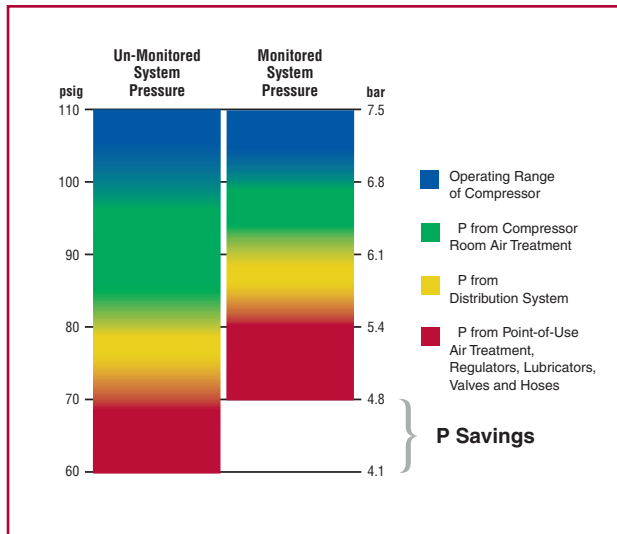


System Monitoring



Element Monitor Provides System Energy Savings and Internet Remote Monitoring

Gardner Denver Global Air Treatment focuses on maximizing the efficiencies of the entire compressed air system. FIL Series Filters feature an optional Element Monitor which focuses on reducing system pressure drop. Reducing system pressure drop has several benefits:

- reduces air compressor kW consumption
- reduces operating expenses
- prolongs air compressor life

The Element Monitor allows the user to control the exact amount of pressure drop incurred from compressed air filter elements. Unlike traditional mechanical gauges which give color indications typically when pressure drop has reached the 10 to 12 psig (0.7 to 0.8 bar) range, the Element Monitor will provide warnings to change the element at the 5 to 6 psig (0.3 to 0.4 bar) range – 60 days before pressure drop starts spiraling up. This 60 day notice gives

plant maintenance ample time to order and install a replacement filter element. A state-of-the-art microprocessor is the core technology of the Element Monitor. The microprocessor technology allows the Element Monitor to perform three monitoring modes.

Time Monitoring Mode – Simply input the number of months until filter change-out to match preventative maintenance schedules. The range is 1 to 15 months, the factory default setting is 12 months. Many sensitive end use applications recommend maintenance schedules for filter elements to guarantee oil-free air.

ΔP Monitoring Mode – Control system pressure drop by entering maximum allowable pressure drop across the element. Simply input within the range of 0.1 to 15 psig (0.01 to 1 bar), the factory default setting is 6 psig (0.4 bar). The Element Monitor is programmed to ignore momentary pressure drop spikes and thereby avoids false alarms.

Element Performance Mode – Receive a 60-day warning before the element gets loaded with particulates and pressure drop starts its upward spiral. This mode will develop a “particulate loading profile” and forecast out when the element should be changed. The microprocessor, which first allows the element to become “wetted” and therefore stabilized, takes measurements of instantaneous pressure drop over 1,800 times per hour during the first 8 day period upon element installation. This develops a “particulate loading profile” which is unique to the end user. This profile is then used to forecast the optimal time for element replacement and triggers a “60-day countdown to optimal element replacement” which flashes every six seconds on the Element Monitor LCD.

Simple Operation – The Element Monitor is designed for on-board manual programming without the need for any external instruments or programs. The programs utilize easy to understand international units of measure. The LCD display automatically cycles readings on instantaneous differential pressure, average differential pressure, and remaining days until element replacement every six seconds. For easy maintenance, the Element Monitor runs on three off-the-shelf AA batteries and the operator alert light signals the need for element replacement or a low battery condition.

