



**Basic technical data**

Range of pressure difference .....	20 to 200 Pa (PS200)
Range of pressure difference .....	30 to 500 Pa (PS500)
Max. pressure difference .....	7.5 kPa / 75 °C
Max. pressure .....	50 kPa
Max. contact load for AC (resistance load) .....	3 A / 230 V ~
Max. contact load for AC (inductive load) .....	2 A / 230 V ~
Max. contact load for DC .....	2A / 30 V =
Protection class .....	II
Protection .....	IP54
Max. temperature range .....	-20 to +60 °C
Diameter of connecting pipes .....	6.2 mm
Dimensions .....	73 x 105 x 63 (W x H x D)

**Usage**

The pressure-differential sensor is a two-state sensor of the pressure-differential value for a front-end control system, e.g. for sensing filter clogging or indicating fan running.

**Operating conditions and position**

The sensor is installed on a flat surface, usually in a vertical position. For a different position, it is necessary to correct the value for the switching pressure, see the paragraph "Setting and Service". The sensor is intended for an environment with a normal class of influence.

**Materials**

The P33N/V sensor comes in an all-plastic case, and the control aperture is made of transparent plastic. Most of the internal parts, including the connecting pipes and take-off probes, are also made of plastic.

**Installation**

The pressure sensor is affixed to a sheet-metal console or directly on the wall of the filter insert (fan box etc.) by means of the screws supplied. The take-off probes must be installed in front of and behind the filtration insert perpendicular to the airflow direction. The probes are inserted into the f 7 mm openings in the wall of the filter insert or ductwork and fastened with screws into the sheet metal. The outlets of the take-off probes and the pipes are connected to the pressure sensor in such a way that the higher pressure (in front of the filter) is connected to the P1 outlet and the lower pressure (behind the filter) to the P2 outlet.

According to the required function, the sensor is connected by a two-conductor cable as a switching contact (screw terminals 1 and 2 of the sensor) or as a switching-off contact (screw terminals 1 and 3). The connection to the control units is done according to the accompanying documentation for the control unit.

**Setting and service**

The sensor is set to the pressure difference corresponding to the recommended end values for the pressure loss of the individual filtration inserts, or, in certain cases, to two times the pressure loss of the filter in a clean state. A correction depending on the sensor's position is added to the value set. A different mounting position other than a perpendicular one changes the switching pressure according to the following:

- Lid of the box upward ..... + 15 Pa
- Lid of the box downward ..... - 15 Pa

Attention: The putting of the sensor (el. device) into operation, its setting, maintenance and replacement can only be done by a qualified person. The utmost carefulness must be observed to avoid contact with live parts.

**Accessories**

The following accessories are standard components of the P33N/V sensor:

- 1 connecting PE pipe with a length of 2 m
- 2 plastic probes for taking off pressure
- screws

**Designation, ordering**

- Pressure-differential sensor 30 to 500 Pa..... P33N
- Pressure-differential sensor 20 až 200 Pa..... P33V