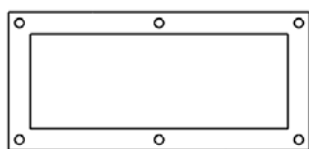
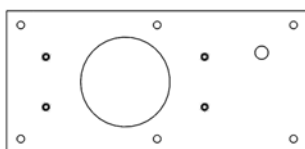


JB5000/X5000/S5000 Rectangular Duct Mount Kit User Instructions

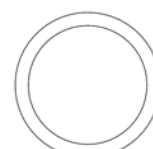
MSA Kit 10176947 – JB5000/X5000/S5000 316 Stainless Steel Parts List / Instructions



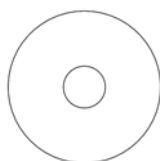
Rectangular Gasket (1)



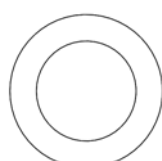
Rectangular Duct Mount Base Plate (1)



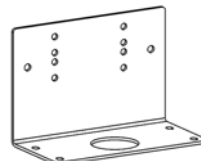
Base Gasket (1)



Gasket Plate (1)



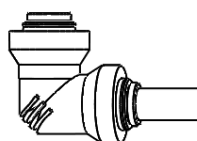
Enclosure Gasket (1)



Bracket (1)



Quick-Connect Fitting (1)



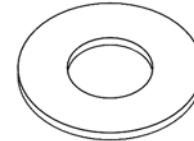
Elbow (1)



Standoff, 1/2" Long (8)



Screw, 3/8" Long (8)



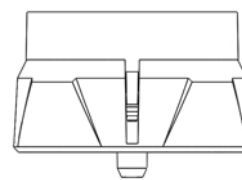
Washer, #10 Screw (8)



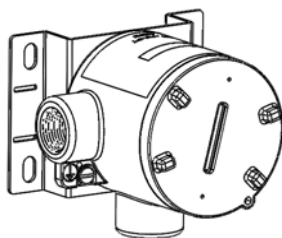
IR400 Adapter



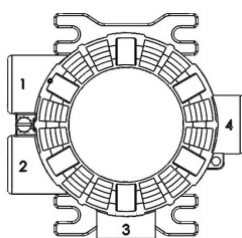
Self-Tapping Screw*



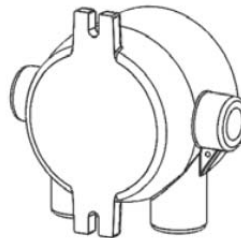
Sensor Guard*



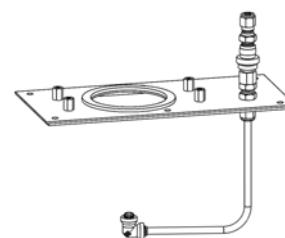
JB5000*



Ultima X5000*



S5000*



Base Assembly (1)

* Parts not provided by MSA within this kit. Ultima X5000 must be bought separately. Self-tapping screw type depends on duct material and thickness.

The Base Assembly includes: Rectangular Gasket, Rectangular Duct Mount Base Plate, Base Gasket, Standoff 1/2" Long (4), Quick-Connect Fitting, Elbow.



WARNING

- Before installing the JB5000/X5000/S5000, consult the operating manuals 10177361/MANS5000, and safety manuals 10177362/MANS5000SAFETY, and installation drawings SK3015-1068/SK3015-1061/SK3015-1063 to confirm that the device and any sensors are appropriate for the specific duct configuration and environment (including, but not limited to temperature and relative humidity).
- Refer to the operating manual for wiring instructions, including warnings and cautions.

Failure to follow the above warnings may result in serious personal injury or loss of life.

- (1) **JB5000:** If using JB5000 Junction Box, assemble the JB5000 housing to the JB5000 bracket, as shown in Figure 1.

X5000: If using Ultima X5000 housing, attach the four 1/2" long standoffs from the hardware bag to the back of the Ultima X5000 via the four tapped holes, as shown in Figure 2. Be sure to tighten the standoffs completely to avoid loosening over time.

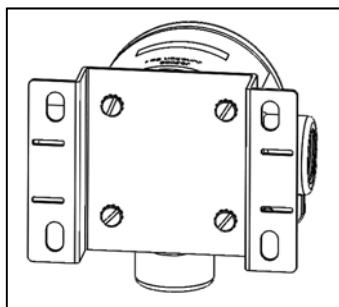


Figure 1 JB5000 Assembly

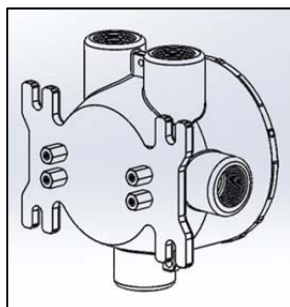


Figure 2 Ultima X5000

- (2) **JB5000:** Slide the duct mount bracket up flush against the JB5000 bracket so that the four holes are aligned with the four mounting slots. Use the four 3/4" long flanged screws and four locknuts from JB5000 mounting kit to attach the brackets together, as shown in Figures 3-4.

Note: If using a JB5000 with 3/4 NPT ports, use the lower pattern of four bracket holes.
If using a JB5000 with M25 ports, use the upper pattern of four bracket holes.

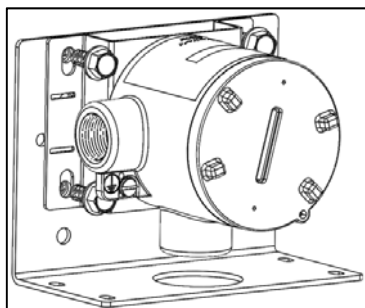


Figure 3 JB5000 Assembly (shown using upper hole pattern for M25 ports)

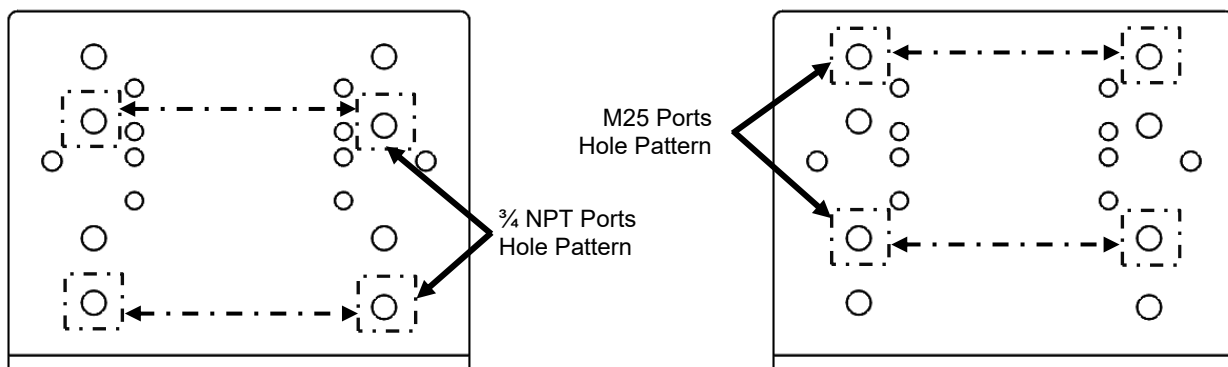


Figure 4 JB5000 Mounting Holes

X5000: Slide the bracket up flush against the four standoffs so that the holes are aligned with the threaded standoff holes. Use four 3/8" long screws and four washers from the hardware bag to attach the bracket to the standoffs, as shown in Figures 5-8.

Note: If using an Ultima X5000 with 3/4 NPT ports, align the standoffs with the bottom four bracket holes. If using an Ultima X5000 with M25 ports, align the standoffs with the top four bracket holes.

S5000: Slide the bracket up flush against the S5000 so that the holes are aligned with the two mounting slots. Align the S5000 housing so the desired port (either 1 or 4) will be facing down. Use the two 1" long flanged screws and two locknuts from the hardware bag to attach the bracket to the housing, as shown in Figures 9-12.

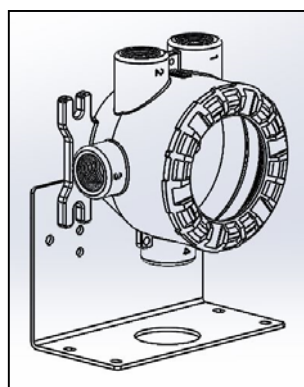


Figure 5 Ultima X5000 Mounting to Bracket

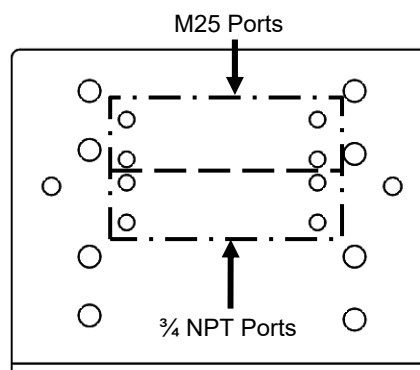


Figure 6 Ultima X5000 Mounting to Bracket

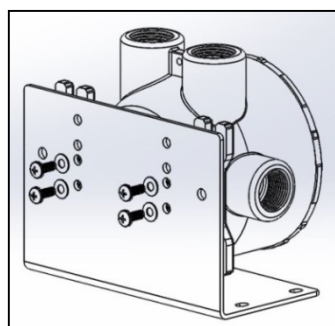


Figure 7 Ultima X5000 Mounting to Bracket

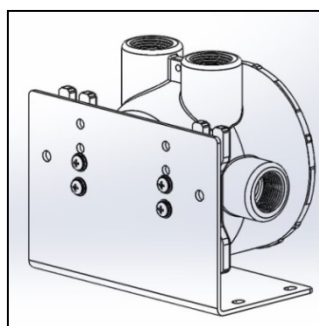


Figure 8 Ultima X5000 Mounting to Bracket

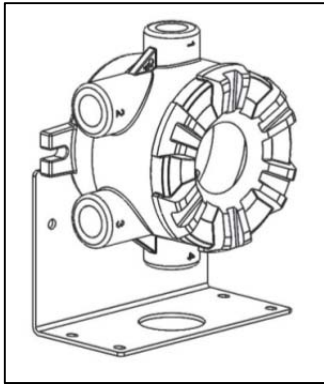


Figure 9 S5000 Mounting to Bracket

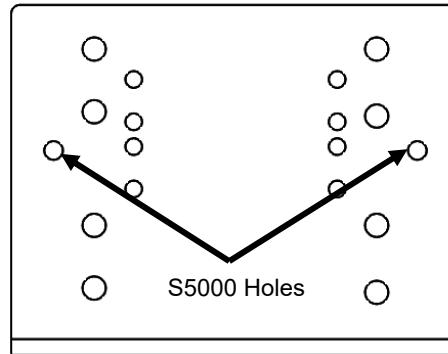


Figure 10 S5000 Mounting Hole Pattern

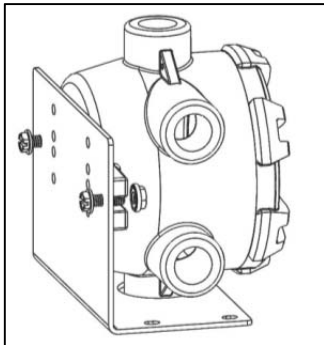


Figure 11 S5000 Mounting to Bracket

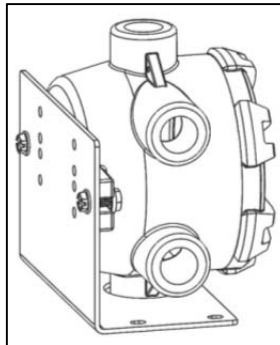


Figure 12 S5000 Mounting to Bracket

- (3) Take the enclosure gasket and gasket plate out of their bag and place them around the 3/4 NPT thread of the sensor body as shown with a non-IR sensor in Figures 13-14. Be sure to have the enclosure gasket between the gasket plate and the JB5000/X5000/S5000 housing. Attach the sensor (and sensor guard, if using a digital sensor) that will be mounted in the duct to port 4 if using Ultima X5000 housing. If using an XIR Plus, the sensor guard is not used. For S5000 housing, the sensor may be attached to ports 1 or 4. For JB5000 housing, the sensor may be attached to any port.

Be sure to connect all internal wiring according to the wiring labels on the inside of the junction box or transmitter, as applicable.

Note: If using a JB5000 or X5000 housing with M25 conduit entry ports, use the M25 to 3/4 NPT adapter to connect the JB5000/X5000 to the sensor body and ensure the enclosure gasket is between the adapter and the gasket plate.

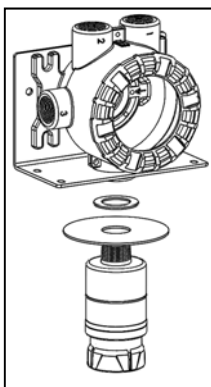


Figure 13

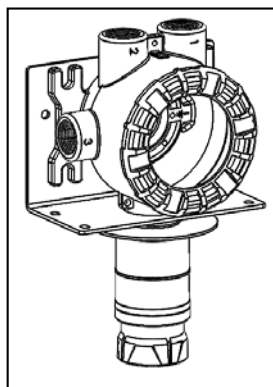


Figure 14

- (4) Use the template provided on the last page of these instructions to trace the required cutout in the location on the duct that the JB5000/Ultima X5000/S5000 will be mounted. Be sure to choose a location that allows enough room for the specific sensor configuration within the duct and is accessible for wiring/conduit. Once a suitable location is selected, cut the duct according to the template.

Note: If using an XIR Plus or IR400 sensor, the sensor must be oriented in the horizontal direction upon installation. If using a non-IR sensor, the sensor must be oriented in the vertical direction upon installation. Keep this in mind when choosing a mounting location on the duct.



WARNING

Mount the XIR PLUS or IR400 sensor with the sensor inlet fitting extended horizontally from the main enclosure to prevent the build-up of particulate or liquid matter on the monitor's optical surfaces. Mount the digital sensor with the sensor inlet fitting pointed downward; otherwise, the inlet may become clogged with particulate matter or liquids. Failure to follow the above warnings may result in serious personal injury or loss of life.

- (5) Remove the base assembly from the carton and align the cut out in the rectangular gasket underneath the base plate with the duct cutout, as shown in Figure 15.

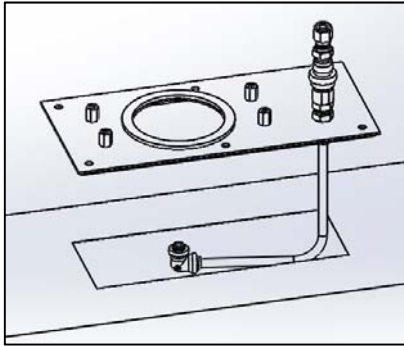


Figure 15

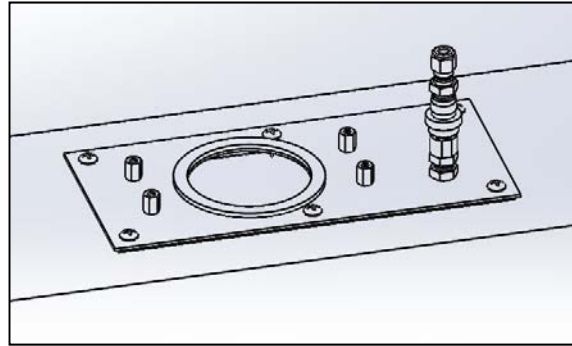


Figure 16

- (6) Once the base assembly is properly aligned, use the holes to mark locations for 1/4" self-tapping screw installation. Attach the duct mount assembly to the duct via 1/4" self-tapping screws (not provided) as shown in Figure 16.

Note: Be sure to keep the tubing accessible so that the elbow can be installed on the sensor for calibration.

- (7) If using a digital sensor, attach the tubing elbow to the sensor guard as shown in Figure 17. If using an XIR Plus sensor, attach the tubing to the sensor as shown in Figure 18. For S5000, if using a passive sensor, do not use the tubing. If using an IR400 sensor with S5000, attach the tubing elbow to the sensor as shown in Figure 19.

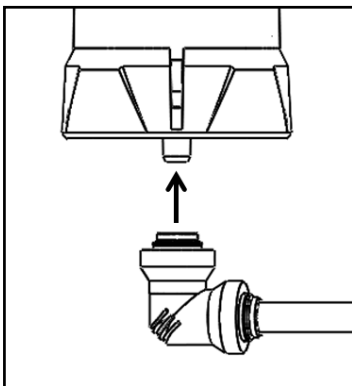


Figure 17 Digital sensor tubing connection

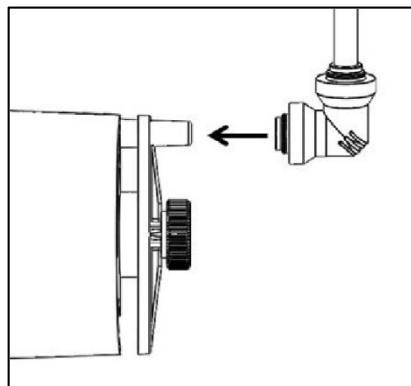


Figure 18 XIR Plus tubing connection

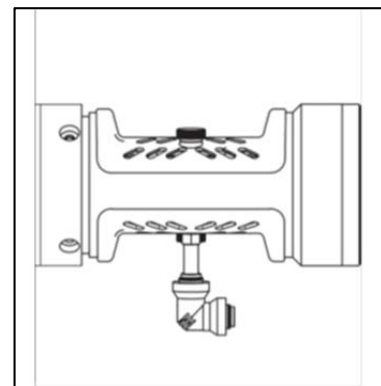


Figure 19 IR400 tubing connection

- (8) Attach the JB5000/X5000/S5000 and bracket assembly from step 3 to the base assembly via the four standoffs on the base plate. Use the four 3/8" long screws and four washers from the hardware bag to attach the bracket to the standoffs, as shown in Figures 20-22. Be sure to tighten screws completely to ensure proper gasket compression.
- (9) Check to make sure all gaskets are compressed evenly. If not, repeat steps 6-8 as needed.

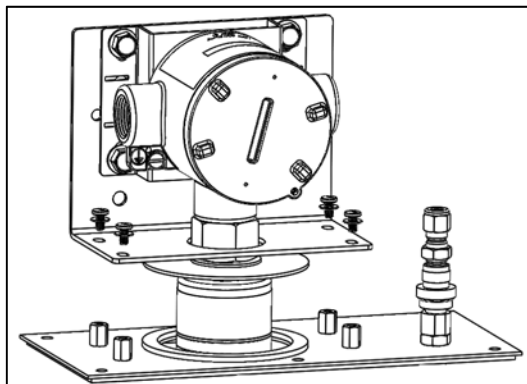


Figure 20 JB5000 Mounting to Base Assembly

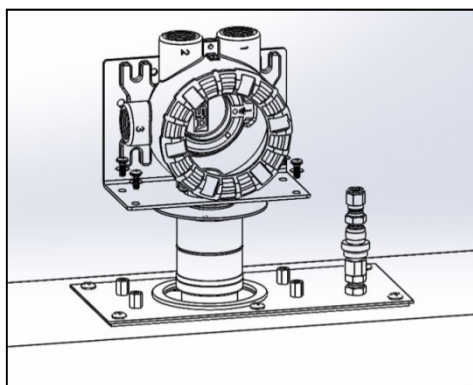
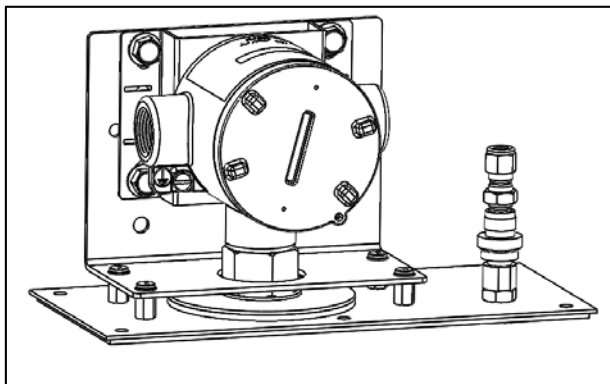


Figure 21 Ultima X5000 Mounting to Base Assembly

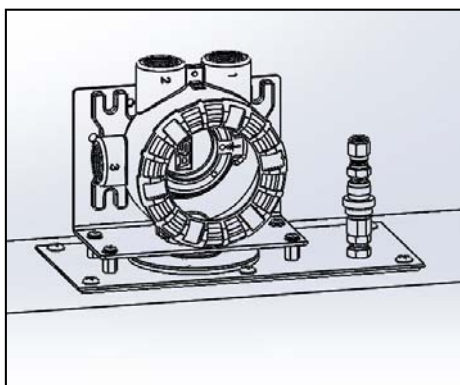
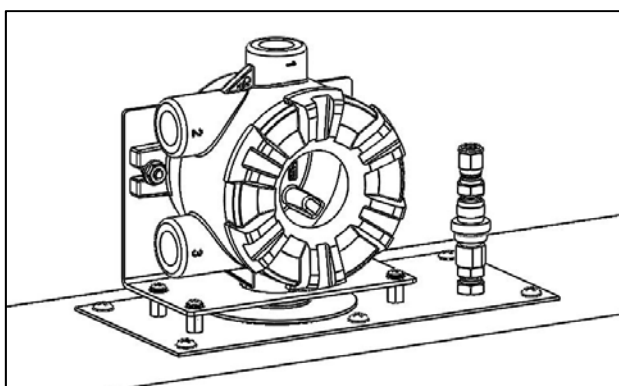


Figure 22 S5000 Mounting to Base Assembly



CUTOUT GUIDE
APPROX. 8.875" x 3.25"
(225 mm x 82.5 mm)

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