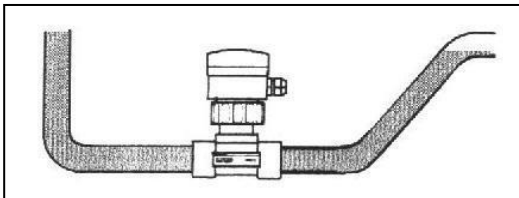


2.2 Installing the sensor (8020, 8030, 8040)

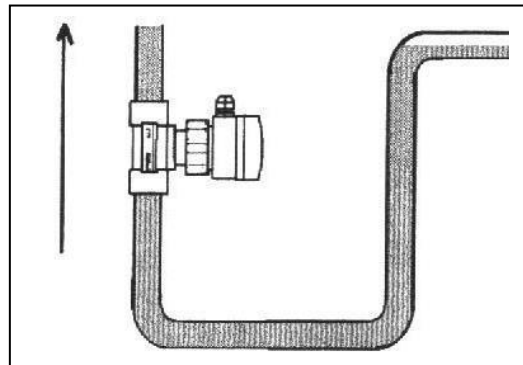
The sensor must be installed on a straight run of pipe. Installation just before or just after a bend, T-piece, any widening or narrowing or a valve will affect the accuracy of the measurement. The sensor must always be in the liquid. It is therefore important to ensure that air cannot accumulate around the sensor. The Bürkert 8020 must always be installed after the filter because it has a paddle wheel in the pipe. This could jam if there is any contamination in the water. The 8040 and SN10350 are suitable for use in slightly contaminated water, since they do not have any moving parts in the pipe. **Important:** The 8040 and SN10350 sensors require an acclimatization time of 12 hours. Only after 12 hours the measurement is completely reliable.

The illustrations below show how to mount the sensor.

Horizontal attachment

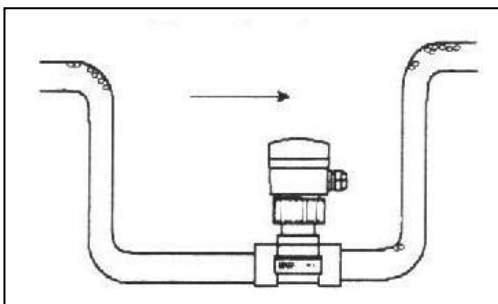


Vertical attachment

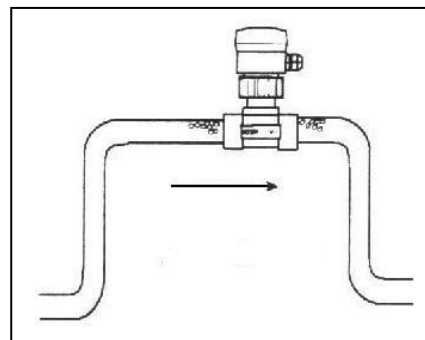


If the sensor is attached vertically, the flow direction must always be upward.

correct

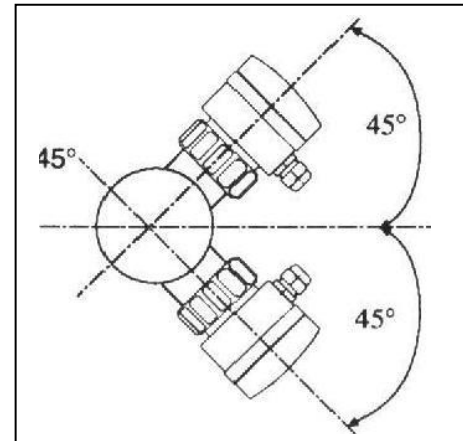


incorrect



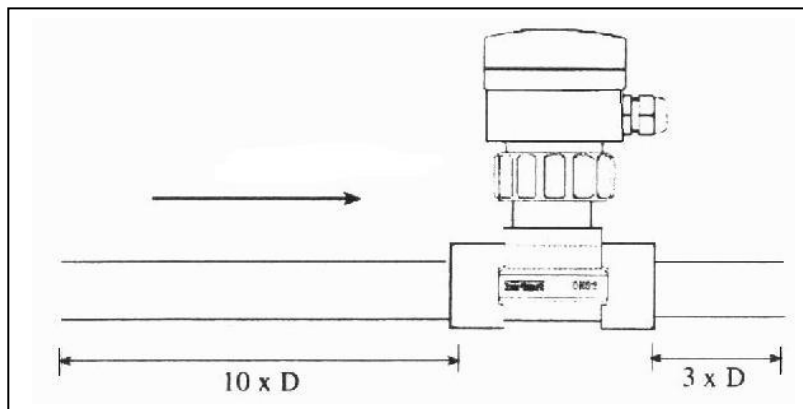
Always place the sensor below the water level where no air bubbles can form.

We recommend that you attach the sensor at an angle of 45° to the horizontal centre line of the pipe. See illustration, right.



Recommended length of straight run of pipe before and after sensor:

| | |
|--------|------------------------------|
| Before | 10 x inside diameter of pipe |
| After | 3 x inside diameter of pipe |



IMPORTANT!

Do not dispense/inject aggressive substances just before the sensor. Chlorine and acid should be dispensed well before – or preferably after - the sensor.

3.3 Explanatory notes relating to use of 8040 Sensor

- **SEM 8040 magnetic inductive flow sensor (0-240Hz = 0-10 m/s)**

The magnetic inductive 8040 sensor is available as an optional extra. The advantage of this sensor is that it has no moving parts, so it is also suitable for use in slightly contaminated water (e.g. measuring can take place before the filter rather than after it). This sensor fits in the same adapter as the 8020 and the electrical connections are also the same.

Important: You need to install special software for this sensor! (Flow v2.0 8040) This sensor is linear between 0.3 and 10 m/s, but the measuring range is limited to 5 m/s by the readout unit. Under 0.3 m/s the sensor is not linear (so not usable) and the readout unit will give a reading of 0.0 m³/h.

When using the 8040 sensor, you should be aware of the following:

SEM Waterbehandeling has already adjusted the sensor to the correct settings.



All selection switches are located under the two sealing caps.

- The following settings should be used:
 SW1-1: frequency: 50Hz
 SW1-2: filter function: fast
 SW1-3 and SW1-4: measuring range: 0-10 m/s

| dipswitch | 1 | 2 | 3 | 4 |
|-----------|----|----|----|----|
| setting | on | on | on | on |

- switch SW2: this should be set to the left, i.e. towards the push button (NPN).

Calibration of the sensor:

Before the sensor is used for the first time, the 'zero flow' point must be calibrated, as follows:

- Fill the pipe with water and stop the flow (zero flow);
- Make sure there are no air bubbles in the pipe;
- Press the push button and hold it down for 2 seconds: the green and red LED lights will now come on. The sensor will now automatically measure the 'zero flow' point over a period of several seconds. Once measurement is complete, the green LED will start blinking once every 1.5 seconds.

For more detailed information, see the Bürkert operating manual.