

Mechanical water meters

Mechanical water meters

WFK30.. WFW30..



Mechanical meter for measuring consumption of cold and hot water

- Continuous flow Q_3 2.5 m³/h or 4 m³/h
- Optional radio and M-bus add-on modules
- Any mounting position (horizontal or vertical)
- Displays cumulated consumption

Use

The impeller type cold and hot water meter is compact in design and used to correctly acquire physical cold or hot water consumption. The meter consists of a flow element and a totalizer.

Functions

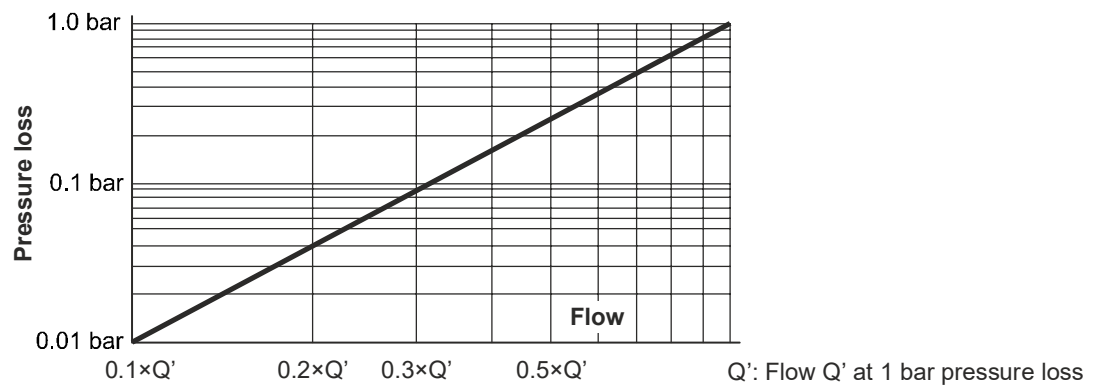
The compact, mechanical impeller water meter is used on drinking water (cold or hot) and consists of a flow element and a totalizer with display.

The flow measuring section is made of brass and includes a sieve at the input to collect larger dirt particles.

The water flows through the flow measuring section to drive the single-jet impeller. The flow value is transmitted using a magnetic clutch with integrated magnetic field protection to the mechanical totalizer and displayed using an 8-digit totalizer. The totalizer can be rotated 360° on the fitting.

Technical design

Pressure drop characteristic



Pressure loss graph

Display

The display includes:

- Present, cumulative consumption display in m³
- Maximum value 99,999,999 m³
- Liter counter (1 rotation = 1 liter) to determine momentary consumption
- Flow check (start rating)

Dry rotor

The impeller meter is a dry rotor with high pressure resistance.

This prevents the totalizer from exposure to the medium and protects against dirt. The impeller has double bearings and the meter is protected against external magnetic influence to guarantee the highest accuracy and security under all installation conditions.

Type summary

The water meters have the following common features:

Type	Dry rotor
Rated pressure	PN16
Display	8-digit totalizer

Cold water meters

Designation	Order number	Type
Q ₃ = 2.5 m ³ /h Mounting length 80 mm connecting thread G ¾", up to 30 °C	S55560-F100	WFK30.D080
Q ₃ = 2.5 m ³ /h Mounting length 110 mm connecting thread G ¾", up to 30 °C	S55560-F101	WFK30.D110
Q ₃ = 4 m ³ /h Mounting length 130 mm Connecting thread G 1", up to 30 °C	JXF:WFK30.E130	WFK30.E130

Hot water meters

Designation	Order number	Type
Q ₃ = 2.5 m ³ /h Mounting length 80 mm connecting thread G ¾", up to 90 °C	S55560-F102	WFW30.D080
Q ₃ = 2.5 m ³ /h Mounting length 110 mm connecting thread G ¾", up to 90 °C	S55560-F103	WFW30.D110
Q ₃ = 4 m ³ /h Mounting length 130 mm Connecting thread G 1", up to 90 °C	JXF:WFW30.E130	WFW30.E130

Accessories

Order accessories separately.

Add-on module

Designation	Order number	Type
M-bus add-on module for water meters	S55563-F158	WFZ311
Add-on RF module for water meters	S55563-F147	WFZ661

Spacer

Designation	Order number	Type
Spacer G ¾", length 80 mm	JXF:WFZ.R80	WFZ.R80
Spacer G ¾", length 110 mm	JXF:WFZ.R110	WFZ.R110
Spacer G 1", length 130 mm	JXF: WFZ.R130	WFZ.R130

Adapter pieces

Designation	Order number	Type
Extension set 80 mm G ¾" to 110 mm 1" , consisting of: 2 adapter pieces G ¾" to G 1" 2 flat gaskets 2 mm, 1"	JXF:WZM-V110	WZM-V110
Extension set 110 mm G ¾" to 130 mm G ¾" consisting of: 1 extension 27 mm 2 flat gaskets 2 mm, ¾" 1 gasket made of copper ¾" x 1.5 mm	JXF: WZM-V130	WZM-V130
Extension set 110 mm G ¾" to 165 mm G ¾" , consisting of: 1 extension 27 mm 1 extension 42 mm 2 flat gaskets 2 mm, ¾" 1 gasket made of copper ¾" x 1.5 mm	JXF: WZM-V165	WZM-V165
Extension set 110 mm G ¾" to 190 mm G 1" , consisting of: 2 adapter pieces from 110 mm G ¾" to 190 mm G 1" 2 flat gaskets 2 mm, 1" 1 gasket made of copper ¾" x 1.5 mm	JXF: WZM-V190	WZM-V190

Installation sets

Designation	Order number	Type
Mounting set , pair of fittings G ¾" x R ½" with gaskets	S55563-F151	WFZ.R2
Mounting set , pair of fittings G 1" x R ¾" with gaskets	S55563-F152	WFZ.R2-1

Other

Designation	Order number	Type
Mounting kit , complete for washstand water meters	JXF:WFZ.W	WFZ.W
Mounting kit for tap water meters	JXF:WFZ.Z	WFZ.Z
Self-lock seal with sealing wire	JXF:WFZ.P	WFZ.P
Torque screwdriver, Torx Plus™ for mounting the add-on module	JXF:FZ201-009	FZ201-009

Programming accessories

Designation	Order number	Type
Readout and parameterization software	JXF:ACT20	ACT50
Infrared read head (with USB interface)	JXF:WFZ.IRDA-USB	WFZ.IRDA USB
Triggering tool for radio telegrams	JXF:WFZ.PS	WFZ.PS

Ordering

When ordering, please provide the quantity, description, type, and stock no.

Designation	Order number	Type
Mechanical water meters	See "Type summary"	WFK30..

Product documentation

Topic	Title	Document ID
M-bus add-on module	M-bus add-on module for water meters	A6V10443198
Add-on radio module	Add-on radio module for water meters	A6V10986918
Mounting instructions	Mechanical water meters	CE1M5326

Product inserts

Two flat gaskets, a seal with sealing wire, and mounting instructions in the following languages are provided with the water meters:

German, English, French, Italian, Spanish, and Russian.

A CE declaration is included in German and English.

Related documents such as environmental declarations, etc., can be downloaded at the following Internet address: <http://siemens.com/bt/download> .

Notes

Mounting

Note the following:

- The water meter can be installed horizontally or vertically.
- Ensure there is sufficient space for installation.
- Horizontal installation is more accurate (i.e. a higher meteorological class).
- The meter must be easily accessible for readout.
- Settling paths are not required, neither upstream of nor downstream from the meter.
- Install the flow measuring section between 2 shutoff valves; the arrow must be in the direction of the flow.
- Install a spacer in place of the meter during construction.
- Thoroughly flush the plant prior to installing the meter.
- Comply with all local regulations on the use of water meters (installation, sealing, etc.)

Device sealing

After mounting the meter, seal all components to prevent tampering (observe national regulations):

- Flow measuring section with fitting (inlet)
- Add-on module with adhesive seal

Add-on modules

An external add-on module (WFZ31 or WFZ661) can be attached to any series WFx30.. meters. To do this, proceed as follows:

1. Remove cover from the water meter
2. Attach the add-on module and adhesive seal

The modules do not affect acquisition of consumption data and can therefore be retrofitted at any time.

Maintenance

Install only calibrated water meters.
Comply with all national calibration regulations.

Disposal

Meters



The device is considered an electronic device for disposal in accordance with the European Guidelines and may not be disposed of as domestic garbage.

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

Warranty service

User-related technical data are only guaranteed in connection with the products listed in this data sheet. Siemens rejects any and all warranties in the event that third-party products are used.

Cold/hot water meter				
Continuous flow Q ₃	m ³ /h	2.5	2.5	4
Mounting length	mm	80	110	130
Connecting thread		G ¾ B"	G ¾ B"	G 1 B"
Meterological class				
<ul style="list-style-type: none"> • Horizontal • Vertical 		R80 R40	R80 R40	R80 R40
Overload flow rate Q ₄	m ³ /h	3.13	3.13	5.0
Minimum flow rate Q ₁				
<ul style="list-style-type: none"> • Horizontal (R80) • Vertical (R40) 	l/h l/h	31.25 62.5	31.25 62.5	50.0 100.0
Transitional flow rate Q ₂				
<ul style="list-style-type: none"> • Horizontal (R80) • Vertical (R40) 	l/h l/h l/h	50.0 100.0	50.0 100.0	80.0 160.0
Response threshold (typical)	l/h	8...10	8...10	20
Measuring range				
<ul style="list-style-type: none"> • Cold water meter WFK30.. • Hot water meter WFW30.. 		≤30 °C ≤90 °C		
Rated pressure		1.6 MPa (PN16)		
Mounting position		Horizontal/vertical		
Degree of protection		IP5x (dust protected)		
Display		8-digit totalizer Cumulative value in m ³		

Ambient conditions	Operation EN 60721-3-3	Transportation EN 60721-3-2	Storage EN 60721-3-1
Climatic conditions	3K4	2K3	1K3
Temperature	5...55 °C	0...50 °C	0...45 °C
Humidity	<93 % r.h. at 25 °C (non-condensing)		
Mechanical conditions	3M2	2M2	1M2

Standards, directives and approvals	
EU conformity (CE)	CE2T5326xx *)
Flow profile sensitivity classes	U0 – D0
Product standard	EN14154

Environmental compatibility
Environmental Declaration CE1E5326 *) contains data on environmental-compatible product design and assessment (RoHS compliance, compositions, packaging, environmental benefits and disposal).

Dimensions
See "Dimensions"

Housing material	
Flow measuring section	Brass
Totalizer	Plastic

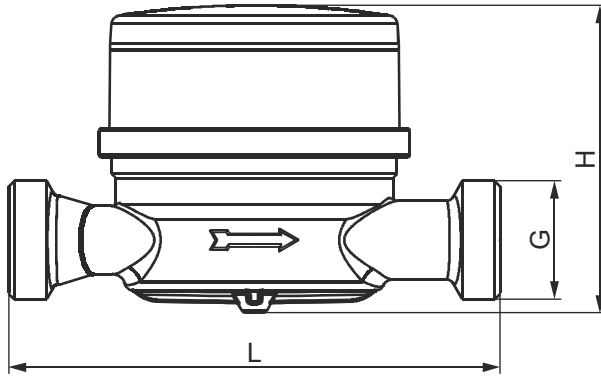
Housing colors	
Totalizer	Transparent

Weight	
Device packed complete with inserts	2.5 m ³ /h/80 mm: ca. 435 g 2.5 m ³ /h/110 mm: ca. 480 g 4.0 m ³ /h/130 mm: ca. 580 g

*) Documents can be downloaded at <http://siemens.com/bt/download>.

Dimensions

Dimensions in mm



Type	Mounting length L [mm]	Height H [mm]	Connection G [“]
WFx30.D080	80	69	G ¾
WFx30.D110	110	69	G ¾
WFx30.E130	130	69	G 1

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