



**smart
vatten®**

VERTO

**VERTOLUMI HVAC WORK
SPECIFICATION MODEL**

2026

1 VERTO HVAC WORK SPECIFICATION MODEL

1.1 Space-specific water metering

The Verto system, a wireless system for metering hot and cold domestic water, is installed according to the HVAC and electrical designs. The system comprises of

- space-specific meters
- meter units and unit displays (display is optional)
- a remotely readable collection unit.

Meters (1–4 meters/ meter unit) are installed in each space, and meter units are installed near the meters. The meter units are numbered at the factory in accordance with the space numbering on the site.

The same meter (V-15UD) works on both hot and cold water lines.

The Verto objects are in the MagiCad product database.

1.2 Unit display

1.2.1 Unit display EVN-RB

EVN-RB

- Mounting on wall mount
- Dimensions: 96.5 x 96.5 x 26.0 mm (H x W x D)
- Batteries: 2 x LR6 AA alkaline battery



Figure 1: EVN-RB

1.2.1.1 Installing the unit display EVN-RB

1. Remove the battery pull tab before first use.
2. Place the unit display in a dry space using the wall mount that is included in the delivery.
3. Install the wall mount in the entryway or hallway. The recommended installation height is 160 cm.
4. The unit display also features temperature and humidity measuring. Take this into account when determining the installation location.
5. The unit display and the meter unit are usually delivered pre-paired, and they must be installed in the space indicated on the casing label. Otherwise, inform Smartvatten of the serial number of the unit display. For the EVN-RB unit display, the pairing is done in the cloud service.
6. Install the unit display to the wall mount.



EVN-RB

1.2.2 Unit display EVN-RC

EVN-RC

- Wireless data transmission
- Mounting on wall mount
- Dimensions: 96.5 x 96.5 x 26.0 mm (H x W x D)
- USB-C cable, 5–12 V DC power source



Figure 2: EVN-RC

1.2.2.1 Installing the unit display EVN-RC

1. Place the unit display in a dry space using the wall mount that is included in the delivery.
2. Install the wall mount in the entryway or hallway. The recommended installation height is 160 cm.
3. The unit display also features temperature and humidity measuring. Take this into account when determining the installation location.

4. The unit display and the meter unit are usually delivered pre-paired, and they must be installed in the space indicated on the casing label. Otherwise, inform Smartvatten of the serial number of the unit display. For the EVN-RC unit display, the pairing is done in the cloud service.
5. Connect the EVN-RC unit display to the 5–12 V DC power supply with a USB-C connector.
 1. For surface mounting, you can separately order the white, plug-mounted power adapter WU00064, and a 2 m long USB-C cable.
 2. For box mounting, you can separately order the power adapter WU00062, which comes with a grommet and strain relief.



More detailed electrical design instructions and examples can be found on our home pages.

3. Measure the length of the cord as shown in the figure.



4. Fasten the strain relief and the grommet of the power adapter firmly on the back of the wall mount.



6. Install the unit display to the wall mount.



EVN-RC

1.3 Collection unit

Two versions of the collection unit are available:

- EVG-SA, product no. WU0001, SIM card (GSM)
- EVG-EA, product no. WU0002, Ethernet

1.4 Meter unit

Two versions of the meter unit are available:

- Battery powered EVH-RB, product no. WU0005
- Mains power EVH-R230, product no. WU0003

1.5 Placement of meters, hot and cold water

The connectors are included in the delivery of the meter.

1. Install the meters into a horizontal or vertical pipe paying attention to the flow direction indication arrow on the meter body.
2. Place the meters so that they are easy to service. Make sure that their installation must meet the regulations for fire safety and electrical installations.
3. If you place the devices inside a casing or suspended ceiling, install a service hatch measuring at least 500 x 500 mm in the location of the devices.
4. We do not recommend installing the devices in the footings of kitchen cupboards or other cramped spaces. The cabinets under the kitchen sink must be waterproofed in case of possible leaks.

1.6 Connecting the meters to the meter unit

1. Install the meter cables based on the information on the casing label (hot/cold water).
2. Install the cables in the order shown in Figure 3.

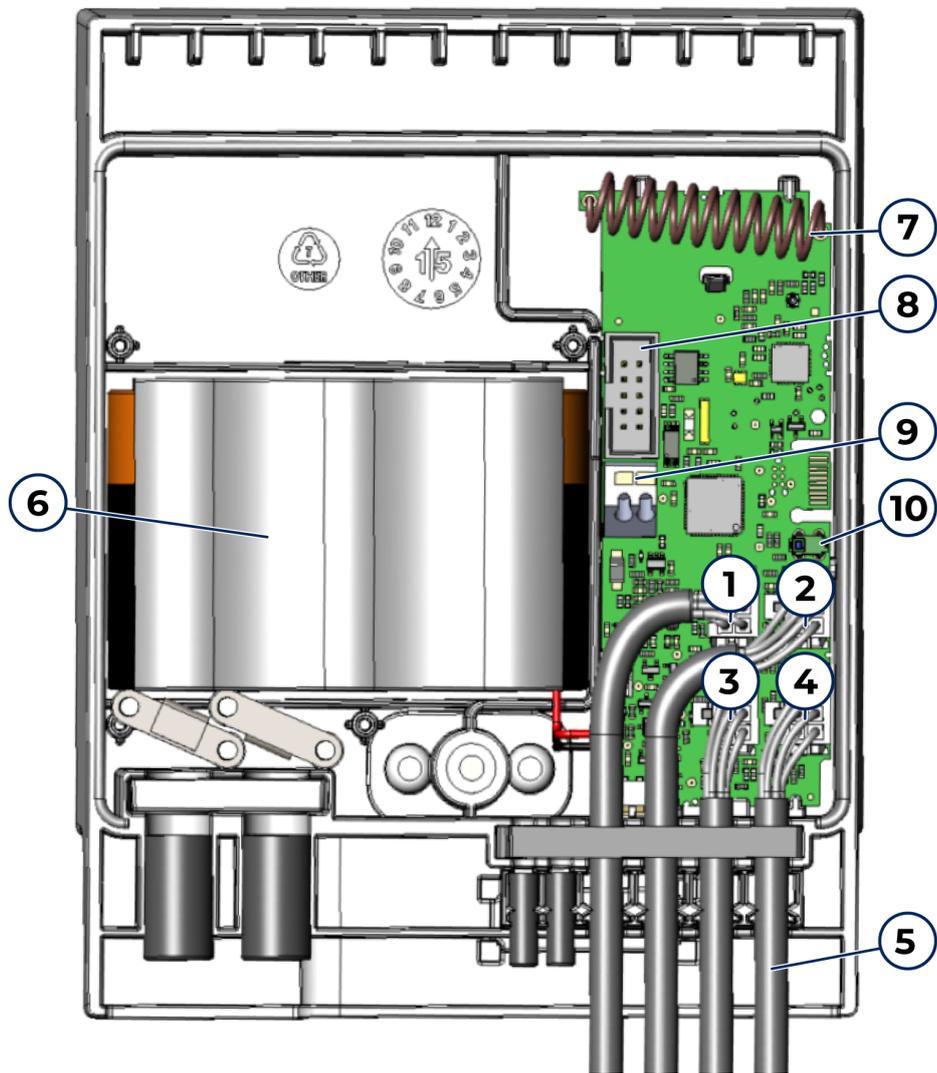


Figure 3: Installing cables to the meter unit EVH-RB

- | | | | |
|---|------------------------|----|----------------------------------|
| 1 | Meter cable connection | 6 | Battery |
| 2 | Meter cable connection | 7 | Antenna |
| 3 | Meter cable connection | 8 | Connector for additional element |
| 4 | Meter cable connection | 9 | Connector for DC power source |
| 5 | Meter cables | 10 | Cover switch |

3. Connect both ends of the meter cable before powering up the meter unit.
4. With the EVH-R230 meter unit, first install the meter cables as with the battery powered meter unit EVH-RB.
5. After this, install the cables.

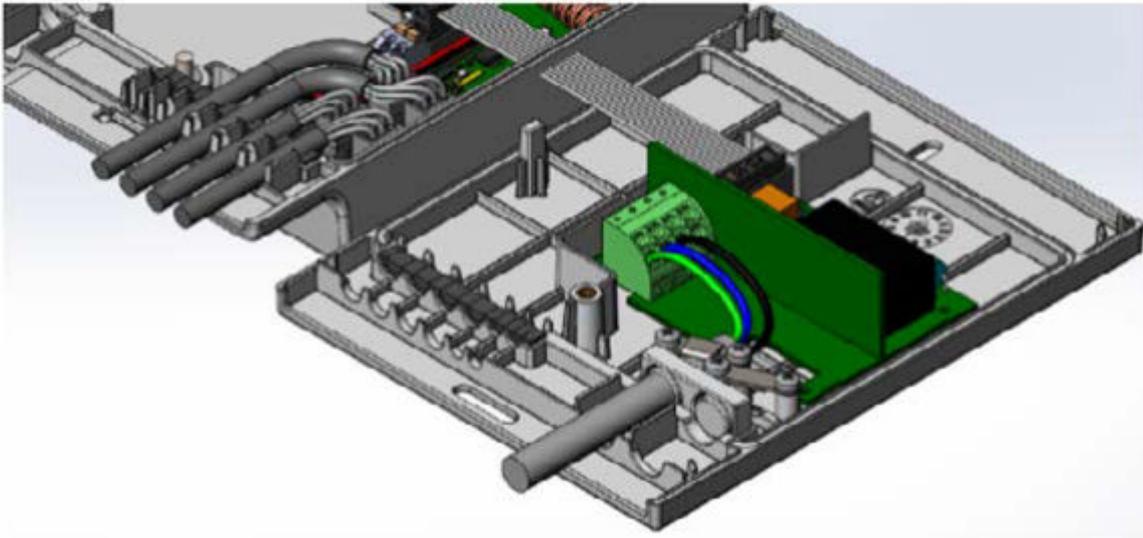


Figure 4: Installing cables to the 230 V meter unit EVH-R230

6. Connect the backup battery connector to the meter unit EVH-R230, or the battery connector to the meter unit EVH-RB. Route the cables as shown in the images. Make sure that the cable does not get caught between the inner walls of the casing.

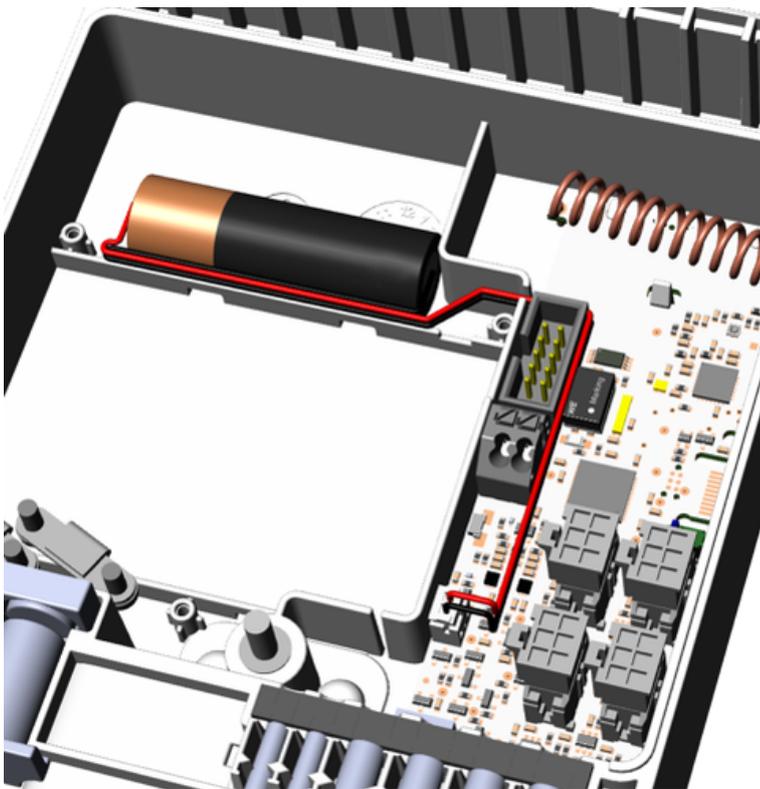


Figure 5: EVH-R230, connecting the backup battery

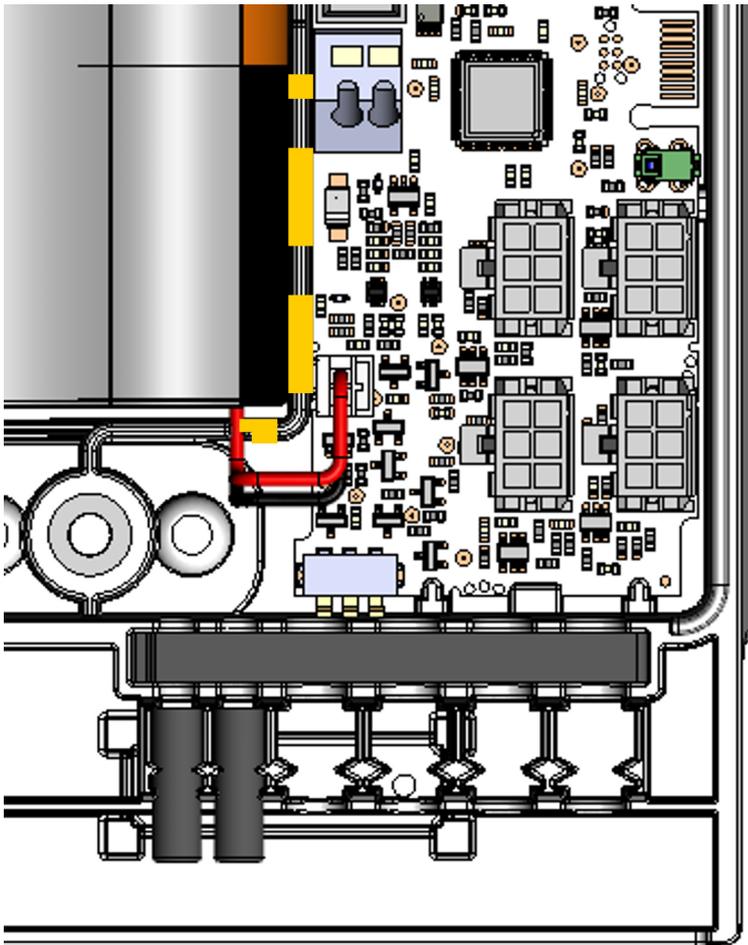


Figure 6: EVH-RB, connecting the battery pack

1.7 Commissioning inspection

The warranty requires an approved commissioning inspection. When installation is nearing completion, the plumbing contractor arranges the commissioning inspection procedure with the device manufacturer in good time (at least two weeks in advance).

The commissioning inspection is performed by a maintenance provider authorised by Smartvatten.

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1.8 Duties of the HVAC contractor

The plumbing contractor acquires the meters, meter units, unit displays and collection unit and installs the meters.

The battery-powered system may be installed by persons who do not hold an electrical installation license.

1.9 Duties of the construction contractor

The construction contractor must make sure that an easily accessible service hatch, measuring at least 500 mm x 500 mm, is provided in the location of the meters and meter unit.

1.10 Duties of the electrical contractor

- Installing the meter units and collection units and, as agreed separately, connecting them to the electricity network (the meter units are numbered at the factory in accordance with the space numbering on the site).
- Installing the necessary cabling, and installing and connecting the meter units, unit displays and their wall mounts and the collection units in accordance with the electrical designer's instructions.
- Where necessary, installing an electrical socket for the collection unit.

Battery-powered meter units (EVH-RB) may be installed by persons who do not hold an electrical installation license.

1.11 Duties of the property developer

Contacting the device manufacturer to connect the site for Smartvatten Flex reading in collaboration with the property manager.

1.12 Duties of the property manager

Reading the water metering data remotely requires a valid data service agreement.

For more information, contact our customer service.

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1.13 Appendix to the building's maintenance book

The battery-powered meter unit option features a replaceable lithium thionyl battery pack with a service life of up to 15 years. Only use a battery pack supplied by Smartvatten to power the devices. The batteries may be replaced a maintenance provider authorised by Smartvatten.

The unit display is powered with two AA alkaline batteries that can be replaced by the user.

Meter readings and status data are available on Smartvatten platform and can be used for billing purposes.

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Customer Support

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