

VERTOBLUE | HVAC WORK SPECIFICATION MODEL

Household-specific water metering

The VertoBlue system, a wireless system for metering hot and cold domestic water, is installed in households according to the HVAC and electrical designs. The VertoBlue water metering system is a comprehensive service concept from Finland. The system comprises household-specific flow sensors, household units and household displays as well as a remotely readable collection unit for the building or housing company. The system requires no cabling.

Flow sensors (1–4 sensors / household unit) are installed in each household, and household units are installed near the sensors. The household units are numbered at the factory in accordance with the household numbering on the site.

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

With the household display, residents can easily track their own water consumption in real time. Alternatively, water consumption can be tracked with the VertoMobile mobile app (iOS, Android).

Metering data can be viewed in numerical and graphical form using the browser-based VertoLive service programme. For billing purposes, metering data is transferred to property management software using a compatible export file or interface. Further information on compatible software and interface solutions is available at verto.fi/vertolive.

The system can be configured to send any alerts to the mobile phone number or email address of the building manager or maintenance company, for example.

Our maintenance partner network ensures a comprehensive maintenance service all over Finland, and our competent customer service personnel provide a personal service throughout the country as well.

Our system has a five-year warranty. 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 VertoBlue symbols are in the MagiCad product database.

Water metering modules:

Module 1

Metering of hot or cold water only

- One flow sensor (incl. stop valve)
HVAC no. 4466919, product no. WUMOD1

Module 2

Metering of hot and cold water in the household

- Two flow sensors (incl. stop valve)
HVAC no. 4466927, product no. WUMOD2

Module 3

- Metering of hot water with two flow sensors
- Metering of cold water with one flow sensor
- Three flow sensors (incl. stop valve)
HVAC no. 4466928, product no. WUMOD3

Module 4

The household has two risers

- Metering of hot water with two flow sensors
- Metering of cold water with two flow sensors
- Four flow sensors (incl. stop valve)
HVAC no. 4466929, product no. WUMOD4

Other hot and cold water connection configurations can also be arranged.

The basic system features one collection unit.

VertoNordic Oy

Hopunkatu 11
FI-38200 Sastamala
Finland

tel. + 358 10 734 0700
verto@verto.fi
verto.fi

VAT FI 26007833
Y-tunnus – Business ID
2600783-3

Household-specific household display EVN-R

As from the beginning of 2018, a Ministry of the Environment decree regulates that household-specific water meters be installed so that they are easy to service and read (Decree of the Ministry of the Environment on Water supply and sewer systems of properties, Section 10). Furthermore, according to the Measuring Instrument Directive of the European Union, residents shall have the opportunity to effortlessly track the water consumption of their household without requiring any auxiliary equipment to do it.

The VertoBlue system's household display enables residents to track their consumption of hot and cold domestic water separately within the home. The household display can be placed in a dry space in the apartment using the wall mount that is included in the delivery.

The household display is attached to the wall mount by a magnet. It is recommendable to install the display at the height of 180 cm in the entryway or hallway of the household.

As an additional service, the household display features household temperature measuring. This should be observed when determining the installation location.

Once the household unit has been connected, the display device and the household unit are paired where necessary in accordance with separate instructions, see Installation and user instructions.

EVN-R HVAC no. 4466918, product no. WU0006

Collection unit:

EVG-S HVAC no. 4466916, product no. WU0001, EVG-S gateway SIM card (mobile network)

EVG-E HVAC no. 4466917, product no. WU0002, EVG-E gateway ethernet

The collection unit is available as a NBloT mobile network (EVG-S) version or a TCP/IP Ethernet (EVG-E) version.

Flow sensors, cold and hot water:

HVAC no. 4466913, product no. WV15U85001

For compatibility purposes, the flow sensor can be used to replace the V-15M-W914015 flow sensor.

The connectors and a stop valve are supplied with the flow sensor WV15U85001. A non-return valve* has been integrated into the flow sensor.

*The non-return valve has a special-made pressure relief function, activation pressure 7 bar.

Install the flow sensors into a horizontal or vertical pipe (flow direction: downward flow) paying attention to the flow direction indication arrow on the sensor body. The flow sensors come factory-equipped with a laminar flow equaliser. If the laminar flow equaliser is removed, a straight section of 200 mm before the flow sensor must be observed in the installation.

The flow sensors have a one-metre connecting cable for the household unit. If necessary, this can be extended using the instrumentation cable WRU0003 (M8 extension 5 m) supplied by Verto. The flow sensors in each household (1 to 4 sensors per household) are connected to one household unit. If more than 4 flow sensors are needed in a household, such extra flow sensors must be connected to a separate household unit.

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Household units:

Battery-powered household units

EVH-RB battery

HVAC no. 4466914, product no. WU0005

Water metering system commissioning inspection

Our system has a five-year warranty. 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 Verto's authorised maintenance provider, tel. +358 10 734 0700, verto@verto.fi.

Duties of the HVAC contractor:

The plumbing contractor acquires the flow sensors, household units, household displays and collection unit and installs the flow sensors.

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

Duties of the construction contractor:

An easily accessible service hatch measuring at least 500 mm x 500 mm must be provided in the location of the flow sensors and household unit.

Duties of the electrical contractor:

- Installing the household units and collection units and, as agreed separately, connecting them to the electricity network (the household units are numbered at the factory in accordance with the household numbering on the site).
- Installing the necessary cabling, and installing and connecting the household units, household 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 household units (EVH-RB) may be installed by persons who do not hold an electrical installation licence.

Duties of the property developer:

- Contacting the device manufacturer to connect the site for VertoLive reading in collaboration with the building manager.

Appendix to the building's maintenance book

The battery-powered household 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 VertoNordic Oy to power the devices.

The batteries may be replaced by Verto's authorised maintenance provider.

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

Meter readings and status data are monitored regularly by remote reading on VertoLive.

Water consumption data for billing purposes is easily available on the VertoLive cloud service.

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