



Figure 1 – Units GE550Y004 and GE550Y014.
Complete with plastic connection point and a pair of mounting brackets.

Description

The GE550 sanitary water metering units are used to measure the consumption of sanitary water. They consist of a pair of shut-off valves, one with a check valve, a volumetric meter (single jet) and a dummy meter connection point. The meter is equipped with a totalizer for reading the value of consumption; a pulse output allows remote reading (via M-Bus) to be enabled. The check valve ensures reliability when measuring consumption and is integrated into the shut-off valve with the green handle. The handles of the other valves are blue or red depending on whether the sanitary water unit is intended for use with cold water or warm water respectively.

Versions and product codes

Product code	Sanitary water	Connections	Centre to centre assembly distance [mm]
GE550Y004	cold	3/4"	110
GE550Y014	hot	3/4"	110

Technical data

- Max. working temperature:
30 °C for sanitary cold water meter
90 °C for sanitary hot water meter
- Max. working pressure: 10 bar

Main characteristics

- Can be mounted either horizontally or vertically
- Can be mounted with left to right or right to left flow
- Shut-off valves welded to meter
- 5-figure mechanical totalizer with hands for partial consumption and flow detection
- M-Bus enabled pulse output (1 pulse = 10 litres)
- Dummy meter connection point for installation on sites
- Support for fixing in user modules
- Full bore, chrome ball, PTFE sealed brass shut-off valves UNI EN 12165 CW617N
- Check valve with body and internal parts in acetal resin (POM), stainless steel spring
- CE marking (compliance with MID directive)

Losses of Pressure

The diagram showing losses of pressure is displayed below.

For lower flow rate values, dashed lines are valid, due to the effect of the check valve spring.

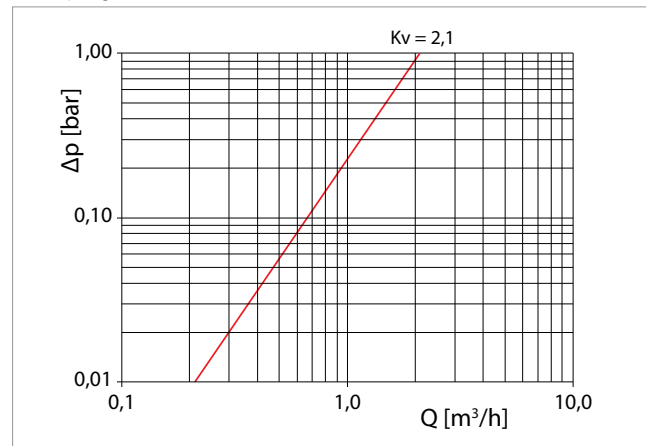


Figure 2 – Losses of pressure diagram

Qualitative error diagram

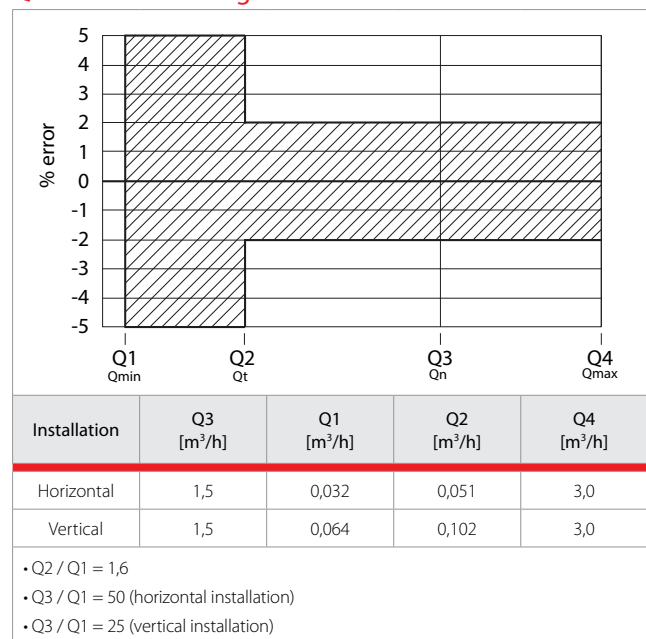
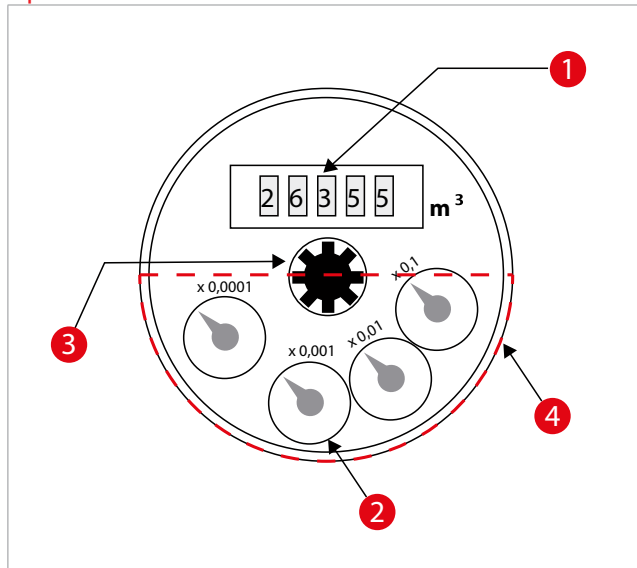


Figure 3 - Qualitative error diagram



Operation



Legend

- | |
|--|
| 1) 5-figure mechanical totalizer for reading cumulative consumption (maximum value 99999 m³) |
| 2) Totalizers for displaying current consumption in litres (1 turn = 1 litre) |
| 3) Rotary indicator indicating the presence of flow |
| 4) Protective plastic cover for pulse module |

Figure 4 – meter dial

The meter is composed of a section of the flow measurement in nickel-plated brass which houses the single-jet impeller and a totalizer protected by a transparent cover made of plastic material. The entrance to the meter has a filter for trapping larger impurities and preventing these from entering the measuring chamber. The 5-figure totalizer displays the cumulative consumption of sanitary water; it is mechanical and as such does not need to be attached to a power supply. A rotary indicator at the centre of the device indicates the presence of flow, while a totalizer indicates the current consumption in litres. The device is equipped with a pulse output; 1 pulse corresponds with a volume of 10 litres. A 1,4 m connection cable is used to connect the meter to an interface that translates the pulses into a consumption value which can then be encoded and transmitted via the M-Bus system for remote reading and centralisation of consumption data.

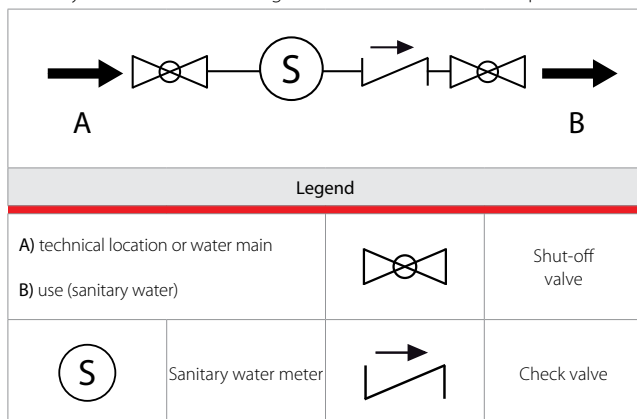


Figure 5 – Operating diagram

Installation

The components described in figure 6 are contained within the packaging. The two shut-off valves (1 - 3) are connected to the connection point (2) and sealed using appropriate devices.

The use of the connection point instead of the meter is recommended for the execution of a system wash prior to installation of the meter.

For mounting the sanitary water unit in the user modules use the two support units (5): the metering boxes are equipped with guides; the plate is inserted on the inside of the guide (5a); the clip (5b) should be placed on top of the guide and fixed by tightening the screw (5c). It is advisable to pre-assemble the unit collar before inserting the plate into the guide and to only tighten the screw once this is completed.

Once the system has been washed, the connection point (2) can be replaced with the meter (4).

Once installed, test out the system under pressure.



Warning.

Follow the flow directions shown on the body of the meter, and for the check valve, see the operation diagram, Figure 5. Comply with the rules regarding the use (installation, mounting, etc.), operation, recalibration and replacement of the meter. In addition, refer to the instructions supplied with each meter.

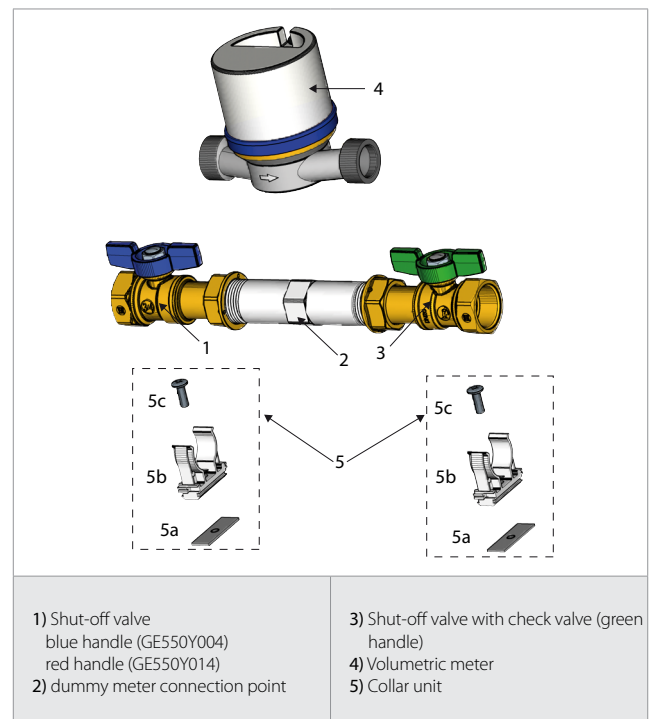


Figure 6 – Components included

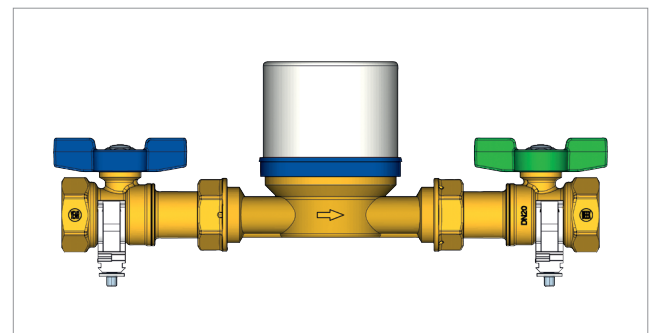


Figure 7 – Position of collars on the valves



Remote reading enabling through energy meters

Up to two sanitary meters can be enabled for remote operation on M-Bus through the energy meters, GE552 series, which are equipped with a 6-conductor cable for this purpose. Use the connections set out in the table.

Conductor colour	Connection	Meaning
Yellow	NC	Not in use
Pink	M-Bus 1	1 M-Bus conductor
Grey	M-Bus 2	2 M-Bus conductor
Green	E/S 1	Sanitary meter 1
White	GND	Common for sanitary meters 1 and 2
Brown	F/S 2	Sanitary meter 2

Table 1 - Encoding connections to the energy meter.

Dimensions

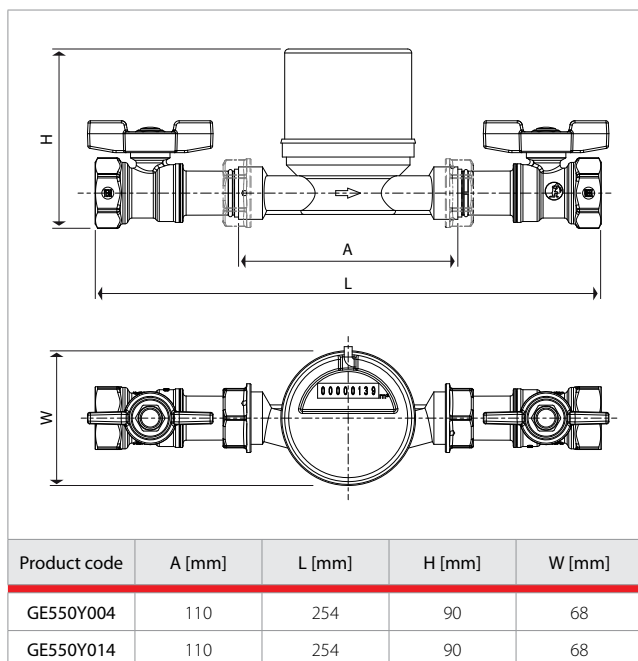


Figure 8 - Dimensions

Normative references

- EC mark
- MID directive (2004/22/EC)

Compliance with MID Directive

If used for commercial applications, the meters are classified as measuring instruments subject to the rules of legal metrology. The GE552-2 sanitary meters comply with the requirements of Directive 2004/22/EC on measuring instruments (MID Directive - Measurement Instrument Directive), implemented in Italy by Legislative Decree of February 2, 2007, n. 22 (Official Gazette no. 64 of 17 March 2007). The DE-07-MI001-PTB010 certificate of conformity was issued by the PTB Institute of Metrology (Physikalisch-Technische Bundesanstalt).



Note.

The MID marking is displayed next to the CE mark and consists of an "M" flanked by the last two digits of the year of marking, surrounded by a rectangle.

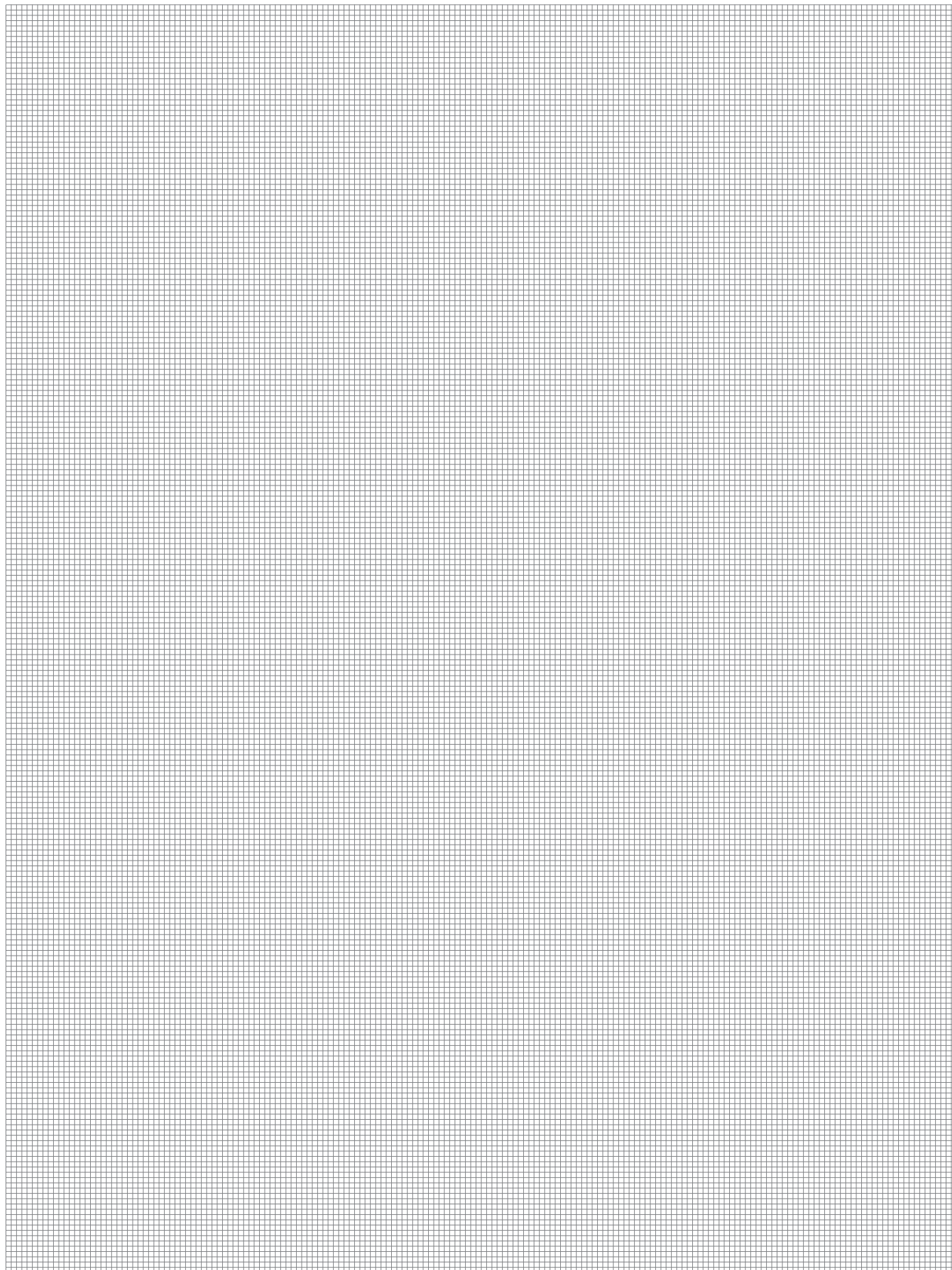
Product specifications

GE550Y004

Sanitary cold water metering unit. 3/4" connections. Two shut-off valves with blue and green colour handles, with chrome ball and PTFE seals. Check valve with body and internal parts in acetal resin (POM) and stainless steel spring. GE552-2 meter series, single-jet for sanitary cold water, with pulse output (REED contact), nominal flow rate 1,5 m³ / h, centre to centre distance 110 mm. Plastic connection point for system washing. Supports for fixing in box. Unit length 262 mm. Max. working temperature 30 °C. Max. working pressure 10 bar. CE marking (compliance with MID directive). The unit can be completed by ordering the following separately: insulation, product code GE551Y173.

GE550Y014

Sanitary hot water metering unit. 3/4" connections. Two shut-off valves with blue and green colour handles, with chrome ball and PTFE seals. Check valve with body and internal parts in acetal resin (POM) and stainless steel spring. GE552-2 meter series, single-jet for sanitary hot water, with pulse output (REED contact), nominal flow rate 1,5 m³ / h, centre to centre distance 110 mm. Plastic connection point for system washing. Supports for fixing in box. Unit length 262 mm. Max. working temperature 90 °C. Max. working pressure 10 bar. CE marking (compliance with MID directive). The unit can be completed by ordering the following separately: insulation, product code GE551Y173.

**Additional information**

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Figure 1 – Units GE550Y005 and GE550Y015.
Complete with plastic connection point and a pair of mounting brackets.

Description

The GE550 sanitary water metering units are used to measure the consumption of sanitary water. They consist of a pair of shut-off valves, one with a check valve, a volumetric meter (single jet) and a dummy meter connection point. The meter is equipped with a totalizer for reading the value of consumption; a pulse output allows remote reading (via M-Bus) to be enabled. The check valve ensures reliability when measuring consumption and is integrated into the shut-off valve with the green handle. The handles of the other valves are blue or red depending on whether the sanitary water unit is intended for use with cold water or warm water respectively.

Versions and product codes

Product code	Sanitary water	Connections	Centre to centre assembly distance [mm]
GE550Y005	cold	1"	130
GE550Y015	hot	1"	130

Technical data

- Max. working temperature:
30 °C for sanitary cold water meter
90 °C for sanitary hot water meter
- Max. working pressure: 10 bar

Main characteristics

- Can be mounted either horizontally or vertically
- Can be mounted with left to right or right to left flow
- Shut-off valves welded to meter
- 8-figure mechanical totalizer with hands for partial consumption and flow detection
- M-Bus enabled pulse output (1 pulse = 10 litres)
- Dummy meter connection point for installation on sites
- Support for fixing in user modules
- Full bore, chrome ball, PTFE sealed brass shut-off valves UNI EN 12165 CW617N
- Check valve with body and internal parts in acetal resin (POM), stainless steel spring
- Metrological class according to DIN ISO 4064/1, class B.
- **A** for vertical mounting, **B** for horizontal mounting

Losses of Pressure

The diagram showing losses of pressure is displayed below.

For lower flow rate values, dashed lines are valid, due to the effect of the check valve spring.

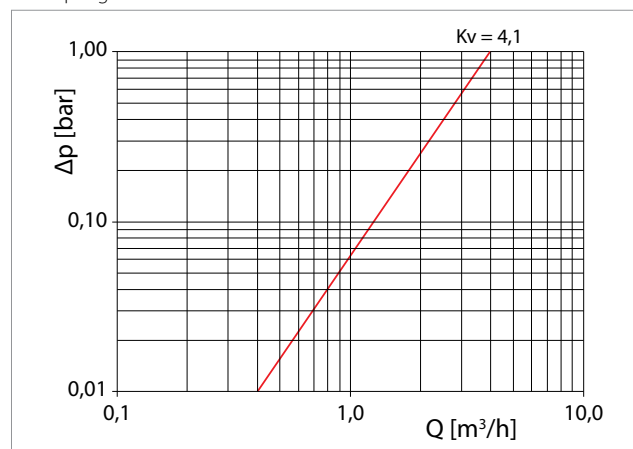


Figure 2 – Losses of pressure diagram

Qualitative error diagram

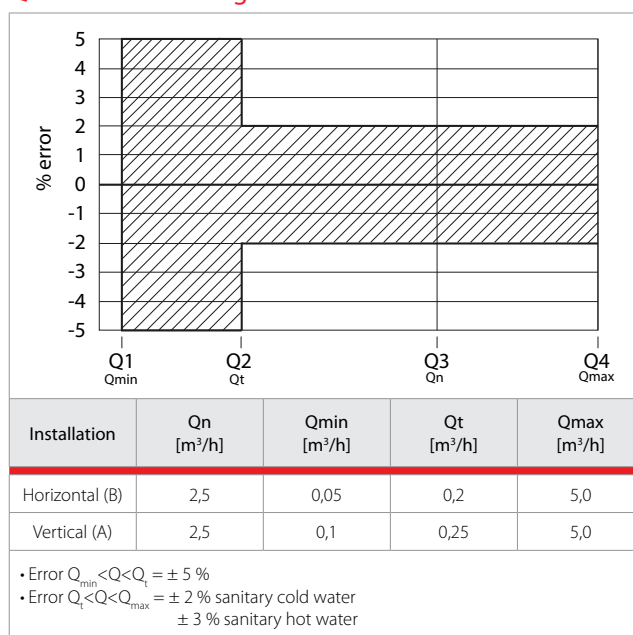
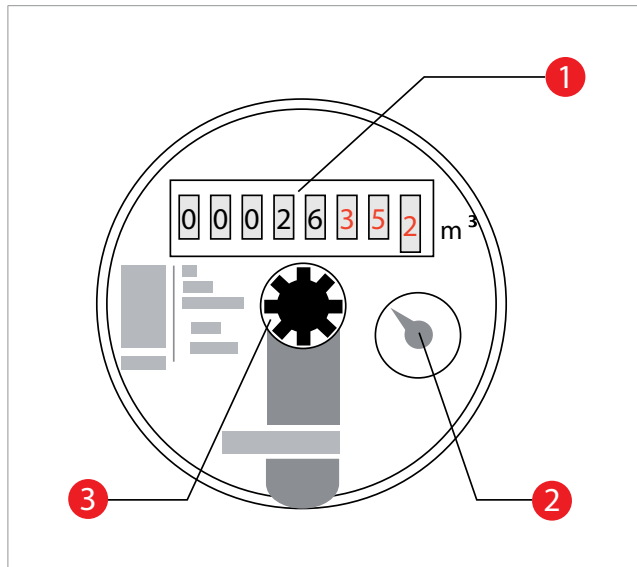


Figure 3 – Qualitative error diagram



Operation



Legend

- 1) 8-figure mechanical totalizer for reading cumulative consumption (maximum value 99999,999 m³)
- 2) totalizers for displaying current consumption in litres (1 turn = 1 litre)
- 3) Rotary indicator indicating the presence of flow

Figure 4 – meter dial

The meter is composed of a section of the flow measurement in nickel-plated brass which houses the single-jet impeller and a totalizer protected by a transparent cover made of plastic material. The entrance to the meter has a filter for trapping larger impurities and preventing these from entering the measuring chamber. The 8-figure totalizer displays the cumulative consumption of sanitary water; it is mechanical and as such does not need to be attached to a power supply. A rotary indicator at the centre of the device indicates the presence of flow, while a totalizer indicates the current consumption in litres. The device is equipped with a pulse output; 1 pulse corresponds with a volume of 10 litres. A 1,4 m connection cable is used to connect the meter to an interface that translates the pulses into a consumption value which can then be encoded and transmitted via the M-Bus system for remote reading and centralisation of consumption data.

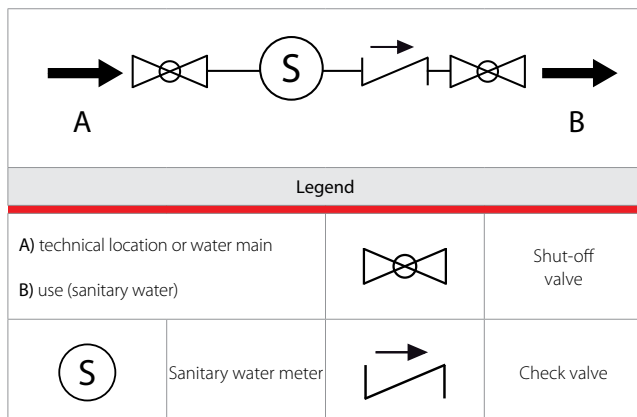


Figure 5 – Operating diagram

Installation

The components described in figure 6 are contained within the packaging. The two shut-off valves (1 - 3) are connected to the connection point (2) and the sealed using appropriate devices.

The use of the connection point instead of the meter is recommended for the execution of a system wash prior to installation of the meter.

For mounting the sanitary water unit in the user modules use the two support units (5): the metering boxes are equipped with guides; the plate is inserted on the inside of the guide (5a); the clip (5b) should be placed on top of the guide and fixed by tightening the screw (5c). It is advisable to pre-assemble the unit collar before inserting the plate into the guide and to only tighten the screw once this is completed.

Once the system has been washed, the connection point (2) can be replaced with the meter (4).

Once installed, test out the system under pressure.



Warning.

Follow the flow directions shown on the body of the meter, and for the check valve, see the operation diagram, Figure 5. Comply with the rules regarding the use (installation, mounting, etc.), operation, recalibration and replacement of the meter. In addition, refer to the instructions supplied with each meter.

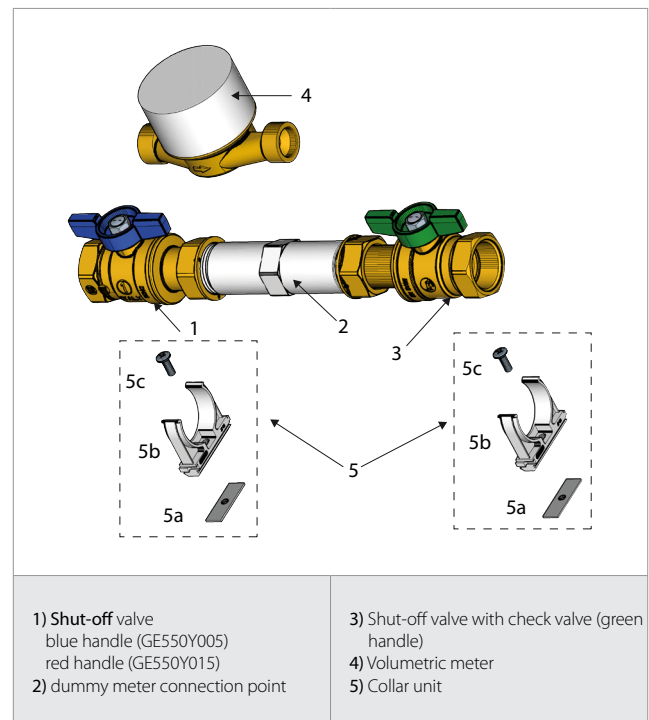


Figure 6 – Components included

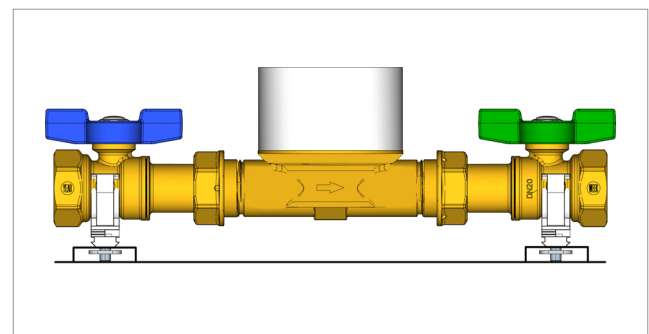


Figure 7 – Position of collars on the valves



Remote reading enabling through energy meters

Up to two sanitary meters can be enabled for remote operation on M-Bus through the energy meters, GE552 series, which are equipped with a 6-conductor cable for this purpose. Use the connections set out in the table.

Conductor colour	Connection	Meaning
Yellow	NC	Not in use
Pink	M-Bus 1	1 M-Bus conductor
Grey	M-Bus 2	2 M-Bus conductor
Green	E/S 1	Sanitary meter 1
White	GND	Common for sanitary meters 1 and 2
Brown	F/S 2	Sanitary meter 2

Table 1 - Encoding connections to the energy meter.

Dimensions

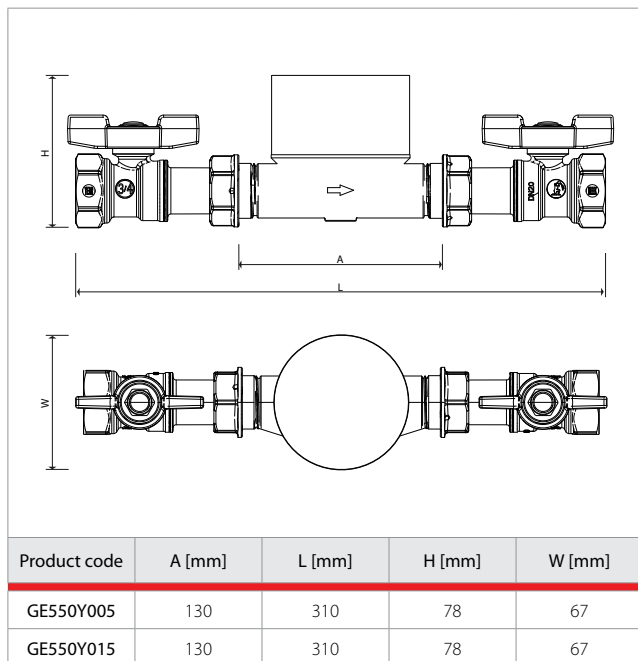


Figure 8 – Dimensions

Normative references

- DIN ISO 4064/1 - Measurement of water flow in closed conduits-meters for cold potable water

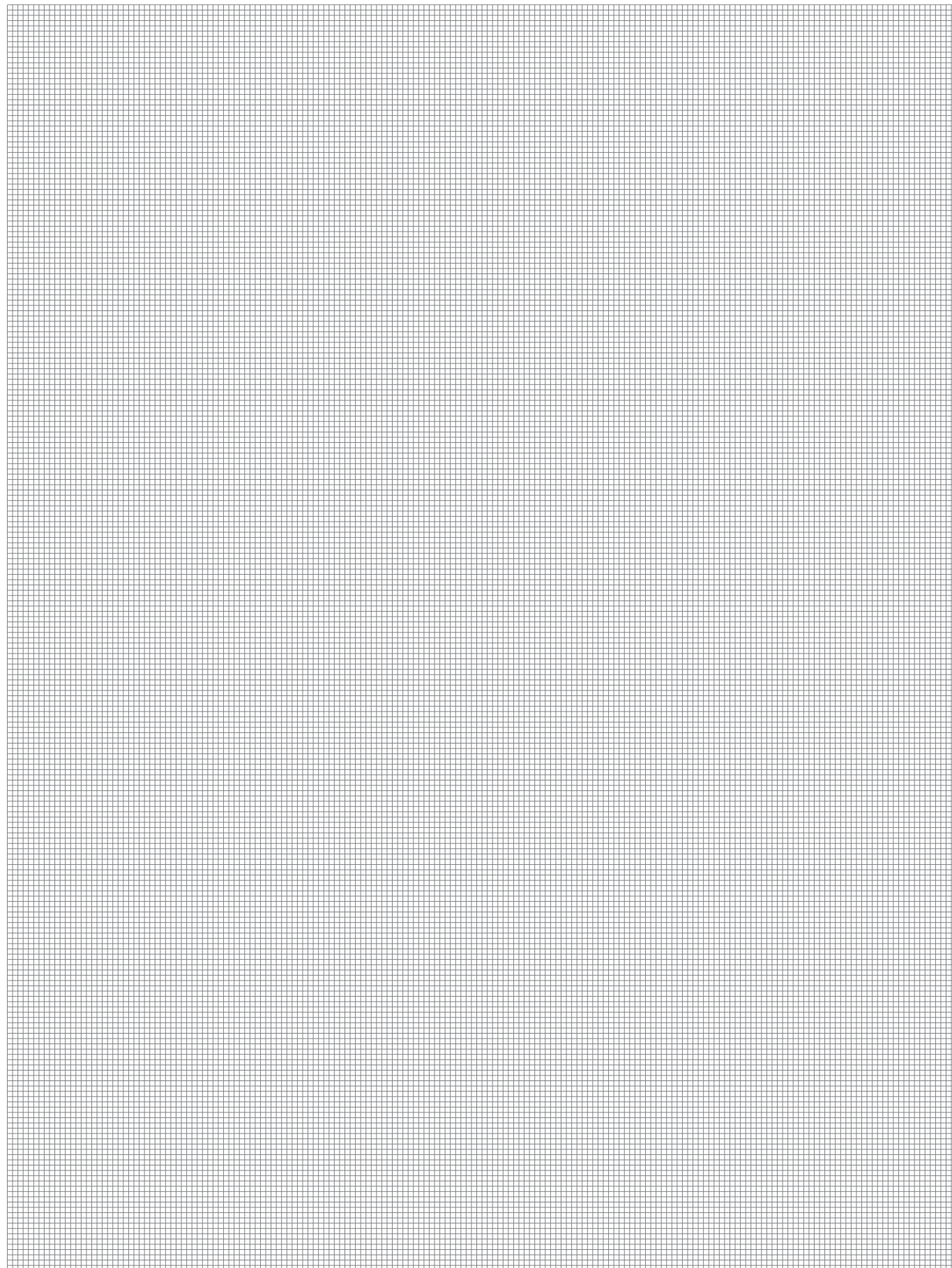
Product specifications

GE550Y005

Sanitary cold water metering unit. 1" connections. Two shut-off valves with red and green colour handles, with chrome ball and PTFE seals. Check valve with body and internal parts in acetal resin (POM) and stainless steel spring. GE552-2 meter series, single-jet for sanitary cold water, with pulse output (REED contact), nominal flow rate 2,5 m³ / h, centre to centre distance 130 mm. Plastic connection point for system washing. Supports for fixing in box. Unit length 310 mm. Max. working temperature 30 °C. Max. working pressure 10 bar. Metrological class according to DIN ISO 4064/1, class B.

GE550Y015

Sanitary hot water metering unit. 1" connections. Two shut-off valves with red and green colour handles, with chrome ball and PTFE seals. Check valve with body and internal parts in acetal resin (POM) and stainless steel spring. GE552-2 meter series, single-jet for sanitary hot water, with pulse output (REED contact), nominal flow rate 2,5 m³ / h, centre to centre distance 130 mm. Plastic connection point for system washing. Supports for fixing in box. Unit length 310 mm. Max. working temperature 90 °C. Max. working pressure 10 bar. Metrological class according to DIN ISO 4064/1, class B.

**Additional information**

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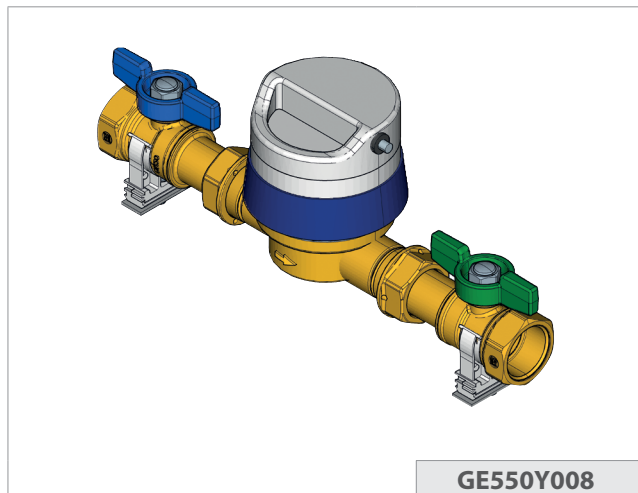

GE550Y008

Figure 1 – Unit GE550Y008

Complete with plastic connection point and a pair of mounting brackets.

Description

Sanitary metering units are used to measure the volumetric consumption of water. They consist of a pair of shut-off valves, one check valve, a volumetric meter (turbine or single jet) and a dummy meter connection point. The meter is equipped with a viewing pane for reading the total value of consumption. The check valve, which ensures reliability when measuring consumption, is integrated into the shut-off valve with the green handle. The handles of the other valves are blue or red depending on whether the sanitary water unit is intended for use with cold water or warm water respectively. **The GE550Y008 version is optimised for use as a third unit in service water metering applications.** The M-Bus module (GE552Y014) is already supplied as standard: the outgoing cables from the meter are already in M-Bus signal, unlike the other sanitary water meters, which have a pulse output. The code GE550Y008 can also be used on standard applications with sanitary cold water.

Versions and product codes

Product code	Sanitary water	Connections	Centre to centre assembly distance [mm]
GE550Y008	cold	3/4"	110

Technical data

- Max. working temperature: 30 °C
- Max. working pressure: 16 bar

Main characteristics

- Module with M-Bus output, GE552Y014 (splittable from meter)
- M-Bus module battery lifespan: indefinite with M-bus power supply; a year without M-Bus power supply (activated after the first reading of the meter)
- Can be mounted either horizontally or vertically
- Shut-off valves welded to meter
- 8-figure totalizer with hands for partial consumption and flow detection
- Dummy meter connection point for installation on sites
- Support for fixing in user modules
- Full bore, chrome ball, PTFE sealed brass shut-off valves UNI EN 12165 CW617N
- Check valve with body and internal parts in acetal resin (POM), stainless steel spring
- Metrological class according to standard 75/33/CE, class B
- CE marking (compliance with MID directive)

Losses of Pressure

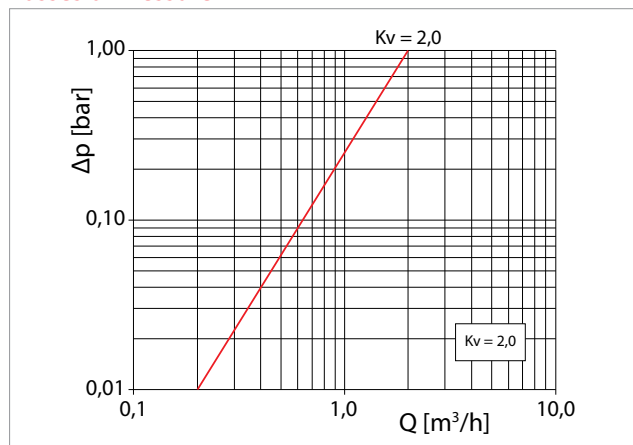


Figure 2 – Losses of pressure diagram

Qualitative error diagram

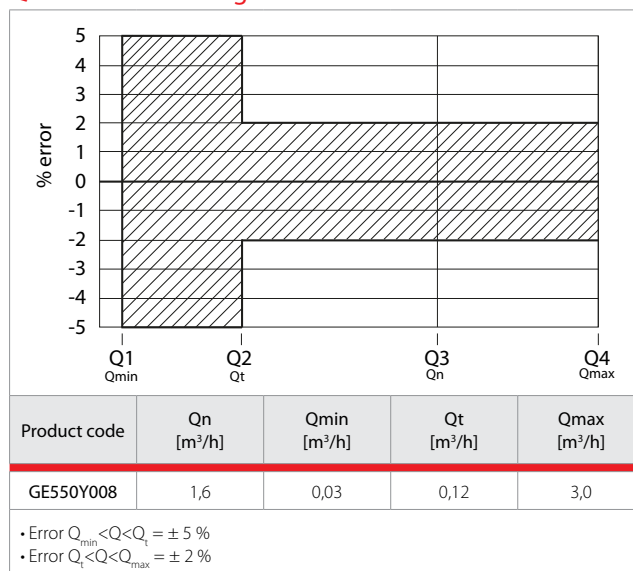


Figure 3 - Qualitative error diagram



Operation

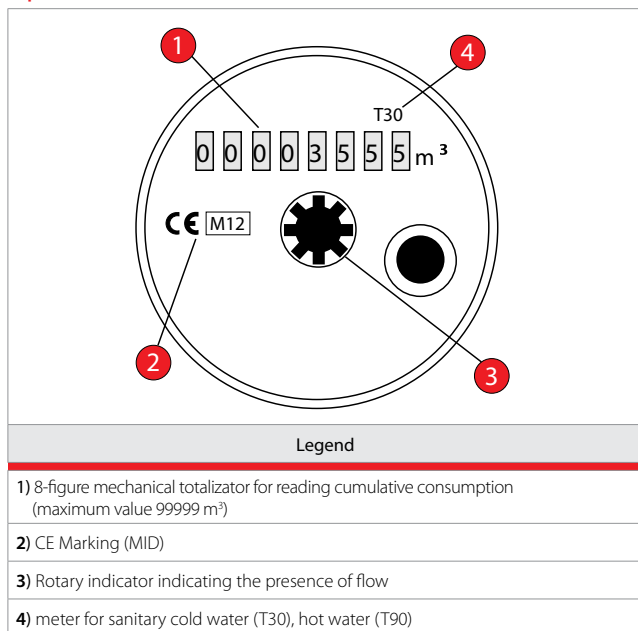


Figure 4 – meter dial

The meter is composed of a section of the flow measurement in nickel-plated brass which houses the single-jet impeller and a totalizer protected by a transparent cover made of plastic material. The entrance to the meter has a filter for trapping larger impurities and preventing these from entering the measuring chamber. The 8-figure totalizer displays the cumulative consumption of sanitary water; it is mechanical and as such does not need to be attached to a power supply. A rotary indicator at the centre of the device indicates the presence of flow, while a totalizer indicates the current consumption in litres. The device is equipped for installation of the M-Bus module GE552Y014, for enabling remote data reading.

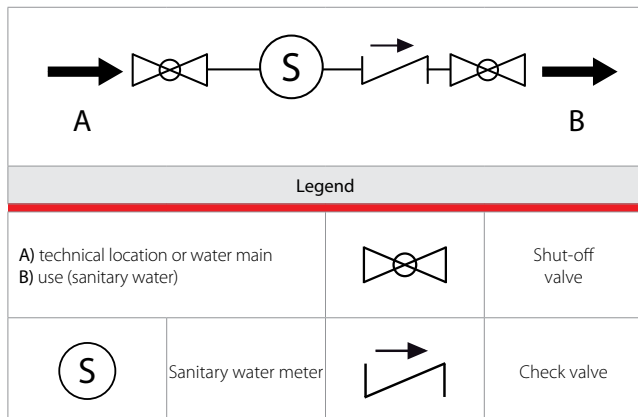


Figure 5 – Operating diagram

M-Bus module characteristics (GE552Y014)

The M-Bus module is installed on the sanitary hot water meter dial.

Product code	Description and technical data
<p>GE552Y014</p>	<p>M-Bus module for sanitary water meter. To be installed on the sanitary water meter dial, product codes GE552Y124, GE552Y125, GE552Y126, GE552Y127.</p> <p>Technical data Interface: M-Bus. Power supply: from M-Bus network + safety battery. Battery lifespan: 1 year not connected to bus. Cable type: two wires, length 3 m. Protection degree: IP65.</p>

Installation

The components described in figure 6 are contained within the packaging. The two shut-off valves (1 - 3) are connected to the connection point (2) and the sealed using appropriate devices.

The use of the connection point instead of the meter is recommended for the execution of a system wash prior to installation of the meter.

With the GE550Y008, three collars are available for fixing to user modules: The user modules are equipped with dedicated guides; the plate is inserted on the inside of the guide (5a); the clip (5b) should be placed on top of the guide and fixed by tightening the screw (5c). It is advisable to pre-assemble the unit collar before inserting the plate into the guide and to only tighten the screw once this is completed.

Once the system has been washed, the connection point (2) can be replaced with the meter (4).

Once installed, test out the system under pressure.



Warning.

Follow the flow directions shown on the body of the meter, and for the check valve, see the operation diagram, Figure 5. Comply with the rules regarding the use (installation, mounting, etc.), operation, recalibration and replacement of the meter. In addition, refer to the instructions supplied with each meter.

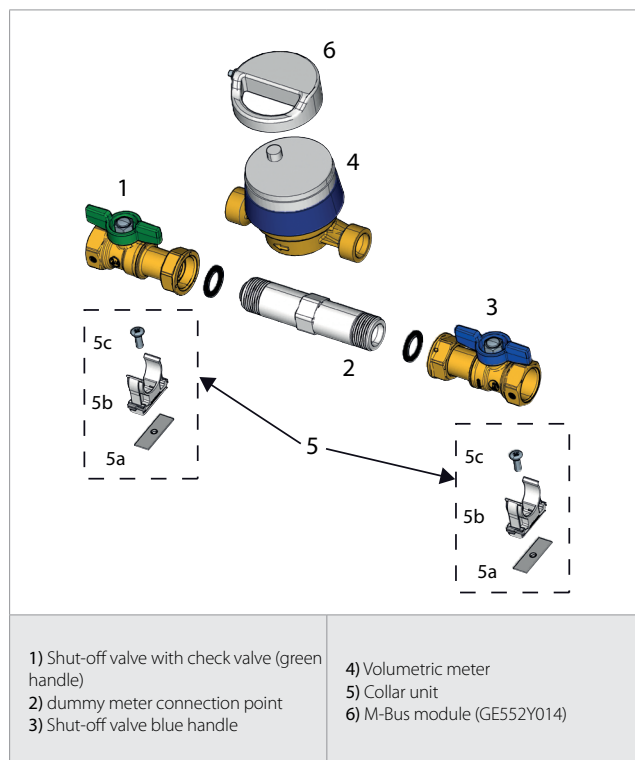


Figure 6 – Components included



Enabling remote data readings

Remote data reading on the M-Bus can be enabled by installing the GE552Y014 module on the meter. Connect the two white and brown meter cables directly to terminals 9 and 10 on the terminal board present in the metering modules.

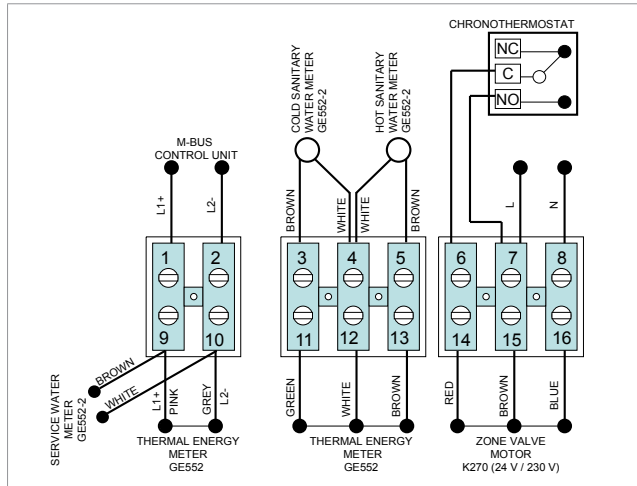


Figure 8 – Example of electric connections to terminal board

Product specifications

GE550Y008

Cold service water metering unit. 3/4" connections. Two shut-off valves with blue and green colour handles, with chrome ball and PTFE seals. Check valve with body and internal parts in acetal resin (POM) and stainless steel spring. GE552-2 meter series, single-jet for cold service water, with pulse output (REED contact), nominal flow rate 1,5 m³ / h, centre to centre distance 110 mm. Plastic connection point for system washing. Supports for fixing in box. Module GE552Y014 for the centralisation of data using the M-Bus provided in the pack. Unit length 262 mm. Max. working temperature 30 °C. Max. working pressure 10 bar. Metrological class according to standard 75/33/CE, class B. CE marking (compliance with MID directive). The unit can be completed by ordering the following separately: insulation, product code GE551Y173.

Dimensions

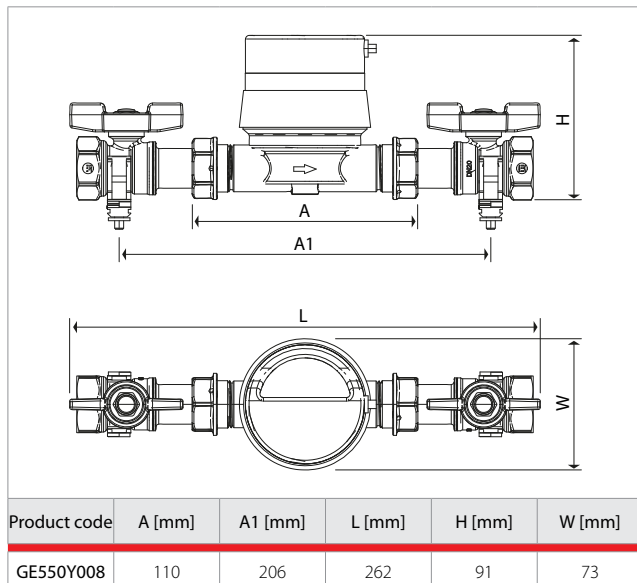


Figure 9 – Dimensions

Normative references

- EC mark
- MID directive (2004/22/EC)

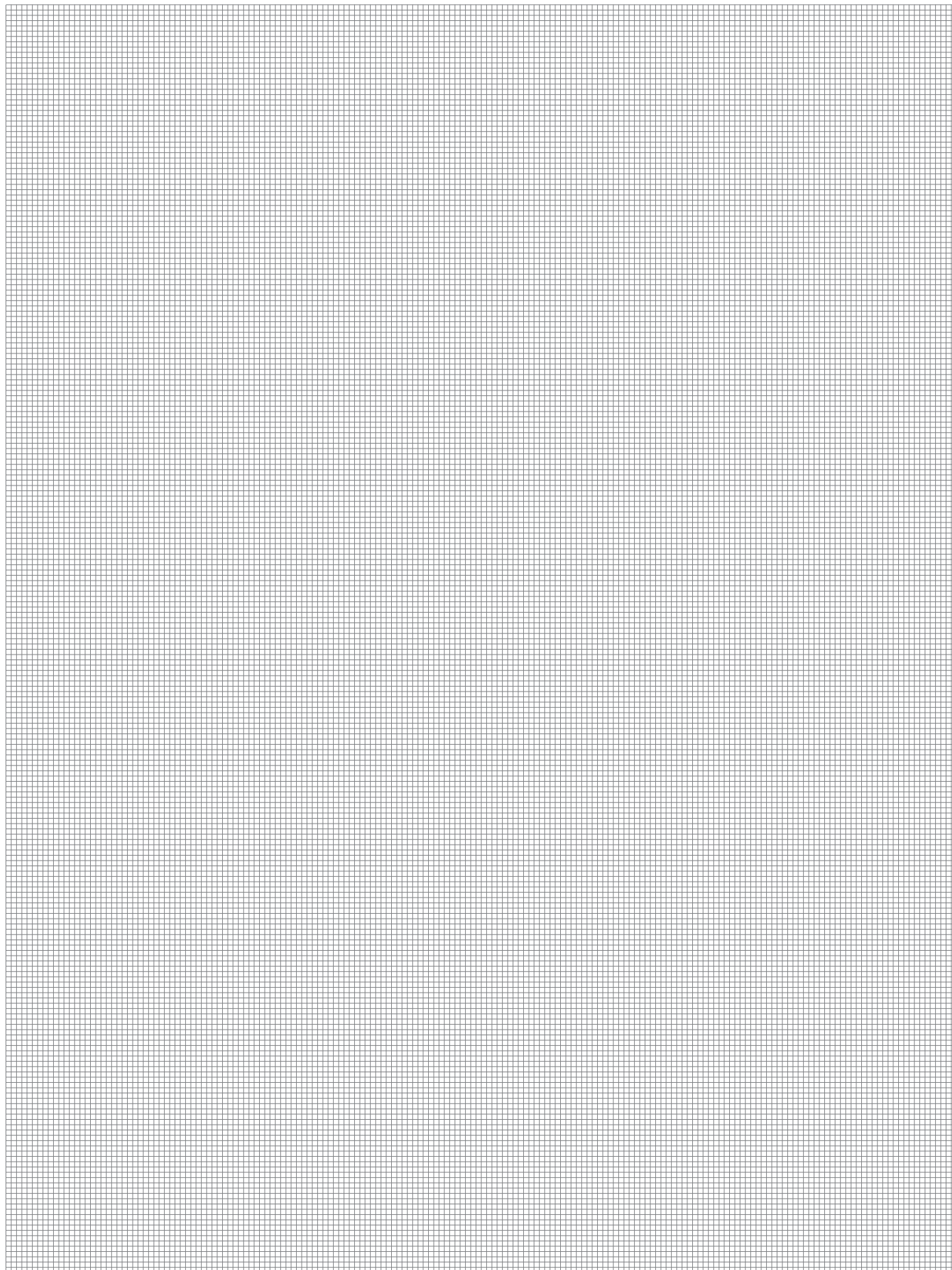
Compliance with MID Directive

If used for commercial applications, the meters are classified as measuring instruments subject to the rules of legal metrology. The GE552-2 sanitary meters comply with the requirements of Directive 2004/22/EC on measuring instruments (MID Directive - Measurement Instrument Directive), implemented in Italy by Legislative Decree of February 2, 2007, n. 22 (Official Gazette no. 64 of 17 March 2007). The DE-07-MI001-PTB010 certificate of conformity was issued by the PTB Institute of Metrology (Physikalisch-Technische Bundesanstalt).



Note.

The MID marking is displayed next to the CE mark and consists of an "M" flanked by the last two digits of the year of marking, surrounded by a rectangle.

**Additional information**

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