differential pressure 4-20mA

EXTENSION BOARDS
− Up to 10 output each   − RS 485 2 wire (master and slave comms)
− Up to 5 slaves   − AC or DC version

DISPLAY - alphanumeric
− System mode – Manual or Auto   − Broken bag row matrix
− System status—Halted or Pulsing   − Tube cleaner count
− Number of the next valve to trigger   − Valve error
− Current differential pressure value   − Active alarms

How to Order:

(For OEM or Own branded version, please contact Compressed Air Alliance)

Number of Valve Outputs
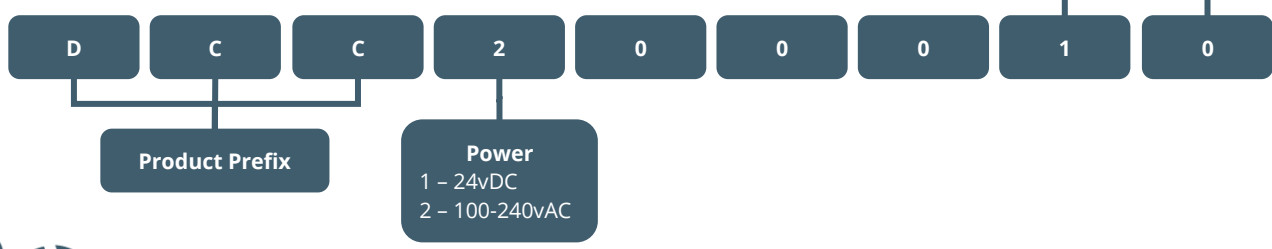10 – Up to 10 Pulse valves (default)
20 – 10 to 20 Pulse valves
30 – 20 to 30 Pulse valves
40 – 30 to 40 Pulse valves
50 – 40 to 50 Pulse valves
60 – 50 to 60 Pulse valves

| D | C | C | 2 | 0 | 0 | 0 | 1 | 0 |

Product Prefix

Power
1 – 24vDC
2 – 100-240vAC

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