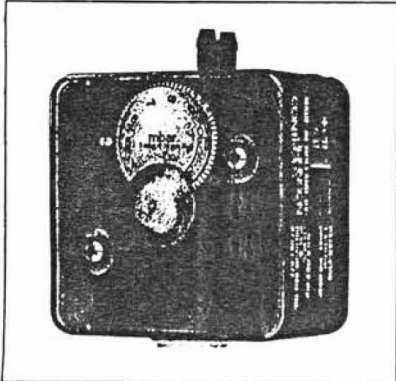


Instruction Sheet

P33A

Sensitive Diff. Press. Switch For Air



P33AB-9300 (cover removed)

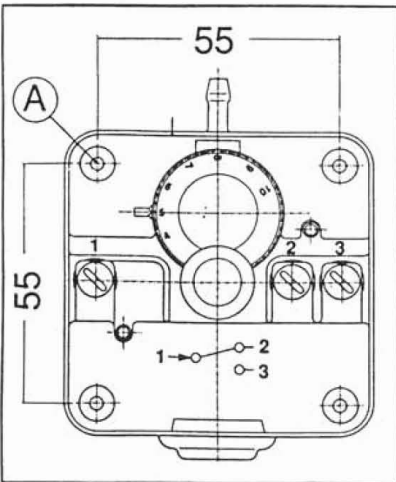


Fig. 1

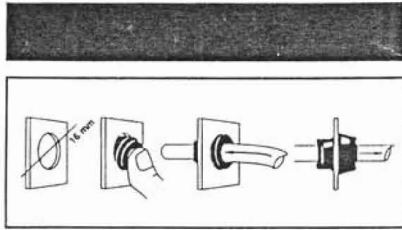


Fig. 2

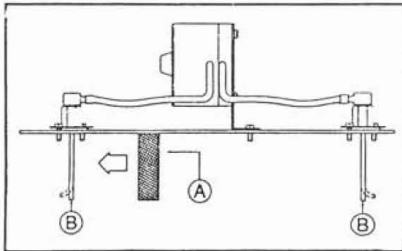


Fig. 3

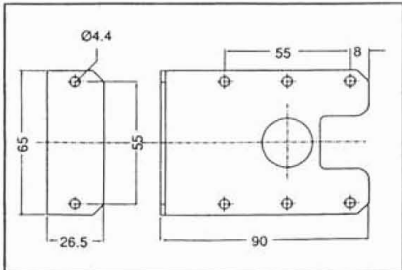


Fig. 4

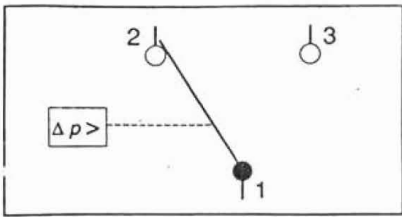


Fig. 5

ENGLISH

READ THIS INSTRUCTION SHEET CAREFULLY BEFORE INSTALLING. KEEP THIS INSTRUCTION SHEET WITH THE CONTROL.

Figure 1: Top view of P33AB-9300

(A) Mounting holes (4)
for max. 4 mm screws.

Figure 2:

Duct mounting kit GMT008N600R; installation of the self locking grommet.

Figure 3:

Typical installation of P33 on duct, using BKT024N001R and (2) FTG18A600R.

(A) Filter, refrigeration coil, electric heater or other component through which air flow must be proven.

(B) The sensing tubes may be bent to change sensitivity to air flow.

Figure 4:

"L" bracket, part no. BKT024N001R (to be ordered separately.)

Figure 5:

Contact function

Note

The information provided in this instruction sheet should be sufficient for installation and adjustment of the P33A. For additional information you could obtain the P33A product data sheet.

Application

This pressure switch can be used to sense (differential) pressure and flow of air in ducts and pipes. Typical applications include:

- Clogged filter detection.
- Detection of icing on air conditioning coils and initiation of defrost cycle.
- Air proving in heating or ventilation ducts.
- Maximum air flow controller for variable air volume systems.
- Burner air control

Note

The P33A sensitive differential pressure switch has been designed for interlock purposes or no differential pressure detection. Where critical or

high value property is to be maintained within specific environmental conditions, a single control should not be applied to function as both an operating and safety device. In such applications, a separate back-up control with alarm contacts should be wired to indicate when this control operates.

Technical specifications

DIN-DVGW

Reg. nos:
87.08c677

87.09c677

87.10c677

Ratings

Max. medium pressure: 300 mbar

Temperature limits: -15 / +60°C.

Enclosure: IP54 acc. to DIN40050/IEC144

Electrical rating: 5(2) A 250 V~.

Caution

For voltages lower than 30 V at low amperages (0.1 A or smaller) it is recommended to incorporate an R.C network in the circuitry.

Installation

Location: Select a location where vibrations are minimal. Ambient temperature should be within the range of -15°C / +60°C. The factory calibration of the P33 is made at room temperature; mounting locations close to room temperatures are preferred.

In systems with high humidity where condensation is possible, mount the switch with the hose connector pointing downwards.

Mounting instruction:

The switch is preferably mounted with the diaphragm in a vertical plane, unless the device is set or calibrated for horizontal mounting as on special customer models. On these models the mounting position is indicated on the side of the control. It may be fastened directly to the duct, heater or panel as long as the mounting surface has minimal or no vibration. Pressure connections are marked + (high pressure) and - (low or static pressure). See the diagram on the side of the control.

Note

If the switch is mounted in a position other than the position in which it was factory set or calibrated, the switching point will change. When the switch is factory set with the diaphragm in a vertical position but is mounted in a horizontal position, with the terminals up, the switching point will increase by approximately 0.2 mbar.

If mounted with terminals down, the switching point will decrease by approximately 0.2 mbar.

Use the front mounting holes (A) (see figure 1) or the "L" bracket (see figure 4), part no. BKT024N001R. (To be ordered separately.) Use screws ϕ 4 mm max. The plastic barbed tube connectors have an outer diameter of 6.2 mm.

Two types of duct mounting kits can be provided:

- GMT008N600R consisting of 2 m plastic tube plus 2 self locking grommets (see figure 2).
- FTG18A600R consisting of 10 cm copper tube fastened to a duct flange with 1/8 - 27 NPT connector, 2 "L" type barbed fittings, 2 screws and a gasket (see figure 3).

Caution

To prevent electrical shock or damage to equipment, when the cover is removed, ensure the power supply is switched off.

Caution

Complete wiring and check the connections before applying power. Incorrect wiring may cause permanent damage to the unit.

Wiring

All wiring should conform to local codes and must be carried out by authorized personnel only. Terminals are marked 1, 2 and 3. 1 to 2 open on (differential) pressure increase (see figure 5). When replacing terminal screws, use M 4x6 only. The maximum electrical rating is 5(2) A at 250 V~. The P33 should be externally fused against miswiring or short circuits. Use slow blow fuses of 6.3 A or smaller, depending on rating of equipment being switched.