

HVAC System Filter Efficiency

Installing a Low Pressure Differential data logger across filter banks will prevent personnel from having to guess when the filter requires replacement.

A Low Pressure Differential data logger with a range of 0 - 1.0" H2O (WC) can save money and the environment by preventing premature disposal of filters. Timely replacement can also help prevent health and maintenance problems caused by filters blowing micro bacterial contaminants resulting in the need to have the ducts cleaned. Data logging pressure trends over time can provide proof of filter condition.



Challenge:

The cost of filters and their replacement is substantial. An even greater cost is incurred when filters are replaced prematurely.

Are you faced with?

- · Having to guess whether the filter is ready for replacement
- Not knowing how to prevent premature disposal of filters that still have useful life
- Trying to prevent health and maintenance problems caused by overloaded filters that have blown out

Solution:

Installing a SmartReader Plus 4 LPD Data Logger across the filter bank removes the guesswork.

- The SmartReader Plus 4 provides assurance that the filter is being replaced only when necessary not too
 soon and not too late
- By monitoring the differential pressure, you will ensure timely filter replacment and help to maintain good indoor air quality
- Prevents health and maintenance problems caused by overloaded filters that have blown out

The industry rule of thumb is to replace the filter once the differential pressure has doubled from when the filter was new.



Deploying the data logger and downloading the information is easy...

- Simply place the ACR SmartReader Plus 4 LPD data logger on the duct in the area between the filter and the fan (the logger has a magnetic strip on the back for easy placement), place the positive port pressure hose in the area between the intake and the filter, place the negative port hose in the area between the filter and the fan. The logger's internal pressure sensor will calculate the differential pressure. (See Fig. 1)
- 2. Remove the logger and connect it to your PC with the IC-102 USB communications cable.
- 3. With TrendReader 2 software installed on your computer, simply download the information collected by the data logger. (See Fig. 2)



Ordering Info:

Equipment	Description	Catalog #
SmartReader Plus 4 - LPD-1 - 32KB	Two channel, 12 bit, data logger (One ambient temperature and one +/-1" W.C. channel)	01-0311
TrendReader 2 Interface Package (IC-102)	Software on CD & USB Interface cable for SmartReader & SmartReader Plus data loggers	01-0226
1/4" Pressure Hose - Low Pressure	Surgical rubber hose for use with low pressure differential loggers. (Sold in feet)	30-0015





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