



FD-02

Pressure Bell Switch

Features

- / Level monitoring for fluids
- / Filter and air-duct monitoring
- / Dry-run protection for pumps

Description:

In pressure bell switches, the static pressure of the fluid is converted into air pressure in suitable pressure transmitters (tube or hose). The rising level of fluid produces a locked up air space in the pressure transmitter as soon as the level reaches the locking edge. If the level continues to rise an overpressure builds up in the tube which on reaching a value of approx. 50 mm of water column actuates a pressure switch. The tube or the hose must be perfectly pressure-tight as, otherwise, the switching point may change due to air losses in the pressure transmitter tube. The FD-02 is factory-adjusted to a switching point of 50 mm of water column so that it is defined as the tube length minus 50 mm. Normally, the FD-02 is supplied without a pressure transmitter tube to allow the user to select the tube material as per his preference and thereby to customize it to the media to be monitored. In the case of warm, viscous or sticky materials, we suggest maintaining a constantly less air bubble formation over a T-piece connected to a pressurized air supply.

Application:

Pressure bell switches are simple and cost-effective devices for monitoring the level especially in open vessels, sumps and ducts. Since these switches do not have any mechanically moving parts, they are particularly dirt-insensitive. By correctly selecting the pressure transmitter material even hostile media can be monitored economically.



Versions:

FD-02 Pressure Bell Switch

Version:

FD-02.1 - no housing

FD-02.2 - with housing, R 1/2"-female

FD-02.3 - with housing, R 1/2"-female, R1 1/4"-male

FD-02.4 - with housing, hose joint 40 mm

Electrical Specifications:

Switching load / change-over 6 A, 250 V, 50 Hz, ohmic; tested as per VDE 0630

Electrical connection / flat plug, 6.3 DIN 46248

Technical Specifications:

Pressure range / 0.05 to 1 m water column

Least switching pressure / 50 mm water column

Least switch back pressure / 20 mm water column

max. Temperature / -10...+85°C

Materials /

Housing: polyamide

Membrane: nitrile rubber

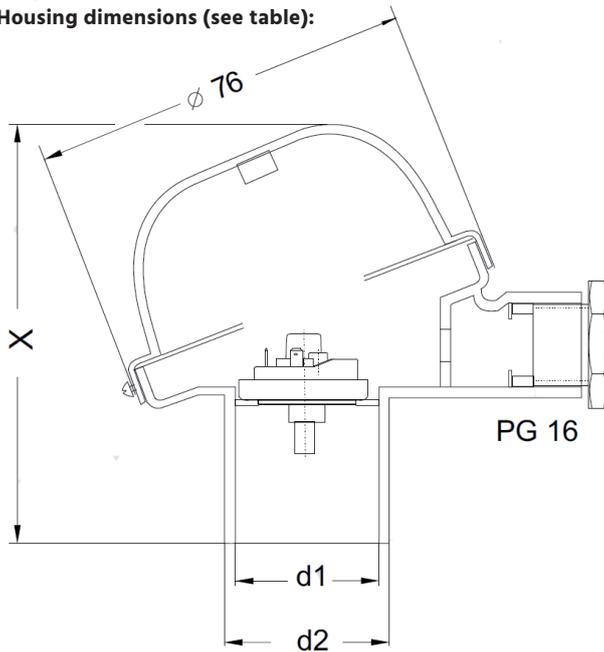
Pressure chamber: polyamide, fiberglass reinforced

Hysteresis / 15%, min. 30 mm water column

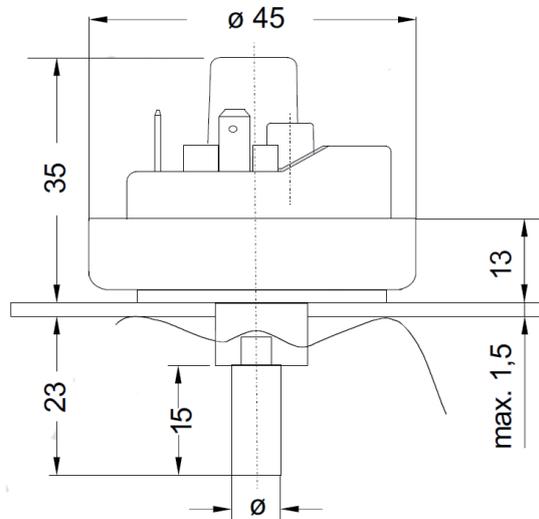
Indexing tolerance / ± 10%, min. +7.5 mm water column

Dimensions in mm:

Housing dimensions (see table):



Switch Dimensions FD-02.1 (without housing)



Housing Dimensions:

Version	d1	x	d2
FD-02.2	R 1/2" female	78 mm	-
FD-02.3	R 1/2" female	85 mm	R1 1/4" male
FD-02.4	hose	108 mm	40 mm

Ordering Codes:

Order number FD-02. 2

FD-02 Pressure Bell Switch

Version /

- 1 = no housing
- 2 = with housing, R 1/2"-female
- 3 = with housing, R 1/2"-female, R1 1/4"-male
- 4 = with housing, hose joint 40 mm