MW-MJx

Screwed Multi Jet Flow Sensors

Features:

- Reinforced bearings
- High measuring stability
- Compatible with MW-MD integrator

Technical Overview

The MW-MJ range of flow sensors are meters especially designed for the special conditions in heating and cooling circuits. The pulse transmission takes place via the tried and tested reed-contact and is thus, compatible with the MW-MD.

The special construction and the material design guarantee long-term measuring stability and high reliability. All of the flow sensors are designed for temperatures up to 120°C with safety up to 130°C.

MW-MJ flow sensors (DN20 to 40) have proven themselves for use with heavier flows. They are available for horizontal installation positions. The MW-MJR (riser pipe) and MW-MJD (down pipe) meters have the advantage for vertical piping. Due to the low bearing load, this results in improvements in the long-term stability of measuring results.

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Specification:

Fluid temp. range	10 to 120°C (safety margin 130°C)
Body material	Epoxy resin coated brass to DIN 50 930 part 6
Connections	Screwed
Max. working pressure	16bar
Mounting position	Flow*

Pulsed output specification:

Switch type	Reed switch proximity sensor
Contracts	Volt free
Max. load current	500mA
Max. switching voltage	180Vdc
Max. contact rating	10W
Connection type	Flying lead
Lead length	2 Meters
Measurement accuracy	Class 3 (MID Annex MI-004)
Conformity	MID (Annex B + Annex D)

* If using the MW-MJx range of flow sensors with our MW-MD range of heat meter integrators, the default location of installation is in the return.
The MW-MD is pre-programmed for the meter to be installed in this location. The MW-MD can be programmed for the meter to be installed in the flow, but this **must** clearly be stated at the time of order.

Part Codes:

(Horizontal types)

MW-MJ-20A
¾" Screwed Qp1.5m³/h
MW-MJ-20B
¾" Screwed Qp2.5m³/h
MW-MJ-25A
1" Screwed Qp3.5m³/h
MW-MJ-25B
1" Screwed Qp6m³/h
MW-MJ-32
1 ¼" Screwed Qp6m³/h
MW-MJ-40
1 ½" Screwed Qp10m³/h

(Vertical riser pipe types)

MW-MJR-20A
¾" Screwed Qp1.5m³/h
MW-MJR-20B
¾" Screwed Qp2.5m³/h
MW-MJR-25A
1" Screwed Qp3.5m³/h
MW-MJR-25B
1" Screwed Qp6m³/h
MW-MJR-32
1 ¼" Screwed Qp6m³/h
MW-MJR-40
1 ½" Screwed Qp10m³/h

(Vertical down pipe types)

MW-MJD-20A
¾" Screwed Qp1.5m³/h
MW-MJD-20B
¾" Screwed Qp2.5m³/h
MW-MJD-25A
1" Screwed Qp3.5m³/h
MW-MJD-25B
1" Screwed Qp6m³/h
MW-MJD-32
1 ¼" Screwed Qp6m³/h
MW-MJD-40
1 ½" Screwed Qp10m³/h

An Introduction to Flow Parts for Metering:

Sontay offer flow parts for two distinct applications.

Flow parts for water

Denoted as "water meters" - are used specifically for sanitary water only, i.e. water without additives or chemical treatment, and are designed for non-continuous flow, such as domestic cold and hot water supplies. The total daily flow should not exceed 3 hours, over a 6 year period. Volumetric flows higher than this can lead to increased wear in the bearings of the impellor, causing inaccuracies in reading. Note also that water meters have a narrow fluid temperature range, typically between 0°C to +90°C for hot water meters and 0°C to +30°C for cold water meters.

Flow parts for heating

Denoted as "flow sensors" - can be used with chemically treated water, and are designed for continuous or very high duty cycle flow conditions typically found in hot water heating systems. Flow sensors have a wider fluid temperature range than water meters, typically between 0°C to +120°C.

Note:

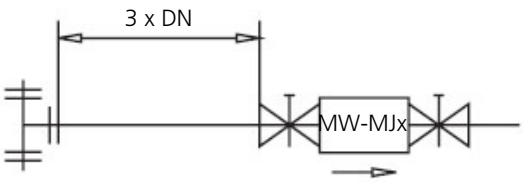
Because of these distinct differences, only flow parts designed specifically for heat metering should be used for heat metering applications. Although water meters can, in theory, be used for heat meter applications, Sontay cannot warranty water meters if used in this manner.

Definitions

- Qs, the upper limit of the flow-rate, is the highest flow-rate at which the heat meter shall function for short periods (< 1h / day; < 200 h / year), without the maximum permissible errors being exceeded.
- Qp, the permanent flow-rate, is the highest flow-rate at which the heat meter shall function continuously without the maximum permissible errors being exceeded.
- Qi, the lower limit of the flow-rate, is the lowest flow-rate above which the heat meter shall function without the maximum permissible errors being exceeded.

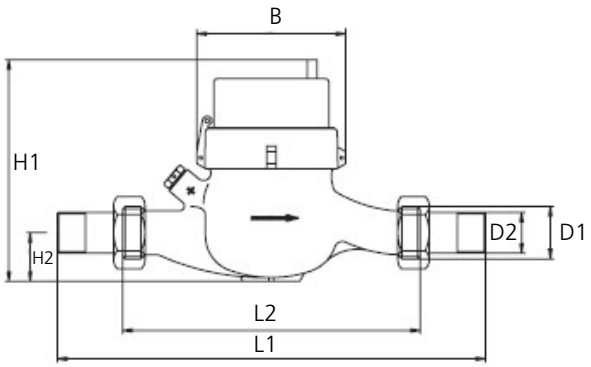
Installation:

Water meters should always be fitted with a minimum of 3x pipe diameter upstream.
For example, a 25mm water meter would have 75mm before the meter as straight pipe. This is to ensure accurate reading by reducing water turbulence. Ideally a straight pipe section of at least 2 x DN is required downstream.



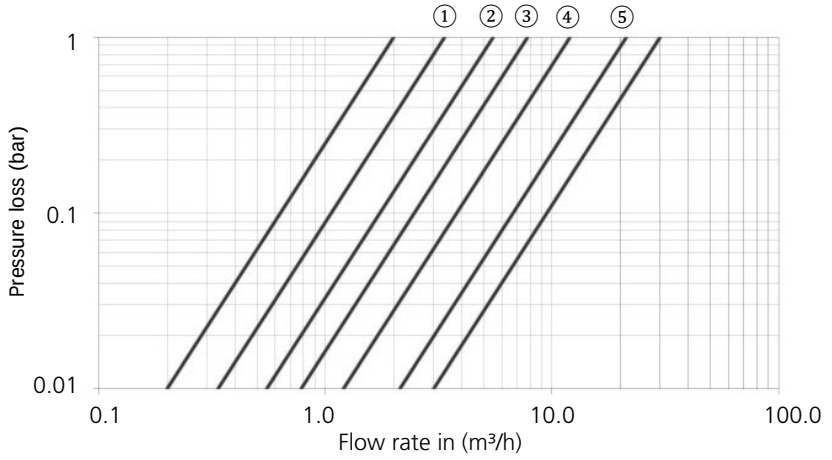
It is recommended as good practice to fit a removable filter element (strainer) before a water meter to protect the mechanism.

MW-MJ Data:

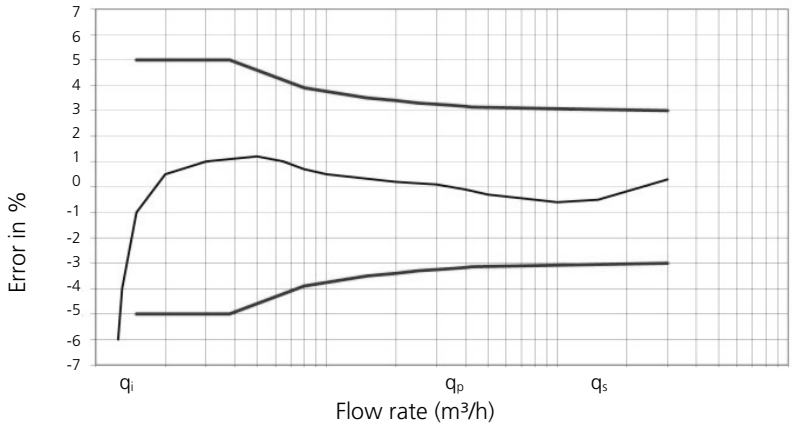


	MW-MJ-20	MW-MJ-25	MW-MJ-32	MW-MJ-40
H1	95	95	95	105
H2	40	45	45	50
B	96	102	102	137
L1	288	378	378	438
L2	190	260	260	300
D1	1"	1 ¼"	1 ½"	2"
D2	¾"	1"	1 ¼"	1 ½"
Weight	1.9kg	2.9kg	2.9kg	5.1kg

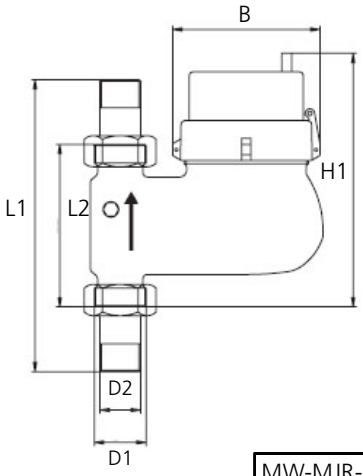
	MW-MJ-20A	MW-MJ-20B	MW-MJ-25A	MW-MJ-25B	MW-MJ-32	MW-MJ-40
Upper Limit (m³/h)	3	5	7	12	12	20
Permanent (m³/h)	1.5	2.5	3.5	6	6	10
Lower limit (l/h)	30	50	65	90	90	160



① Q_n 1.5 m³/h
② Q_n 2.5 m³/h
③ Q_n 3.5 m³/h
④ Q_n 6 m³/h
⑤ Q_n 10 m³/h



MW-MJR Data:



	MW-MJR-20	MW-MJR-25	MW-MJR-32	MW-MJR-40
H1	194	222	222	242
B	96	102	102	130
L1	203	268	268	338
L2	105	150	150	200
D1	1"	1 ¼"	1 ½"	2"
D2	¾"	1"	1 ¼"	1 ½"
Weight	2.1kg	3.1kg	3.1kg	5.5kg

	MW-MJR-20A	MW-MJR-20B	MW-MJR-25A	MW-MJR-25B	MW-MJR-32	MW-MJR-40
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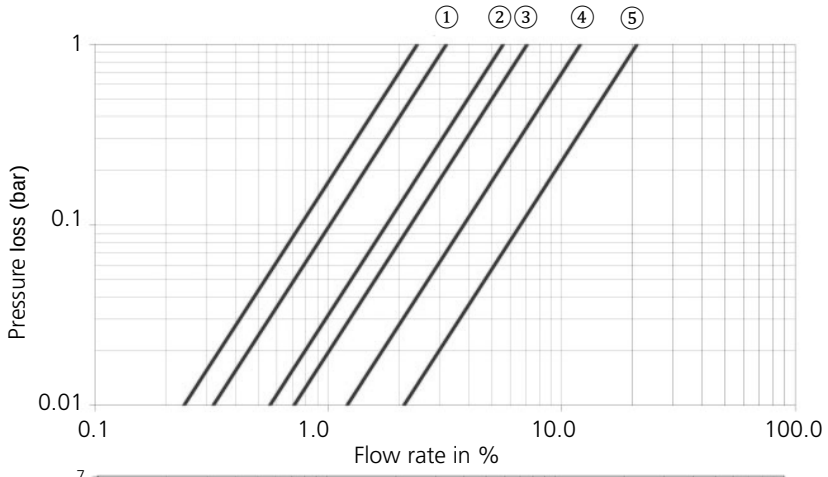


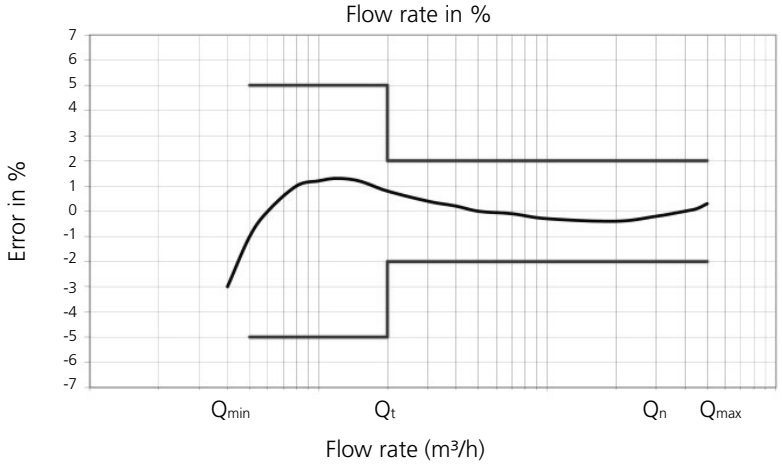
① Q_n 1.5 m³/h

② Q_n 2.5 m³/h

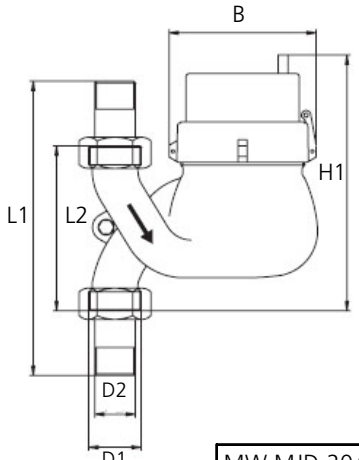
③ Q_n 3.5 m³/h

④ Q_n 6 m³/h

⑤ Q_n 10 m³/h



MW-MJD Data:



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B	96	102	102	130
L1	203	268	268	338
L2	105	150	150	200
D1	1"	1 ¼"	1 ½"	2"
D2	¾"	1"	1 ¼"	1 ½"
Weight	2.1kg	3.1kg	3.1kg	5.5kg

	MW-MJD-20A	MW-MJD-20B	MW-MJD-25A	MW-MJD-25B	MW-MJD-32	MW-MJD-40
Upper Limit (m³/h)	3	5	7	12	12	20
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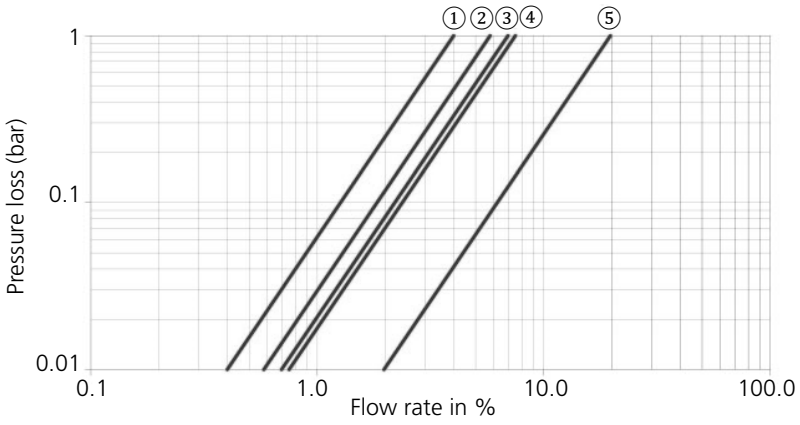

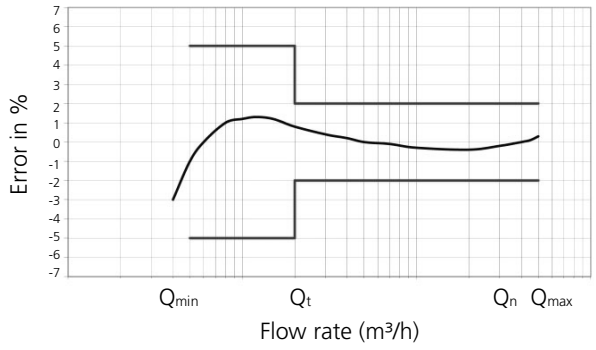

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