



WSD

Woltman meter with perpendicular turbine shafts

The impeller axis of the WSD is aligned perpendicular to the tube axis. Due to the minimal friction, extremely low starting values can be achieved. Thanks to its design advantages, the Woltmann meter type WSD is an ideal choice especially with fluctuating flow rates and different pressure conditions.

The hydrodynamic optimized impeller is driven reliably even at low flow rates. Also under the highest loads it has enough reserve to detect even flow rate peaks. The specially enhanced bearing of the impeller causes low friction and guarantees a long service lifetime of the meter. The robust copper-glass-register is non-diffusive and protected against condensation. It also works reliably under the hardest conditions (e.g. in flooded pits or shafts).

AMR options

- Retrofittable with up to two reed-sensors
- Retrofittable with stationary GSM system
- Serially equipped with communication interface for:
 - Electronic pulser
 - Wired M-bus
 - Radio via Wireless M-Bus according to OMS (Open Metering System)
 - Radio via LPWAN (LoRaWAN™, SIGFOX)



WSD Bulk water meter

- type Woltman perpendicular
- Replacable metrological unit (according to european MID)
- Prepared for remote meter reading

Product characteristics

- Replacable metrological unit (according to european MID)
- Flood-proof (IP68) hermetically
- sealed glass/copper register"
- Low starting flow, high overload security
- Hydraulic bearing relieve
- Long-term measuring stability
- Swirl-reducing inlet
- No straight inlet or outlet needed (U0/D0) according to OIML R49 and DIN EN 14154
- Materials and coating approved in accordance with KTW / W 270
- Optional WP overall length for DN 50, DN 80 and DN 100 available
- Optional ISO length for DN 50, DN 80 and DN 100 available
- Approved in accordance with MID and OIML

Applications

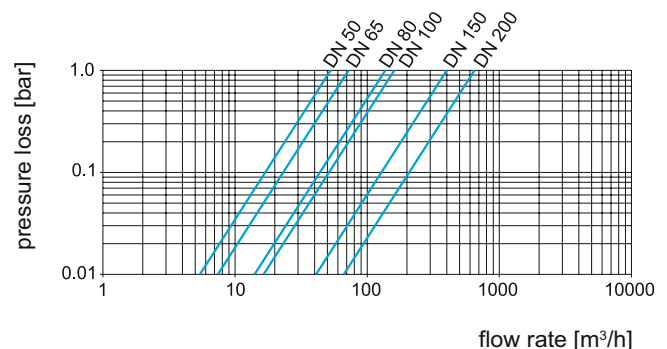
- For the measuring of fluctuating flow rates
- For horizontal installation
- For cold water up to 50° C

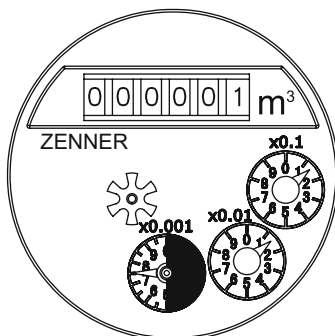
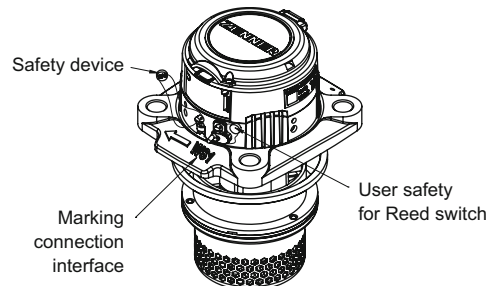
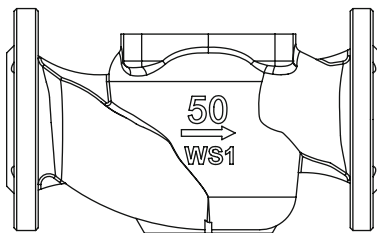
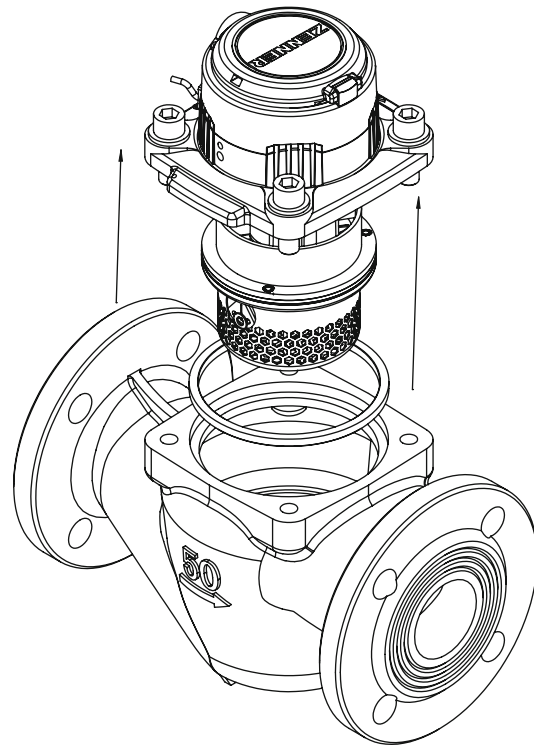
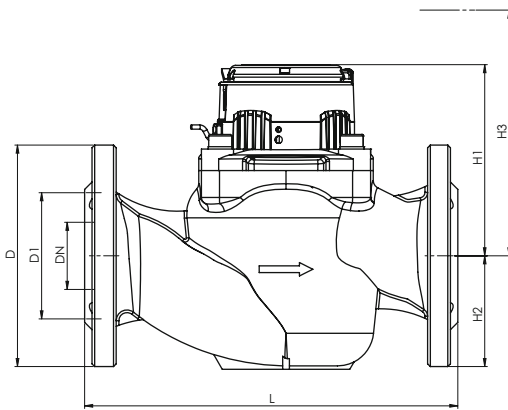


Technical Data WSD

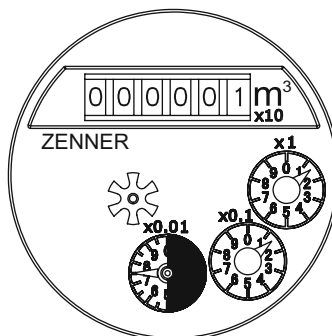
Nominal diameter			DN 50	DN 50	DN 65	DN 80	DN 80	DN 100	DN150	DN 200
Permanent flow	Q ₃	m³/h	25	40	40	63	63	100	250	400
Measuring range	Q ₃ /Q ₁	R	200H	200H	200H	200H	200H	200H	200H	200H
Standard measuring range *	Q ₃ /Q ₁	R	R100H	R100H	R100H	R100H	R100H	R100H	R100H	R100H
Overload flow **	Q ₄	m³/h	31,25	50	50	78,75	78,75	125	312,5	500
Minimum flow**	Q ₁	m³/h	0,25	0,4	0,4	0,63	0,63	1	2,5	4
Transitional flow **	Q ₂	m³/h	0,4	0,64	0,64	1,01	1,01	1,6	4	6,4
Pressure loss at Q ₃	Δp	MPa	0,054	0,054	0,050	0,050	0,050	0,053	0,051	0,053
Starting flow	-	l/h	50	50	65	100	100	110	250	450
Display range	min	l	0,5	0,5	0,5	0,5	0,5	0,5	5	5
	max	m³	999.999	999.999	999.999	999.999	999.999	999.999	9.999.999	9.999.999
Temperature range	T	°C	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50
Operating pressure	MAP	bar	16	16	16	16	10	16	16	16
Pulse value Reed	-	l/Imp.	100/1000	100/1000	100/1000	100/1000	100/1000	100/1000	100/1000	100/1000
Pulse value modulator disc	-	l/Imp.	10	10	10	10	10	10	10	10
Pressure loss at Q ₃	Δp	bar	0,54	0,54	0,50	0,50	0,50	0,53	0,51	0,53
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2	M2	M2	M2
Climatic condition (****)	-	°C	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50	5 - 50
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0
Weight and dimensions:										
Diameter	DN	mm	50	50	65	80	80	100	150	200
Overall length*	L	mm	200/270	200/270	300	225/300	300	250/360	500	500
Height	H1	mm	143	143	143	190	190	195	270	351
Height	H2	mm	85	85	95	102	102	114	146	174
Total height approx.***	H1+H2	mm	228	228	238	292	292	309	416	525
Removal height measuring unit	H3	mm	270	270	270	370	370	382	557	743
Flange diameter	D	mm	165	165	185	200	200	220	285	340
Bolt circle diameter	D1	mm	125	125	145	160	160	180	240	295
Number of bolts	-	pcs.	4	4	4	8	4	8	8	12
Screw size	-	mm	M16	M16	M16	M16	M16	M16	M20	M20
Bolt diameter	-	mm	19	19	19	19	19	19	23	23
Weight approx.	-	kg	12/13	12/13	18	19/21	21	23/24	58	94

(*) Other measuring ranges (R) on request
(**) Values refer to standard measuring range
(***) Total height WSD + 24mm
(****) Condensation possible





DN 50 - 125
(WSD DN 50 - 200)



DN 150 - 300

