



# WPD FS

Woltman meter  
for hot water up to 130 °C  
DN 50, 65, 80, 100, 125, 150

## Your benefits

- Robust, high grade wear resistant materials:  
Excellent measuring stability and reliability

## Application

- Measurement of high, relatively constant flow rates
- As volume measuring part for heat calculation the meter is suitable for installation in central and district heating applications

## Features

- 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
- **CE** Conformity according to European Measuring Instruments Directive (MID)
- Flood proof standard pulser register (IP68) with ports for two Reed-RD-Pulsers and one Opto-OD-Pulser
- Accuracy class 3

## Options

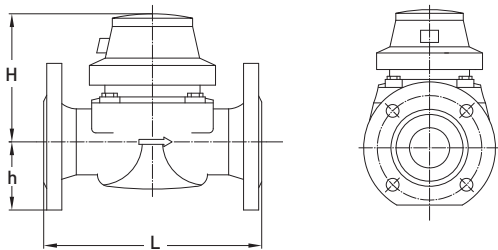
- Non-ferrous metal design for measuring of
  - Desalinated / demineralized water
  - Caustic Soda up to 20%
  - Saline water up to 10%
  - Chlorinated water up to 1%
  - Glycol-water solutions up to 30%
  - Caustic solutions up to pH value 9
- ANSI 150 flanges

## Technical Data

Execution			WPD FS										
Nominal diameter	DN	mm	50	50	65	65	80	80	100	100	125	150	150
Operating pressure	PN	bar	16	16	16	16	16	16	16	16	16	16	16
Nominal flow rate	$q_p$	m <sup>3</sup> /h	15	15	25	25	40	40	60	60	100	150	150
Maximum flow rate	$q_s$	m <sup>3</sup> /h	30	30	50	50	80	80	120	120	200	300	300
Minimum flow rate ±5%	$q_i$	m <sup>3</sup> /h	1,5	1,5	2,5	2,5	4	4	6	6	10	15	15
Starting flow		app.m <sup>3</sup> /h	0,25	0,25	0,3	0,3	0,35	0,35	0,6	0,6	1,1	1,7	1,7
Kvs-value		m <sup>3</sup> /h	110	110	110	110	340	340	380	380	520	810	810
Operating temperature range		max. °C	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130	10...130
Measuring range	$q/q_p$		1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10	1:10

Dimensions and weights			WPD FS										
Length	L	mm	200	270	200	300	225	300	250	360	250	300	500
Height	H	mm	120	120	120	120	150	150	150	150	160	177	177
Height	h	mm	73	73	85	85	95	95	105	105	118	135	135
Weight	D	app. kg	7,7	9,5	10	11,9	14	16,1	18	20	20,5	35,5	43,8

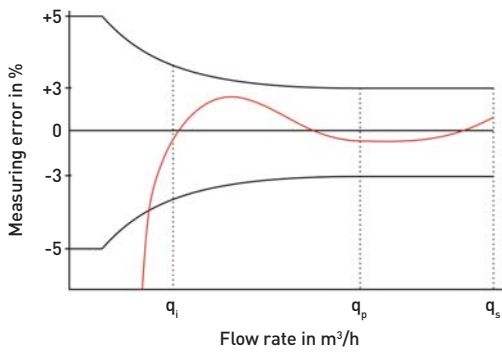
## Dimension Diagram



## Materials

<b>Body:</b>	Cast iron
<b>Measuring unit:</b>	Plastic
<b>Rotor:</b>	Plastic
<b>Other materials:</b>	Brass / non-rusting steel

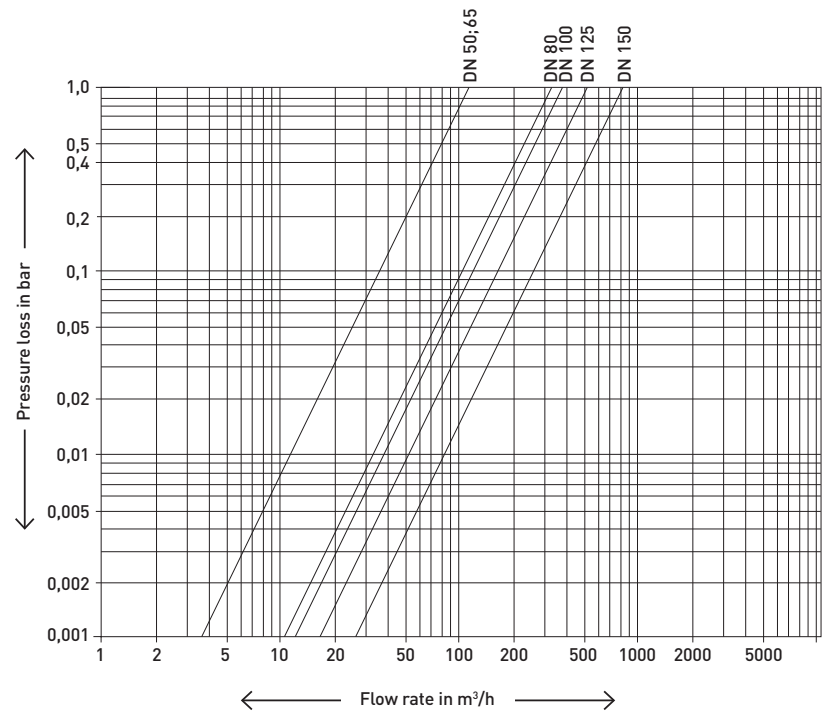
## Measuring error curve



## Installation

Pipeline:	horizontal	—
	vertical	
Meter head:	upwards	↑
	sideways	↔

## Typical Head Loss Curve



## Installation requirements

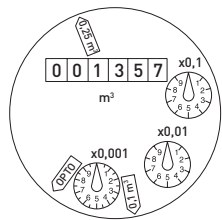
3xDN straight pipe upstream of the meter. No abrupt restrictions directly downstream of the meter.

## Pulse value table

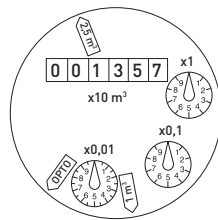
Pulse generator	Register type	DN 50...125 m <sup>3</sup>	DN 150 m <sup>3</sup>
Reed RD 02	4/10	0,25 and 0,1	2,5 and 1
	4/40	0,25 and 0,025	2,5 and 0,25
Opto OD 02	4/10, 4/40	0,001	0,01
Opto OD 04	4/10, 4/40	0,01	0,1

## Dial

DN 50 – DN 125



DN 150



Nominal diameter	DN	50 – 125	150
Smallest reading	m <sup>3</sup>	0,0005	0,005
Maximum register reading	m <sup>3</sup>	1'000'000	10'000'000