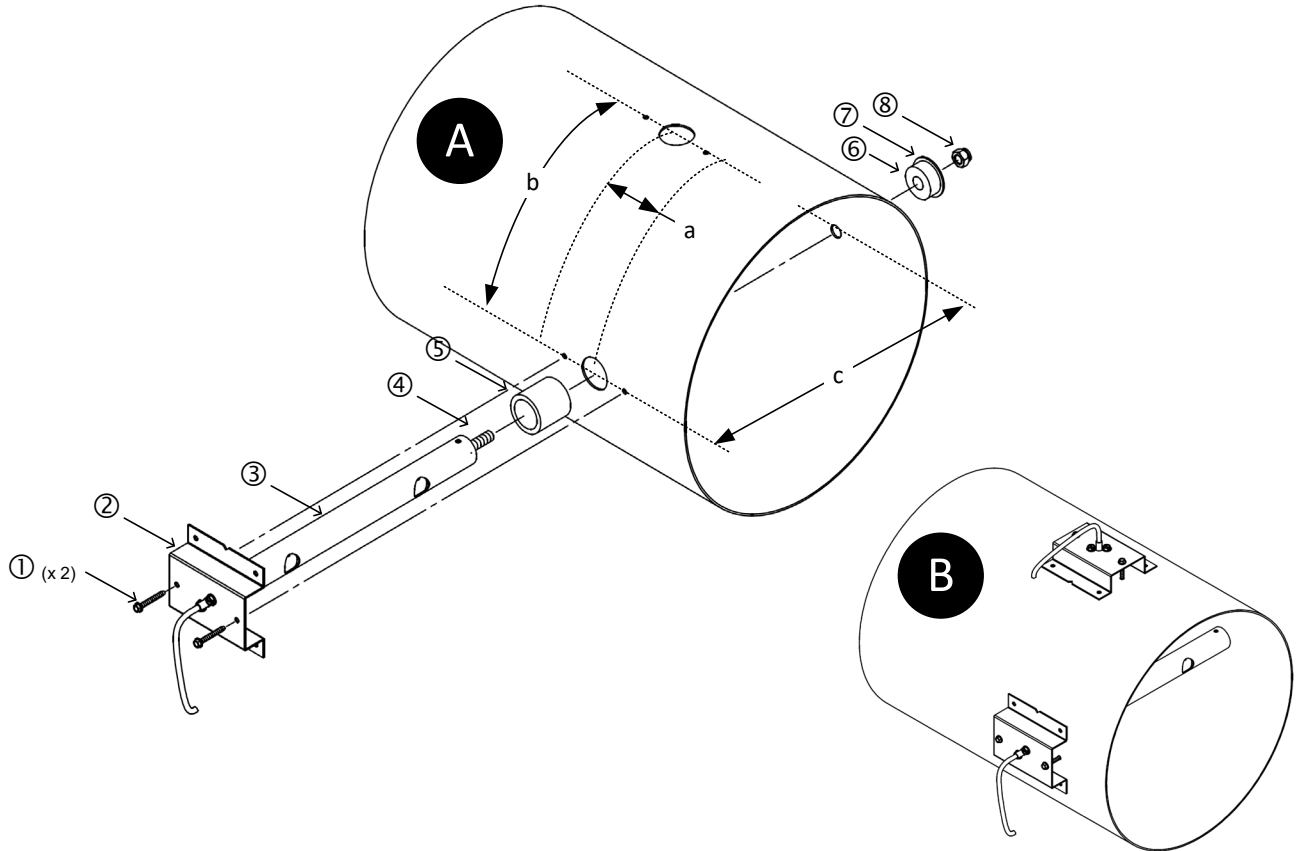


## -P Probe Installation (Insertion Mounting - Round Ducts)



Step 1. Select a location in the duct or plenum opening that meets or exceeds EBTRON's recommended placement guidelines.



*If the location does not meet or exceed placement guidelines the installed accuracy may be compromised and field adjustment may be necessary.*

Step 2. Probes are ordered and labeled *Probe Length x Adjacent Side Length*. The *Probe Length* and *Adjacent side Length* are the same for round ducts and equal to the diameter 'c'. Verify that the duct size matches the size ordered.



*If the probe length ordered is incorrect, the sensors will not be located in the proper location, thus affecting the installed accuracy. Contact EBTRON customer service for more information.*



*If the actual size of the duct is not equal to the size ordered, the AREA parameter must be changed in the transmitter to display the proper airflow rate in CFM [l/s].*



*Do not cut the probe! Cutting the probe will void warranty.*

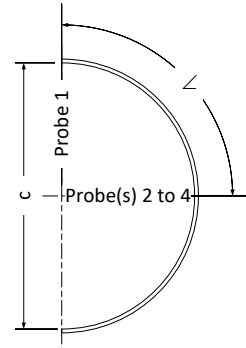
REFER TO FIGURE "A" WHEN COMPLETING STEPS 3 TO 18.

Step 3. Vertically mounted probes subject to water condensation or accumulation (typically supply air and outdoor air intakes) should be mounted so that the cable side of the probe is at the top of the duct.

Step 4. Mark a center-point where the probe will be located.

Step 5. If two or more probes are provided, refer to Table 1 and mark an additional center-point dimension 'b' along the circumference of the duct (or angle  $\angle$  from the previous probe) offset by dimension 'a' from the center-point marked in step 4. If more than two probes are provided, repeat this step for additional probes at the 'b' interval and offset 'a' from the previous center-point.

Number of Probes	a	b	$\angle$ from previous
1	2" [50mm]		
2	2" [50mm]	0.79c	90°
3	2" [50mm]	0.52c	60°
4	2" [50mm]	0.39c	45°



**i** *If the probes were ordered for a duct with internal insulation, use the external diameter of the duct for 'c' to calculate 'b'.*

Step 6. If the probes are provided with the terminal mounting bolt [4], follow Steps 7 to 8, otherwise skip to Step 9.

Step 7. Mark a center-point directly across the duct from the points marked in Steps 3 and 4.

Step 8. Drill a 1/2 inch hole at each probe center-point marked in Step 7.

Step 9. Drill a 1-1/8 inch hole at each probe center-point marked in Steps 4 and 5.

Step 10. Remove the large foam gasket [5] from the probe tube [3] and insert a probe into the duct. Use the probe mounting bracket [2] as a template to mark the location for the two center-line mounting screws [1]. The mounting bracket will self-align on the round duct to the direction of airflow. Remove the probe from the duct. Repeat this step for additional probes if more than one probe is provided.



*Removal of the foam gasket ensures that the insertion mounting plate [2] lays flat on the duct and properly aligns in the direction of airflow.*

Step 11. Drill appropriately sized pilot holes for each insertion mounting bracket screw [1] location (screws not provided) marked in Step 10.

Step 12. Make sure the large foam gasket [5] is installed on each probe tube [3] against the insertion mounting bracket [2].



*Probes are labeled Probe X of Y, where Y is the total number of probes provided for a location. It is recommended (not required) that probes are installed sequentially around the duct.*

Step 13. Follow steps 14 to 18 for each probe.

Step 14. Insert the probe tube [3] in the duct with the airflow directional arrow pointing in the direction of airflow (it is ok if the arrow is upside down).

Step 15. Secure the insertion mounting bracket [2] to the duct with the two mounting screws [1] selected.

Step 16. If the probe is provided with the terminal bolt [4], follow Steps 17 to 18, otherwise skip to Step 19.

Step 17. Place the small foam gasket [6], large fender washer [7] and lock nut [8] on the terminal mounting bolt [4].

Step 18. Tighten the lock nut [8] until the small foam gasket [6] is compressed to approximately 50% of its original thickness.

Step 19. Probe installation is complete! Figure "B" shows a completed two probe installation.