

WPD/WPHD/WPDE/WPHDE



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Извлекаемая измерительная вставка (конструкция сертифицирована по стандартам MID)

Подготовлен для дистанционного снятия показаний (систем телеметрии)

Product description

Bulk water meter type Woltman WPD / WPHD for cold water up to 50° C.

Bulk water meter type WPDE/WPHDE (radio water meter) with factory assembled and parameterized EDC radio module for cold water up to 50° C.

Intended use

For the measuring of drinking water up to 50° C.

For the measuring of clean industrial water up to 50° C.

Scope of delivery

1 water meter, 1 instruction manual.

Remark:

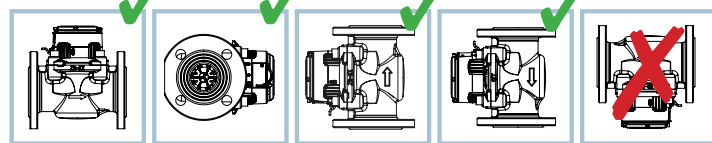
These installation instructions are intended only for trained personnel.

Basic installation steps are therefore not described.

The meter reading must be multiplied by factor x10, for the nominal sizes DN150 to DN300, the nominal sizes DN400 and DN500 by factor x100.

Permissible installation positions

The WP series is intended for installation in the horizontal and vertical positions.



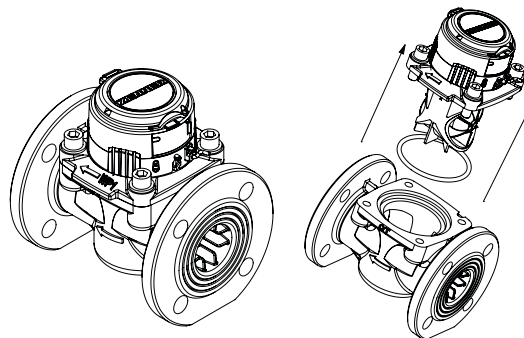
Installation instruction

- The WP series has been approved at a flow sensitivity class U0/D0. However, in order to achieve the best results, we recommend observing the national regulations and accepted codes of practice.
- For WP series is recommended a straight inlet section of at least 3xDN. If there is no sufficient inlet section be present, or behind pipe elbow, we recommend to use a honeycomb rectifier from ZENNER.
- Ideally, there should be a straight outlet section distance of at least 2xDN.
- Before installing the meter, the piping must be thoroughly flushed out.
- The pipe diameter should not be reduced, directly in front and behind the meter.
- Flange gaskets must not protrude into the pipe.
- It should be taken to ensure that the flow direction of the meter coincides with the flow direction of the pipeline.
- Valves or other flow regulation should be mounted as possible behind the meter.
- The meter should not be installed at the highest point of the pipe installation to prevent air bubbles in the meter and the pipeline is always completely filled.
- The meter should be protected against dirt particles like sand or stones by an appropriate filter.
- The meter must be protected against pressure blow in the pipeline network.
- The maximum temperature of the measured medium must not exceed the permissible 50°C for cold water.
- To avoid damage of the measuring insert by pressure surges, the pipeline must be filled slowly after installation.
- It is important to ensure that the meter is installed free of stress in the pipe. In a non-stress-free mounting the meter body may be damaged and water can escape.
- The pipeline pressure must not exceed the maximum working pressure of the meter, as this can lead to leaks and damage of the meter.

- To prevent the disassembly of the meter we recommend to secure the connection interface with a safety device (adhesive label, seal, etc.).

Installation instructions for the replacement of the metrological unit:

- The exchange of exchangeable metrological units (measuring insert) should only be performed by trained specialist staff.
- Before changing the measuring insert, the pipe must be rinsed carefully shut off the pressure side and empty the pipe.
- The compliance of the interfaces marking on the measuring insert and at the specified interface (body) must be checked (interface WP1 for DN50 - 150 and the interface WP5 for DN200 - 300) .



- After disassembly of the measuring insert old gaskets / seals must be removed. The sealing surfaces must be cleaned and checked for damage.
- It is important to ensure that the inlet area is free of deposit, before a new metrological unit is installed, because as these can lead to deviations of the measurement result.
- Use only the genuine seals, which are delivered together with the measuring insert. These have to be checked prior to installation for damage and fit.
- When using lubricants or assembly pastes for the seals it must be ensured that they are suitable for contact with drinking water.
- Tighten the screws of the measuring unit evenly crosswise (M12: DN50 – DN125 = 60Nm; M16: DN150 – DN300 = 85Nm).
- To prevent the disassembly of the replaceable measuring insert, it must be connected with the connection interface (housing) by a sealing wire.

Declaration of conformity

ZENNER International GmbH & Co. KG declares that the product with the number of EC type-examination certificates DE-15-MI001-PTB010 & DE-15-MI001-PTB011 complies with the essential requirements of the EC directive 2014/32/EU (Measuring instrument directive). ZENNER International GmbH & Co. KG hereby declares that the products for Remote Metering; complies with the application Wireless Communications with the essential requirements of the EC directive 1999/5/CE (R&TTE).

The declaration of conformity and the latest information about this product can be accessed or downloaded from www.zenner.com

Technical Data			WPD/WPDE								WPHD/WPHDE					
Nominal diameter	DN	mm	50	50	65	80	80	100	125	150	200	200	250	250	300	300
Permanent flow	Q ₃	m³/h	25	40	40	63	63	100	100	250	400	400	630	630	1000	1000
Attainable measuring range	Q ₃ /Q ₁	R	R125H	R200H	R200H	R200H	R200H	R315H	R315H	R315H	R160H	R160H	R160H	R160H	R160H	R160H
Standard measuring range (*)	Q ₃ /Q ₁	R	R100H/63V								R100H/63V					
Overload flow (**)	Q ₄	m³/h	31,25	50	50	78,75	78,75	125	125	312,5	500	500	787	787	1250	1250
Minimum flow (**)	Q ₁	m³/h	0,25 0,4	0,4 0,63	0,4 0,64	0,63 1,01	0,63 1,02	1,0 1,59	1,0 1,60	2,5 3,97	4,0 6,35	4,0 6,36	6,3 10,0	6,3 10,1	10,0 15,87	10,0 15,88
Transitional flow (**)	Q ₂	m³/h	0,4 0,63	0,64 1,02	0,64 1,03	1,01 1,61	1,01 1,62	1,6 2,54	1,6 2,55	4,0 6,35	6,4 10,16	6,4 10,17	10,08 16,0	10,08 16,1	16,0 25,4	16,0 25,5
Start-up flow rate	-	l/h	65	65	65	110	110	150	150	350	2000	2000	2000	2000	2000	2000
Display range	min	l	0,5	0,5	0,5	0,5	0,5	0,5	0,5	5	5	5	5	5	5	5
	max	m³	999.999								9.999.999					
Temperature range	-	°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	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50	0,1 - 50
Operating pressure	MAP	bar	0,3 - 16	0,3 - 16	0,3 - 16	0,3 - 16	0,3 - 10	0,3 - 16	0,3 - 16	0,3 - 16	0,3 - 16	0,3 - 10	0,3 - 16	0,3 - 10	0,3 - 16	0,3 - 10
Pulse value Reed	-	l/pulse	100	100	100	100	100	100	100	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Pulse value modulator disc	-	l/pulse	10	10	10	10	10	10	10	100	100	100	100	100	100	100
Pressure loss at Q ₃	Δp	bar	0,1	0,19	0,12	0,1	0,1	0,11	0,12	0,1	0,09	0,09	0,08	0,08	0,08	0,08
Mechanical environmental condition	-	-	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2	M2
Climatic condition (****)	-	°C	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55	5 - 55
Flow profile sensitivity	-	-	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0	U0/D0

Weight and dimensions:

Nominal diameter	DN	mm	50	50	65	80	80	100	125	150	200	200	250	250	300	300
Overall length (*)	L	mm	200 270 300	200 270 300	200	200 225 300 350	225	250 350 360	250	300	350	350	450	450	500	500
Height	H1	mm	135	135	135	143	143	152	152	183	215	215	267	267	250	250
Height	H2	mm	75	75	85	95	95	105	115	135	160	160	193	193	220	220
Total height approx. (***)	H1+H2	mm	210	210	220	238	238	257	267	318	375	375	460	460	470	470
Installation height of the measuring unit	H3	mm	230	230	230	256	256	266	266	373	460	460	460	460	470	470
Flange diameter	D	mm	165	165	185	200	200	220	250	285	340	340	405	395	460	445
Bolt circle diameter	D1	mm	125	125	145	160	160	180	210	240	295	295	355	350	410	400
Number of bolts	-	pcs.	4	4	4	8	4	8	8	8	12	8	12	12	12	12
Screw size	-	mm	M16	M16	M16	M16	M16	M16	M16	M20	M20	M20	M24	M20	M24	M20
Bolt diameter	-	mm	19	19	19	19	19	19	19	23	23	23	28	23	28	23
Weight approx.	-	kg	10,5	10,5	11,8	13,4	13,4	16,9	20,1	31,5	49	49	68	68	105	105

(*) Other measuring ranges (R) on request

(**) Values refer to standard measuring range

(***) Total height WPDE/WPHDE + 24mm

(****) Condensation possible

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