

## C6045D

### GAS/AIR PRESSURE SWITCH

#### INSTRUCTION SHEET



### APPLICATION

The C6045D international gas and air pressure switch can be used in positive pressure or differential pressure systems to indicate changes in pressure relative to a set point.

### FEATURES

- **Switch position indicator.**
- **Can be used in positive pressure or differential pressure applications.**
- **Set point and switch position indicators visible from outside.**
- **All models incorporate a single pole, double throw snap acting MICRO SWITCH.**

### SPECIFICATIONS

#### Model

C6045D gas/air pressure switch.

#### Ambient temperature

Minimum: -10 °C/14 °F

Maximum: 70 °C/158 °F

#### Connection

High pressure connection: 1/4" ISO 7/1 female tapping.

Low pressure or vent connection: 1/8" ISO 7/1 female tapping.

High pressure tapping connection: 9 mm

#### Electrical rating

Voltage: 220/240 Vac

Full load: 2.0 A

Locked motor: 12.0 A

Resistive: 10.0 A

#### Enclosure

IP 40

#### Maximum pressure

Scale range (mbar)	Maximum pressure (mbar)	
	Without loss of accuracy	Without device failure
0.2 ... 3	100	200
1 ... 10	100	200
5 ... 50	200	400
15 ... 150	300	600

#### Pressure rating

Scale range (mbar)	Differential		Sensed medium	Automatic recycling
	Low scale	High scale		
0.2 ... 3*	0.3	0.5	Air and combustion products	Yes
1 ... 10	0.5	1	Air and combustion products. Combustible gas	Yes
5 ... 50	1.2	2.5	Air and combustion products. Combustible gas	Yes
15 ... 150	3.5	10	Air and combustion products. Combustible gas	Yes

\* Differential is additive

#### Accessories

Mounting bracket, order number ..... 45.002.208-001

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## INSTALLATION

### CAUTION

Installer must be a trained, experienced serviceman.

Disconnect power supply before beginning installation.

Perform all required checkout tests after installation is complete.

#### Connection

The bleed fitting is tapped 1/8" ISO 7/1 female.

In differential pressure control applications, the lower pressure should be connected to the vent fitting. (fig. 1.)

In applications using combustible gases, the vent tapping should be connected to the combustion chamber.

#### Mounting

The C6045 has an hexagonal fitting tapped 1/4" ISO 7/1 female, which is the high pressure connection in differential applications.

The C6045 can be mounted up to 90° from the horizontal position.

### CAUTION

For types with ranges 0.2 ... 3 mbar and range 1 ... 10 mbar the full range can only be used when mounted within 20° from the horizontal position.

For all other positions the types with scale range 0.2 ... 3 mbar version may not be adjusted lower than 0.6 mbar and the types with scale range 1 ... 10 mbar may not be adjusted lower than 1.2 mbar.

#### Wiring

All wiring must comply with applicable national requirements. For wiring purposes a Pg 13.5 conduit connector is provided. An earth screw is located inside the cover.

## SETTING AND ADJUSTMENT

#### Pressure set point adjustment

Remove the cover and turn the pressure adjustment screw toward "+" to increase pressure setting and toward "-" to decrease pressure setting.

## OPERATION AND CHECKOUT

#### Operation

The C6045 is equipped with SPDT switching. Therefore when a control action occurs an annunciating action such as energizing an alarm can simultaneous be performed.

The C6045 automatic recycle type may be used for either High limit or Low limit applications.

#### IMPORTANT

*Systems vary, so carefully study each application. The following outline is a guide for a typical low limit flame safe guard application using a manual reset switch.*

#### Start up

- Set cut off pressure on numerical scale indicator by adjusting the screw. (see fig. 2.)
- Open main gas supply line. Actuate manual reset lever until switch remakes contact (common to normally open).
- Set the controller and limit switch to call for heat. A normal start up should occur.
- Allow system to operate through one complete cycle to ensure that all components function correctly.

#### Checking cut off pressure

- Slowly close manual main valve with the burner in operation. Shut down should occur when the pressure drops to set point and the alarm should energize (if connected).
- Re open the manual main valve. Pressure should rise and exceed the set point value, the burner system should start up and the alarm turn off when the reset button is depressed.

NOTE: For more accurate setting use pressure tapping with manometer.

# TOIMINTA JA TARKASTUS

## Toiminta

Kaikissa malleissa on yksinapainen vaihtokytkin. Vaihtokytkimen ansiosta saadaan painekytkimeltä esim. hälytys C6045 mallia (automaattinen palautus) voidaan käyttää joko ylä tai alarajasovellutuksessa.

## Tarkastus

Järjestelmiä on usean mallisia, joten kuhunkin sovellutukseen on tutustuttava huolellisesti. Seuraavassa esitetään pääpiirteittäin ohjeet tyypilliselle alarajarajoitukselle leikinvalvontasovellutuksessa käytettäessä käsipalautteista mallia.

## Käynnistys

- Asetelkaa laukaisupaine haluttuun arvoon asettelupisteen säätöruuvista (katso kuva 2.).

- Avatkaa kaasuventtiili. Painakaa painekytkimen käsipalautuspainiketta.
- Suorittakaa normaali laitoksen käynnistys.
- Antakaa laitoksen toimia jonkin aikaa, jotta se olisi normaaleissa käyttöolosuhteissa.

## Lukkiutumispaineen tarkastus

- Sulkekaa hitaasti kaasun käsiventtiili polttimen toimiessa.
- Avatkaa kaasun käsiventtiili. Kaasun paine nousee asetusarvon yläpuolelle, jolloin laitos käynnistyy normaalisti ja hälytys loppuu painettaessa käsipalautuspainiketta.

**HUOMIOI:** Tarvittaessa tarkempaa asetusta, liitä manometri yläpaineen mittausliitäntään.

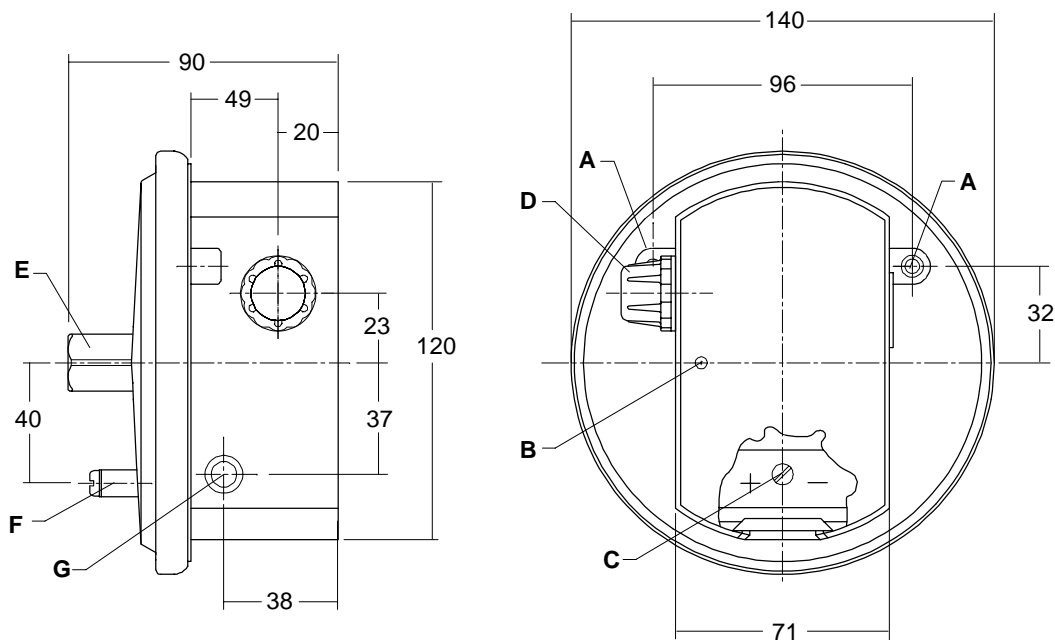


Fig. 1.

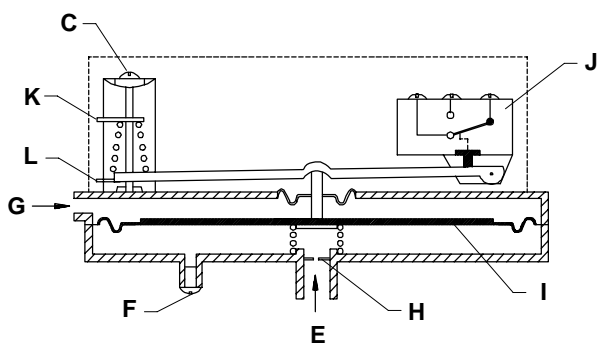
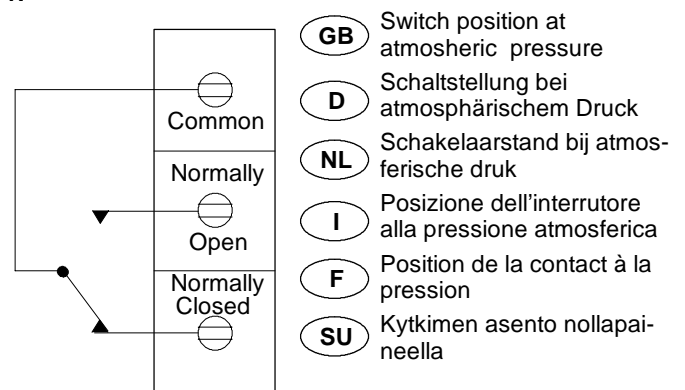


Fig. 2.



**Fig. 3. Wiring connections**  
**Elektrischer Anschluss**  
**Electrische aansluiting**  
**Collegamenti elettrica**  
**Câblage électrique**  
**Kytikimen kytkentäpiirros**

**GB**

- A** - Mounting holes for bracket
- B** - Cover screw
- C** - Pressure adjustment screw
- D** - Pg 13.5 conduit
- E** - Positive pressure connection/high pressure inlet
- F** - High pressure tapping/test pressure inlet
- G** - Venting or differential connection/low pressure inlet
- H** - Leak limiting orifice
- I** - Diaphragm
- J** - SPDT micro switch
- K** - Set point indicator
- L** - Switch position indicator

**D**

- A** - Befestigungslöcher für Montagebügel
- B** - Deckelbefestigungsschraube
- C** - Sollwertinstellschraube
- D** - Stopfbuchsverschraubung Pg 13.5 für Kabeleinführung
- E** - Anschluss für hohen Druck
- F** - Messanschluss für hohen Druck (Manometeranschluss)
- G** - Entlüftung oder bei Differenzdruck Anschluss für niedrigen Druck
- H** - Drossel für Verzögerung
- I** - Membrane
- J** - Mikro Schalter (Einpolig umschaltend)
- K** - Sollwertanzeige
- L** - Anzeige der Schaltstellung

**NL**

- A** - Bevestigingsgaten voor montagebeugel
- B** - Bevestigingsschroef afdekkap
- C** - Drukinstelschroef
- D** - Kabelinvoerwartel Pg 13.5
- E** - Aansluiting overdruk
- F** - Drukmeetpunt aan overdrukzijde
- G** - Ademopening of aansluiting onderdruk
- H** - Inlaatrestrictie
- I** - Hoofdmembraan
- J** - Enkelpolig-omschakelende schakelaar
- K** - Drukinstellingsindicator
- L** - Indicator schakelaarstand

**I**

- A** - Fori per staffa di montaggio
- B** - Vite di bloccaggio del coperchio
- C** - Vite di taratura del punto di intervento
- D** - Attacco per conduit Pg 13.5
- E** - Conessione pressione positiva/ingresso alta pressione
- F** - Presa di pressione (lato alta pressione)
- G** - Sfiato o raccordo per pressioni differenziali/ingresso bassa pressione
- H** - Restrizione limitatrice di sfiato
- I** - Membrana
- J** - Microinterruttore un polo-due vie (SPDT)
- K** - Indicatore del punto di intervento
- L** - Indicatore di posizione del microinterruttore

**F**

- A** - Trous de fixations
- B** - Vis de fixation du couvercle
- C** - Vis de réglage de la pression
- D** - Pg 13.5 conduit
- E** - Raccord à la pression contrôlée (haute pression)
- F** - Prise de pression
- G** - Trou d'évent ou raccordement pour la basse pression (pression de référence) dans le cas d'utilisation en pression différentielle
- H** - Obturateur de fuite
- I** - Diaphragme
- J** - Micro switch unipolaire inverseur
- K** - Index du point de consigne
- L** - Indicateur de position d'interrupteur

**SU**

- A** - Kiinnitysreiät asennustelineelle
- B** - Kannen kiinnitysruuvi
- C** - Asettelun säätöruuvi
- D** - Kaapeliliitin
- E** - Yläpaineliitäntä
- F** - Yläpaineen mittausliitäntä
- G** - Alapaineliitäntä
- H** - Kuristusrenkas
- I** - Palje
- J** - Micro-kytkin (yksinapainen vaihtokytkin)
- K** - Asettelun säätöruuvi
- L** - Kytkimen asennon osoitin