Model 700

Sensor Duct Mount Kit

Operator's Instruction Manual

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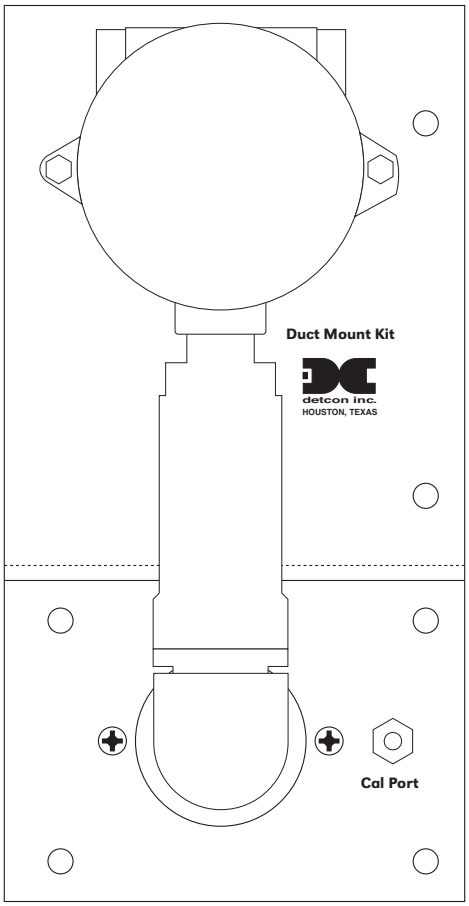
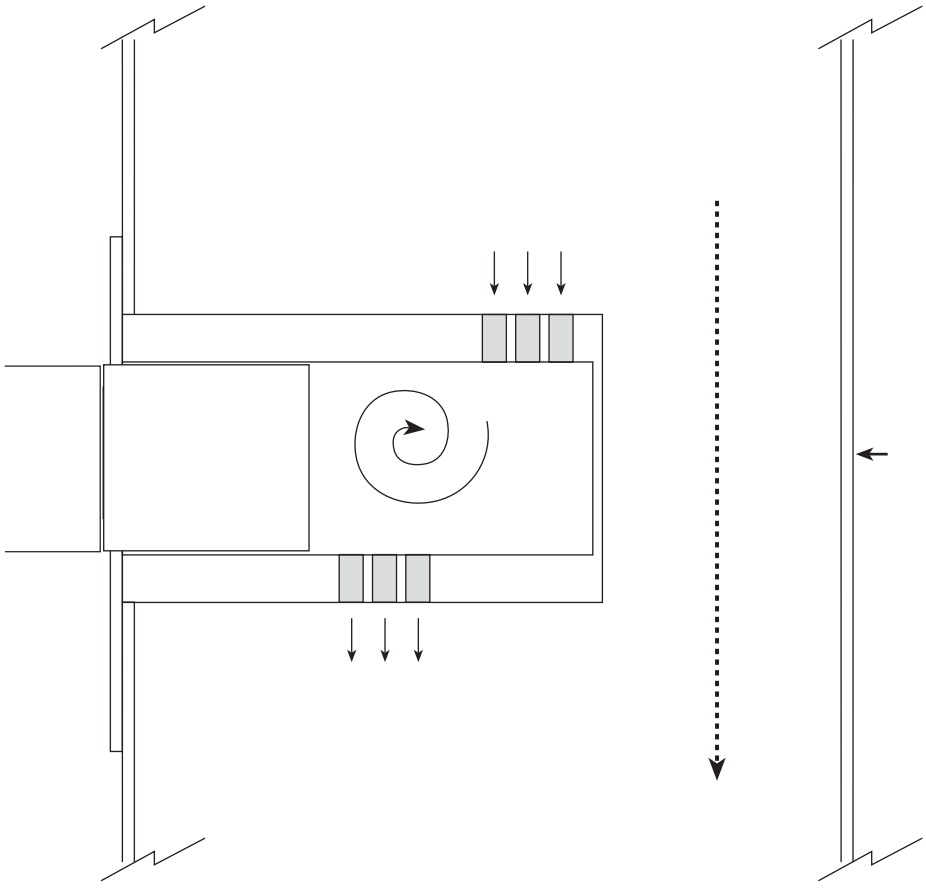


1.0 Description

The Detcon Sensor Duct Mount Kit for Model 700 gas detection sensors allows a Detcon Model 700 gas sensor assembly to be mounted so that its sensor is located inside of an air duct, while its transmitter, 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 configuration. Reference the instruction manual that came with your Detcon sensor assembly for further information.

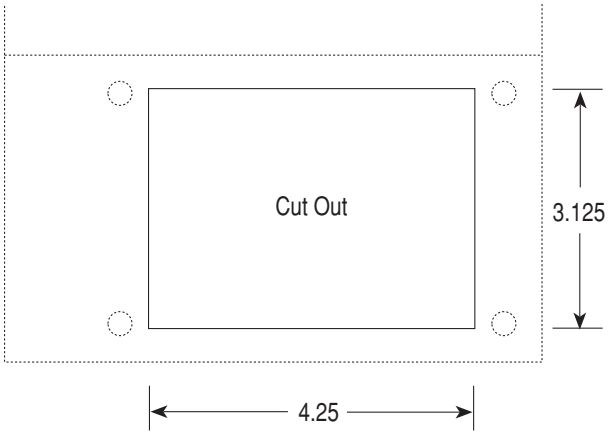
1.1 Principle of Operation

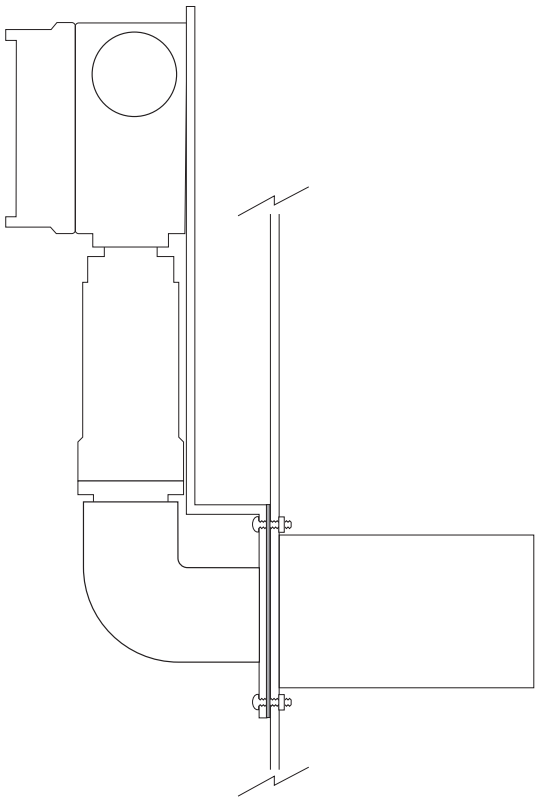
In operation, air flow through the duct enters the duct mount chamber through ports facing the oncoming flow of air. Once inside the chamber the sample passes by the sensor and then exits through similar ports that face the opposite direction. If any target gas is present in the chamber, the sensor output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

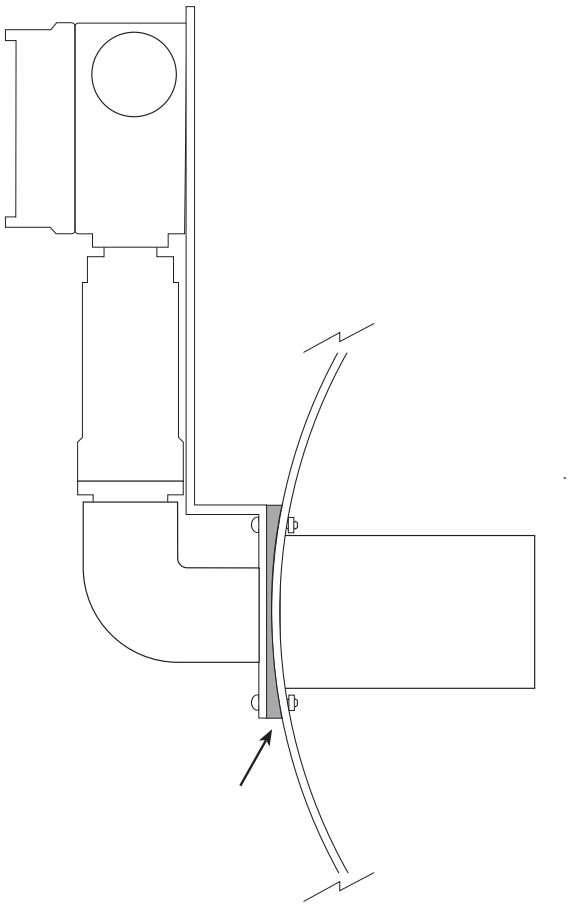


1.2 Installation

1 - Cut clearance hole in duct as shown below. Cutout is the same for square or round ducts.
2 - Mount the duct mount kit using four 1/4" sheet metal bolts or other appropriate hardware.
3 - If necessary you may enhance mounting integrity by using the two holes on the upper right 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. Use flexible conduit to allow for future maintenance.

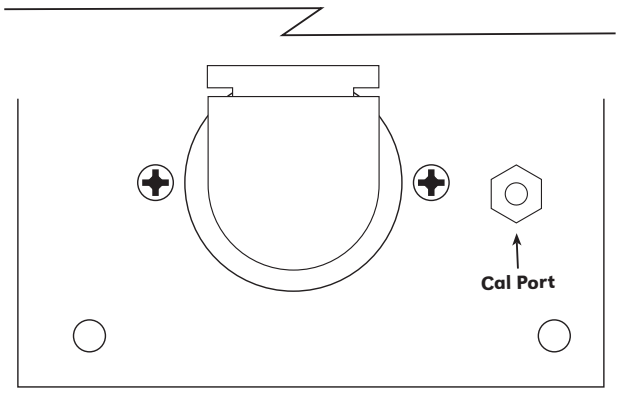






1.3 Calibration

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.
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.



1.4 Maintenance

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

1 - Remove the two bolts that hold the sensor condulet 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.

1.5 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.

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1.6 Revision Log

REVISION	DATE	CHANGES MADE	APPROVED
1.0	07/17/2008	Initial issue	LU
1.1	05/07/2010	Corrected position of cal port in illustrations	LU