

# Pressure Switch

## Model C6097C, D (UL/FM)

### Overview

The C6097C,D is used to detect the upper or lower limit pressure of natural gas, LP gas and air on combustion equipment.

Application in progress for FM standards/UL standards.



### Specifications

<b>Product Name</b>	Pressure switch
<b>Features</b>	<ul style="list-style-type: none"> <li>• For use with natural gas, liquid propane (LP) gas, or air.</li> <li>• Diaphragm-actuated safety-limit switch.</li> <li>• Switch can be wired to turn on alarm.</li> <li>• C6097C models break control circuit at setpoint on pressure fall.</li> <li>• C6097D models break control circuit at setpoint on pressure rise.</li> <li>• Lockout with manual reset and recycle options.</li> <li>• Manual reset models have external manual reset button.</li> <li>• Removable transparent cover protects scaleplate and adjusting knob.</li> <li>• Pipe tappings allow selection of positive pressure, differential pressure (air only) or venting connections (NPT mount only).</li> <li>• 1/4 in. NPT or flange mount models.</li> <li>• Optional switch position indicator lamp available.</li> <li>• IP54 enclosure standard.</li> <li>• Surge orifice.</li> <li>• Integral Vent Limiter.</li> <li>• Can be installed either vertically or horizontally.</li> </ul>
<b>Applicable Fluids</b>	City gas, natural gas, LP gas, air
<b>Models</b>	C6097C Pressure Switch: Breaks a circuit when pressure falls to scale setting. See Table 1. C6097D Pressure Switch: Breaks a circuit when pressure rises to scale setting. See Table 1.
<b>Switch Rating</b>	120/240 Vac, 50/60 Hz Inductive full load 3A, locked rotor 18 A Restive load 5 A
<b>Allowable Temperature</b>	Ambient temperature: -40 to +140°F (-40 to +60 °C) Fluid temperature: -40 to +140 °F (-40 to +60 °C) [Differential applications (air only) are able to use at -22 to +140 °F (-30 to +60 °C)]
<b>Connections (Depending on Model)</b>	1/4-18 NPT tapping for main or high-pressure connection. 1/8-27 NPT tapping for vent or low-pressure connection (air only).
<b>Scale Range</b>	0.4 to 5 in. wc (0.10 kPa to 1.25 kPa). 3 to 21 in. wc (0.75 to 5.23 kPa). 12 to 60 in. wc (3.0 kPa to 15 kPa). 1.5 to 7 psi (10.3 kPa to 48 kPa).
<b>Approvals</b>	UL Listed - Canada and the United States FM Approved
<b>Accessories</b>	84516380-001 Position Indication Lamp Kit.

Note: in.wc ≈ 0.24884 kPa

**Table 1. Pressure Switch Model**

Model	Operating Pressure Range	Manual Reset Differential		Non-Manual Reset Differential		Maximum Rated Pressure (psi)	Differential Type	Switch Action at Setpoint	Manual Reset	Mounting		
		Maximum at Minimum Setpoint	Maximum at Maximum Setpoint	Nominal	Maximum							
C6097C1004	0.4 to 5 in. wc	—	—	0.16 in. wc	0.24 in. wc	2.9	Additive	Breaks N.O. to C. connection on pressure fall.	No	1/4 in. NPT Mount		
C6097C1053	3 to 21 in. wc	—	—	0.24 in. wc	0.48 in. wc	5.0						
C6097C1079	12 to 60 in. wc	—	—	1.1 in. wc	2.4 in. wc	5.0						
C6097C1137	1.5 to 7 psi	—	—	0.1 psi	0.3 psi	9.3						
C6097C1210	0.4 to 5 in. wc	—	—	0.16 in. wc	0.24 in. wc	2.9						
C6097C1061	3 to 21 in. wc	—	—	0.24 in. wc	0.48 in. wc	5.0						
C6097C1087	12 to 60 in. wc	—	—	1.1 in. wc	2.4 in. wc	5.0						
C6097C1129	1.5 to 7 psi	—	—	0.1 psi	0.3 psi	9.3						
C6097C1095	0.4 to 5 in. wc	0.6 in. wc	1.0 in. wc	—	—	2.9			Yes	1/4 in. NPT Mount		
C6097C1012	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0						
C6097C1244 (a)	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0						
C6097C1038	12 to 60 in. wc	10 in. wc	12 in. wc	—	—	5.0						
C6097C1111	1.5 to 7 psi	1.1 psi	1.4 psi	—	—	9.3						
C6097C1228	0.4 to 5 in. wc	0.6 in. wc	1.0 in. wc	—	—	2.9						
C6097C1020	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0						
C6097C1046	12 to 60 in. wc	10 in. wc	12 in. wc	—	—	5.0						
C6097C1103	1.5 to 7 psi	1.1 psi	1.4 psi	—	—	9.3						
C6097D1119	3 to 21 in. wc	—	—	0.24 in. wc	0.48 in. wc	5.0					Subtractive	Breaks N.C. to C. connection on pressure rise.
C6097D1085	12 to 60 in. wc	—	—	1.1 in. wc	2.4 in. wc	5.0						
C6097D1101	1.5 to 7 psi	—	—	0.1 psi	0.3 psi	9.3						
C6097D1069	3 to 21 in. wc	—	—	0.24 in. wc	0.48 in. wc	5.0						
C6097D1077	12 to 60 in. wc	—	—	1.1 in. wc	2.4 in. wc	5.0						
C6097D1093	1.5 to 7 psi	—	—	0.1 psi	0.3 psi	9.3						
C6097D1028	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0	Yes	1/4 in. NPT Mount				
C6097D1192 (b)	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0						
C6097D1002	12 to 60 in. wc	10 in. wc	12 in. wc	—	—	5.0						
C6097D1051	1.5 to 7 psi	1.1 psi	1.4 psi	—	—	9.3						
C6097D1036	3 to 21 in. wc	2.4 in. wc	4.2 in. wc	—	—	5.0						
C6097D1010	12 to 60 in. wc	10 in. wc	12 in. wc	—	—	5.0						
C6097D1044	1.5 to 7 psi	1.1 psi	1.4 psi	—	—	9.3						

Note: in.wc ≈ 0.24884 kPa. Please prioritize the specifications of in.wc in the selection of models.

(a) C6097C1244 is the same as C6097C1012 except with three #8-32UNC screw holes for bracket mounting.

(b) C6097D1192 is the same as C6097D1028 except with three #8-32UNC screw holes for bracket mounting.

# External dimensions

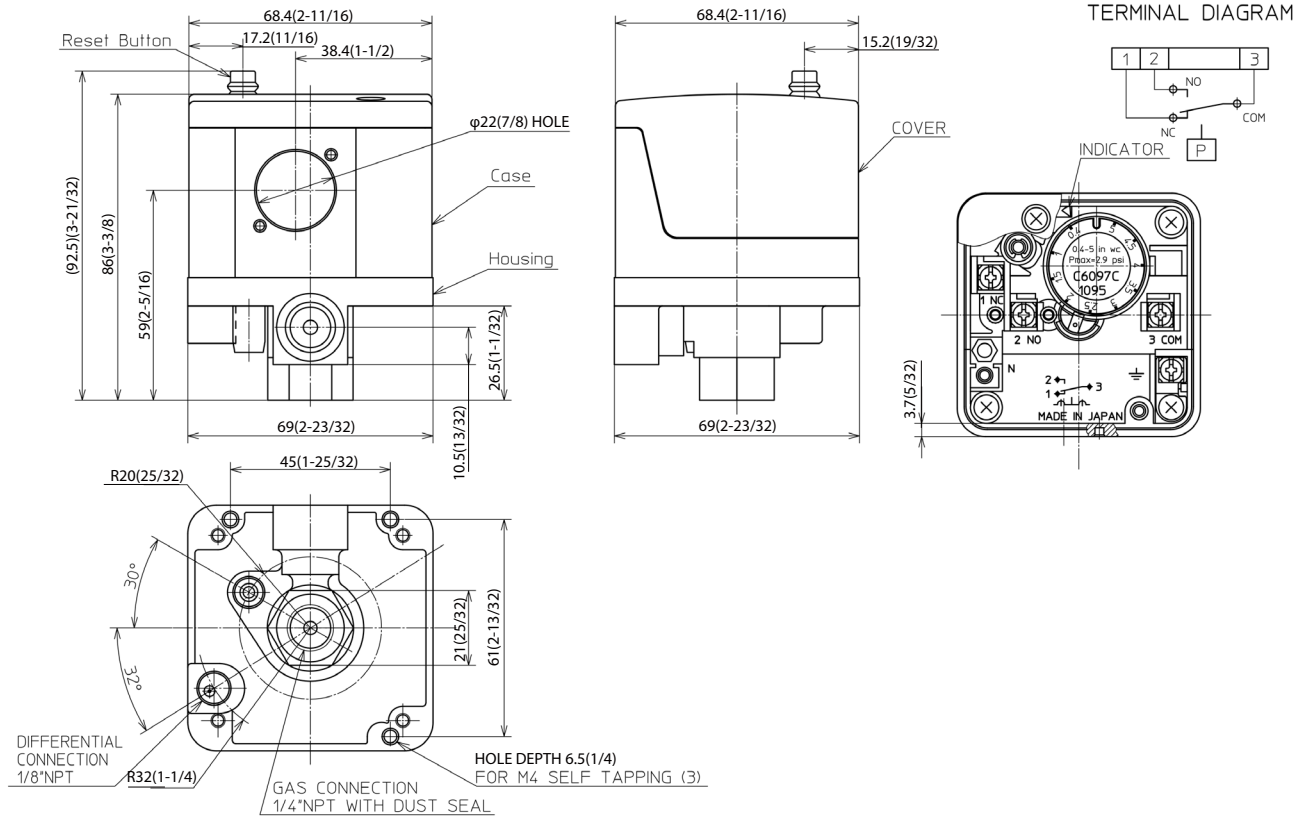


Fig. 1. C6097C, D 1/4 in. NPT Mount dimensions in mm(in.)

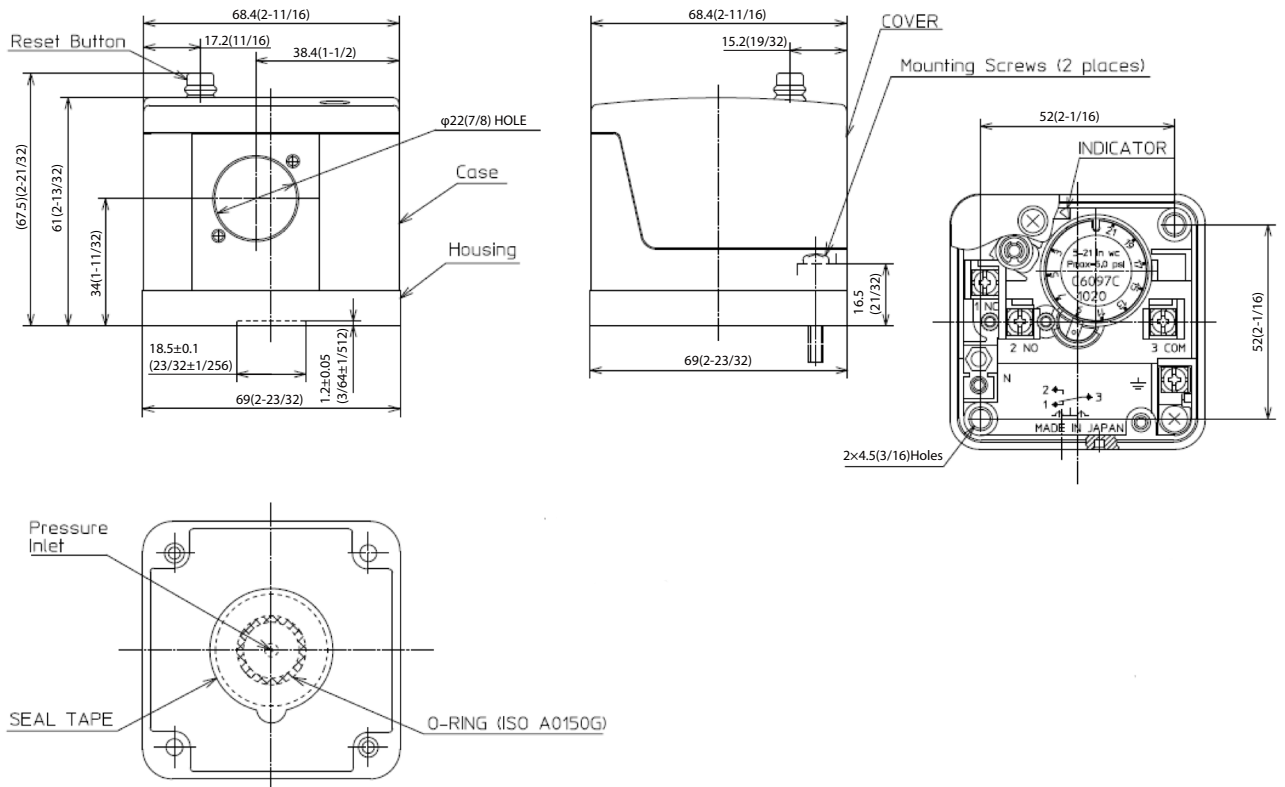


Fig. 2. C6097C, D Flange Mount dimensions in mm(in.)

## ■ Mounting

### ! Handling Precautions

- Use of too much sealant or presence of foreign matter in the piping may cause clogging.
- On flange models, remove the label holding the O-ring in place and make sure O-ring seal is in place before mounting the pressure switch on the device.

The C6097C, D models allow NPT or flange (directly to device) mounting. The NPT models have a hexagonal fitting with a 1/4 in.

NPT tapping, which is the high pressure connection, in differential applications. The bleed fitting is 1/8 in. NPT tapped.



In differential pressure control applications using air only, connect the lower pressure to the bleed fitting. See Fig. 1.

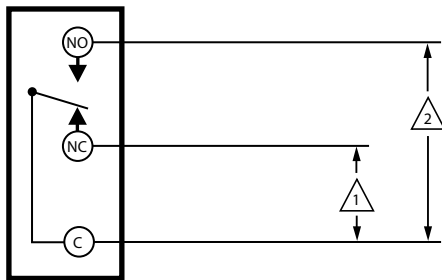
Both the flange mount and NPT mount models are supplied with an Integral Vent Limiter.

If necessary, this 1/8-in. atmospheric vent fitting can be used for the vent line connection.

## Settings and adjustments

### ■ Pressure Setpoint Adjustment

To adjust the pressure setting, turn the setpoint adjustment dial (Fig. 1 and Fig. 2) clockwise  to increase the pressure setting and counterclockwise  to decrease the pressure setting.



1 C6097C BREAKS C-NO, MAKES C-NC ON PRESSURE FALL.  
MANUAL RESET MODELS LOCK OUT.

2 C6097D BREAKS C-NC, MAKES C-NO ON PRESSURE RISE.  
MANUAL RESET MODELS LOCK OUT.

For details, please refer to document number: CP-UM-5994E.

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