

Fig. 1  
The meter must be fully flooded with clean cold water at all times. No air or water/air mixtures should be allowed to flow through the meter, otherwise errors and damage may result.

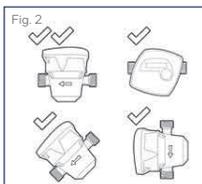


Fig. 2  
The meter may be connected to horizontal, vertical or inclined pipes but to maximise its accuracy it is recommended the installation to a horizontal pipe with the dial in horizontal position facing upwards.

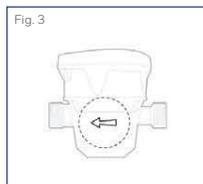


Fig. 3  
Install the meter with the flow direction arrow pointing in the direction of flow.

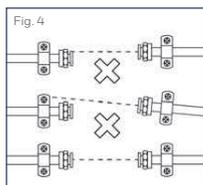


Fig. 4  
Ensure the upstream and downstream pipe connectors are aligned and sealing faces are parallel. Ensure upstream and downstream pipework is firmly anchored.

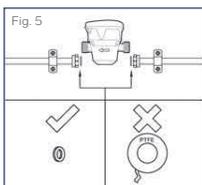


Fig. 5  
Fit meter between the pipe connections using sealing washers. Where washers are supplied with the meter, these must be used. Do not use PTFE tape or sealing fluids as they may damage the meter.

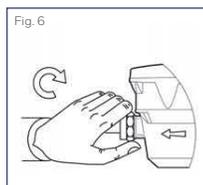


Fig. 6  
Locate the nuts on pipework onto the meter threaded flanges. Screw on finger tight.

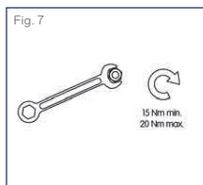


Fig. 7  
Tighten the nuts using a wrench, typical torque of 15 Nm min. to 20 Nm max.

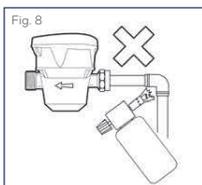


Fig. 8  
Do not solder or make any solder joints near the meter or meter connections.

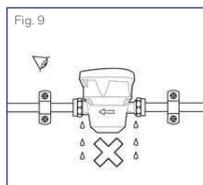
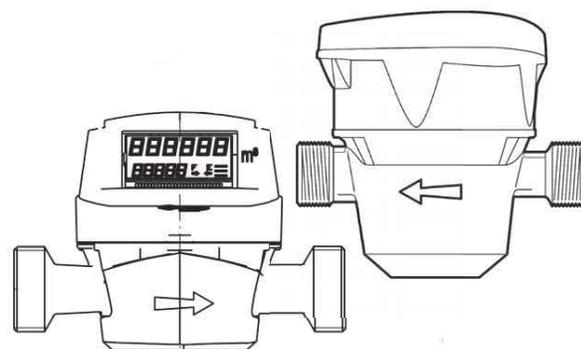


Fig. 9  
If the connections and fittings show signs of leakage, inspect all parts before carrying out start-up procedure again.

## Installation Instructions

Cold water meters



## Cold water meters

All Honeywell water meters are manufactured and tested in accordance with ISO 4064 and OIML R49, according to the appropriate type approval and comply with the relevant European regulations. The meters are suitable for cold potable water (up to a temperature of 30 °C or 50 °C depending on the model) and working pressure of 16 bar. The meters are approved and manufactured following European directive 2014/32/UE (MID) and the electronic meters comply directive 2014/30/UE (EMC).

## Handling and storage

Water meters are accurate measuring devices and, although of robust construction, should be treated with due care. The meters should remain within their protective packaging until the point of installation. Storage temperatures should remain within a range of 5 to 25°C, avoiding direct sunlight and heat.

### Before installation

The meter installation site should be protected from frost, direct sunlight and away from heat sources.

The installation type and position should minimise the risk of chemical contamination through flooding or soil contact, or by run-off from adjacent surfaces or fittings.

Care must be taken to ensure that any chemicals used during the installation process, such as cleaning fluids or jointing fluxes, are not permitted to come into contact with the meter.

The meter may be connected to horizontal, vertical or inclined pipes but to maximise its accuracy it is recommended the installation to a horizontal pipe with the dial in horizontal position facing upwards (Fig. 1).

The installation should comply with ISO 4064, according to the appropriate meter type approval and respect all relevant local bye-laws. Only approved sealing materials should be used for making pipe connections. The meter should be installed in a position to ensure it is fully flooded with clean cold water at all times, in a frost protected area (Fig. 2).

The meter should be accessible for ease of reading and should not be subjected to installation induced stresses or vibration. Failure to do so may result in meter damage and leakage occurring.

If the meter has been supplied with an AMR module, the relevant set of instructions related to the module must be read before the meter installation.

### Health and safety information

National legislation and local rules in force concerning the use of water pipes for earthing shall always be consulted and adhered to. Where the meter installation forms part of the electrical earthing, in order to minimise the risk to operational staff, there shall be a permanent shunt for the water meter and its associated fittings.

### Removal

To enable the meter to be removed it is recommended valves be fitted upstream and downstream of the meter, together with a drain cock between the meter and downstream valve.

## Meter installation instructions

1. Prior to installation of the meter, new or existing inlet and outlet pipework must be thoroughly flushed free of foreign material, using a make-up piece of pipe where the meter is to be fitted.
2. Install the meter with the flow direction arrow pointing in the direction of flow (Fig. 3).
3. It is essential that stresses due to poor installation methods should not act across the meter body. Ensure the correct gap is provided in the pipework to fit the meter length. Ensure the upstream and downstream pipe connectors are aligned and sealing faces are parallel. Ensure upstream and downstream pipework is firmly anchored (Fig. 4).
4. Polymer pipe connection pieces should be used. If brass connection pieces have to be used, they should be of a

dezincification resistant (DZR) grade.

5. The meter connections must be completely water tight when the system is pressurised.
6. Once installed, the meter should not be painted or come into contact with chemicals such as household cleaning fluids or hydrocarbons (fuels, oils, lubricants, etc.)
7. Fit meter between the pipe connections using sealing washers. Where washers are supplied with the meter, these must be used. Do not use PTFE tape or sealing fluids as they may damage the meter (Fig. 5).
8. Locate the nuts on pipework onto the meter threaded flanges. Screw on finger tight (Fig. 6).
9. Tighten the nuts using a wrench, typical torque of 15 Nm min. to 20 Nm max (Fig. 7).
10. When making repairs to pipework near to the meter installation, care should be taken to prevent damage to the meter. Do not solder or make any solder joints near the meter or meter connections (Fig. 8).

## Start-up procedure

1. The meter's measuring device may be damaged if subjected to full flow conditions prior to expelling air from the pipeline.
2. With the downstream valve open, slowly open upstream valve until all air is expelled from the meter. Fully open the upstream valve once all the air has been expelled.
3. Observe that the register's number wheels are responding to water throughput.
4. Close downstream outlet, (meter register should stop).
5. Check all connections for leaks.
6. If the connections and fittings show signs of leakage, inspect all parts before carrying out the installation procedure again (Fig.9).

## How to read your meter

The reading is from left to right. Black numbers on white rollers denote cubic metres. White numbers on red rollers denote litres. (1000 litres = 1 cubic metre).

