



Residential Water Meter

Q water domestic

Mechanical residential water meter for measuring water consumption in water supply systems.

Q water domestic mechanical water meters are designed as multi-jet dry dial meter, which are of high quality and function reliably and for a long service life even in the case of deposits caused by rust, lime or other fine suspended particles.

They are available with a nominal flow rate of Q_3 2,5 m³/h bis Q_3 25 m³/h.

Use

The mechanical water meter is used to measure water quantities. The main areas of application are water supply systems in which the total water consumption of a real estate object is measured.

This is meaningful in:

- 】 Apartment buildings
- 】 Offices and administration buildings

Typical users are:

- 】 Private building owners
- 】 Housing associations
- 】 Building service companies
- 】 Property management companies

Functions

- 】 Measurement of water consumption
- 】 Cumulation of the consumption values
- 】 Display of consumption values

Technical design

Measuring principle

The counters work according to the multi-jet measuring principle. The water flow hits an impeller wheel tangentially; the speed of this wheel is scanned inductively via coils.

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.

- 】 Ready for integration into any AMR system
- 】 Temperature range up to 50 °C (cold) and up to 90 °C (warm)
- 】 Nominal flow Q_3 2,5 up to Q_3 25
- 】 Nominal size DN15 up to DN50
- 】 Length 105 mm up to 300 mm
- 】 MID measurement accuracy class (Q_3/Q_1) up to R160 horizontal
- 】 360° rotatable 8-digit totalizer
- 】 Brass body (DN50: grey cast iron)
- 】 Maximum pressure load 1,6 MPa

The water meter is equipped with a QUNDIS-specific Data Matrix code. It is located on the meter label plate, on the packaging and on the outer packaging and contains the serial number, the full article number, the year of conformity assessment and the number of products.

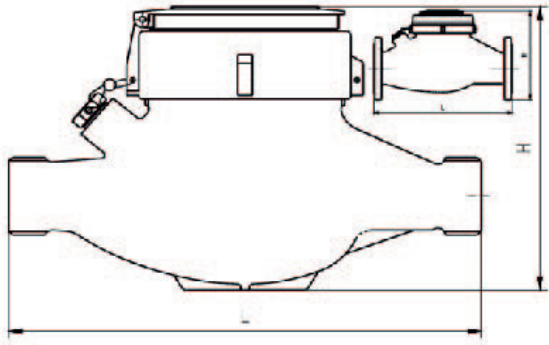
Technical data

Meter type (Additional variants available on request) max. 50 °C water temperature max. 90 °C water temperature	Installation position										
	WMDH xx0x A xx1x A	WMDH xx0x B xx1x B	WMDH xx0x C xx1x C	WMDH xx0x D xx1x D	WMDH xx0x F xx1x F	WMDH xx0x G xx1x G	WMDH xx0x K xx1x K	WMDH xx0x L xx1x L	WMDH xx0x M xx1x M	WMDH xx0x N xx1x N	WMDH xx0x P xx1x P
Installation position	horizontal (H)					ascending (V)					
Meter size / permanent flowrate Q ₃	2,5	4	6,3	10	16a)	25a)	2,5	4	6,3	10	16a)
corresponds to previous nominal size Q _n	1,5	2,5	3,5	6,0	10	15	1,5	2,5	3,5	6	10
Nominal size DN	15	20	25	25	40	50	20	20	25	25	40
Connection thread	G¾B	G1B	G1¼B	G1¼B	G2B	G2½B	G1B	G1B	G1¼B	G1¼B	G2B
Length L	165	190	260	260	300	300b)	105	105	150	150	150
Height H (ca.)	104	108	120	120	143	155	150	150	170	170	215
Weight	1,4	1,6	2,4	2,4	4,8	6,9	1,8	1,8	2,9	2,9	5,4
Performance data											
Measuring ran (MID) Q ₃ /Q ₁ (H/V)	R80H	R80H/R40V	R80H	R80H	R80H	R80H	R80H	R80H	R80H	R80H	R80H
Starting flow	8	8	14	17	19	20	8	8	14	17	19
Temperature class MAT	Cold water T50					Hot water T50/T90					
Perm. operating pressure MAP	16										
Flow rate Q ₁ at 1 bar pressure loss (ca.)	4500	5600	11000	12500	24000	31250	5500	5500	12500	12500	26000
Mechanical class	M1										
Protection class	IP 64										
Inflow/outflow zone U0 / D0	U0/D0										
Ambient conditions	Environmental class B; Temperature range 5 - 55°C										
Drinking water approvals	Germany: KTW, W270 France: ACS										

a) warm water meters only available as quality approved versions

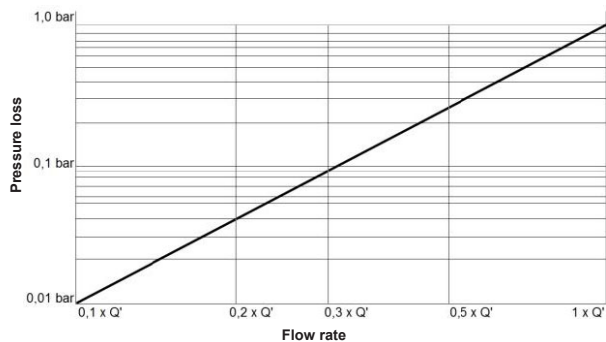
b) for Q₃ 25 m³/h WMDH xx1x G (warm water) only possible with a length of 270 mm

Dimensional drawing

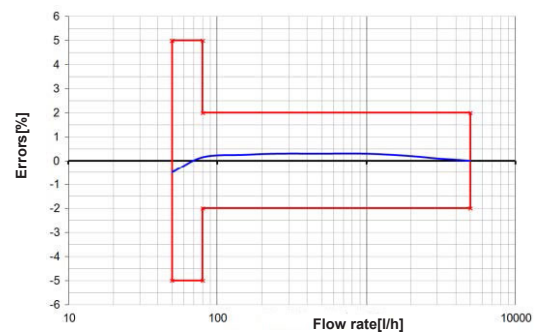


Dimensioning:
see table Technical data

Typical error curve Q₃ 2,5 m³ R80H



Typical pressure loss graph



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