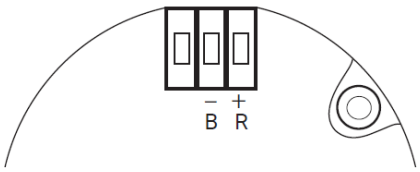
PA-FLTR Wall Mounted Installation and Configuration Guide

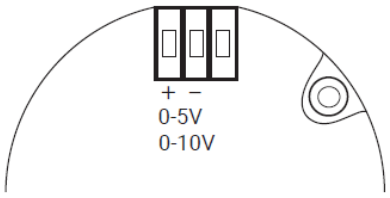


Wiring:

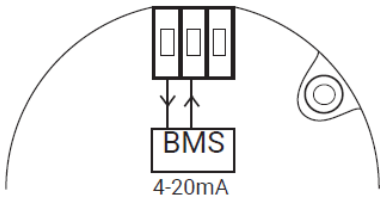


The PA-FLTR has a removable 3 way terminal block for ease of installation.

The power connection uses the 2 pins on the right when looking at the rear of the unit. Connect the 24 VDC (+/- 10%) or 24 VAC (18-32 VDC operational), 50-60 Hz lines to the terminals marked B and R in the diagram.



Voltage Output



mA Output

If using the Analog Output (AO) for voltage output, connect to the terminals as labelled on the left diagram above.

If using the AO for mA output, connect to the terminals shown in the right diagram above. A 250 Ohm resistor is included for this output type in the event you need to convert to volts (1-5V). The AO generates a 0-5 VDC, 0-10 VDC, or 4-20 mA output signal, as configured.

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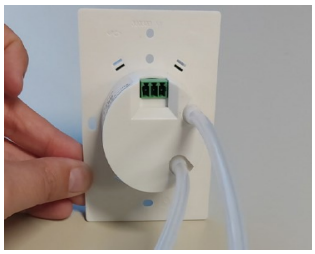
Wall Mounted Installation:



1. Cut a 2" hole in the wall or sheet metal for the Filter Alert base unit or install 1-gang electrical box.

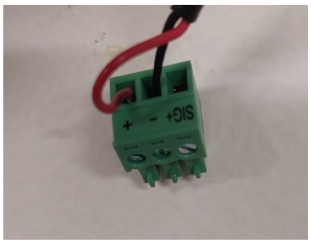
Note: Be sure to install electrical box in correct orientation based on purchased configuration (Portrait or Horizontal)
Run all tubing and wiring to the Filter Alert electrical box. 1/8” ID soft platinum-cured silicon tubing is typically used to bring the pressure signal from the pressure pickup port to the pressure fitting on the back of the module.

Avoiding kinked or damaged tubing:
Pull tubing runs in a manner that protects the tubing from being damaged, cut, or crimped. Any break or bend in the tubing may affect the integrity of the pressure signal. DO NOT TIGHTEN STRAIN RELIEFS at the electrical boxes so that they crimp the tubing. Leave the strain reliefs open enough so that the tubing can slide in and out of the box with a few inches of play. During tubing installation and prior to use, tape the open ends of the tubes closed to prevent contamination during construction.



2. Connect intermediate pressure tubing and barbed unions to the ports on the back of the Filter Alert.

3. Add connector to the in-wall wiring for power and analog output (if required). Attach the power connector to the Filter Alert and the intermediate tubing to the in-wall tubing.



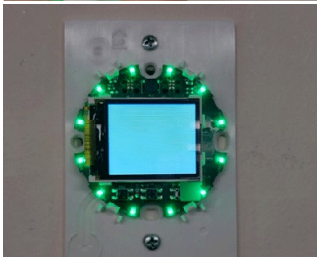
4. As you push the Filter Alert unit into the electrical box or wall, push the tubing into the conduit tube or wall cavity.

5. Push the Filter Alert into the wall or enclosure and secure with two (2) mounting screws.



6. When the home screen appears, the Filter Alert can be configured via 3 buttons located below the LCD display on the circuit board. See section 8.0 for configuration instructions and details.

Note: The Filter Alert should be installed, powered and operational for a minimum of 2 hours (recommended 24 hours) for warmup and acclimation for one-time pressure sensing stabilization. If necessary, after the warmup, units can be re-zeroed. Filter Alert contains a small air valve to allow for one-touch zeroing via the configuration menu.



7. Prior to installing the faceplate, be sure the rubber seal is properly installed on the back of the faceplate.

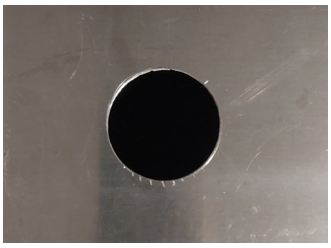
8. Install the faceplate by firmly pressing it into place over the base unit housing. Note: Press the plate in at a slight angle, leading with the bottom edge.

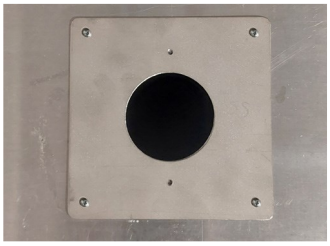


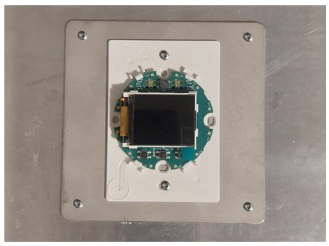
9. After configuration is completed align and engage the top two snaps. Then, align and install the front lens to the faceplate by inserting top snap first, followed by the bottom snap. Left and right snaps are alignment only.

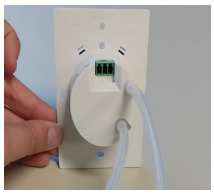
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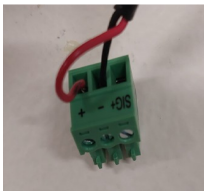
Flush mount installation:



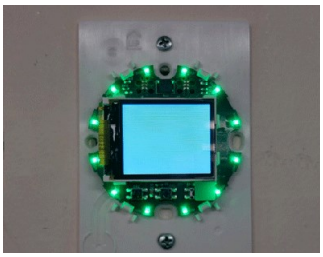














1. Locate existing hole from existing DP gauge installation in metal panel. If no hole, cut a 2-1/4” clearance hole.

2. Install flush mount adaptor plate over clearance hole with four sheet metal screws (Customer provided). Ensure mounting holes for the base unit are aligned properly for orientation ordered (landscape or portrait).

3. Connect intermediate pressure tubing and barbed unions to the ports on the back of the Filter Alert.

4. Add connector to the in-wall wiring for power and analog output (if required). Attach the power connector to the Filter Alert and the intermediate tubing to the in-wall tubing.

4. As you push the Filter Alert unit into the electrical box or wall, push the tubing into the conduit tube or wall cavity.

5. Push Filter Alert into the wall or enclosure and secure with two (2) mounting screws.

6. When the home screen appears, Filter Alert can be configured via 3 buttons located below the LCD display on the circuit board. See section 8.0 for configuration instructions and details.

Note: The Filter Alert should be installed, powered and operational for a minimum of 2 hours (recommended 24 hours) for warmup and acclimation for one-time pressure sensing stabilization. If necessary, after the warmup, units can be re-zeroed. Filter Alert contains a small air valve to allow for one -touch zeroing via the configuration menu.

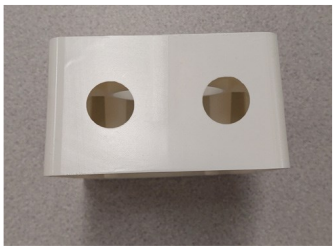
7. Prior to installing the faceplate, be sure the rubber seal is properly installed on the back of the faceplate.

8. Install the faceplate by firmly pressing it into place over the base unit housing. Note: Press the plate in at a slight angle, leading with the bottom edge.

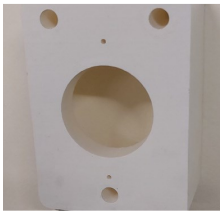
9. After configuration is completed align and engage the top two snaps. Then, align and install the front lens to the faceplate by inserting top snap first, followed by the bottom snap. Left and right snaps are alignment only.

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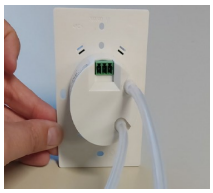
Surface mount installation:

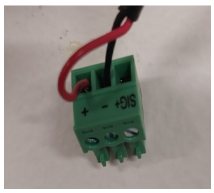






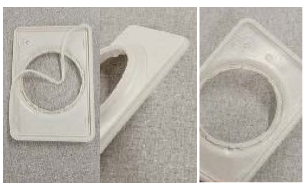












1. Drill two holes for ½" conduit fittings as required to provide access for power, analog wiring and pressure pick up tubing.
2. Install conduit fittings.
3. Using supplied hardware, mount adapter box to the wall or sheet metal enclosure of air handler.
4. Connect intermediate pressure tubing and barbed unions to the ports on the back of the Filter Alert.
5. Add connector to the in-wall wiring for power and analog output (if required). Attach the power connector to the Filter Alert and the intermediate tubing to the in-wall tubing.
6. As you push the Filter Alert unit into the electrical box or wall, push the tubing into the conduit tube or wall cavity.
7. Push Filter Alert into the wall or enclosure and secure with two (2) mounting screws.
8. When the home screen appears, the Filter Alert can be configured via 3 buttons located below the LCD display on the circuit board. See section 8.0 for configuration instructions and details.

Note: The Filter Alert should be installed, powered and operational for a minimum of 2 hours (recommended 24 hours) for warmup and acclimation for one-time pressure sensing stabilization. If necessary, after the warmup, units can be re-zeroed. Filter Alert contains a small air valve to allow for one-touch zeroing via the configuration menu.

9. Prior to installing the faceplate, be sure the rubber seal is properly installed on the back of the faceplate.
10. Install the faceplate by firmly pressing it into place over the base unit housing. Note: Press the plate in at a slight angle, leading with the bottom edge.
11. After configuration is completed align and engage the top two snaps. Then, align and install the front lens to the faceplate by inserting top snap first, followed by the bottom snap. Left and right snaps are alignment only.

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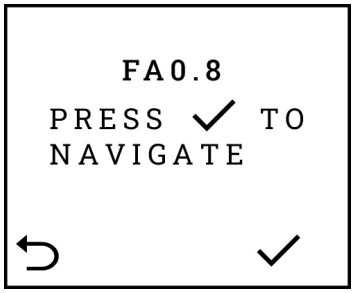
Configuration and Operation:

Once PA-FLTR is installed and powered-up, configuration and operation can begin. PA-FLTR can be easily configured via 3 buttons located below the LCD display after removing the front lens.



1. With the unit powered on, grab the lens by the left and right edge, then pull away from the unit.

2. Locate the 3 buttons located below the LCD display. Press and hold the LEFT button for 3 seconds to access the configuration menu (the LED ring should shut off after the configuration menus are accessed)



3. Press the RIGHT button to navigate to the next screen.

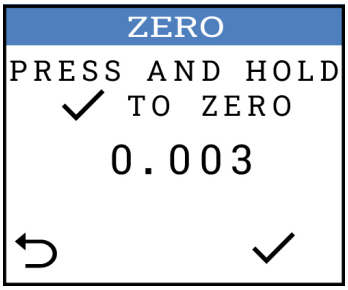
   Press the LEFT button to navigate to the previous screen and eventually exit the configuration menu.

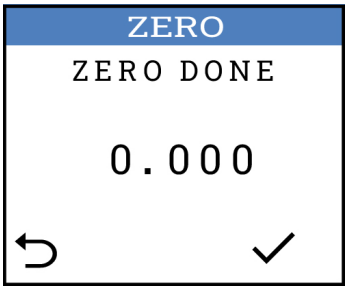
   To change a setting, navigate to the desired setting screen, and press and hold the RIGHT button. The screen text should flash 3 times, indicating ability adjust the setting.

   Use the LEFT and MIDDLE buttons to adjust the selected setting. When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

To exit configuration, press the LEFT button to navigate to the previous screen and eventually exit the configuration menu. The unit will also automatically timeout and return to normal operation if no buttons are pressed for a set period of time.

Zero Adjust:

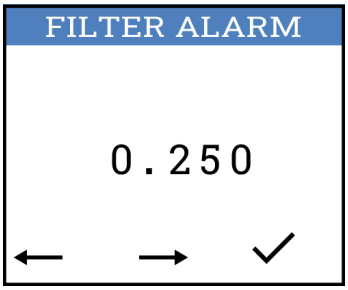




Press and hold the RIGHT button to zero the onboard pressure sensor. The unit contains an onboard valve to automatically equalize the pressure differential across the sensor.

Zeroing is complete when the screen reads "ZERO DONE".

Filter Alarm Limits:



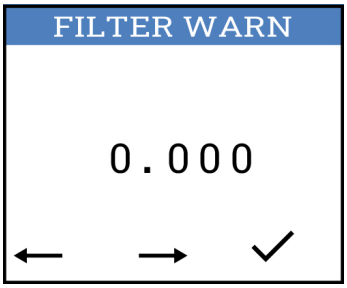
Press and hold the RIGHT button to adjust the alarm limit (i.e. pressure at which the LED ring will turn red); the screen text will flash 3 times to indicate that the setting is ready to be adjusted. Use the LEFT and MIDDLE buttons to adjust.

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

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Configuration and Operation Continued:

Filter Warning:

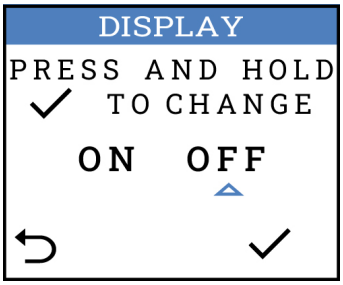


Press and hold the RIGHT button to adjust the warning limit (i.e. pressure at which the LED ring will turn yellow); the screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust.
When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Note: Recommend setting Filter Warning limit lower than filter alarm limit

Display:



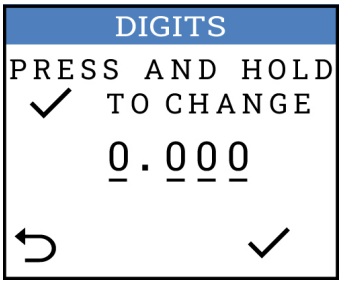
Press and hold the RIGHT button to adjust display behavior (i.e. whether the LCD display shows the digital pressure reading by default); the screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust between showing a digital reading by default ("ON"), or showing a blank screen ("OFF").

Note: When display is set to "OFF", the digital pressure reading is still viewable by pressing
the front lens and then numbers will vanish after 3 seconds.

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Digits:

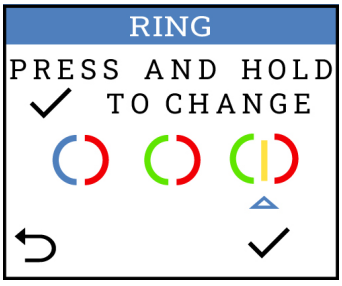


Press and hold the RIGHT button to adjust the number of decimal places displayed on the LCD screen; the screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust between 0 ("0.000"), tenths ("0.000"), hundredths ("0.000"), or thousandths ("0.000").

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Light Ring:



Press and hold the RIGHT button to select between no ring light, alarm (red) ring light only or both green/red light ring indicators. The screen text will flash 3 times to indicate that the setting is ready to be adjusted.

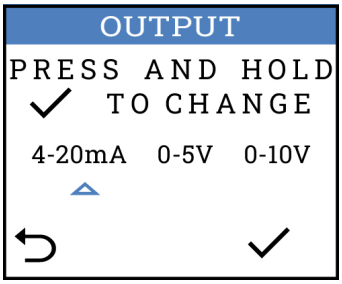
Use the LEFT and MIDDLE buttons to adjust between on only in alarm, green and red, or 3 stage light indication of green, yellow and red.

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

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Installation and Configuration Continued:

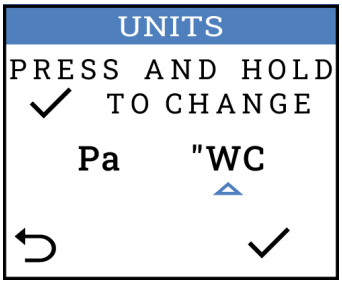
Outputs:



Press and hold the RIGHT button to change the output type. The screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust between 4-20mA, 0-5V, and 0-10V. When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Units:

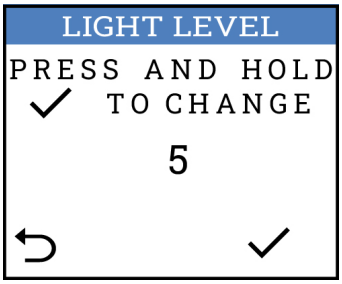


Press and hold the RIGHT button to adjust the measuring units used for the digital display and alarm thresholds; the screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust between pascals ("Pa") and inches of water ("WC").

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Light Level:



Press and hold the RIGHT button to adjust the brightness of the LED light ring; the screen text will flash 3 times to indicate that the setting is ready to be adjusted.

Use the LEFT and MIDDLE buttons to adjust between 1 ("dimmest") and 5 ("brightest").

When finished, press the RIGHT button to save the setting. The screen text should flash 3 times to indicate return to the main configuration selection screens.

Operation:







Under normal operation with pressure within the configured alarm limits, the LED light ring will glow green. Or, NOT be illuminated depending on light ring configuration chosen during setup.

If pressure exceeds the warning limit threshold, the LED light ring will glow yellow, indicating that that the filter should be changed soon. If pressure exceeds the alarm limit threshold, the LED light ring will glow red, indicating that the filter should be changed as soon as possible.

Alarm/warning limits can be configured via the ALARM LIMITS and WARN LIMITS menus. LED light ring behaviour can be configured via the RING menu.

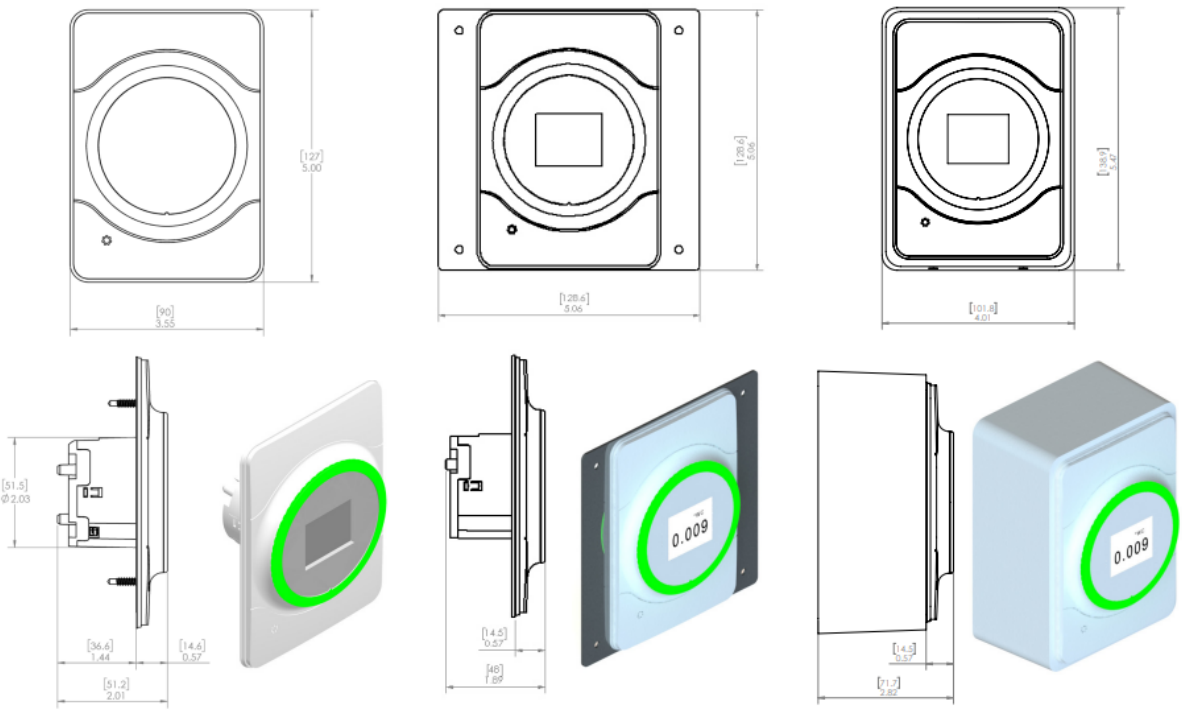
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View Pressure Reading:



If the DISPLAY is set to "OFF", the LCD display will display blank under normal operation. To see a digital pressure reading, simply press on the lens of Filter Alert.

Dimensional Drawings:



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