



Mechanical water meter

WFK30..
WFW30..

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

Use

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

- 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 [m ³ /h]	corresponds to Q_n [m ³ /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	WFZ.R80
110 mm / G ¾	WFZ.R110
130 mm / G 1"	WFZ.R130

Other accessories

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

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

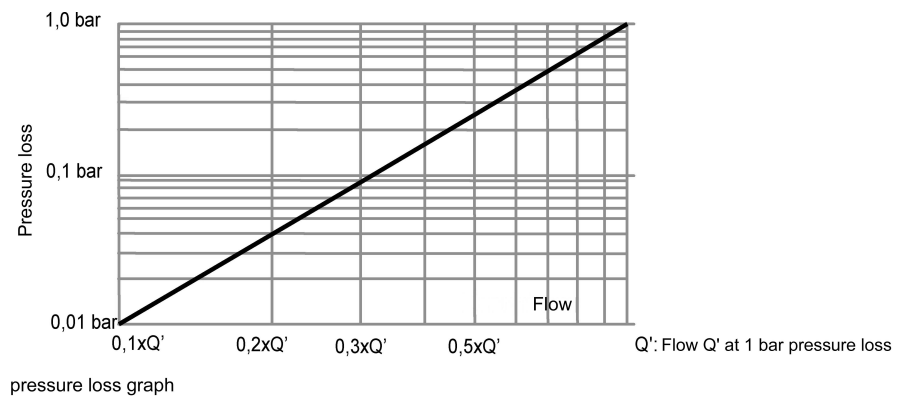
Meter replacement

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



Mounting notes

- 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

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

Disposal notes

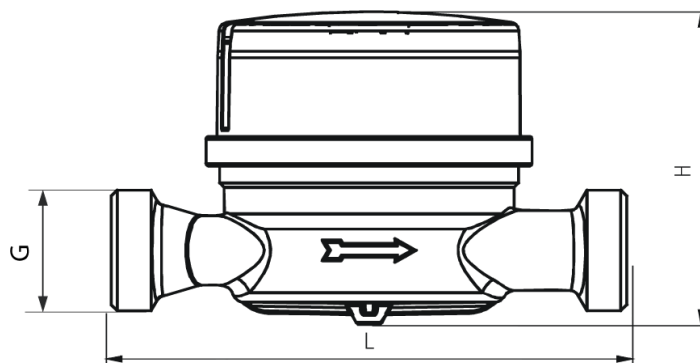
- Dispose of the devices through channels provided for this purpose.
- Comply with all local and currently applicable laws and regulations.

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 [m ³ /h]	2,5	2,5	4,0
	corresponds to nominal flow Q_n [m ³ /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]			
	Connection sizes and dimensions (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	
Standards, directives and approvals	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		
Environmental compatibility	Product environmental declaration (contains data on RoHS compliance, materials composition, packaging, environmental benefit, disposal)	CE1E5326 *)		

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

Dimensions



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