



## Mechanical water meter

**WFK30..  
WFW30..**

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- Mechanical meter for measuring the consumption of cold and hot water
  - Displays cumulated consumption
  - can be retrofitted with electronic modules

### Use

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To acquire the water consumption in:

- Domestic water systems in residential or non-residential buildings
- Water supply systems of any type
- Multi-family houses, office and administrative buildings

Typical users are:

- Private building owners and property associations
- Building maintenance companies and housing estate agents

### Functions

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- Acquisition of water consumption
- Cumulation of consumption values
- Display of consumption values

## Type summary

### Meters without a remote reading output

| Max. water temperature [°C] | Mounting length [mm] | $Q_3$ [m³/h] | corresponds to $Q_n$ [m³/h] | Connection sizes (ISO 228) | Type reference |
|-----------------------------|----------------------|--------------|-----------------------------|----------------------------|----------------|
| 30                          | 80                   | 2,5          | 1.5                         | G ¾                        | WFK30.D080     |
| 30                          | 110                  | 2,5          | 1.5                         | G ¾                        | WFK30.D110     |
| 30                          | 130                  | 4,0          | 2.5                         | G 1                        | WFK30.E130     |
| 90                          | 80                   | 2,5          | 1.5                         | G ¾                        | WFW30.D080     |
| 90                          | 110                  | 2,5          | 1.5                         | G ¾                        | WFW30.D110     |
| 90                          | 130                  | 4,0          | 2.5                         | G 1                        | WFW30.E130     |

## Accessories

### Meter replacement pieces

| Mounting length / thread | Type reference  |
|--------------------------|-----------------|
| 80 mm / G ¾              | <b>WFZ.R80</b>  |
| 110 mm / G ¾             | <b>WFZ.R110</b> |
| 130 mm / G 1"            | <b>WFZ.R130</b> |

### Other accessories

| Description                                | Type reference  |
|--------------------------------------------|-----------------|
| Two fittings for water meter ¾"            | <b>WFZ.R2</b>   |
| Two fittings for water meter 1"            | <b>WFZ.R2-1</b> |
| Extension 80 mm to 110 mm (G3/4 B to G1 B) | <b>WZM-V110</b> |

## Ordering

When ordering, please indicate type references according to the "Type summary". The water meter is supplied with two flat seals and a metal seal with a sealing wire. The fittings and the meter replacement piece are not included in the standard delivery. They must be ordered as separate items.

## Technical design

### Direct reading

The flow rate is measured by means of a hydraulic impeller. The flow rate value is transferred to a mechanical totalizer via a magnetic clutch. The meter has

- a totalizer (maximum value 99.999,999 m³), which gives the current consumption
- a totalizer (1 revolution = 1 liter), which shows the current consumption in liters
- a flow check

## Mechanical design

### Basic design and totalizer

The water meter is comprised of a flow measuring section, which houses the impeller and the totalizer. It is designed as a compact unit; the flow measuring section and the totalizer form one unit.

The body of the flow measuring section is made of brass. It houses the measuring chamber with the single-jet impeller. The inlet has a sieve to retain larger dirt particles.

The flow measuring section carries the totalizer, which is a dry running meter. It is protected by a transparent plastic cover. The water meter indicates the actual consumption with an 8-digit totalizer. It has an indicator for the current water consumption and a rotating wheel for the indication of flow.

## Direct connection

The water meter for direct connection has a flow measuring section with two externally threaded connections. Fittings are used to mount it directly into the piping (refer to "Accessories").  
The totalizer can be swiveled through 360°.

## Accessories

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### Meter replacement

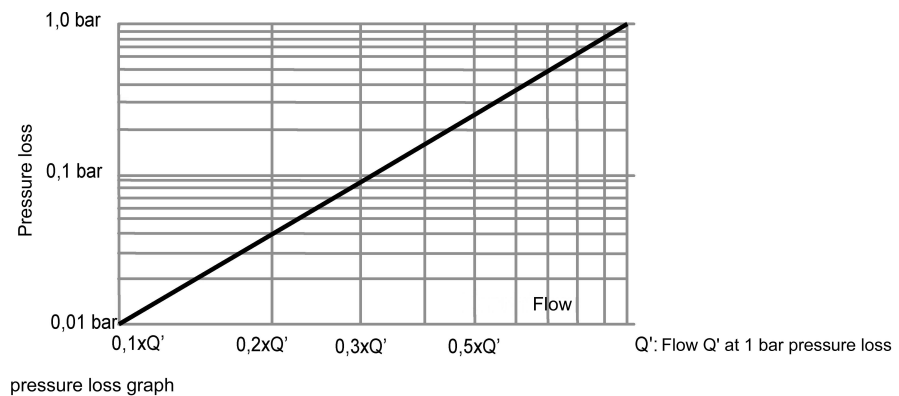
Meter replacement piece for previous mounting, which can be used for flushing the piping before mounting the water meter, etc.

### Piece Fittings

The fittings are made of brass. They consist of insert, spigot nut and flat seals and are used for mounting the meter replacement piece or the water meter.

## Pressure Drop Curve

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## Mounting notes

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- The local regulations for the use of water meters (mounting, sealing, etc.) must be complied with
- The water meter should preferably be mounted between two shutoff valves. To facilitate reading and service work, it should be easily accessible
- If the water meter is only used at the time of commissioning, it is possible to fit the meter replacement piece first.
- Prior to mounting the water meter, the piping must be thoroughly flushed. For this purpose, fit the meter replacement piece
- The flow measuring section can be mounted horizontally or vertically. For higher metrological classes, it must be mounted horizontally.
- The direction of flow (indicated by an arrow on the body) must be observed
- Before the flow enters the measuring section, there should be a straight inlet path of at least 35 mm
- The totalizer should be placed in a position where it is easy to read (horizontal). After mounting, the respective test pressure must be applied to the plant.

## Operating notes

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For operation, recalibration and replacement of the water meter, the local regulations must be observed.

## Disposal notes

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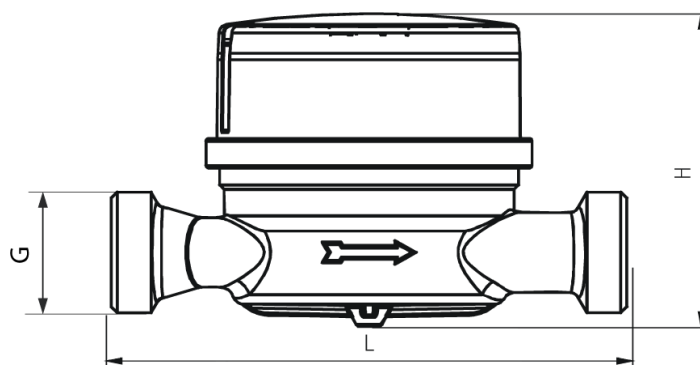
- Dispose of the devices through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

## Technical Data

|                                     |                                                                                                                                         |                       |                  |                  |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-----------------------|------------------|------------------|
| Metrology class                     | Horizontal                                                                                                                              | R80                   |                  |                  |
|                                     | Vertical                                                                                                                                | R40                   |                  |                  |
| Operational data                    |                                                                                                                                         | <i>WFxx.D080</i>      | <i>WFxx.D110</i> | <i>WFxx.D130</i> |
|                                     | Flow rates                                                                                                                              |                       |                  |                  |
|                                     | Permanent flow rate $Q_3$ [m³/h]                                                                                                        | 2,5                   | 2,5              | 4,0              |
|                                     | corresponds to nominal flow $Q_n$ [m³/h]                                                                                                | 1.5                   | 1,5              | 2.5              |
|                                     | Nominal width [mm]                                                                                                                      | 15                    | 15               | 20               |
|                                     | Start-up approx. [l/h]                                                                                                                  | < 8                   | < 8              | < 15             |
|                                     | Max. permitted operating pressure [bar]                                                                                                 | 16                    | 16               | 16               |
|                                     | Range of use of volume meter [°C]                                                                                                       |                       |                  |                  |
|                                     | Type WFK30                                                                                                                              | 30                    | 30               | 30               |
|                                     | Type WFW30                                                                                                                              | 90                    | 90               | 90               |
|                                     | Flow rate $Q'$ at a pressure drop of 1 bar [l/h]                                                                                        | 3200                  | 3200             | 5050             |
|                                     | Flow rate $Q'$ at a pressure drop of 1 bar [l/h]                                                                                        |                       |                  |                  |
| Standards, directives and approvals | Connection sizes and dimensions<br>(see diagram below)                                                                                  |                       |                  |                  |
|                                     | Pipe connection G (inlet and outlet)                                                                                                    | G ¾                   | G ¾              | G 1              |
|                                     | Mounting length L [mm]                                                                                                                  | 80                    | 110              | 130              |
|                                     | Mounting height H [mm]                                                                                                                  | 69                    | 69               | 69               |
|                                     | Weight [kg]                                                                                                                             | 0.40                  | 0.43             | 0.63             |
|                                     | Product standard                                                                                                                        | EN 14154 Water meters |                  |                  |
|                                     | EU conformity (CE)                                                                                                                      | CE1T5326xx *)         |                  |                  |
|                                     | EC-type examination certificate                                                                                                         | DE-08-MI001-PTB018    |                  |                  |
|                                     | EC Drinking Water Directive                                                                                                             | 98/83/EC              |                  |                  |
|                                     | Product environmental declaration (contains data on RoHS compliance, materials composition, packaging, environmental benefit, disposal) | CE1E5326 *)           |                  |                  |
| Environmental compatibility         |                                                                                                                                         |                       |                  |                  |

\*) The documents can be downloaded from <http://siemens.com/bt/download>.

## Dimensions



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