

# SVM WPD

## Woltman Flow Sensor

### DATA SHEET

- Universal installation
- REED pulse output
- Rotating register
- DN50-300
- WPK for cold water up to +50°C
- WPDH for hot water up to +130°C
- Pressure class PN16
- Balanced rotor
- Powder coating for optimum corrosion protection
- High grade wear resistant materials



### Flow sensor Woltman WPD

SVM WPD is a mechanical Woltman type flow sensor designed for volume measurement of high, relatively constant flow rates, in heating and cooling applications. SVM WPD is available in two different versions, WPK for cold water with a maximum operating temperature of +50°C, and WPDH for hot water with a maximum operating temperature of +130°C.

The flow sensor is equipped with a dry dial roller counter, showing the accumulated volume, and is delivered with a REED pulser.

The construction makes the rotor hydrodynamically balanced, enabling horizontal, vertical and inclined installation. With a flow dynamic ratio  $q_i:q_n$  of 1:25, SVM WPD is most suited for relatively constant flow rates. The pressure loss is very low. SVM WPDH meet the requirements for accuracy class 3, and WPK meet the requirements for accuracy class 2.

# SVM WPD Woltman Flow Sensor

## DATA SHEET



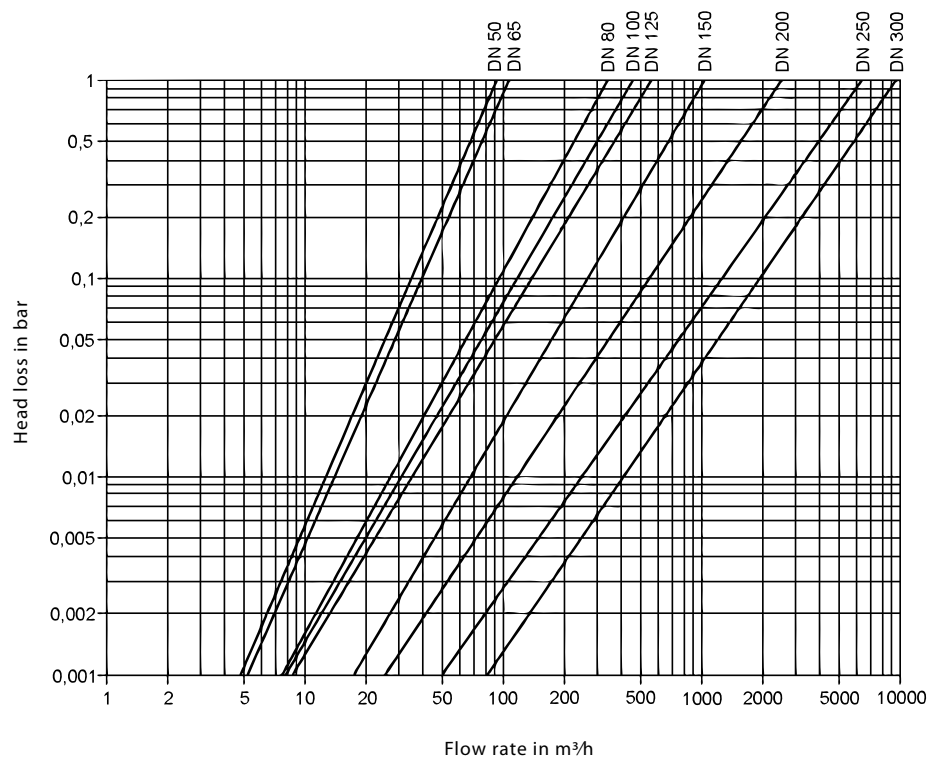
## Application

SVM WPD is suitable for volume measurement of high, relatively constant flow rates, in district heating and cooling applications, and in industrial processes.

## Features

- Maximum temperatures:
  - +50°C for WPK
  - +130°C for WPDH
- Patented hydrodynamically balanced rotor
- Sealed register (IP68)
- Register may be rotated through 355°
- Powder coating for maximum corrosion protection
- Not affected by external magnetic fields
- REED pulser
- Six digit roller counter

## Pressure loss



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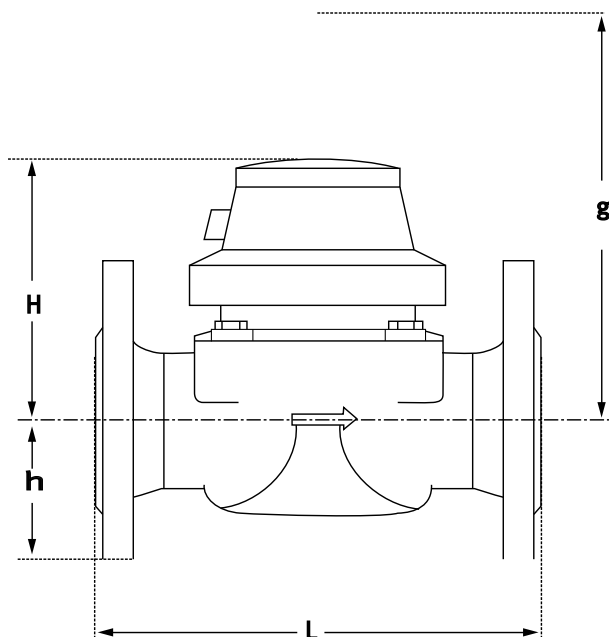


## Installation

<b>Pipeline</b>	horizontal	—
	vertical	
	inclined	↗
<b>Meter head</b>	upwards	↑
	sideways	↔

A straight inlet pipe of  $3 \times DN$  is required. Avoid abrupt restrictions directly downstream of the flow sensor.

## Dimensions



## Commissioning

**NOTE!** When commissioning the flow sensor, the measuring section must be filled slowly!

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### Technical data - WPKD for cold water

#### Woltman flow sensor WPKD, +50°C

Nominal diameter	DN	mm	50	65	80	100	125	150	200	250	300
Maximum operating pressure	PN	bar	16	16	16	16	16	16	16	16	16
Maximum operating temperature	Tmax	°C	50	50	50	50	50	50	50	50	50
Nominal flow rate (ECC)	qn	m <sup>3</sup> /h	15	25	40	60	100	300	500	800	1200
Maximum continuous load	qs	m <sup>3</sup> /h	50	70	120	230	250	450	800	1250	1400
Maximum peak flow [1×24h]	qmax	m <sup>3</sup> /h	90	120	200	300	350	600	1200	1600	2000
Transitional flow (±2%)	qt	m <sup>3</sup> /h	0,7	0,8	0,8	1,8	2	4	6	11	15
Minimum flow (±5%)	qmin	m <sup>3</sup> /h	0,3	0,4	0,5	0,8	1	1,8	4	6	12
Starting flow (approx.)	qstart	l/h	150	200	250	250	500	1000	1500	3000	8000

#### Dimensions

		mm	200	200	225	250	250	300	350	450	500
Length	L	mm	200	200	225	250	250	300	350	450	500
Height, center to top	H	mm	120	120	150	150	160	177	206	231	256
Height, center to bottom	h	mm	73	85	95	105	118	135	162	194	226
Height, with open lid	g	mm	200	200	270	270	280	356	441	466	491
Weight		kg	7,7	10	14	18	20,5	35,5	50,5	72,3	99,3

### Technical data - WPDH for hot water

#### Woltman flow sensor WPDH, +130°C

Nominal diameter	DN	mm	50	65	80	100	125	150	200	250	300
Maximum operating pressure	PN	bar	16	16	16	16	16	16	16	16	16
Maximum operating temperature	Tmax	°C	130	130	130	130	130	130	130	130	130
Nominal flow rate (PTB)	qn	m <sup>3</sup> /h	15	25	40	60	100	150	250	400	600
Maximum continuous load	qs	m <sup>3</sup> /h	15	25	45	70	100	150	250	500	600
Maximum peak flow [1×24h]	qmax	m <sup>3</sup> /h	30	50	80	120	200	300	500	800	1200
Transitional flow (±3%)	qt	m <sup>3</sup> /h	2,25	3,75	6	9	15	22,5	37,5	60	90
Minimum flow (±5%)	qmin	m <sup>3</sup> /h	0,6	1	1,6	2,4	4	6	10	16	24
Starting flow (approx.)	qstart	l/h	250	300	350	600	1100	1700	2000	10000	15000

#### Dimensions

		mm	200	200	225	250	250	300	350	450	500
Length	L	mm	200	200	225	250	250	300	350	450	500
Height, center to top	H	mm	120	120	150	150	160	177	206	231	256
Height, center to bottom	h	mm	73	85	95	105	118	135	162	194	226
Height, with open lid	g	mm	200	200	270	270	280	356	441	466	491
Weight		kg	7,7	10	14	18	20,5	35,5	50,5	72,3	99,3

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### Ordering key - WPD Woltman flow meters

ABCD-EFG-HIJK	ABCD-	EFG-	H	I	J	K
Cold water max. 50°C	WPK-					
Hot water max. 130°C	WPDH-					
DN 50		050-				
DN 65		065-				
DN 80		080-				
DN 100		100-				
DN 125		125-				
DN 150		150-				
DN 200		200-				
DN 250		250-				
DN 300		300-				
Standard						0
Special design						S
PN 16					1	
25 litres/pulse (WPDH DN50-125)						2
250 litres/pulse (WPDH DN150-300)						3
100 litres/pulse (all WPK, WPDH DN50-125)						7
NO approval (DN 200-300)						0
PTB/EEC approval						2