

# ECO On Demand Controller

## Industrial Dust Collection and Air Filtration

Where most baghouse dust collectors rely on continuous pulse cleaning cycles the ECO has an inbuilt sensors to accurately measure the performance of a dust collection installation, and based on those measurements manages the number of pulse cleaning cycles to optimise baghouse productivity. The ECO can be retro-fitted to an existing dust collector in a short period of time or supplied as an OEM component within a new baghouse dust collector.

ECO equipped dust collectors deliver a broad range of operational benefits to industry.

### Significant efficiency improvements

Fewer cleaning cycles means more up time with maintenance hours reduced by up to 30%. In addition the ECO provides users with a range of efficiency enhancing features including:

- On Demand Cleaning
- Adjustable pressure levels for optimal operation
- Cleaning of differential pressure tubes (tube cleaner)
- Maintenance mode allowing single valve pulsing for fault diagnosis
- Electronic fault detection on each solenoid valve (short and open circuit detection)
- Mechanical fault detection on each solenoid valve (sensor required)
- Broken bag detection (sensor required)

### Direct cost savings

The efficiency improvements for an ECO equipped dust collector deliver a number of direct cost savings including:

- Maintenance hours reduced by up to 30%
- Compressed Air usage reduced by up to 50%
- Extended filter life of up to 30%
- Reductions in energy costs of 40 to 70%

### Environmental impact improvements

The range of user definable alarms built into the ECO Controller mean that process monitoring to pre set performance conditions significantly reduces or eliminates the risk of contaminants escaping into the environment. In addition, the electrical energy savings accruing from the efficiency improvements deliver equivalent reductions in CO2 emissions of 30 to 50%



# ECO 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 H2O or inWG
- Ultra low level ..... Pulsing stops
- Low level ..... Pulsing starts
- High level 1 ..... Pulses faster
- High level 2 ..... Local and remote, General and Critical
- Alarm level ..... Duration (s) and interval (mins)
- Tube Cleaner.....

## INPUTS

- Power Supply ..... 110/240 VAC or 24 VDC. Others by request.
- Four (4) sensors ..... Digital (dry contact) or analogue (4-20 mA)

## OUTPUTS

- Solenoid valves ..... 110 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
- Up to 5 slaves
- RS 485 2 wire (master and slave comms)
- AC or DC version

## DISPLAY - alphanumeric

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

## ALARMS - standard

- Ultra low pressure
- Solenoid failure
- Alarm differential pressure
- Broken filter row

## Configurable\*

- Air flow
- Auxiliary
- Header pressure
- Hopper Temperature etc...

## COMMUNICATIONS

- Modbus RTU

## SIZE

- |                | <b>PCB only</b> | <b>ABS / Polycarbonate</b> |
|----------------|-----------------|----------------------------|
| - Height ..... | 150mm (6")      | 180mm (7.2")               |
| - Width .....  | 250mm (10")     | 290mm (11.6")              |
| - Depth .....  | 50mm (2")       | 130mm (5.2")               |
| - Weight ..... | 0.5Kg (1pd)     | 0.5Kg (1pd)                |

\* A broad range of specialist sensor/alarm configurations can be accommodated, call for details

Ptronik master controllers, designed and manufactured in Australia, are supplied as PCB only or in either explosion proof EXtD, ABS, Polycarbonate, mild or stainless steel enclosures, with or without solenoid valves fitted and are manufactured to international quality standards: ISO9001:2008.