

WPVR

Compound water meter with piston meter as secondary meter for use in drinking water distribution and industrial applications

The WPVR was designed to record fluctuating flows, for use in drinking water distribution and industrial applications. The main meter is based on the proven Woltman parallel technology. As a secondary meter a rotary piston meter is used, with which even small flows can be reliably recorded.

All materials, which are used in the drinking water section, comply with the required standards, guidelines and the current German drinking water approval (Other country-specific drinking water approvals on request).



Performance characteristics at a glance

- Compound water meter with rotary piston meter as secondary meter
- Available sizes DN 50 until DN 100
- Exchangeable MID compliant measuring insert (consisting of main meter, secondary meter and changeover valve)
- Highest precision and reliability even in case of low flow rates
- Both registers (main and secondary register) prepared for remote meter reading
- No straight inlet or outlet needed (U0/D0) according to OIML R49 and DIN EN ISO 4064
- For horizontal and vertical installation position
- Main and secondary meter fully submersible - protection class IP68

Applications

- For measuring of large and small flow rates
- For consumption measuring of drinking water and unpolluted service water up to 50 °C

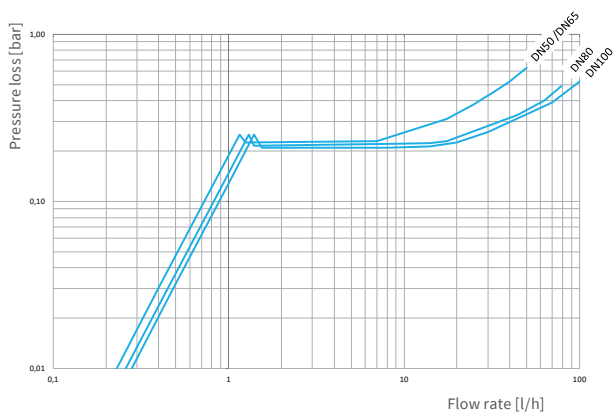
AMR options

- Can be combined with stationary GSM system
- Serially equipped with communication interface for:
 - Electronic pulser
 - Wired M-Bus
 - Wireless M-Bus radio technology
 - Radio via LPWAN (LoRa®)

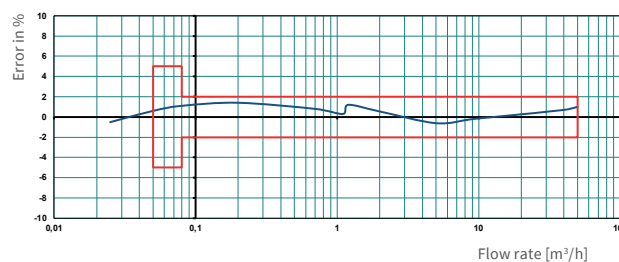
Technical data						
Nominal diameter	DN	mm	50	65	80	100
Permanent Flowrate (Main meter)	Q_3	m^3/h	25	40	63	100
Permanent Flowrate (Secondary meter)	Q_3	m^3/h	4	4	4	4
Attainable measuring range	Q_3/Q_1	R	1600 H/V	2500 H/V	4000 H/V	6300 H/V
Standard measuring range	Q_3/Q_1	R	1000 H/V	1600 H/V	2500 H/V	4000 H/V
Overload Flowrate	Q_4	m^3/h	31.25	50	78.75	125
Overload flow rate (Shortly approx. 10 minutes)	Q_{4M}	m^3/h	39	62	98	156
Minimum flow ¹	Q_1	m^3/h	0.025	0.025	0.025	0.025
Transitional Flowrate ¹	Q_2	m^3/h	0.04	0.04	0.04	0.04
Switching flow (increasing)	Q_{x2}	m^3/h	1.3 - 1.6	1.3 - 1.6	1.4 - 1.7	1.5 - 1.7
Switching flow (decreasing)	Q_{x1}	m^3/h	0.7 - 1.0	0.7 - 1.0	0.9 - 1.3	0.9 - 1.3
Start-up flow rate	-	l/h	<2	<2	<2	<2
Permanent Flowrate (Main meter)	min.	l	0.5	0.5	0.5	0.5
	max.	m^3	999,999	999,999	999,999	999,999
Display range (Secondary meter)	min.	l	0.02	0.02	0.02	0.02
	max.	m^3	99,999	99,999	99,999	99,999
Temperature range	-	°C	0.1 - 50	0.1 - 50	0.1 - 50	0.1 - 50
Operating pressure, max.	MAP	bar	16	16	16	16
Operating pressure, max.	-	bar	0.5	0.5	0.5	0.5
Pulse value Main meter (modulator disc)	-	l/pulse	10	10	10	10
Pulse value secondary meter (modulator disc)	-	l/pulse	1	1	1	1
Pressure loss class at Q_3	Δp	bar	0.40	0.63	0.63	0.63
Mechanical. ambient condition	-	-	M1	M1	M1	M1
Climatic condition ²	-	°C	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0

¹ Values refer to standard measuring range

² Condensation possible



Pressure loss curve



Typical pressure loss curve

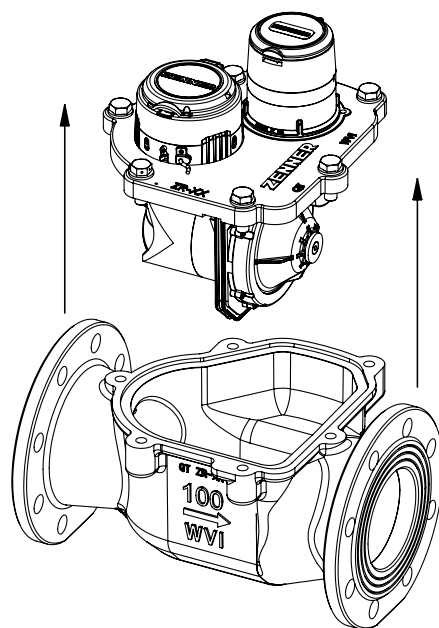
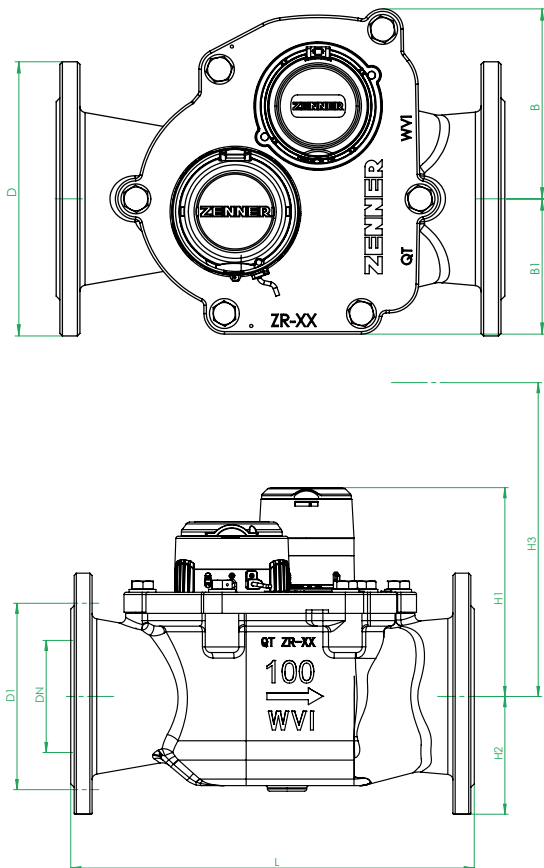
WPVR

Weight and dimensions

Nominal diameter	DN	mm	50	65	80	100
Overall length	L	mm	270	300	300	360
Height	H1	mm	185	185	185	185
Height	H2	mm	87.5	85	95	105
Total height approx. ¹	H1+H2	mm	272.5	270	280	290
Installation height of the measuring unit	H3	mm	335	335	335	335
Width	B	mm	152.5	152.5	152.5	152.5
Width	B1	mm	108.5	108.5	108.5	108.5
Flange diameter	D	mm	165	185	200	220
Bolt circle diameter	D1	mm	125	145	160	180
Number of bolts	-	pcs.	4	4	8	8
Screw size	-	mm	M16	M16	M16	M16
Bolt diameter	-	mm	19	19	19	19
Weight approx.	-	kg	20.1	21.1	22.1	26.1

¹ Overall height WPVRE + 20 mm

Flange according to ISO 7005-2. Other flanges on request



Dimensions

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