



Water Meter Measuring Capsule

WMK10.D
WMW10.D

Multi-jet dry-rotor measuring capsule for cold and hot water consumption measurement.

Display of cumulative consumption. Retrofittable with electronic modules.

Anwendung

For water consumption metering in:

- Service water systems of residential and non-residential buildings
- Water supply systems of any type
- Multifamily houses, office and administrative buildings

Typical users are:

- Private building owners and housing cooperatives
- Building services companies and property management firms

Funktionen

- Water consumption measurement
- Cumulation of consumption values
- Display of consumption values

Type Summary

Meter without Remote Reading

Maximum Water Temperature [°C]	Compatible with	Q_3 [m ³ /h]	corresponds to Q_N [m ³ /h]	Connection Thread	Type Designation
30	ISTA EAS-N ISTA EAS-H	2,5	1,5	G 2	WFK10.D/M
90	ISTA EAS-N ISTA EAS-H	2,5	1,5	G 2	WFW10.D/M

Single-Pipe Connector (EAT)

Connections on Both Ends		Overall Length	Type Designation	
Threaded Connection	Soldering Connection ¹⁾		Complete EAT ²⁾	EAT only ³⁾
G ½" external thread	15 mm	110 mm	WME.L15/H/M	WME.L15/OV/H/M (PU = 27 pcs)
G ¾" external thread	18 mm	110 mm	WME.L18/H/M	WME.L18/OV/H/M (PU = 27 pcs)
(without)	22 mm	130 mm	WME.L22/H/M	WME.L22/OV/H/M (PU = 24 pcs)
Rp ¾" internal thread	(without)	80 mm	WME.G20/H/M	WME.G20/OV/H/M (PU = 45 pcs)

- 1) To be soldered onto a pipe having an appropriate external diameter
- 2) Complete with sealing cap, profile gasket and mounting aid
- 3) Without cap, profile gasket and mounting aid
Available in packaging units only

Accessories

Description	Type Designation
EAT seal cap	WME.VRING
EAT profile gasket	WME.PRODICHT
EAT mounting aid	WME.EINPUTZ1
Spacer ring A (19-mm extension)	WME.D/H
Distance ring ¹⁾	WMZ.DR
Round rosette ²⁾ , chromium-plated	WFZW.B1
Round rosette ²⁾ , silver metallic (radio)	WFZW.B1-2
Round cover plate ²⁾ , chromium-plated, complete with insertion pipe and PVC ring	WFZ.B6-1
Round cover plate ²⁾ , silver metallic, complete with insertion pipe and PVC ring (radio)	WFZ.B6-2
Special key for installation of measuring capsule	WMZ.K
Special key no. 2 for installation of measuring capsule	WMZ.K2
Assembly block	WMZ.MB1

- 1) If already available chrome parts should be further used.
- 2) Please refer to Page 7 for details about the use and dimensions of rosettes and/or cover plates.

Ordering

The type designation as specified in the Type Summary is to be quoted when placing orders. For the measuring capsule, a profile gasket, an adapter for rosettes or cover plates and a sealing ring are required.

Single-pipe connectors and rosettes or cover plates are not automatically supplied with the meter. They need to be ordered separately.

Functions

- Compatible with various types of casings (See Type Summary.)
- Various mounting positions
- Rotatable drum-type registers – reading possible in any position
- Eight-roller register with modulation indicator used for capsules without remote reading output
Five-roller register with modulation indicator used for capsules with remote reading output
- Separation of wet and dry spaces provides protection for the drum-type register.
- Prepared for integration into AMR and walk-by radio systems
- One mounting key for all versions
- Suitable for commercially available rosettes

Technical Details

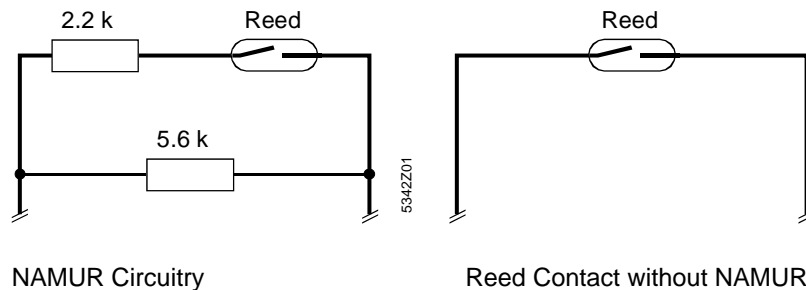
Flow metering is carried out by an impeller transducer. The flow-rate value is transmitted to the mechanical register via a magnetic coupling. The display unit comprises the following:

- the counter (maximum value: 99,999.999 m³) to indicate the current consumption level,
- a liter counter (1 pointer revolution = 1 liter) to determine current consumption,
- flow monitoring.

Remote Reading Output

The models provided with a remote reading output feature a reed contact with or without NAMUR circuitry. It is through this contact that the register transmits the recorded flow rate values as pulse variables. One pulse is equal to a flow of ten liters of water.

Thanks to NAMUR circuitry, open or short circuits can be detected through the analysis of the resistance values measurable.



Design

Construction and Register

The measuring capsule water meter is designed in such a way that it can be installed or replaced as a complete unit. It is composed of the measuring capsule and the fixed mounted single-pipe connector.

- Inside a brass housing, the measuring capsule contains a measuring chamber with the multi-jet impeller transducer. The dry rotor type register sits on the measuring chamber. The register is located under a transparent plastic cover and can be rotated 360 degrees on the measuring chamber. Consumption is shown by an eight-roller register.
- The unit provided with a remote readout output is equipped with a pulse output cable of approximately 1.4 m in length, which is connected to the register in a fixed manner and fed out laterally. Consumption is shown by a five-roller register.

Single-Pipe Connector

- The single-pipe connector made of brass comes with two connections for installation in the water pipe and with an internal thread into which the measuring capsule is screwed. The single-pipe connector is installed into the pipe system by screwing or soldering. Single-pipe connectors are available in different connection sizes. A sealing cap can be screwed into the single-pipe connector during the installation process, as well as during maintenance and repairs.

The measuring capsule water meter is suitable for surface and concealed mounting.

Accessories

Cover Plates and Rosettes

Rosettes and cover plates of various designs are available to cover the installation space for the measuring capsule:

- Rosette WFZW.B1 (chromium-plated) for measuring capsules recessed in the wall
- Cover plate WFZ.B6 (chromium-plated) for measuring capsules protruding from the wall

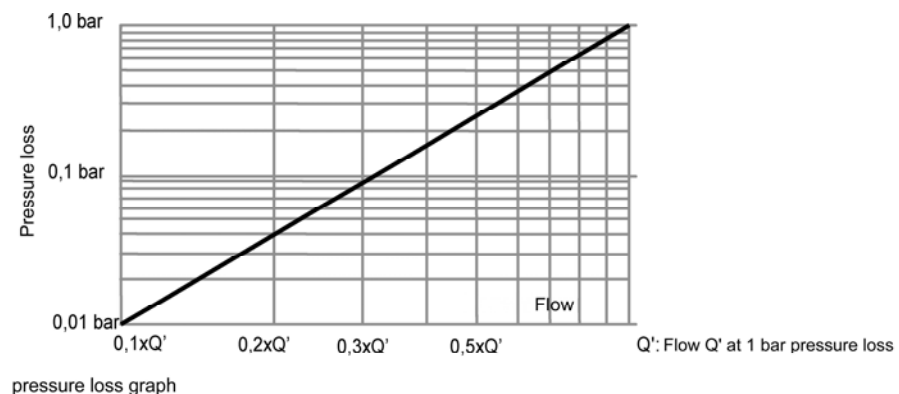
For measuring capsules with a set-top radio module, we recommend:

- Rosette WFZW.B1-2 (silver metallic) for measuring capsules recessed in the wall
- Cover plate WFZ.B6-2 (silver metallic) for measuring capsules protruding from the wall

Mounting Aid

A plastic mounting aid is available for the concealed installation of the single-pipe connector. The aid is plugged onto the single-pipe connector (with sealing cap). Brickwork and plaster can be put up around the mounting aid.

Dimensioning



Mounting Instructions

- The local regulations governing the use (installation, sealing, etc.) of water meters are to be observed.
- The single-pipe connector can be permanently integrated into the installation. The measuring capsule must be easily accessible for readout and servicing.
- If the device is not used until commissioning, the single-pipe connector can be installed provisionally with a sealing cap.
- The pipe is to be thoroughly flushed before the measuring capsule can be installed. To this end, the single-pipe connector is to be mounted with the sealing cap.
- The mounting position can be chosen between horizontal and vertical. In so doing, the flow direction sign (arrow on the single-pipe connector) must be observed, however.
- The register, which can be turned into any position whatsoever, should be set in such a way that the display can be read horizontally.
- Following installation, the system is to be pressure tested.
- A special key is to be used for the installation of the measuring capsule.

Operating Instructions

When it comes to the operation, recalibration and use of the water meter, the applicable local regulations are to be observed.

Technical Data

CE conformity to

EC-type examination certificate CH-MI001-07010-00

EC Drinking Water Directive (98/83/EG)

Metrological class (DIN EN15154-1)

Horizontal R80

Vertical R40

Flow rate values

Permanent flowrate [m³/h] 2,5

corresponds to nominal flow Q_N [m³/h] 1.5

Starting phase - approx. [l/h] < 10

Maximum permissible operating pressure [MPa] 1,0

Maximum water temperature [° C]

Model WMK1x.D 30

Model WMW1x.D 90

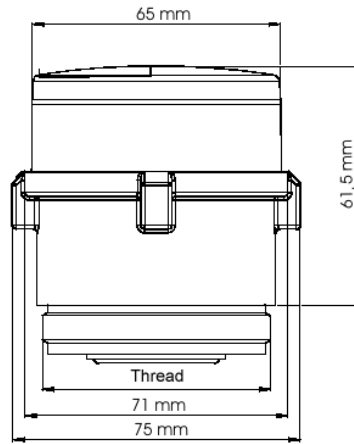
Flow Q' at a pressure drop of 1 bar [l/h] 3,300

Weight [kg]

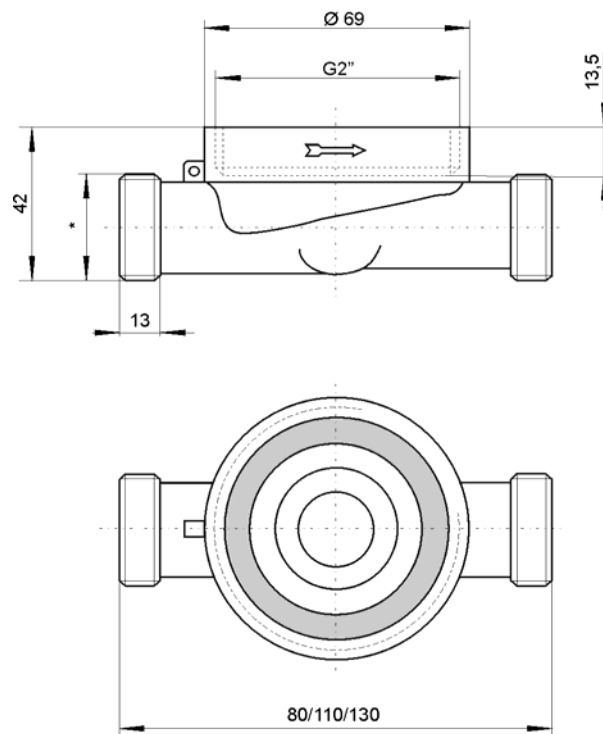
Measuring capsule 0.34

Single-pipe connector 0.78

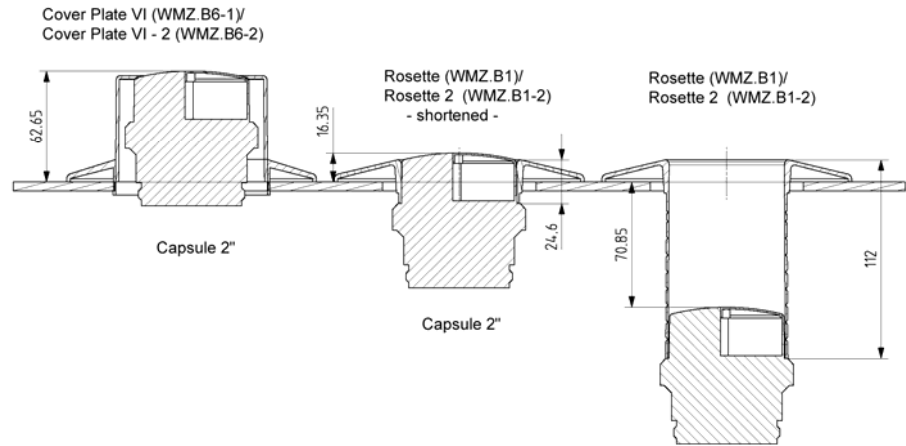
**Measuring Capsule
WMx10.D/M**



**Single-Pipe Connector
(EAT) WME.L.../H/M**



Cover Plates and Rosettes



- Cover Plates WFZ.B6 and WFZ.B6-2 (two-part unit): This cover plate is used whenever the measuring capsule is mounted flush with the wall surface or protrudes from the wall (up to approximately 63 mm).
- Rosettes WFZW.B1 and WFZW.B1-2 (single-part unit): This rosette is used whenever the measuring capsule is mounted flush with the wall surface or recessed in the wall (up to approximately 71 mm).

This data sheet only provides general descriptions and/or performance characteristics, which, in a given case, may not always apply in the manner presented or may change as products evolve. Desired performance characteristics shall only be binding if they are expressly agreed upon the signing of the relevant contract.

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