

# Turbo-IR water meters

## **General instructions:**

Proper installation helps maximising the accuracy and lifespan of the water meter.

# Installation:

Turbo-IR water meters can be installed both horizontally as well as vertically (flow direction preferably upwards).

All turbine meters are sensitive to turbulent conditions caused by pumps, diameter changes, bends, tees, valves, etc. The Turbo-IR must be installed with straightening distances mentioned on the following page.

Prior to installation, the pipe must be flushed to remove coarse dirt matter.

The water meter must be completely filled with water during measuring. When air can enter the piping an air release valve must be fitted before the water meter.

If the water contains dirt 5 mm and up (harmful to the water meter), a filter or strainer should be installed before the water meter.

When reverse flows are undesired, install a check valve.

#### M-register connection:

M-registers are available with maximum 1 pulse. Pulse speed is shown by a sticker under the cover.

Black: groundwire / common Red: pulse Maximum voltage to connect: 24 V AC/DC

#### E-register connection:

An E-register with 2 pulse speeds is supplied as standard. These are shown by stickers under the cover.

Black: groundwire White: fast pulse Red: slow pulse Maximum voltage to connect: 35 VDC The registers pulse is the NPN "Open collector" type.

# **Operation:**

Normal operating conditions are achieved when the amount of water flowing through the water meter is as close to the nominal capacity as possible.

#### Maintenance:

Check the water meter annually for damage.

Any damage to the protective coating of the filter must be repaired immediately. Before applying the protective paint, the damaged spot must be cleaned thoroughly using a steel wire brush. **Do not disconnect or open the water meter while the meter is under pressure!** In case of a Turbo-IR-E (with electronic register),

Manual

check each year if the battery symbol on the display is on. If this is the case, the register must be replaced.

The lifetime of water meters largely depends on the water quality and usage. The water meters needs to be serviced compliant to the local water board and other authorities. We advise maintenance after 5 years.

#### Note:

In view of on-going improvements, we reserve the right to change specifications at any time without prior notice.

## **General data:**

- All water meter are calibrated at the factory. (Test certificat is optional)
- With normal use according to our regulations the margin of error is ±2%. Hereby the watermeters are compliant to EEC/ISO 4064 class A / B and ISI 63.

See reverse







