

FilterMonitoring

The RTT Engineered Solutions Filter Monitor Pro is designed to give operators and managers visual indication when filter maintenance is required. It includes 3 user adjustable set points for each sensor (filter stage) being monitored.

The pressure readings are gathered by external pressure transmitters (sensors) that are installed near the filters. The pressure transmitters measure the pressure across the filters using poly tubing connected to pressure ports mounted in the wall of the filter chamber. When the fan is turned on, a pressure differential is created from the front side of the filter to the back side of the filter. As the filter loads with overspray, the pressure differential increases. The transmitter converts the pressure differential into an electrical signal that is sent back to the Filter Monitor Pro which is then converted into a numerical value and displayed on the touch screen.



USER ADJUSTABLE SET POINTS

The Filter Monitor Pro allows for 3 pressure set points to be entered into the settings menu.

- **Warning Pressure:** Turns the stack light yellow and alerts the operator that the filters will need to be replaced soon.
- **Replace Pressure:** Turns the stack light red and alerts the operator that the filters require replacement.
- **Shutdown Pressure:** Disables the dry contact interlock that can be used to turn off other equipment in the system such as spray equipment, compressed air solenoids, or conveyors.

DATA ACQUISITION & RECORDING

Pressure readings are stored in the touch screen memory to allow managers to review how long the filters lasted before needing to be replaced. This allows for scheduled maintenance for filter change outs and estimating filter expenses and quantities throughout the year based on previous usage history. This data can help purchasing managers ensure the correct amount of filters are on hand when needed.

ELECTRONIC NOTIFICATIONS

When the Filter Monitor Pro is connected to an active internet connection via ethernet, notification email and text messages can be sent to anyone that has been entered into the contacts list.

WHAT'S INCLUDED

- 7" Color Touch Screen
- Omron CP Series PLC
- Analog Pressure Transmitters with tubing & fittings (1 per filter stage)
- RGB LED Stack Light
- Side mounted IEC power inlet & CAT6 RJ45 port
- Front mounted USB port
- Type12 NEMA Enclosure (UL Type1)
- UL 508A Listing

FILTER MONITOR PRO

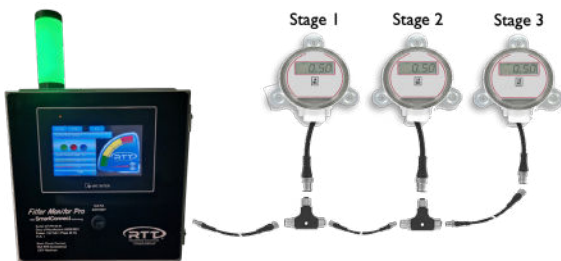


ORDERING INFORMATION

The RTT Engineered Solutions Filter Monitor Pro can monitor up to 12 sensors. Each sensor would be placed across a stage of filtration. If 3 stage filtration is used, 3 sensors would be required. If a booth has 4 chambers of 3 stage filtration, 12 sensors would be required.

Example installation of single chamber three stage filtration monitoring

Required Sensors	Analog Input Method	RTT Part Number
1	PLC Built In	CP-FM-03-01
2	PLC Built In	CP-FM-03-02
3	RS485 Expansion 1	CP-FM-03-03
4	RS485 Expansion 1	CP-FM-03-04
5	RS485 Expansion 1	CP-FM-03-05
6	RS485 Expansion 1	CP-FM-03-06
7	RS485 Expansion 1	CP-FM-03-07
8	RS485 Expansion 1	CP-FM-03-08
9	RS485 Expansion 1	CP-FM-03-09
10	RS485 Expansion 1	CP-FM-03-10
11	RS485 Expansion 2	CP-FM-03-11
12	RS485 Expansion 2	CP-FM-03-12



OPTIONAL M12 CABLE ASSEMBLIES

Simplify installation of your Filter Monitor Pro by purchasing the M12 field wiring kits. Using M12, up to three sensors can be combined into a single cable. The cables provide for a secure plug & play wiring method using threaded connectors. M12 cables can be joined together to provide additional length where required. Cable lengths available are 1-meter, 5-meter and 10-meter. Sensors will arrive pre-wired with a 1-meter pigtail.

