

# WESAN WP 222

BULK WATER METER | WOLTMAN

HYDROMETER



## APPLICATION

The bulk water meter WESAN WP can be used for measuring the flow (cold water up to 30 °C) in supply lines with high flow at low pressure loss.

## FEATURES

- ▶ Calibratable and exchangeable measuring insert
- ▶ For horizontal and vertical installation
- ▶ Sealed measuring insert for better accuracy
- ▶ Hydraulic bearing relief
- ▶ Wear-resistant plastic bearing
- ▶ Encapsulated counter of glass/copper IP 68
- ▶ Complete head unit with counter and sensors can be rotated by 350° for easier reading
- ▶ Integrated measurement outputs as standard
- ▶ Sensors for remote readout (digital) and flow measurement (analogue) can be retrofitted on site without affecting calibration
- ▶ Special version for EX range (DN 50 - 100, 150, 200)

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## GENERAL

WESAN WP 222		
Medium temperature range	°C	0 ... 30
Temperature safety	°C	0 ... 50
Ambient operating temperature	°C	0 ... 55
Ambient storage temperature	°C	0 ... 55
Nominal pressure	PN bar	16*
Protection class		IP 68

\* See also special versions.

## TECHNICAL DATA

Nominal diameter	DN	mm	50	65	80	100	125	150
Nominal flow rate (DIN ISO 4064)	Q <sub>n</sub>	m <sup>3</sup> /h	15	25	40	60	100	150
Permissible continuous load (HY)	Q <sub>n</sub>	m <sup>3</sup> /h	30	50	120	230	250	250
Maximum flow rate (short-term)	Q <sub>max</sub>	m <sup>3</sup> /h	90	120	200	300	350	350
Transition flow rate horizontal	Q <sub>t</sub>	m <sup>3</sup> /h	1	1.2	0.8	1.8	2	4
Transition flow rate vertical	Q <sub>t</sub>	m <sup>3</sup> /h	1.8	2	0.8	1.8	2	4
Minimum flow rate horizontal	Q <sub>min</sub>	m <sup>3</sup> /h	0.35	0.45	0.5	0.6	0.6	1.8
Minimum flow rate vertical	Q <sub>min</sub>	m <sup>3</sup> /h	0.4	0.5	0.5	0.6	0.6	1.8
Starting flow rate		l/h	90	130	160	190	190	1500
Flow rate at 0.1 bar pressure loss		m <sup>3</sup> /h	35	63	115	115	105	310
Nominal pressure	PN bar		16	16	10 / 16	16	16	16

Nominal diameter	DN	mm	200	250	300	400	500
Nominal flow rate (DIN ISO 4064)	Q <sub>n</sub>	m <sup>3</sup> /h	250	400	600	1000	1500
Permissible continuous load (HY)	Q <sub>n</sub>	m <sup>3</sup> /h	325	600	700	1250	2000
Maximum flow rate (short-term)	Q <sub>max</sub>	m <sup>3</sup> /h	650	1200	1500	2800	4200
Transition flow rate horizontal	Q <sub>t</sub>	m <sup>3</sup> /h	6	20	50	50	80
Transition flow rate vertical	Q <sub>t</sub>	m <sup>3</sup> /h	6	-	-	-	-
Minimum flow rate horizontal	Q <sub>min</sub>	m <sup>3</sup> /h	4	12	18	30	45
Minimum flow rate vertical	Q <sub>min</sub>	m <sup>3</sup> /h	4	-	-	-	-
Starting flow rate		l/h	2500	5000	10000	15000	20000
Flow rate at 0.1 bar pressure loss		m <sup>3</sup> /h	550	800	1250	3000	6000
Nominal pressure	PN bar		16	10 / 16	10 / 16	10 / 16	10 / 16

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## PULSE OUTPUTS

Nominal diameter	DN	mm	50	65	80	100	125	150
Reed switch 570* - pulse value 1		l/pulse	100	100	100	100	100	1000
Reed switch 570* - pulse value 2		l/pulse	1000	1000	1000	1000	1000	10000
Special pulse value		l/pulse	25 / 50	25 / 50	25 / 50	25 / 50	25 / 50	250 / 500
IR pulse transmitter 573*		l/pulse	1	1	1	1	1	10

Nominal diameter	DN	mm	200	250	300	400	500
Reed switch 570* - pulse value 1		l/pulse	1000	1000	1000	10000	10000
Reed switch 570* - pulse value 2		l/pulse	10000	10000	10000	100000	100000
Special pulse value		l/pulse	250 / 500	250 / 500	250 / 500	2500 / 5000	2500 / 5000
IR pulse transmitter 573*		l/pulse	10	10	10	100	100

\* For more information about reed switch 570 and IR pulse transmitter 573 please have a look at the specific datasheet.

## DISPLAY RANGE

Nominal diameter	DN	mm	50	65	80	100	125	150
0.5 l ... 999,999 m <sup>3</sup>			•	•	•	•	•	
5.0 l ... 9,999,999 m <sup>3</sup>								•
50 l ... 99,999,999 m <sup>3</sup>								

Nominal diameter	DN	mm	200	250	300	400	500
0.5 l ... 999,999 m <sup>3</sup>							
5.0 l ... 9,999,999 m <sup>3</sup>			•	•	•		
50 l ... 99,999,999 m <sup>3</sup>						•	•

## APPROVAL

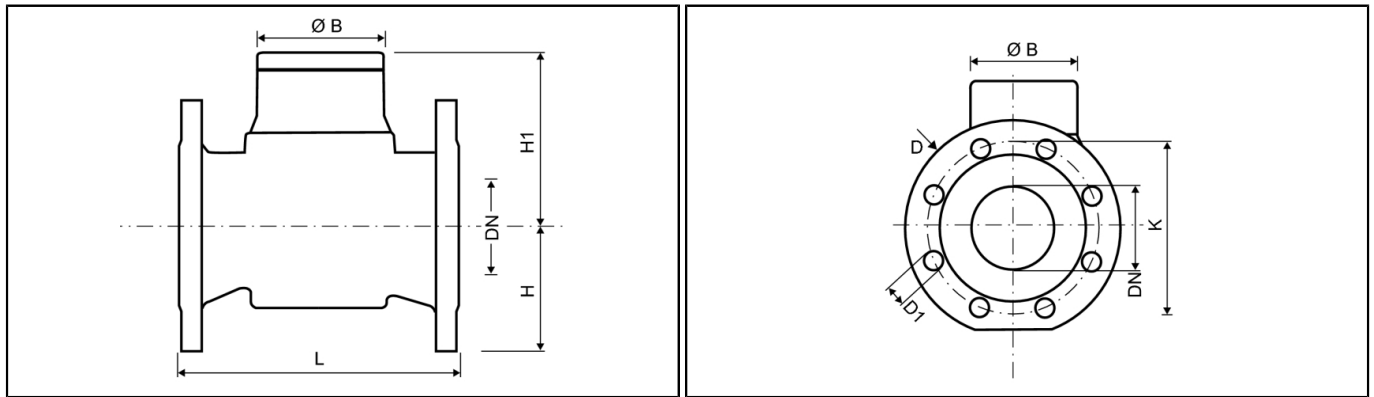
Nominal diameter	DN	mm	50	65	80	100	125	150
EC			D 92 / 6.132.33D 92 / 6.132.33D 02 / 6.132.42D 02 / 6.132.42D 02 / 6.132.42D 02 / 6.132.43					
National			-	-	-	-	-	-
Metrological class			B•H	B•H	B	B	B	B

Nominal diameter	DN	mm	200	250	300	400	500
EC			D 02 / 6.132.43				
National			-	6.132 / 06.24	6.132 / 06.24	6.132 / 92.07	6.132 / 92.07
Metrological class			B	B	B	B	B

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## DIMENSIONS



Nominal diameter	DN	mm	50	65	80	100	125	150
Overall length	L	mm	200 / 300 <sup>1</sup>	200	200 <sup>1</sup> / 225 / 350 <sup>1</sup>	250 / 350 <sup>1</sup>	250	300
Flange diameter	D	mm	165	185	200	220	250	285
Hole circle diameter PN 10 / PN 16	K	mm	- / 125	- / 145	160 / 160	- / 180	- / 210	- / 240
Number of screwholes PN 10 / PN 16		pcs	- / 4	- / 4	4 / 8	- / 8	- / 8	- / 8
Screwhole diameter PN 10 / PN 16	D1	mm	- / 18	- / 18	18 / 18	- / 18	- / 18	- / 22
Height	H	mm	75	83	89	105	115	135
Height	H1	mm	123	123	154	154	154	245
Height to remove measuring insert		mm	225	225	275	275	275	475
Meter width		mm	155	155	200	220	250	285
Diameter	Ø B	mm	110	110	110	110	110	110
Weight		kg	10.2	11.2	13	16	21.5	39

Nominal diameter	DN	mm	200	250	300	400	500
Overall length	L	mm	350	450	500	500	500
Flange diameter	D	mm	340	405	460	580	715
Hole circle diameter PN 10 / PN 16	K	mm	295 / 295	350 / 355	400 / 410	515 / 525	620 / 650
Number of screwholes PN 10 / PN 16		pcs	8 / 12	12 / 12	12 / 12	16 / 16	20 / 20
Screwhole diameter PN 10 / PN 16	D1	mm	22 / 22	23 / 27	23 / 27	27 / 30	27 / 33
Height	H	mm	163	193	230	290	360
Height	H1	mm	245	242	290	311	361
Height to remove measuring insert		mm	475	472	520	580	660
Meter width		mm	340	405	460	580	715
Diameter	Ø B	mm	110	110	110	110	110
Weight		kg	47	75	165	190	300

<sup>1</sup>: Special body lengths

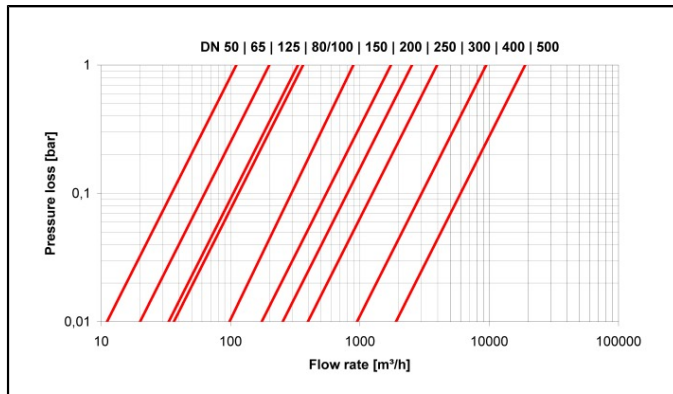
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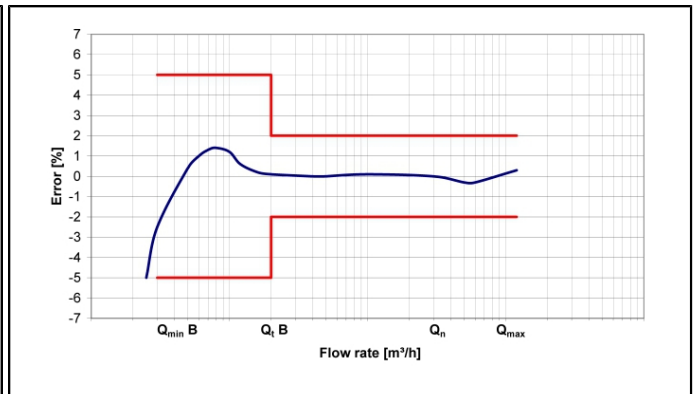
## SPECIAL VERSIONS

- Versions with different nominal pressure on request
- Flange for ANSI and BS
- CuZn parts in V2A
- Temperature up to 90 °C
- Different pulse outputs
- Special overall length
- Electronic counter module

## PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph



Typical error graph

## HYDROMETER

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Subject to technical adjustments