

Woltman meters



Woltman meters

The comprehensive range for every application

ZENNER® offers a comprehensive range of large water meters, from the various standard models to meters for special purposes.

All the following series WP, WPH, WS, WPH-MF and WS-MF Woltman meters are **completely dry dial meters**. Only the turbine works in the wet chamber. The roller counter runs in the dry. It is encapsulated, evacuated, safe against flooding and can be rotated to any position. There is no possibility of the transparent cover becoming coated. The read-out is therefore not inhibited in any way.

The **head loss** caused by measurement is **very slight**.

Our Woltman meters are characterised by **high long-term stability**.

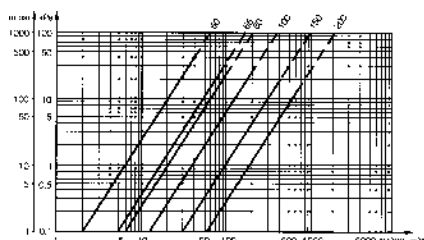
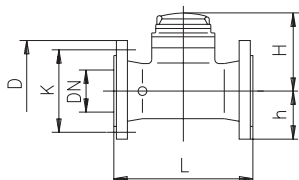
These ZENNER® products are based on almost 100 years' experience. Over the course of time we succeeded in developing increasingly better and **resistant products**. The materials for the bearings undergo continuing long-term tests under the most extreme conditions.

- WP the inexpensive standard model
- WP-N prepared for retrofitting with reed contact device or infrared pulsing device
- WPI-N fitted with contact or pulsing device.



- the value-for-money standard meter
- can be used for measuring flow rates with little fluctuation, e.g. as flow-rate meters in front of and behind pumps, and in source supply lines
- Measuring insert not removable: The complete meter is replaced
- Regulation on the side in the body
- for cold water up to 30°C (safe up to 50°C)
- for hot water up to 120°C (safe up to 150°C)
- Operating pressure: PN 16
- Flange bore-hole conforms to PN 10 (alternative PN 16)
- EC type approval in classes A and B

Technical data



Nominal flow	Qn	m³/h	15	25	40	60	150	250
Maximum flow	Qmax	m³/h	30	50	80	120	300	500
Max. flow short-term	-	m³/h	40	70	110	180	350	650
Permissible constant load	Qn	m³/h	20	35	55	90	175	325
Transitional flow	Qt	m³/h	3	4	8	12	20	50
Minimum flow	Qmin	m³/h	1.2	1.2	1.2	1.8	3.5	7
Start-up flow	-	m³/h	0.5	0.5	0.5	0.8	1.4	3.0
Flow rate with 0.1 bar head loss	-	m³/h	20	55	65	120	300	600
Nominal diameter	DN	mm	50	50/65	80	100	150	200
Register range	-	m³	999.999				9.999.999	
	-	l	1		10		100	
Overall length	L	mm	200		225	250	300	350
		mm	200			250	300	350
Height	H	mm	108	125		135	165	190
	h	mm	72	83	95	105	135	160
Flange connection according to DIN 2501	D	mm	165	185	200	220	285	340
	K	mm	125	145	160	180	240	295
Number of screws	-	pcs.	4		8(4)	8		8(12)
Weight	-	kg	8.2	10	11.6	14.8	24.8	40.3

For transitional flow Qt and minimum flow rate Qmin see table on last page of product group Multi-jet meters

Woltmanzähler



- The robust device for extreme applications
- Used for flow rates with little fluctuation, e.g. as a flow-rate meter in front of and behind pumps in source supply lines
- Measuring insert replaceable without removing the body
- Regulation at measuring insert (unlike WP version in the body)
- Body made of high-quality grey cast iron
- Brass sealing plate
- EC type approval in classes A and B
- For cold water up to 30°C (safe up to 80°C)
- For hot water up to 120°C (safe up to 150°C)
- Operating pressure: PN 16
- Flange bore hole conforms to PN 10 (alternative PN 16)
- For horizontal and vertical installation
- High-quality epoxy coating
- DN 50 and DN 65 with improved measurements: better than class B



- For recording flow rates in any direction of flow with high dynamics
- Horizontal installation (vertical also possible)
- Measuring insert replaceable without removing body
- Regulation in the measuring insert (not in the body)
- EC type approval in classes A and B
- For cold water up to 30°C (safe up to 50°C)
- For hot water up to 120°C (safe up to 130°C)
- Operating pressure: PN 16 and PN 25
- Flange bore hole conforms to PN 10
- Wide measuring range for all nominal widths
- Pulsing device suitable for ABB and hydrometer Woltman meters

WPH

technically advanced WP, measuring insert removable

WPH-N

pulse-capable for pulse outputs

WPHI-N

fitted with reed contact device

WPH-MF-N

can be retrofitted either with reed, infrared or Namur device

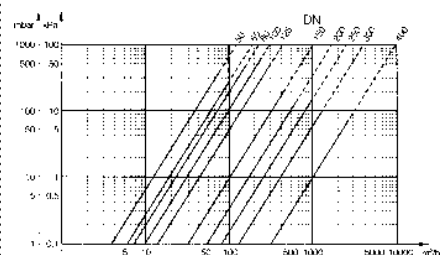
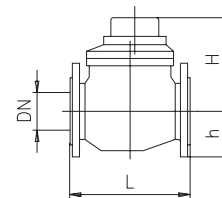
WPH-MF

is fitted with one of the above devices

Technical data

Nominal flow	Qn	m ³ /h	15	25	40	60	150	250	400	
Maximum flow	Qmax	m ³ /h	30	50	80	120	300	500	800	
Max. flow short-term	-	m ³ /h	70	100	150	250	350	650	1200	
Permissible constant load	Qn	m ³ /h	35	50	90	125	250	325	600	
Transitional flow	Qt	m ³ /h	2	5	6	6	12	12	20	
Minimum flow	Qmin	m ³ /h	0.7	0.75	0.8	1.5	3.5	6.5	12	
Start-up flow	-	m ³ /h	0.25	0.3	0.3	0.5	1.5	2.5	5	
Flow rate with 0.1 bar head loss	-	m ³ /h	38	60	65	100	310	550	800	
Nominal diameter	DN	mm	50	65	80	100	150	200	250	
Register range	-	m ³	999.999				9.999.999			
	-	l	1				10			
Overall length	L	mm	200		225	250	300	350	450	
		mm	200		250	300	350	450		
Height WPH	H	mm	148	147	145	150	210	210	222	
	h	mm	72	83	95	105	135	160	193	
Height WPH-MF	H	mm	123		140		212		236	
	h	mm	75	83	94	106	135	163	203	
Flange connection according to DIN 2501	D	mm	165	185	200	220	285	340	405	
	K	mm	125	145	160	180	240	295	350	
Number of screws	-	pcs.	4		8(4)	8	12	8(12)	12	
Weight WPH	-	kg	12.6	13.2	14.2	17.7	38	48.8	75	
Weight WPH-MF	-	kg	10.2	11.2	14.1	19.4	32.5	45	108	

For transitional flow Qt and minimum flow rate Qmin see table on last page of product group Multi-jet meters. WPH 125, 300, 400 and 500 are available on request



Woltman meters

WI
Irrigation meter for sprinkling
fresh and dirty water
Well meter



Heavily soiled water, e.g. in agriculture, sewage treatment plants or waste-water processing plants, requires **particularly robust meters**.

The measuring insert is fitted in the top area of the pipe, where there are mostly only a few suspended particles in the water which flows through. The Woltman irrigation meter can thus even function in water containing **up to 30% pollution**.

The irrigation meter is, however, also frequently used for fresh water as a control meter where flow rates fluctuate little. It is the ideal low-speed well meter. Irrespective of the power supply, it is the **cost-effective alternative to induction flow meters**.

The WI is a dry dial meter with magnetic coupling. It can also be installed in pipes which run **vertically or horizontally**.

However, a filter is recommended for soiled water.

The roller counter is encapsulated and can be secured with a padlock. The removable measuring insert is the same for all sizes.

Model WI-I has the same design as model WI, but is fitted with a reed switch.

Measuring accuracy

$Q_{max}-Q_t$: $\pm 3\%$ (class A+B values)

Q_t-Q_{min} : $\pm 5\%$ (class A values)

Flange bore hole to DIN 2532,
DIN 2501 PN10

Pulse values:

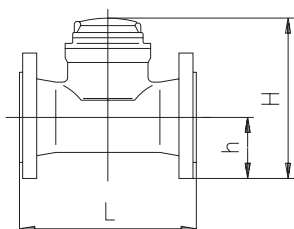
0.1, 1, 10 m³/Impuls

Operating pressure:

1.6 MPa

16 bar

Technical data



Nominal flow	Q _n	m ³ /h	30	50	90	125	175	250	450
Max. load	Q _{max}	m ³ /h	70	120		300		500	800
	short-term Q _{max}	m ³ /h	100	120	150	300	350	500	900
Transitional flow	Class A Q _t	m ³ /h	9	18		45		75	120
	Class B Q _t	m ³ /h	6	12		30		50	80
Minimum flow	Class A Q _{min}	m ³ /h	2.4	4.8		12		20	32
Nominal diameter	DN	mm	50	65	80	100	125	150	200
Register range	-	m ³	10 ⁷						
	-	m ³	0.005						
Overall length	L	mm	200	200	225	250	250	300	350
Height	h	mm	75	85	95	105	120	135	180
	H	mm	230	240	250	260	275	305	335
Weight	-	kg	11	12	14	18	22	27	40