

sensonic® II – modular version



Combination with impeller contact water meters

With these dry running meters with magnetic coupling, the roller-type counter is fully evacuated and can also be rotated. The flow component consists of brass, the bearing of the moveable parts of solid metal.

These impeller wheels are available with thread connections for standard screw connections or with flange connections for installation into horizontal pipes. Riser and downpipe designs are available.

	Q_{\max} in m ³ /h	Q_n in m ³ /h	with calculator	results
size	1.5	– 0,75	sensonic® II calculator T1	WMZ 1,5 – 0.75/T1
size	3	– 1,5	sensonic® II calculator T1	WMZ 3 – 1.5/T1
size	5	– 2,5	sensonic® II calculator T1	WMZ 5 – 2.5/T1
size	7	– 3,5	sensonic® II calculator T1	WMZ 7 – 3.5/T1
size	10	– 6	sensonic® II calculator T1	WMZ 10 – 6/T1
size	20	– 10	sensonic® II calculator T25	WMZ 20 – 10/T25
size	30	– 15	sensonic® II calculator T25	WMZ 30 – 15/T25



Combination with Woltman contact water meters

These dry-running meters have a hermetically encapsulated roller-type counter. To facilitate reading, the counter can be rotated by almost 360°. For horizontal installation, the meters are available in the design WS, for vertical installation in the design WP.

	DN in mm:	Q_n in m ³ /h	with calculator	results
size	50	– 15	sensonic® II calculator T25	WMZ 50 – 15/T25
size	65	– 25	sensonic® II calculator T25	WMZ 65 – 25/T25
size	80	– 40	sensonic® II calculator T25	WMZ 80 – 40/T25
size	100	– 60	sensonic® II calculator T25	WMZ 100 – 60/T25
size	125	– 100	sensonic® II calculator T25	WMZ 125 – 100/T25
size	150	– 150	sensonic® II calculator T250	WMZ 150 – 150/T250
size	200	– 250	sensonic® II calculator T250	WMZ 200 – 250/T250

Technical data

Impeller wheel contact water meter

Impeller wheel contact water meter with thread connection acc. to ISO 228/1, PN = 16 bar, $t_{max} = 120\text{ °C}$

			Single-jet	Multi-jet				
Art. no. horizontal design	Dimensions 1		18815	18816	18817	18818	18819	18829
Art. no. adapter set			17030	17031	17032	17033	17034	17035
Art. no. Riser pipe design	Dimensions 2		–	18850	18851	18852	18853	18854
Art. no. Downpipe design	Dimensions 2		–	18859	18860	18861	18862	18863
Art. no. adapter set			–	17036	17036	17037	17038	17039
Nominal flow Q_n	m^3/h		0.75	1.5	2.5	3.5**	6*/**	10**
Pressure loss Δp at Q_n	bar		0.25	0.2	0.24	0.25	0.24	0.25
Bottom measuring range limit Q_{min}	l/h		30	60	100	140	240	400
Separation limit Q_t	m^3/h		0.075	0.15	0.25	0.35	0.6	1.0
Weight	kg		1.6	2.1	2.1	3.1	3.1	5.5
Impulse value	l/impulse		1	1	1	1	1	25
Combinable with sensonic® II calculator			T1	T1	T1	T1	T1	T25
Installation dimensions								
Nominal width	DN		20	20	20 (hor. 15)	25	32	40
Dimensions 1, horizontal design	Design length L/L1	mm	150/248	165/245	190/288	260/378	260/378	300/438
	Design height H/h	mm	135/30	135/40	135/40	140/45	140/45	155/50
	Width (w/o ill.)	mm	96	96	96	102	102	137
	Connection thread acc. to ISO 228/1		G 1 B	G 3/4 B	G 1 B	G 1 1/4 B	G 1 1/2 B	G 2 B
	Connection thread of screw conn. acc. to DIN 2999		R 3/4	R 1/2	R 3/4	R 1	R 1 1/4	R 1 1/2
Dimensions 2, Riser/downpipe design	Design length L/L1	mm	–	105/203	105/203	150/268	150/268	150/268
	Design height H/h	mm	–	135/18	135/18	140/22	140/22	106/46
	Width (w/o ill.)	mm	–	82/96	82/96	95/102	95/102	120/136
	Connection thread acc. to ISO 228/1		–	G 1 B	G 1 B	G 1 1/4 B	G 1 1/2 B	G 2 B
	Connection thread of screw conn. acc. to DIN 2999		–	R 3/4	R 3/4	R 1	R 1 1/4	R 1 1/2

* Q_n 6 m^3/h can be delivered with a connection thread on the meter of G 1 1/4 B on request.

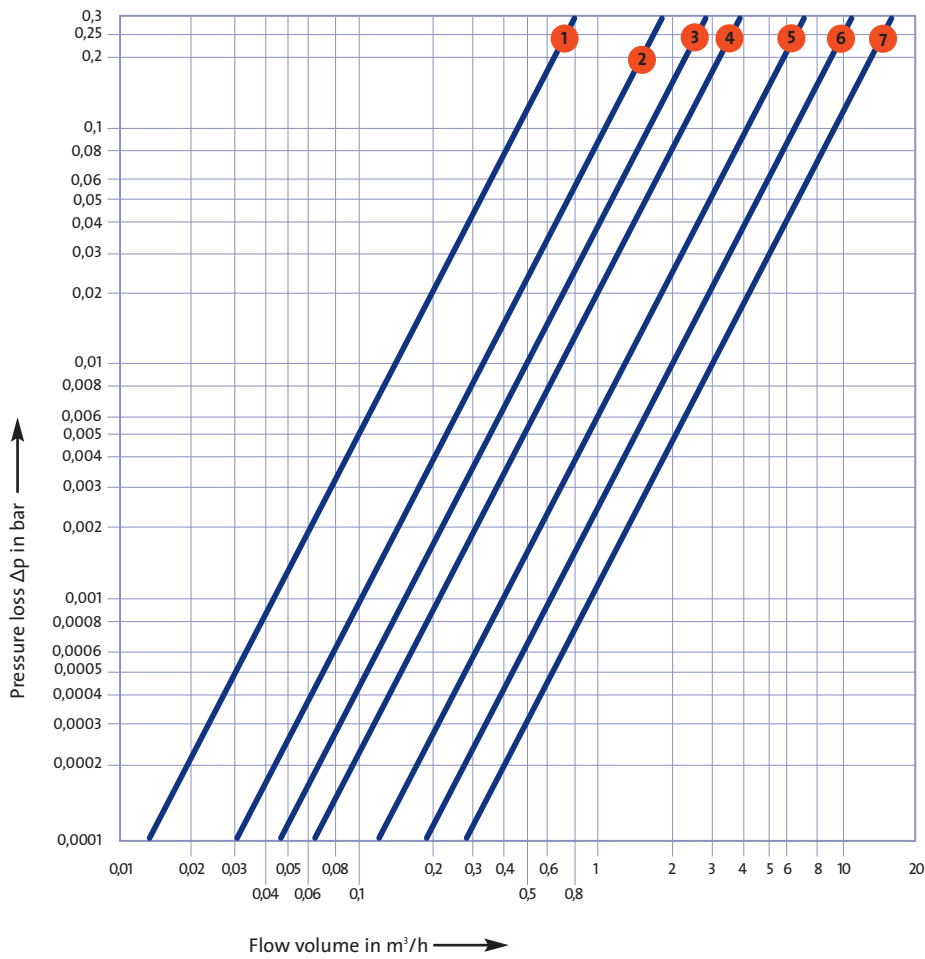
** On request, we supply a nominal width of DN 25/DN 32 in the design length 135 mm and DN 40 in the design length 200 mm.

Impeller wheel contact water meter with thread connection acc. to DIN 2501, PN = 16 bar, $t_{max} = 120\text{ °C}$

			Single-jet	Multi-jet					
Art. no. horizontal design	Dimensions 3		18820	18821	18822	18823	18824	18825	18830
Nominal flow Q_n	m^3/h		0.75	1.5	2.5	3.5	6	10	15
Pressure loss Δp at Q_n	bar		0.25	0.2	0.24	0.25	0.24	0.25	0.24
Bottom measuring range limit Q_{min}	l/h		30	60	100	140	240	400	1200
Separation limit Q_t	m^3/h		0.075	0.15	0.25	0.35	0.6	1.0	3.0
Weight	kg		1.6	2.1	2.1	3.1	3.1	5.5	12.5
Impulse value	l/impulse		1	1	1	1	1	25	25
Combinable with sensonic® II calculator			T1	T1	T1	T1	T1	T25	T25
Installation dimensions									
Nominal width	DN		20	15	20	25	25	40	50
Dimensions 3, horizontal design	Installation length L/L	mm	150	165	190	260	260	300	270
	Design height H/h	mm	135/30	135/40	135/40	140/45	140/45	155/50	180/83
	Width (w/o ill.)	mm	96	96	96	102	102	137	166
	External diameter D	mm	105	95	105	115	115	150	165
	Diameter of pitch circle K	mm	75	65	75	85	85	110	125

All designs are also available in metrological class B. With impeller contact water meters, a free, straight pipe stretch with the nominal width of the meter must be installed in flow direction before the meter.

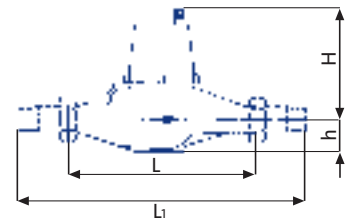
Pressure loss curves impeller contact water meter



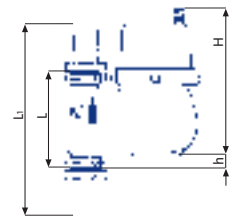
- 1 = Q_n 0.75 m^3/h
- 2 = Q_n 1.5 m^3/h
- 3 = Q_n 2.5 m^3/h
- 4 = Q_n 3.5 m^3/h
- 5 = Q_n 6.0 m^3/h
- 6 = Q_n 10.0 m^3/h
- 7 = Q_n 15.0 m^3/h

● = pressure loss at Q_n

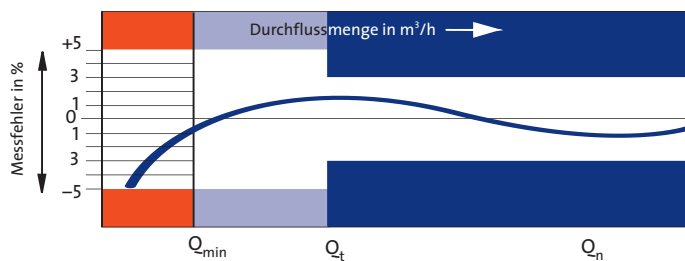
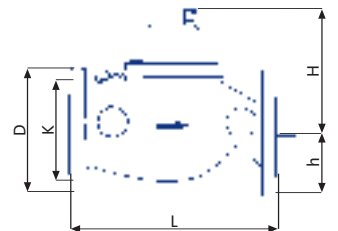
Dimensions 1
(horizontal design)



Dimensions 2
(riser/downpipe design)



Dimensions 3
(horizontal design)



Technical data

Woltman contact water meter

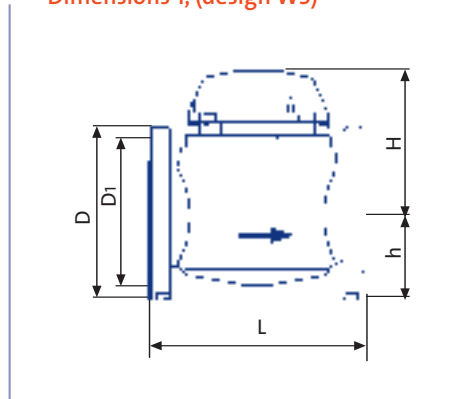
Woltman contact water meter with flange connection, PN = 16 bar, $t_{max} = 130\text{ °C}$

Art. no. horizontal design	WS	18757	18836	18759	18761	18763	18765*	18766	18768*	
Art. no. adaptor piece		17040	17040	17060	17041	17042	17061	17043	17044	
Art. no. Riser pipe design	WP	18758		18760	18762	18764	18765	18767	18768	
Art. no. Downpipe design	WP	18758		18760	18762	18764	18765	18767	18768	
Art. no. adaptor piece		17045		17059	17046	17047	17061	17048	17044	
Nominal flow Q_n	m ³ /h	15	15	25	40	60	100	150	250	
horizontal design	Pressure loss Δp at Q_n	bar	0.07	0.04	0.06	0.1	0.1	0.06	0.14	0.03
	Bottom measuring range limit Q_{min}	m ³ /h	0.25	0.3	0.3	0.3	0.5	3.5	0.8	8
	Separation limit Q_n	m ³ /h	1.5	1.5	2.5	2.5	4	8	12	20
	Weight	kg	13.5	13.9	17.5	19.5	32.5	21	91.5	51
Riser/downpipe design	Pressure loss Δp at Q_n	bar	0.015	–	0.034	0.021	0.03	0.06	0.04	0.03
	Bottom measuring range limit Q_{min}	m ³ /h	0.6	–	1	1.4	2	3.5	4.5	8
	Separation limit Q_t	m ³ /h	1.8	–	2	3.2	4.8	8	12	20
	Weight	kg	8	–	10	14	18	21	36	51
Impulse values	l/impulse	25	25	25	25	25	25	250	250	
Combinable with the sensonic® II calculator		T25	T25	T25	T25	T25	T25	T250	T250	
Installation dimensions*										
Nominal width	DN	50	50	65	80	100	125*	150	200*	
Dimensions 1, design WS	Design length L	mm	270	270	300	300	360	250	500	350
	Design height H/h	mm	151/80	195/84	161/100	161/100	191/110	160/118	301/180	206/162
	Width W (w/o ill.)	mm	170	165	200	200	260	250	320	340
Dimensions 2, design WP	Design length L	mm	200		200	225	250	250	300	350
	Design height H/h	mm	120/73		120/85	150/95	150/105	160/118	117/135	206/162
	Width W (w/o ill.)	mm	175		185	200	220	250	285	340
Flange diameter	D	165	165	185	200	220	250	285	340	
Diameter of pitch circle	D1	125	125	145	160	180	210	240	295	
Number of screws/threads		4/M16	4/M16	4/M16	8/M16	8/M16	8/M16	8/M20	12/M20	

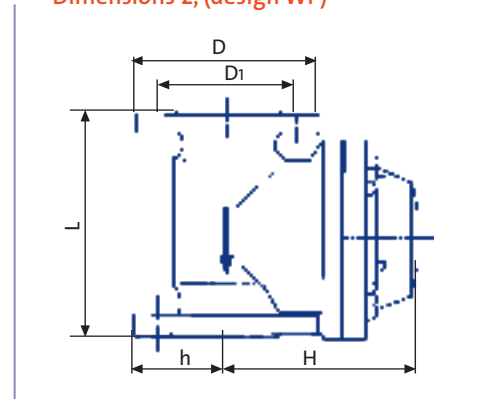
*Only available as WP.
 WS = Woltman vertical
 WP = Woltman parallel

The values stated for Q_t and Q_{min} are performance data that by far exceed the demands of the calibration ordinance for the metrological classes A and B. With Woltman meters, you must provide a free, straight pipe stretch with at least five times the nominal width of the meter in flow direction before the meter.

Dimensions 1, (design WS)



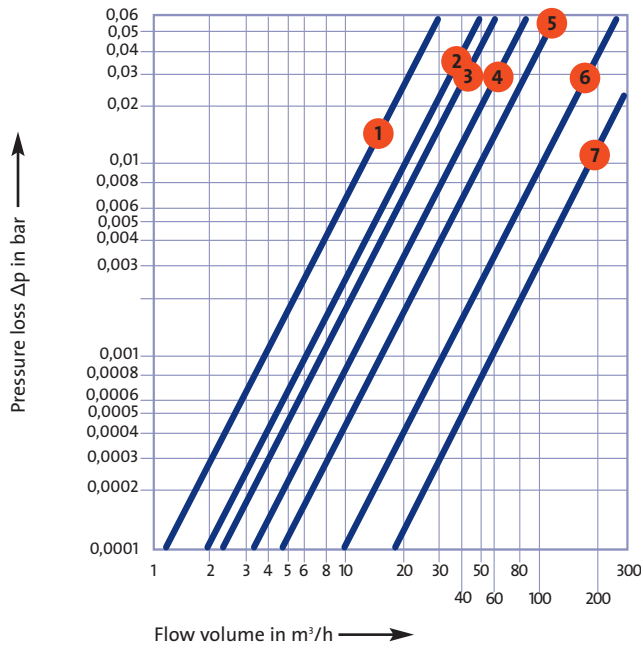
Dimensions 2, (design WP)



Pressure loss curves

Woltman contact water meter

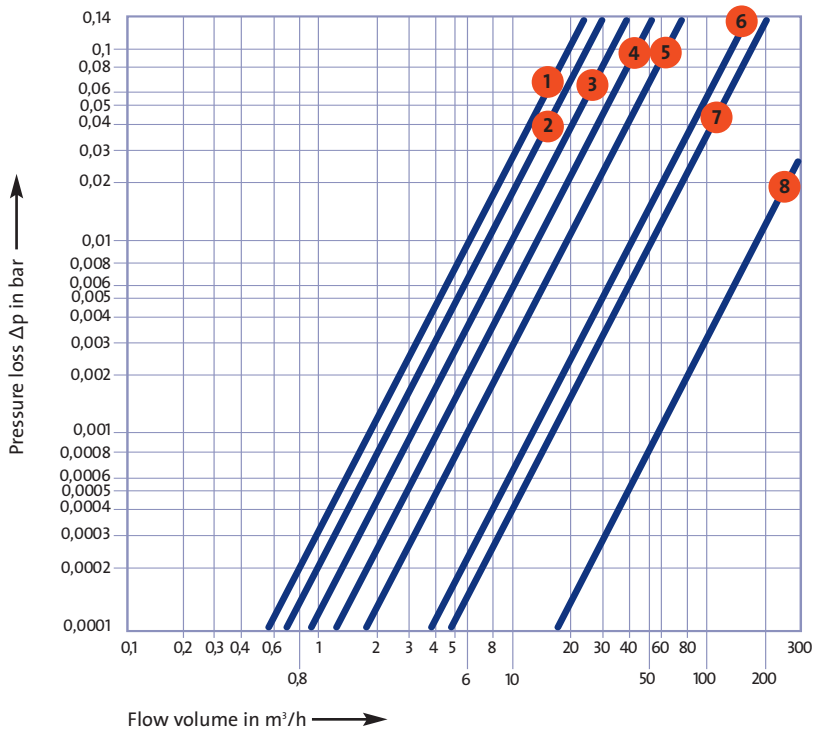
design WP



- 1 = Q_n 15 m^3/h
- 2 = Q_n 25 m^3/h
- 3 = Q_n 40 m^3/h
- 4 = Q_n 60 m^3/h
- 5 = Q_n 100 m^3/h
- 6 = Q_n 150 m^3/h
- 7 = Q_n 250 m^3/h

● = pressure loss at Q_n

design WS



- 1 = Q_n 15 m^3/h
- 2 = Q_n 25 m^3/h
- 3 = Q_n 40 m^3/h
- 4 = Q_n 60 m^3/h
- 5 = Q_n 100 m^3/h
- 6 = Q_n 150 m^3/h
- 7 = Q_n 250 m^3/h

● = pressure loss at Q_n

