



INSTRUMENTS

**30-0951RK-03, 30-0951RK-HS-03,
30-0951RK-OC-03, and 30-0951RK-IR-03
Flow Through Adapters**

Part Number: 71-0423

Revision: P1

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Description

The attached detector head operator's manual can be used in conjunction with this supplement for the 30-0951RK-03, 30-0951RK-HS-03, 30-0951RK-OC-03, or the 30-0951RK-IR-03 flow through adapter. The flow through adapter includes a flowmeter with an adjustment valve, a sensor adapter, and a sensor chamber with two compression fittings. A sensor adapter gasket seals to the 1/2" NPT combustible sensor when installed. A sensor adapter O-ring seals to all other types of detectors when installed. This O-ring is different for different types of detectors. A detector chamber O-ring seals the sensor chamber to the sensor adapter. This O-ring is the same for all versions. A flowmeter with an adjustment valve is installed in the inlet line. The flowmeter allows you to view and adjust the flow rate through the flow through adapter.

Calibration instructions are the same as those outlined in the attached detector head manual with the exception that the calibration gas must be connected either to the inlet fitting tubing or to the pump inlet (if the flow through adapter is on the pressure side of the pump) as opposed to a calibration cup. Installation instructions are slightly different and are outlined below.

Installation

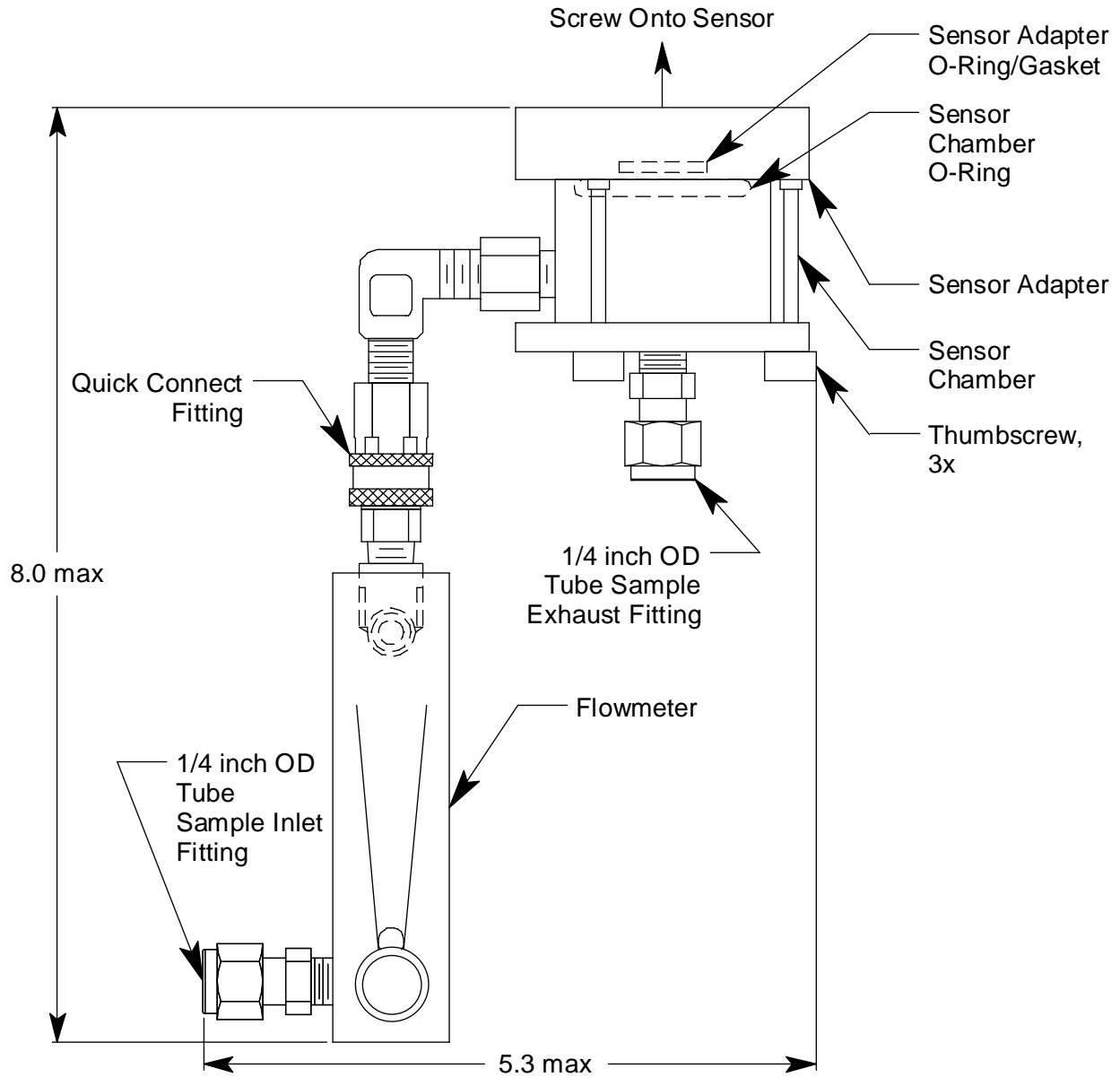


Figure 1: Outline and Mounting Dimensions/Component Location

1. The flow through adapter is normally shipped uninstalled from the detector and the flowmeter is separated from the sensor adapter. Insert the fitting at the top of the flowmeter into the quick connect fitting connected to the sensor adapter. Screw the flow through adapter onto the detector, tightening firmly by hand.

CAUTION: Make sure the flow through adapter is installed tightly and after installation is complete, verify that the flow through adapter is still tightened firmly onto the detector to avoid possible leaks.

2. If necessary, re-orient the sensor chamber so the fitting from the sensor chamber to the flowmeter does not hit the mounting surface by unscrewing the three thumbscrews,

rotating the sensor chamber, and tightening the three thumbscrews.

3. Install and startup the detector head as described in the detector head operator's manual. Make sure there is sufficient room between the detector and the mounting surface for the flow through adapter.
4. The inlet and exhaust fittings accept 1/4" OD rigid metal tubing such as copper, aluminum, or stainless steel. The inlet fitting is located at the bottom of the flowmeter and the exhaust fitting is located on the bottom of the sensor chamber. Insert the desired length of tubing into each fitting and tighten the fittings so that the ferrules crimp onto the tubing.
5. Install appropriate device(s) (pump, aspirator, etc.) to draw sample to the detector. The ideal flow rate for the flow through adapter is 3.0 SCFH. If necessary, the valve on the flowmeter can be used to adjust the flow to 3.0 SCFH.

NOTE: Be sure to use the inlet and exhaust ports as intended to ensure correct sensor response and to allow any accumulated liquid to drain out the bottom of the flow through adapter.

6. Calibrate the detector head as described in the attached manual and in the next section.

NOTE: Calibrate the detector head with the flow through adapter installed to ensure an accurate reading.

Calibration

A demand flow regulator should be used for calibration.

1. Follow the calibration instructions outlined in the attached detector head manual.
2. When the instructions call for applying gas, connect the cylinder.
 - If you are drawing sample through the system, connect the cylinder to the inlet fitting on the flowmeter.
 - If you are pushing sample through the system, connect the cylinder to the pump inlet.
3. Perform a calibration as outlined in the attached detector head manual.
4. When the instructions call for removing the gas, disconnect the cylinder.

Parts List

See the table below for spare parts not listed in the attached detector manual.

Table 1: Parts List

Part Number	Description
07-0107RK	Gasket, 0.75 OD x 0.58 ID x 0.093 thick, for 1/2" NPT combustible sensor adapter
07-7123RK	O-ring, 1.174 ID x .103, buna, for O ₂ /CO/CSA LEL sensor adapter
07-7218RK	O-ring, 0.734 x .139, buna, for IR and H ₂ S sensor adapters
07-7225RK	O-ring, 1.243 ID x .139, buna, for sensor chamber
13-1070RK	Captive panel screw, 10-32 x 1.75
81-1054RK	Regulator, demand flow, for 58- and 103-liter calibration cylinders
81-1055RK	Regulator, demand flow, for 17- and 34-liter calibration cylinders