

## Woltman Water Meter

- Cold (30°C) - WRAS Approved and MID R80 as per 2004/22/EC
- Hot (90°C) - ISO4064 Class B
- Dry dial
- Available with pulse output
- Suitable up to 16 Bar working pressure



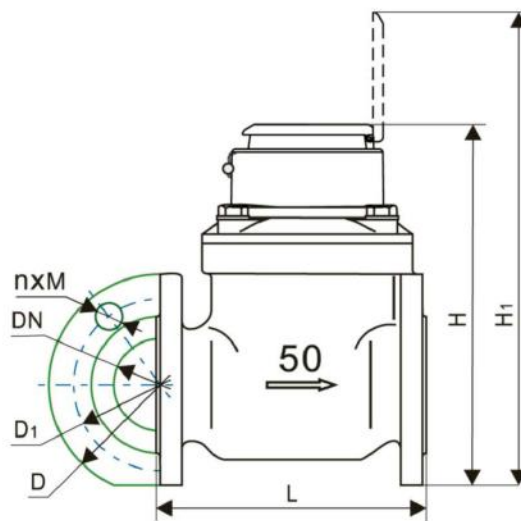
**WRAS**  
APPROVED  
PRODUCT

### Technical Data

#### Dimensions

Diameter	DN	50	65	80	100	125	150	200	250	300
Length	mm	L	200	200	225	250	250	300	350	500
Height	mm	H	252	262	272	282	282	341	371	516
Working Height	mm	H1	339	349	359	369	384	428	458	603
Outside Diameter	mm	D	165	185	200	220	250	285	340	460
Circle Diameter	mm	D1	125	145	160	180	219	240	295	410
Bolt Quantity	nxM		4xM16	4xM16	8xM16	8xM16	8xM16	8xM20	12xM20	12xM24
Weight	kg		12	13	16	18	20	42	64	114

### Dimensional Drawing



## Flow Data

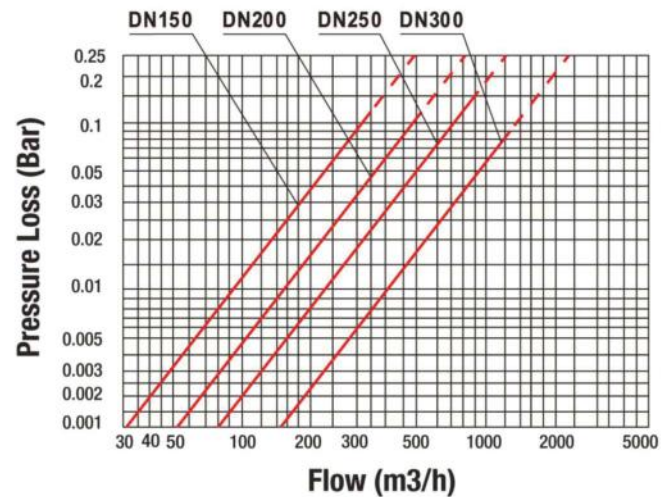
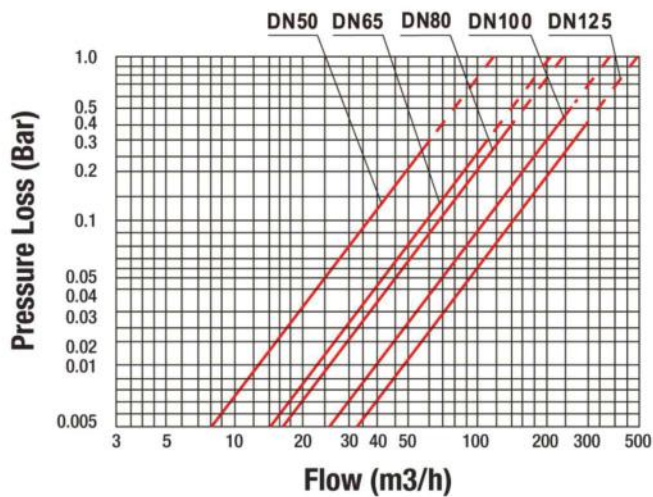
Diameter	DN	50	65	80	100	125	150	200	250	300
Minimum Flowrate $Q_{min}$	m <sup>3</sup> /h	0.45	0.75	1.2	1.8	3	4.5	7.5	12	18
Transitional Flowrate $Q_t$	m <sup>3</sup> /h	3	5	8	12	20	30	50	80	120
Nominal Flowrate $Q_n$	m <sup>3</sup> /h	15	25	40	60	100	150	250	400	600
Maximum Flowrate $Q_{max}$	m <sup>3</sup> /h	30	50	80	120	200	300	500	800	1200

- Minimum Flow Rate ( $Q_1$ ) ( $Q_{min}$  m<sup>3</sup>/h) - The absolute minimum flow required for the unit to function
- Transitional Flow Rate ( $Q_2$ ) ( $Q_t$  m<sup>3</sup>/h) - Point at which the flow rate is high enough to get an accurate measurement
- Nominal Flow Rate ( $Q_3$ ) ( $Q_n$  m<sup>3</sup>/h) - Typical application for every day usage
- Max Flow Rate ( $Q_4$ ) ( $Q_{max}$  m<sup>3</sup>/h) - Refers to the emergency flow rate in the event of system failure. Damage may result

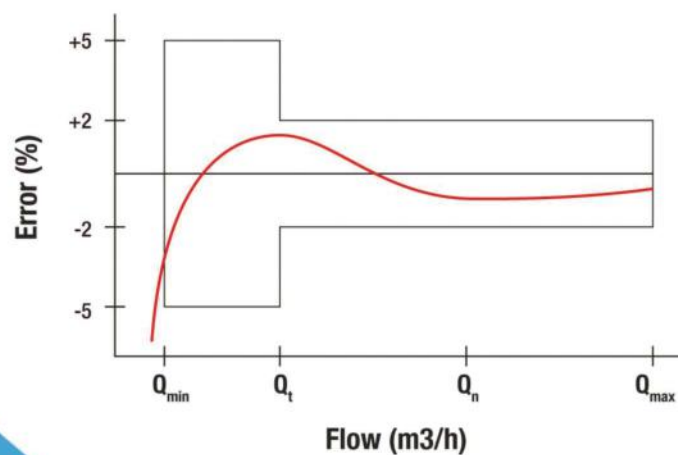
## Pulse Output

Diameter	DN	50	65	80	100	125	150	200	250	300
Standard value	L	100	100	100	100	100	1000	1000	10,000	10,000
Optional value	L	1000	1000	1000	1000	1000	10,000	10,000	100,000	100,000

## Pressure Loss Diagram



## Accuracy Curve





## INSTALLATION GUIDELINES FOR WOLTMANN WATER METERS

### Sizing and Selection:

- Maximum flow is only for use in emergencies, for about 1-2 minutes as it causes the bearings to overheat.
- Minimum flow only refers to the minimum flow required to operate and record on the meter. At these very low flows, the meter will not be accurate.
- All water meters should be sized between transitional flow (the point at which the meter is most accurate) and nominal flow (everyday flow rate).
- The meters are designed only for use with clean water. Sufficient filtration prior to the meter should be considered if the quality of water is compromised.

### Installation:

- The preferred mounting position is horizontal. Woltmann meters can be installed vertically, providing that care is taken over the installation position ensuring that all other elements of these guidelines are adhered to. Ensuring that the flow rate is double the  $Q_t$  value can reduce the meter error.
- Under no circumstances whatsoever must the meters remain in situ whilst system flushing takes place.
- The dial must always be facing upwards. Never put the meter upside down as it will not function correctly.
- Water meters should always be fitted with a minimum of 5x pipe diameter both up and downstream. For example, a 2" (Dn50) water meter would have 10" (250mm) either side of the meter as straight pipe. This is to ensure accurate reading by reducing water turbulence. At higher pressures (above 8 bar), this should be increased to 10x pipe diameter.
- Note that there is a direction of flow arrow on the meter and the meter should be installed accordingly.
- It is recommended as good practice to fit a removable filter element before a water meter to protect the mechanism.
- Only clean water should be used that does not exceed the temperature specification of the meter. This is 30 degrees centigrade for cold meters and 90 degrees centigrade for hot meters.

