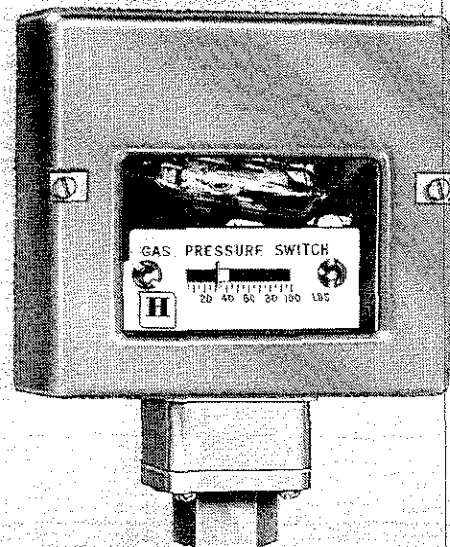


Honeywell

GAS PRESSURE SWITCH

THE C647A GAS PRESSURE SWITCHES ARE SAFETY DEVICES THAT ARE USED TO DETECT PRESSURE CHANGES IN SMALL INDUSTRIAL FURNACES OPERATING ON LP, NATURAL OR MANUFACTURED GAS.

- ☐ C647A breaks a circuit at a preset low pressure limit.
- ☐ C647A will automatically reset on pressure rise.
- ☐ Mercury switch positions can easily be viewed through the window which covers the pressure scaleplate. The cover, which can be sealed, must be removed to make the set point adjustment.
- ☐ A safety vent is provided to pipe the gas to a safe place of discharge in the event of main diaphragm damage.
- ☐ C647A can be wired to a pilot light that operates when the gas pressure to the switch is above the set value plus the differential.



C647A

SPECIFICATIONS

IMPORTANT

THE SPECIFICATIONS GIVEN IN THIS PUBLICATION DO NOT INCLUDE NORMAL MANUFACTURING TOLERANCES. THEREFORE, UNITS MAY NOT MATCH THE LISTED SPECIFICATIONS EXACTLY. ALSO, PRODUCTS ARE TESTED AND CALIBRATED UNDER CLOSELY CONTROLLED CONDITIONS, AND SOME MINOR DIFFERENCES IN PERFORMANCE CAN BE EXPECTED IF THOSE CONDITIONS ARE CHANGED.

MODELS: C647A Gas Pressure Switches.
RANGE AND DIFFERENTIAL:

RANGE		DIFFERENTIAL C647A		MAXIMUM PRESSURE	
psi	kPa	psi	kPa	psi	kPa
5 to 30	34.5 to 206.8	1 at 15	6.9 at 103.4	60	413.6
10 to 100	68.9 to 689.4	3 at 50	20.7 at 344.7	200	1378.8
	30 to 200		7 at 100		400

ELECTRICAL RATING (amperes):

C647A: 62.5 VA at 120 to 240 Vac.

DIMENSIONS: See Fig. 1.

SWITCH: C647A, spdt, mercury switch. Breaks electrical contact R to W on pressure drop and makes contact R to B.

PIPE CONNECTIONS: Main, internally threaded for 1/2 in. NPT. Safety vent, internally tapped for 1/8 in. NPT.

ACCESSORY AVAILABLE: 110462 Backplate for wall mounting. Shown in broken lines, Fig. 1.

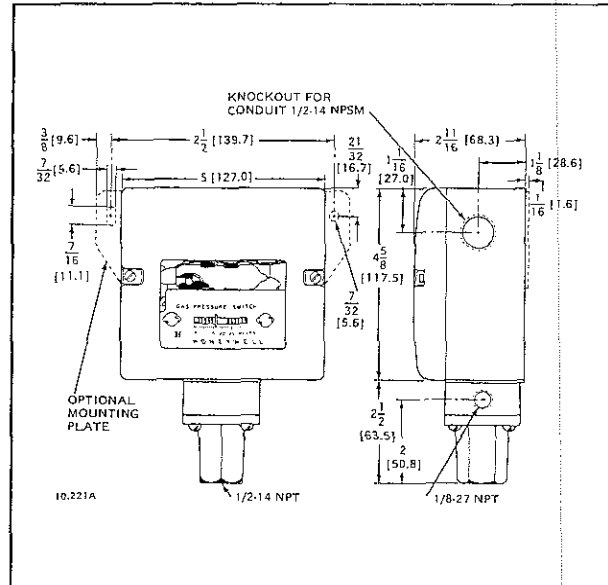


FIG. 1—DIMENSIONS IN in. [mm] OF THE C647A.

ORDERING INFORMATION

WHEN PURCHASING REPLACEMENT AND MODERNIZATION PRODUCTS FROM YOUR TRADELINE WHOLESALE OR YOUR DISTRIBUTOR, REFER TO THE TRADELINE CATALOG OR PRICE SHEETS FOR COMPLETE ORDERING NUMBER, OR SPECIFY—

1. Order number.
2. Range.
3. Accessory, if desired.

IF YOU HAVE ADDITIONAL QUESTIONS, NEED FURTHER INFORMATION, OR WOULD LIKE TO COMMENT ON OUR PRODUCTS OR SERVICES, PLEASE WRITE OR PHONE:

1. YOUR LOCAL HONEYWELL RESIDENTIAL AND BUILDING CONTROLS SALES OFFICE (CHECK WHITE PAGES OF YOUR PHONE DIRECTORY).

2. RESIDENTIAL AND BUILDING CONTROLS DIVISION CUSTOMER SATISFACTION
HONEYWELL INC., 1885 DOUGLAS DRIVE NORTH
MINNEAPOLIS, MINNESOTA 55422 (612) 542-7500

(IN CANADA—HONEYWELL CONTROLS LIMITED, 740 ELLESMERE ROAD, SCARBOROUGH, ONTARIO)
INTERNATIONAL SALES AND SERVICE OFFICES IN ALL PRINCIPAL CITIES OF THE WORLD.

INSTALLATION

WHEN INSTALLING THIS PRODUCT...

1. Read these instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.
2. Check the ratings given in the instructions and on the product to make sure the product is suitable for your application.
3. Installer must be a trained, experienced, flame safeguard control technician.
4. After installation is complete, check out product operation as provided in these instructions.

CAUTION

1. Disconnect all power to the pressure switch before connecting wiring to prevent electrical shock and equipment damage.
2. When using a C647A both ends of the switch (W-R and B-R) must be used at the same voltage in the same branch circuit.
3. The gas pressure switches **MUST BE** mounted level and where they will be comparatively free from vibration.

MOUNTING

The gas pressure switches **MUST BE** mounted level and where they will be comparatively free from vibration. A level can be placed across the top of the case.

The switches can be mounted directly on the main supply line pipe by using a tee in the line. Select a place that is level and not too far from the furnace. A backplate is available for wall mounting, if that is more convenient. The safety vent **MUST BE** piped to a safe place of discharge as determined by code or insurer requirements.

The switches should be installed below (or downstream

from) the pressure regulator, but above (or upstream from) other safety devices and cutoff valves.

WIRING

Disconnect all power to the pressure switch before connecting wiring to prevent electrical shock and equipment damage. All wiring must agree with applicable local codes and ordinances.

When using a C647A both ends of the switch (W-R and B-R) must be used at the same voltage in the same branch circuit.

A conduit fitting is provided to accommodate rigid conduit or armoured cable for line voltage operation.

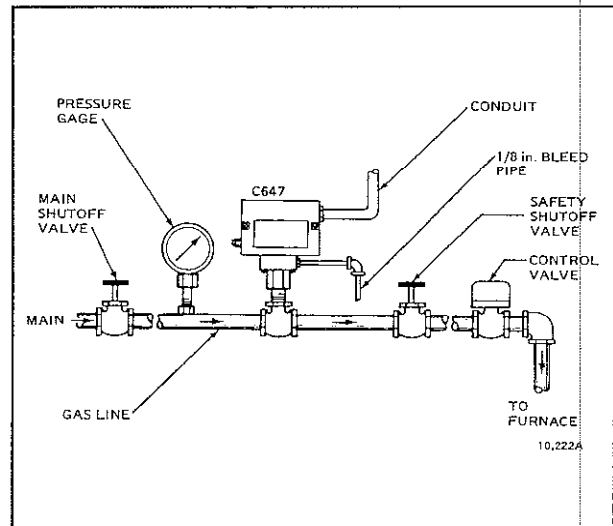


FIG. 2—TYPICAL INSTALLATION OF THE C647A GAS PRESSURE SWITCH.

SETTING AND CHECKOUT

TO ADJUST C647A SET POINT PRESSURE

When the pressure reaches the set point indicated by the pointer on the scaleplate, the switch automatically breaks the electrical circuit. To change this setting, turn the adjusting wheel (6, Fig. 3) clockwise to raise the cutout point, or counterclockwise to lower the cutout point.

In case the scaleplate is ever removed and it becomes necessary to adjust the set point pressure, a pressure gauge or manometer is necessary (Fig. 2). The pressure in the line is gradually lowered on the C647A until the switch breaks the circuit. The pressure reading on the scaleplate is then made to correspond with the reading on the pressure gauge. The holes in the scaleplate are slotted so that the scaleplate can be moved to the right or left as needed.

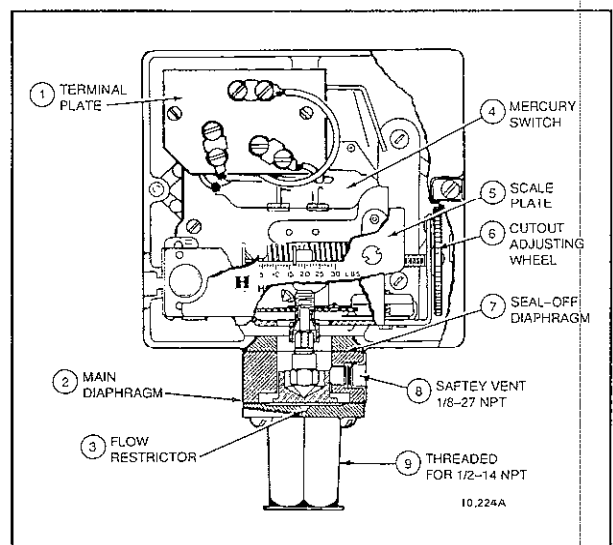


FIG. 3—PRINCIPAL PARTS OF THE C647A.

Honeywell Inc.
U.S.A.: 1885 Douglas Drive N.
Golden Valley, MN 55422-4386
CANADA: 740 Ellesmere Road
Scarborough, Ontario M1P 2V9

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