

WESAN WS

BULK WATER METER | WOLTMAN

DIEHL
Metering



APPLICATION

For measuring of fluctuating flows in the utility sector.

FEATURES

- ▶ Calibratable and exchangeable measuring insert
- ▶ For horizontal installation
- ▶ Outstanding long-term accuracy even under extreme loads
- ▶ Extended measuring range better than metrological class
- ▶ Complete head unit with counter and sensors can be rotated by 350° for easier reading
- ▶ Encapsulated counter of glass/copper IP 68
- ▶ Integrated measurement outputs as standard
- ▶ Sensors for remote readout (digital) and flow measurement (analogue) can be retrofitted on site without affecting calibration

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GENERAL

WESAN WS 233		
Medium temperature range	°C	1 ... 30
Temperature safety	°C	1 ... 50
Ambient operating temperature	°C	1 ... 55
Ambient storage temperature	°C	1 ... 55
Nominal pressure	PN bar	16 ¹
Protection class		IP 68

¹ see also special versions

TECHNICAL DATA

Nominal diameter	DN	mm	50	65	80	100	150
Permanent flow rate	Q ₃	m ³ /h	25	40	63	100	250
Minimum flow rate	Q ₁	m ³ /h	0.63	1	1.58	2.5	6.25
Transitional flow rate	Q ₂	m ³ /h	1	1.6	2.52	4	10
Overload flow rate	Q ₄	m ³ /h	31.25	50	78.75	125	312.5
Starting flow rate		l/h	60	60	90	90	150
Flow rate at 0.1 bar pressure loss		m ³ /h	13	20	32	63	125
Pressure loss at Q ₃		bar	0.4	0.4	0.4	0.25	0.4

APPROVAL

Nominal diameter	DN	mm	50	65	80	100	150
MID (A 0445/3505/2011)			•	•	•	•	•
Dynamic range (Q ₃ /Q ₁)	R		40•H	40•H	40•H	40•H	40•H
Potable water			KTW / W270	KTW / W270	KTW / W270	KTW / W270	KTW / W270

PULSE OUTPUTS

Nominal diameter	DN	mm	50	65	80	100	150
Reed switch 570 ² - pulse value 1		l/pulse	100	100	100	100	1000
Reed switch 570 ² - pulse value 2		l/pulse	1000	1000	1000	1000	10000
Special pulse values ³		l/pulse	2.5 / 5 / 10 / 25 / 50	2.5 / 5 / 10 / 25 / 50	2.5 / 5 / 10 / 25 / 50	2.5 / 5 / 10 / 25 / 50	25 / 50 / 100 / 250 / 500
IR pulse transmitter 573 ²		l/pulse	1	1	1	1	10

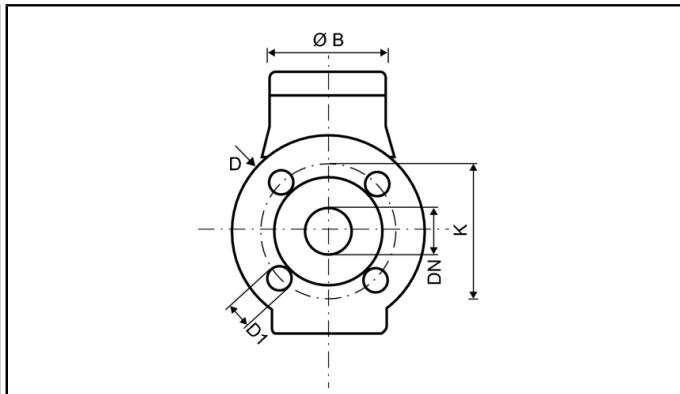
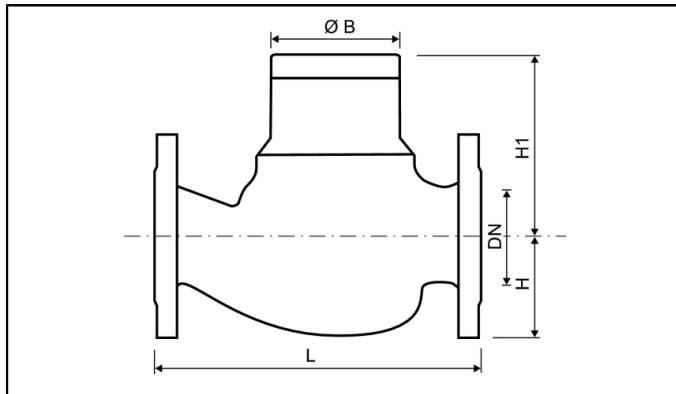
² for more information about reed switch 570 and IR pulse transmitter 573 please have a look at the specific datasheet

³ on request, see also special versions

DISPLAY RANGE

Nominal diameter	DN	mm	50	65	80	100	150
0.5 l ... 999,999 m ³			•	•	•	•	-
5.0 l ... 9,999,999 m ³			-	-	-	-	•

DIMENSIONS

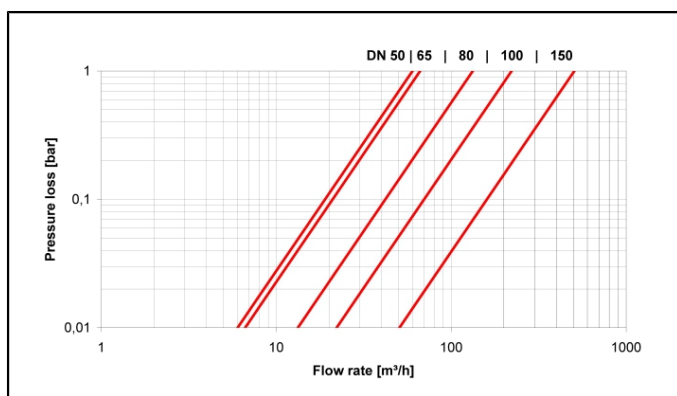


Nominal diameter	DN	mm	50	65	80	100	150
Overall length (DIN 19625)	L	mm	270	300	300	360	430 / 500
Overall length (DIN ISO 4064)	L	mm	300	300	350	350	500
Flange diameter	D	mm	165	185	200	220	285
Hole circle diameter	K	mm	125	145	160	180	240
Number of screwholes		pcs	4	4	4 / 8	8	8
Screwhole diameter	D1	mm	18	18	18	18	23
Height	H	mm	85	97	102	113	141
Height	H1	mm	135	135	180	190	351
Height to remove measuring insert		mm	240	240	330	340	620
Diameter	Ø B	mm	110	110	110	110	110
Meter width		mm	173	173	239	239	310
Weight		kg	14.5	17.7	24	28	79.5

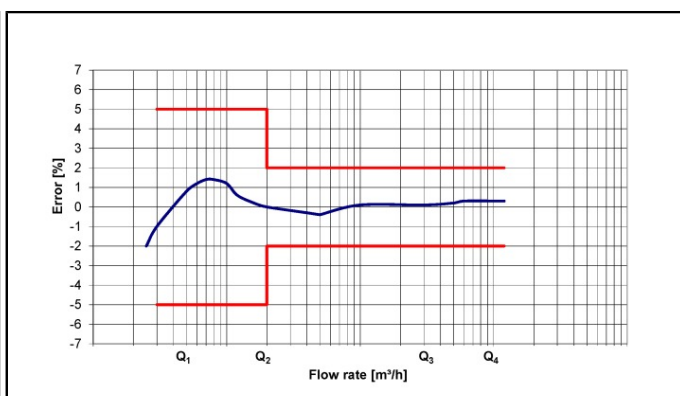
SPECIAL VERSIONS

- Versions with different nominal pressure on request
- Flange for ANSI and BS on request
- Temperature up to 90 °C on request
- Special pulse values on request
- Special overall lengths on request

PRESSURE LOSS GRAPH / TYPICAL ERROR GRAPH



Pressure loss graph



Typical error graph