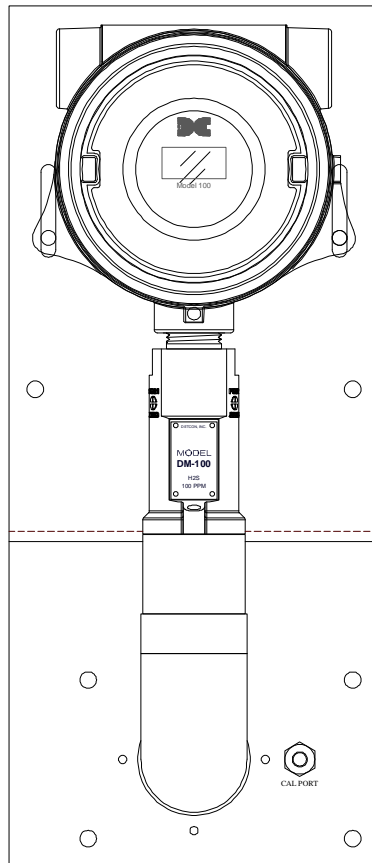




Model 100 Duct Mount Kit



Operator's Installation and Instruction Manual Covers all versions of the 100 Series Sensor

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1.0 Introduction

The Detcon Sensor Duct Mount Kit for Model 100 gas detection sensors allows a Detcon Model 100 gas sensor assembly to be mounted so that the Sample Chamber is located inside of an air duct, while the Sensor Assembly, located outside the duct, is still accessible for calibration and other adjustments. This method of installation is much more economical than the typical sample draw type system that is normally used in such applications. This instruction manual explains the installation, calibration, and maintenance procedures of the duct mount con-figuration. Refer to the sensor instruction manual for information on the sensor assembly.

1.1 Principal of Operation

In operation, air flow through the duct enters the duct mount chamber through ports facing the on coming flow of air. Once inside the chamber the sample passes by the sensor and then exits through similar ports that face the opposite direction. If any target gas is present in the chamber, the sensor output signals will respond accordingly as described in the sensor assembly instruction manual.

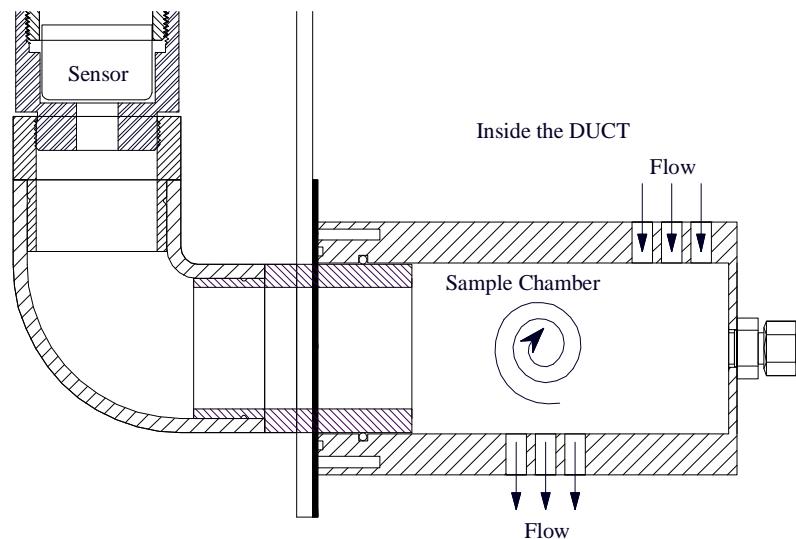


Figure 1 Sample flow

2.0 Installation

1 - Cut a clearance hole in duct as shown below. Mounting remains the same for square or round ducts. Minimum suggested diameter for round duct is 10 inches to adapt with normal mounting techniques. Adapting to an 8" diameter duct is possible with special mounting techniques. Below 8" diameter is not practical for mounting.

2 - Mount the duct mount kit using four 1/4" sheet metal bolts or other appropriate hardware.

3 - If necessary mounting integrity can be enhanced by using the two holes on the upper portion of the duct mount plate. Use standoffs and 1/4" sheet metal bolts or other appropriate hardware.

4 - Perform installation wiring as described in the sensor assembly instruction manual. If conduit is used, use flexible conduit to allow for future maintenance.

A 1/4" foam gasket is available for mounting the assembly on a round or curved ducts. Contact Detcon for further information. Mounting remains the sane.

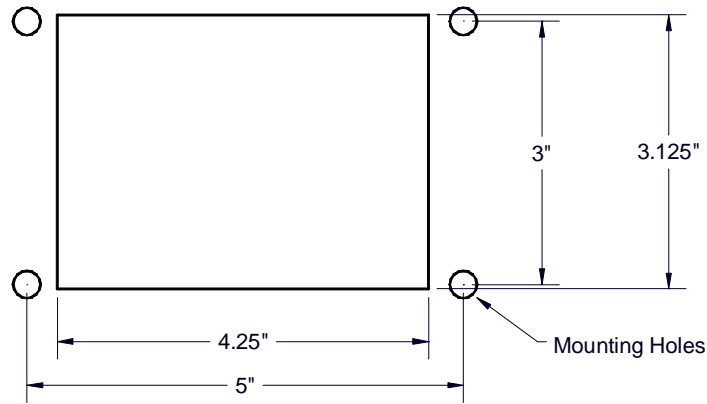


Figure 2 Cut-out Template

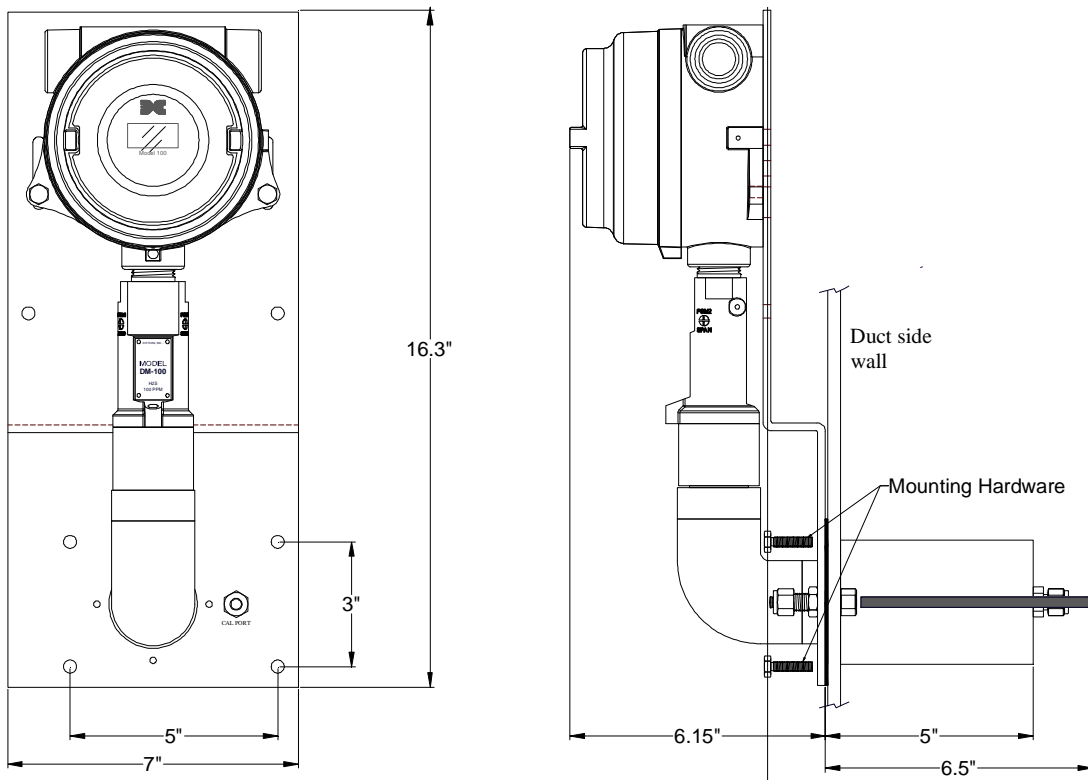


Figure 3 Dimensional

3.0 Calibration

CAUTION: In high velocity air ducts, air flow may need to be shut down before calibration takes place.

- 1 - Verify that there is no air flow through the duct.
- 2 - Remove the cal port plug.
- 3 - Apply the target gas to the cal port at a flow rate of 500 milliliter per minute for combustible (FP series) and solid state H₂S (TP series) sensors. Apply a flow rate of 1000 ml/m for toxic gas (DM series) sensors. Refer to the sensor manual for more information on the sensor calibration.
- 4 - Follow calibration instructions provided in the sensor instruction manual.

- 5 - Remove the target gas and apply a zero air standard for clearing.
- 6 - If necessary, repeat items 3-5 as indicated in the sensor instruction manual.
- 7 - Replace the cal port plug. Calibration is complete.

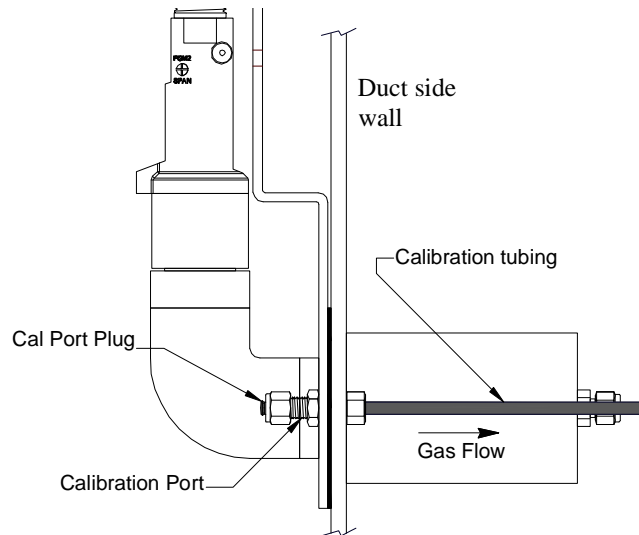


Figure 4 Cal Port

4.0 Maintenance

To remove the sensor for replacement or maintenance, perform the following steps.

- 1 - Remove the two bolts that hold the sensor conduit to the duct mount plate.
- 2 - Pull the sensor out of the duct mount chamber and perform necessary maintenance.
- 3 - Reverse the procedure to replace the sensor. If necessary, lubricate the O-rings inside the duct mount chamber so that the sensor rain shield will slide into the chamber easily.

5.0 Warranty

Detcon, Inc., as manufacturer, warrants each sensor duct mount kit for a period of one year under the conditions described as follows: The warranty period begins on the date of shipment to the original purchaser and ends one year thereafter. Should any part fail return the defective part to Detcon, Inc., for necessary repairs or replacement.

6.0 Revision Log

Revision	Date	Changes made	Approval
0.0	09/22/11	Released	LU
0.1	11/19/12	Added notation regarding minimum round duct diameter.	BM