WPDH BMF

Woltman meter

Your benefits

- Robust, high grade wear resistant materials: **Excellent measuring stability and reliability**
- Removable measuring insert: **Retrofittability and replaceability guaranteed**

Applications

- Measurement of high, relatively constant flow rates
- Non-ferrous metal design for measuring of
  - Desalinated / demineralized water
  - Caustic soda up to 20 %
  - Saline water up to 10 %
  - Chlorinated water up to 1 %
  - Glycol-water solutions up to 30 %
  - Caustic solutions up to pH value 9

Properties

- Non-ferrous metal design
- Universal installation position
- Straight flow section 3xDN
- Register can be turned through 355°
- Maximum operating pressure PN 16 bar
- Temperature up to 130 °C
- Rotor is hydrodynamically balanced
- Symmetrical calibration ring
- Powder coating provides optimum corrosion protection
- Flood proof standard pulser register (IP68) with ports for two Reed-RD-Pulsers and one Opto-OD-Pulser

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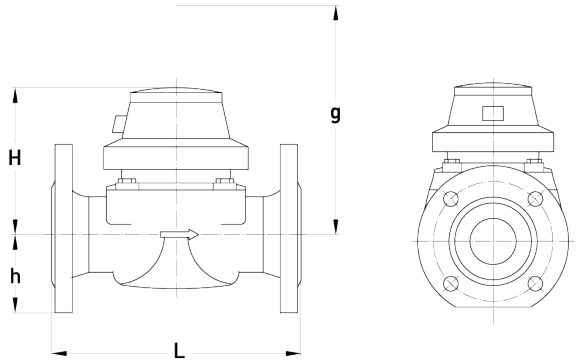
Technical Data

Execution			WPDH						
Nominal diameter	DN	mm	50	65	80	100	125	150	200
Operating pressure	PN	bar	16	16	16	16	16	16	16
Nominal flow rate	Q_n	m^3/h	15	25	45	70	100	150	250
Overload flow rate (1 x 24 h)	Q_{max}	m^3/h	30	60	90	140	200	300	500
Transitional flow rate ± 3 %	Q_t	m^3/h	1,8	2,0	3,2	4,8	8	12	20
Minimum flow rate ± 5 %	Q_{min}	m^3/h	0,6	1,0	1,4	2,0	3,5	4,5	8
Starting flow		app. m^3/h	0,25	0,3	0,35	0,6	1,1	1,7	2
Temperature		max. °C	130	130	130	130	130	130	130

Dimensions and weights			WPDH						
Length	L	mm	200	200	225	250	250	300	350
Height	H	mm	120	120	150	150	160	177	206
Height	h	mm	73	85	95	105	118	135	162
Dismantling height of measuring unit	g	mm	200	200	270	270	280	356	441
Meter weight		app. kg	7,7	10	14	18	20,5	35,5	50,5
Measuring unit weight		app. kg	1,4	1,4	3	3	3	5,5	7,5
Body weight		app. kg	6,3	8,6	11	15	17,5	30	43

PTB approval			WPDH						
Nominal flow rate	Q_n	m^3/h	15	25	40	60	100	150	250
Overload flow rate (1 x 24 h)	Q_{max}	m^3/h	30	50	80	120	200	300	500
Transitional flow rate ± 3 %	Q_t	m^3/h	2,25	3,75	6	9	15	22,5	37,5
Minimum flow rate ± 5 %	Q_{min}	m^3/h	0,6	1,0	1,6	2,4	4	6	10
Metrological class			B	B	B	B	B	B	B

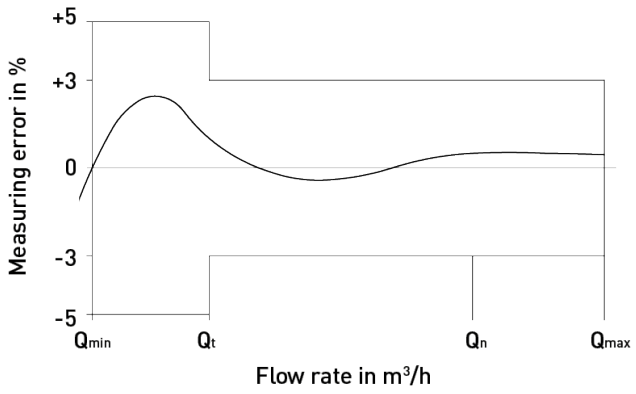
Dimension Diagram



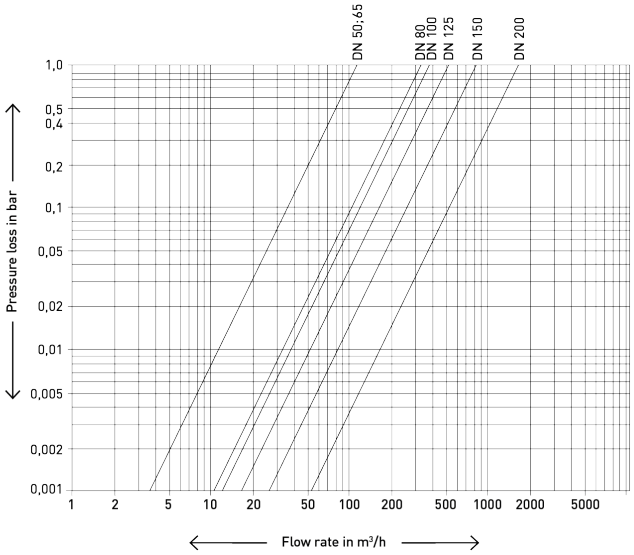
Materials

Body	Cast iron
Measuring unit	Plastic
Rotor	Plastic
Other materials	Brass / Non-rusting steel

Measuring error curve



Typical Head Loss Curve



Installation

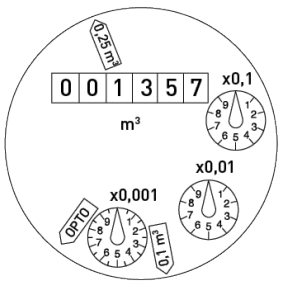
Pipeline:	horizontal	—
	vertical	|
	diagonal	/
Meter head:	upwards	⌃
	sideways	↔

Installation requirements

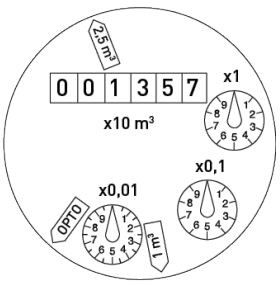
3xDN straight pipe upstream of the meter. No abrupt restrictions directly downstream of the meter.

Dial

DN 50 – DN 125



DN 150 – DN 200



Nominal diameter	DN	50–125	150–200
Smallest reading	m^3	0,0005	0,005
Maximum register reading	m^3	1'000'000	10'000'000

Pulse value table

Pulse generator	Register type	DN 50...125 1 Pulse = ...m³	DN 150...200 1 Pulse = ...m³
Reed RD 02	4/10 4/40	0,25 and 0,1 0,25 and 0,025	2,5 and 1 2,5 and 0,25
Opto OD 02	4/10, 4/40	0,001	0,01
Opto OD 04	4/10, 4/40	0,01	0,1