Instructions for the Magnehelic manometer, TBXZ-1-89-a SILVER C

1. General

A Magnehelic manometer is used for measuring pressure drop across filters (measuring scale = 0 – 750 Pa) or fans (measuring scale = 0 – 1500 Pa).

Stand right in front of the instrument when taking readings. Long lengths of hose do not affect the accuracy but they lengthen the instrument reply time when pressure changes occur. If vibrations occur or if quick changes in pressure cause vibrations in the measuring instrument, contact Swegon.

2. Installation

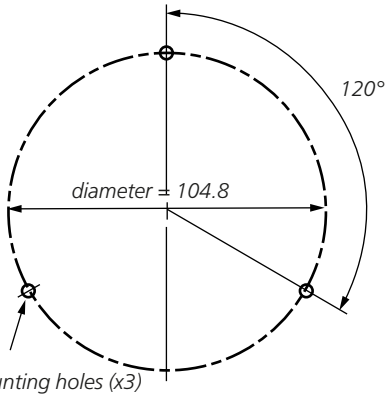
Locate the manometer at a vibration-free place where the ambient temperature does not exceed 60 °C. Direct sunlight should be avoided.

The manometer should be placed in a vertical position.

The manometer can be mounted flush or on surface.

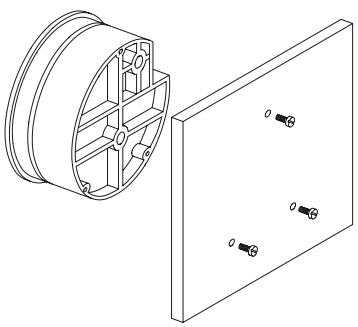
Surface-mounted installation

Mark out and drill three mounting holes with 120° spacing. Circle diameter:104.8 mm. Use a drill with a diameter of 4 mm.



4 mm mounting holes (x3)

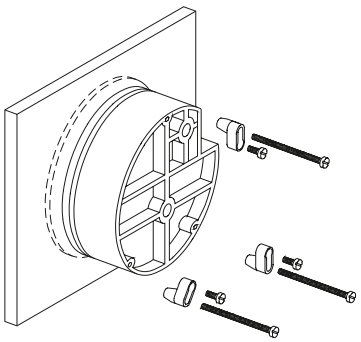
Screw the manometer firmly with three mounting screws of suitable length. The screws should have 6/32" threads.



Flush mounting

The manometer requires a countersunk hole with a diameter of 116 mm.

Insert the manometer into the countersunk hole. Screw the manometer firmly with the screws and angles supplied.



Adjust the zero point after installation

In the lower part of the instrument's front side there is an adjusting screw used for setting the pointer exactly to zero. This should be done before you connect the instrument to the pressure source.

Filters, to connect hoses

Drill two holes through the air handling unit's inspection door in front of the relevant filter for the air nipples (measurement tappings), one upstream and one downstream of the filter (viewed in the direction of airflow).

Screw the air nipples supplied tightly in the holes.

Run the hoses supplied with the instrument from the air nipples to the manometer. Run the hose from the air nipple with measuring point upstream of the filter to any of the low pressure connections and run the hose from the air nipple with measuring point downstream of the filter to any of the high pressure connections.

Plug the unused connections.

Fans, to connect hoses

Drill two holes through the air handling unit's inspection door so near the hinge side of the door as possible, in front of the relevant fan for the air nipples (measurement tappings).

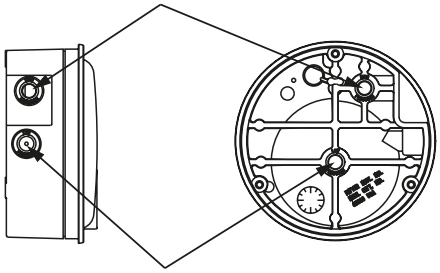
Screw the air nipples supplied tightly in the holes.

The hoses supplied (blue + white, lying inside the fan space) are, from the factory, connected to the measurement points of the fan and should be run to air nipples on the inside of the inspection door.

Run the loose hoses supplied (blue + white) from the air nipples on the exterior side of the inspection cover to the manometer. Make sure that blue hose is connected (via air nipple) to blue hose, and white to white. Run the white hose to any of the high pressure connections (+) and the blue hose to any of the low pressure connections (-).

Plug the unused connections.

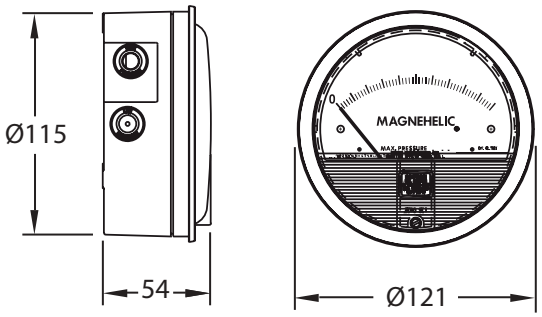
High pressure connections. Plug any unused connection.



Low pressure connections. Plug any unused connection.

3. Technical data

Casing	Painted grey
Measurement inaccuracy	3% full scale value
Max. permissible operating pressure:	0.35 bar (35 kPa)
Temperature range	-7 .....+60 °C
Weight	approx. 600 g



4. Maintenance

Keep the external surfaces of the manometer clean
A yearly check of the zero point adjustment is recommended. To do so, disconnect the connections and adjust the zero point. See the Section on how to adjust the zero point after installation.

5. Calibration checks

Connect the calibration instrument parallel to the manometer and gradually increase the pressure. If the setting changes more than the permissible value and calibration is required, contact Swegon.

6. Trouble shooting

The manometer does not show a reading:
The alternative pressure connections are not plugged.
The membrane is damaged due to overloading.
Connections or hoses are not correctly installed.
The manometer's casing is not tightly fitted or an o-ring is damaged.
The ambient temperature is below -7 °C.

The pointer is stuck - not possible to adjust the zero point:
The pointer is bent back against the scale.
The spring/magnet package is twisted and touches the helix.
Metal parts are stuck on the magnet and touch the helix.
The zero point adjusting screw is not centred in relation to the front.