

# ATLAS AIR & WATER DFM2 - DFM8 DIGITAL FLOW METERS

Atlas Air & Water DFM Flow meters have a digital readout and have a 4-20ma output. Installation is easy to complete by drilling two small holes in the pipe line and clamping the instrument in place. A drill guide is included to assist you for placement. For each size flow meter you should have a 6-foot straight length of steel pipe of the diameter of the pipe into which the flow meter is installed.

| Part Number | Diameter | Flow Range   |
|-------------|----------|--------------|
| DFM2        | 2 inch   | 35-600 CFM   |
| DFM3        | 3 inch   | 70-1200 CFM  |
| DFM4        | 4 inch   | 200-2000 CFM |
| DFM6        | 6 inch   | 500-5000 CFM |
| DFM8        | 8 inch   | 500-5000 CFM |

Includes flow meter with display and input to Deluxe Controller. Flow meter is shipped loose.



Flow Meter Display

#### **Deluxe Controller**

Single loop controller 4-20 mA and output, 4 relays in a UL 508 NEMA 4 enclosure. PFE records up to 12 inputs (4 I/O's standard) every minute with rolling memory. Example: PFE Deluxe panel with an optional Flow Control Valve will record air pressure, CFM flow with a DFM Flow Meter and dew point with an optional dew point meter every minute for 30 plus days of rolling memory!

The recorded data can be illustrated graphically on PFE panel, out put to thumb drive or exported via Ethernet. The Deluxe panel is programmable allowing for different air pressure discharge settings with an optional Flow Control Valve by day of week or time of day. Thus, if the plant shuts down for a weekend or night shift, and the air compressors remain active, the discharge air pressure for this non-produciton period will automatically change to a much lower air pressure. This will result in a great reduction of air consumption throughout the plant and typically a 14% savings in energy costs.

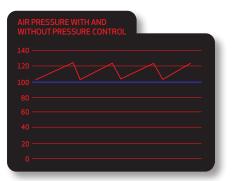
Reduced air consumption means reduced compressor KW. Plant air pressure is automatically increased/restored to desired plant operating pressure at desired

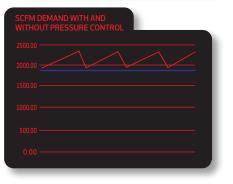
#### **Deluxe Controller Features**

- Microprocessor with PID control for rapid response and precise control.
- The recorded data can be illustrated graphically on PFE panel, out put to thumb drive or exported via Ethernet.
- PFE records up to 12 inputs (4 I/O's standard) every minute for 30 plus days of rolling memory.
- Deluxe panel is programmable allowing for different discharge pressure settings by day of week or time of day with an optional Flow Control Valve.



Atlas Air & Water Deluxe Controller (Features on reverse side)





#### Regulating Plant Flow CFM

Red line is plant air pressure and plant flow CFM unregulated with no PFE flow control valve.

Blue line is plant air pressure and plant flow CFM regulated with PFE flow Control valve.



air at 0 psig



■ Size of 1 ft<sup>3</sup> of air at 125 psig

#### How Large is a Cubic Foot of Air?

As air pressure is increased, each cubic foot of compressed air is squeezed smaller and smaller. This results in more compressed air flowing through each air device and leak. The air compressors have to make this additional CFM capacity, the plant does not need this extra CFM capacity to operate, thus the term artificial demand. PFE flow control valve provides constant pressure for constant performance of all operated devices and significant energy savings by reduced kilowatt of compressors.

## ADDITIONAL OPTIONS TO ADD TO YOUR SYSTEM\*

#### **PFE Flow Control Valve**

- Rotary V-ball control valve
- Standard valve controller
- 4-20 mA input/output
- Pressure transducer
- Programming

- 150# RF, 4-20 mA input positioner
- 25' of two wire signal wire
- 508 UL panel
- 3 meters of transducer cable
- Loss of pressure or loss of power result in fail open valve position



### **Digital Dew Point Meter**

Digital Dew Point Monitors combine the proven characteristics of long-term stability and rugged design with a far wider operating range. The operating parameters have been expanded to cover applications where measurement of low moisture content is critical to process measurement. This list includes (but is certainly not limited to) industrial and manufacturing processes found in food, metal, paper/wood, pharmaceutical, plastics, oil and gas, petrochem, and other markets. Stable and reliable polymer sensors have been used for relative humidity measurement for decades. Their drawback has been that they were not accurate in very low dew point ranges - until now.

\*Additional charges apply for these products.



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