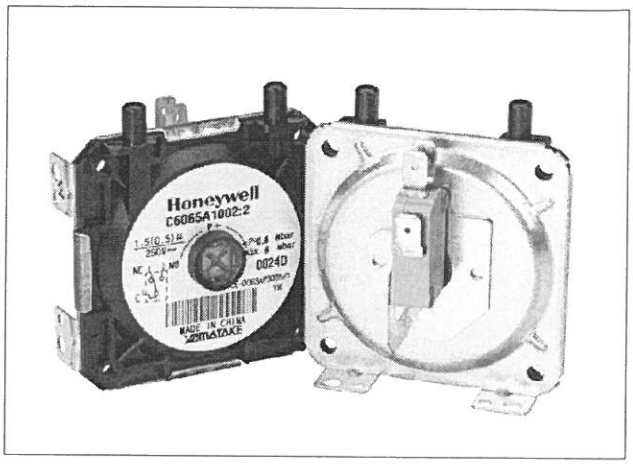
Honeywell

C4065/C6065

DIFFERENTIAL AIR PRESSURE SWITCH

INSTRUCTION SHEET



APPLICATION

The C4065/C6065 differential air pressure switch for forced flue combustion type burner system functions as a (combustion) airflow supervision with a safe start interlock.

The C4065/C6065 differential pressure switch is designed to be used on air or combustion products.

The C6065AH and C6065FH with enhanced accuracy are according to the requirements of high efficiency appliances.

SPECIFICATIONS

IMPORTANT

See Product Handbook EN2R-9005 for detailed technical information.

Mounting

Within 10° of the specified position

Material

Diaphragm: silicon
Switch mounting plate: zinc coated steel
Housing: PET

Terminals (depending on O.S. number)

6.35 mm quick connect terminals
4.8 x 0.8 mm quick connect terminals

Ambient temperature (operational temperature)

-40 ... 90 °C (BSI/CE and KEMA approved)
Type A/AH manufactured before week 9608: -10 ... 70 °C

Relative humidity

5 ... 90% RH at 40 °C non condensing.

Table 1. Setting range

Pressure range (Pa)	Type of model	O.S. number
40 ... 100 (Low range)	Standard	C6065A/F
	Enhanced	C6065AH/FH
100 ... 200 (Middle range)	Standard	C6065F
	Enhanced	C6065FH
100 ... 400 (High range)	Standard	C6065A/F
	Enhanced	C6065AH/FH

NOTE: Operating point is factory set under a tight quality assurance program.
To maintain specified performance, the sealed adjustment screws on the back of the device must not be turned.

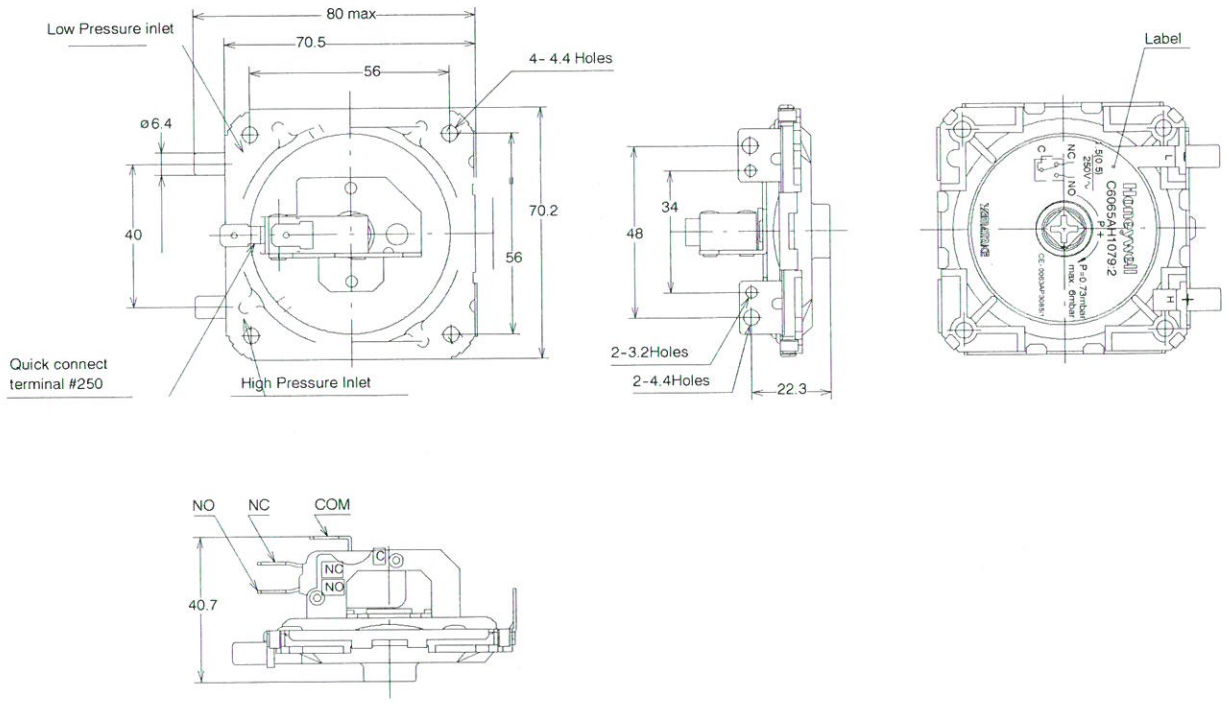


Fig. 1. dimensional drawing

INSTALLATION

IMPORTANT

Ensure installation is performed by trained service technicians.

Check that this product has the required pressure and electrical rating for the application.

Follow all appliance instructions carefully. Failure to follow them could damage the product or cause a hazardous condition.

On completing the installation, check that all components operate correctly.

⚠ WARNING

Do not move the sealed adjustment screw and do not change the operating point, except the free adjustable versions which have a non sealed adjustment screw.

Products of combustion generally contain a large quantity of vapour and generate condensation within the device as it cools.

Condensate in the tubing or within the body of the C6065 can cause pressure control point offset.

Condensate can also damage metal parts of the device, making replacement necessary.

When used as primary safety control, the C6065 must be part of a safe start circuit.

Location

To prevent condensate damage, the following procedure should be observed when mounting the C6065:

- Mount C6065 with the pressure connections at the bottom so that condensate does not penetrate into the device.
- Provide condensate drainage by gradually sloping tubing towards the exhaust pressure inlet (fig. 3.)
- If suitable drainage is not possible then a drip leg should be installed

Since combustion products are normally at a high temperature, special consideration to piping length and mounting location should be given so that the pressure port surroundings are not subjected to ambient temperature in excess of 90 °C.

Select a location that does not subject the C6065 to severe vibration and that allows convenient connection of electrical wiring and pressure tubing.

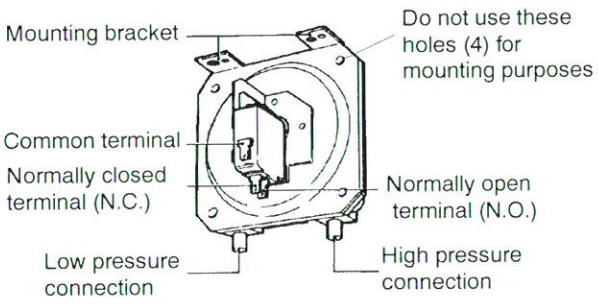


Fig. 2. C6065 general arrangement

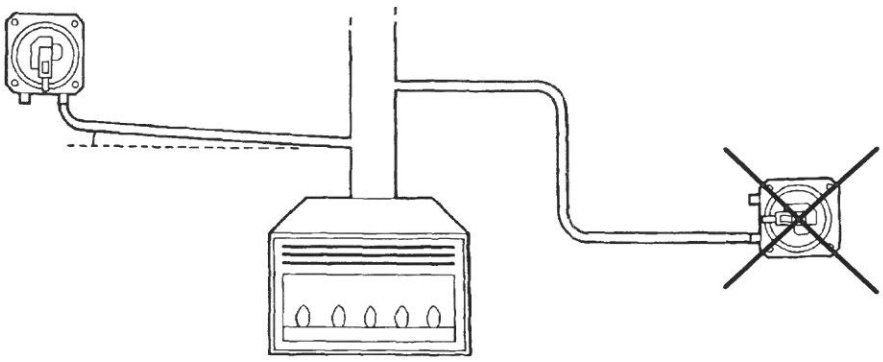


Fig. 3. Condensate drainage

Mounting

⚠ WARNING

Take care to mount the pressure swith in correct position, incorrect mounting will shift operating set point.

Never use the four body holes of the pressure switch for mounting purposes (see fig. 2.)

The C6065 should be fixed in place using two M4 self tapping screws.
There are two mounting options:
- Front mounting (see fig. 6.)
- Rear mounting (see fig. 7.)

Mounting dimensions are also shown in fig. 6. and 7.

Piping

5 mm inner diameter plastic or rubber tube is recommended for connection.
When selecting a tube, make sure that it has sufficient pull strength (independent of ambient temperature change).
Use gradual turns in the piping route avoiding sharp bends to ensure sensing of the correct pressure.
When sharp bends are unavoidable, a special durable tube with integrated reinforcement should be used.

Wiring

⚠ WARNING

Disconnect power supply before making any wiring connections.
All wiring must be in accordance with local regulations.
When making connections to the switch terminals , do not force the switch upwards or downwards to bend the terminals (figure 4.).
This may affect the pressure operating point.
Avoid locations where the terminals can be exposed to splashes of water.

⚠ CAUTION

To guard against the possibility of electrical shock, the metal case must be either be connected to a protective earth or mounted inside the appliance, where it can only be accessed with the use of a tool.

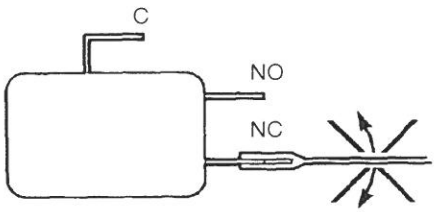


Fig. 5. Forcing terminals may affect operating point

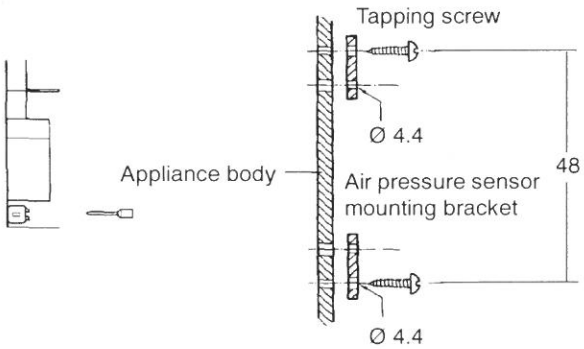


Fig. 6. Front mounting methods and dimensions

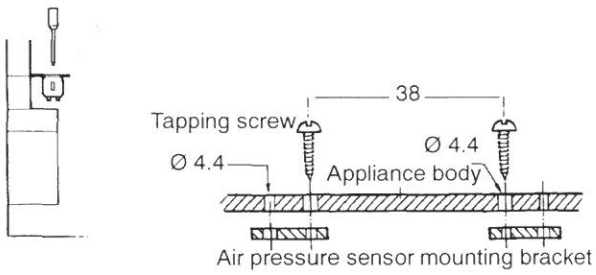


Fig. 7. Rear mounting methods and dimensions

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