

pMC Master Controller

Industrial Dust Collection and Air Filtration

The pMC Dust Collector management system significantly improves efficiency through automated optimisation technology and data for predictive maintenance. The predictive maintenance capabilities provide instant messaging of critical events providing more uptime and reduced maintenance hours as well as minimising polluting events. Historical data creates valuable insights for both process and regulatory purposes. Via the "Internet of Things" (IoT) the pMC Master Control will facilitate the evolution of smart Industrial sites with the benefits of business efficiency in time and costs, productivity improvements and energy savings.

Product Highlights

- Monitor and adjust the parameters 24/7 on the Dust Collector from a control room or computer
- Instant notification of critical alarm events to Smart phones
- Automatic DP analysis and adjustment to reduce the frequency of changing Dust Collector filters
- Track record of Dust Collector performance data for improvements & EPA data compliance reporting
- Key measures offer opportunities for energy efficiency, sustainability and meeting environmental responsibilities

Operational and Financials benefits

The pMC continuously collects data from a variety of sensors measuring key metrics. The pMC then compares real time plant performance data to a predetermined set of optimum criteria and through its inbuilt logic & determines the optimum point in time to automatically triggering 'bag pulse' cleaning. The result is optimised On Demand cleaning resulting in reductions in Energy costs of 40 to 60%, CO2 emissions 30 to 50%, Compressed air usage plus extends filter bag life of up to 30%. The predictive maintenance capabilities result in more up-time and reduced maintenance hours as well as minimising polluting events. Data is available for both process and regulatory purposes with instant notification of events.

Features

- Remote set up, monitoring and diagnostic control via the internet
- Email Alarm notification
- Broken bag detection (sensor required)
- Data logging
- Filter state tracking
- Electronic & fault detection on each solenoid valve
- Single valve pulsing
- Hours & Pulse counters
- On demand cleaning
- Wireless connections (optional)



pMC SPECIFICATIONS

TIMER

- Number of valves..... 1 - 240
- ON time..... 50 - 999 ms
- OFF time 1..... 1 - 999 s
- OFF time 2 (fast)..... 1 - 999 s
- Pulsing mode..... Sequential and/or Arbitrary
- Clean after shutdown..... 1 - 255 cycles

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.....

EXTERNAL INPUTS

- Power supply - inputs 110 to 240 VAC or 24 VDC. Other voltages by request.
- Eight (8) sensors — Inputs 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)
- Differential pressure 4 - 20mA
- Three (3) configurable alarms Dry contact (NO/NC)

EXTENSION BOARDS

- Up to 10 output each 24VDC (other voltages available)
- Up to 24 slaves
- RS 485 2 wire (master and slave communication)

DISPLAY - alphanumeric

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

ALARMS - standard

- Ultra low pressure
- Differential pressure
- Broken filter row
- Solenoid failure

Configurable*

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

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

COMMUNICATIONS

- Full remote control and data logging
- Ethernet with embedded web-server
- Modbus RTU & TCP/IP

pMC master controllers, designed and manufactured in Australia, are supplied in either explosion proof EXtD, ABS, Polycarbonate, mild or stainless steel enclosures and meet the following local and international standards: ISO9001:2008, AS/NZS61000.6.3, EN55011, EN61000-6-1, CE, cRUus.