



WP-Dynamic

Turbine Water Meter for cold water up to 50 °C / PN 16, DN 40 ... DN 400

Main Features

- Hermetically sealed register (IP 68)
- Patented hydrodynamically balanced rotor ($\leq$ DN 300)
- Patented symmetrical calibration adjustment ($\leq$ DN 300)
- Register may be rotated through 360°
- High overload capability
- Pattern approved removable measuring element
- Powder coating affords max. corrosion protection
- Not affected by external magnetic fields
- Optionally as meter free of copper alloy (BMF) for aggressive media

APPLICATION

Measurement of high, relatively constant flow rates, e.g. behind pumps

For industrial, non-commercial use

Application for aggressive media (BMF), e.g.

- Desalinated / demineralized water
- Caustic soda up to 20 %
- Saline water up to 10 %
- Chlorinated water up to 1 %
- Glycol-water solutions up to 30 %
- Caustic solutions up to pH value 9

(Other liquids on request)

AVAILABLE OPTIONS

Up to 3 pulsers (1 x OD, 2 x RD) may be fitted without breaking the approval seal

1/4" connection port for pressure sensors

Cold water meters pressure rate PN 40
please see special leaflet

WP-Dynamic

Turbine Water Meter for cold water up to 50 °C / PN 16, DN 40 ... DN 400

INSTALLATION

Pipe	horizontal vertical inclined	
Meter head	upwards sideways	

Installation Requirements

Unrestricted straight pipe in front of the meter 3 x DN
(DN400 5 x DN)

No abrupt restrictions directly behind the meter

PERFORMANCE DATA

Performance data WP-Dynamic 50 °C

Nominal Diameter			DN	40	50	65	80	100	125	150	200	250	300	400
Size of meter (acc. to ISO 4064:1-1993)			Q _n	10	15	25	40	60	100	150	250	400	600	1000
Q _{max}	maximum peak flow once in life time 24 h Q _{max} or 5 min. 1.2 x Q _{max}	(±2%)	m³/h	60	90	120	200	300	350	600	1200	1600	2000	3000
Q _n	continuous flow	(±2%)	m³/h	40	50	70	120	230	250	450	800	1250	1400	2000
Q _t	transitional flow	(±2%)	m³/h	0.8	0.7	0.8	0.8	1.8	2.0	4.0	6.0	11.0	15.0	50
Q _{min}	minimum flow	(±5%)	m³/h	0.30	0.30	0.40	0.50	0.80	1.00	1.8	4.0	6.0	12.0	25
	starting flow		m³/h	0.15	0.15	0.20	0.25	0.25	0.5	1.0	1.5	3.0	8.0	15

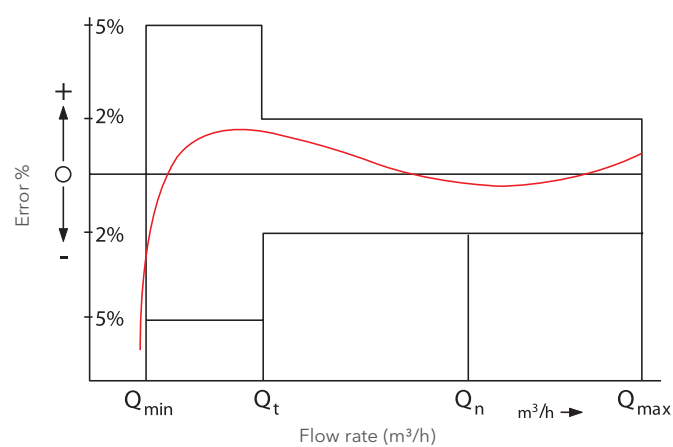
Performance data according to ISO 4064:1-1993 specification 30 °C class B

Nominal Diameter			DN	40	50	65	80	100	125	150	200	250	300	400
Size of meter (acc. to ISO 4064:1-1993)			Q _n	10	15	25	40	60	100	150	250	400	600	1000
Q _{max}	maximum peak flow short time		m³/h	30	30	50	80	120	200	300	500	800	1200	2000
Q _n	continuous flow		m³/h	15	15	25	40	60	100	150	250	400	600	1000
Q _t	transitional flow		m³/h	3.0	3.0	5.0	8.0	12.0	20.0	30	50	80	120	200
Q _{min}	minimum flow		m³/h	0.45	0.45	0.75	1.20	1.80	3.00	4.5	7.5	12.0	18.0	30

WP-Dynamic

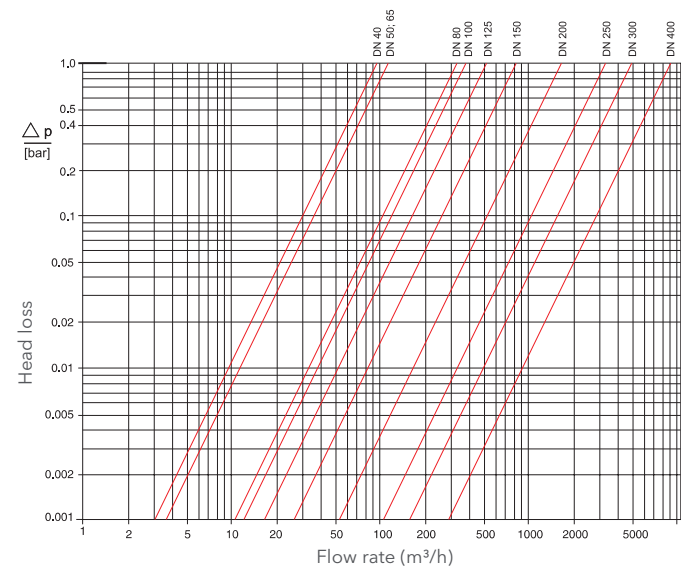
Turbine Water Meter for cold water up to 50 °C / PN 16, DN 40 ... DN 400

Typical Accuracy Curve



Q_{max} = maximum peak flow
 Q_n = continuous flow
 Q_t = transitional flow $\pm 2\%$
 Q_{min} = minimum flow $\pm 5\%$

Typical Head Loss Curve

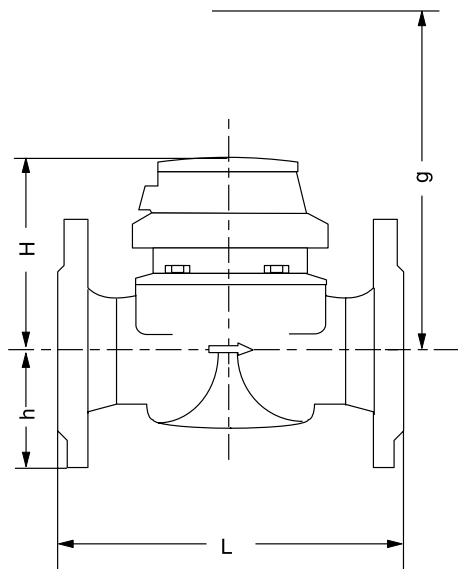


DIMENSIONS AND WEIGHTS

Nominal Diameter			DN	40	50	65	80	80	100	125	150	200	250	300	400
Size of meter (acc. to ISO 4064:1-1993)			Q_n	10	15	25	40	40	60	100	150	250	400	600	1000
Dimensions	overall length	$L^*)$	mm	220	200	200	200	225	250	250	300	350	450	500	500
	height	H	mm	120	120	120	150	150	150	160	177	206	231	256	380
		h	mm	69	73	85	96	95	105	118	135	162	194	226	295
		g	mm	200	200	200	270	270	270	280	356	441	466	491	785
Weights	meter		kg	7.4	7.7	10.0	13.6	14.0	18.0	20.5	35.5	50.5	72.3	99.3	187
	measuring element		kg	1.4	1.4	1.4	3.0	3.0	3.0	3.0	5.5	7.5	7.5	7.5	25
	body		kg	6.0	6.3	8.6	10.6	11.0	15.0	17.5	30.0	43.0	63.8	91.8	162

*) Other overall lengths on request

Dimensional Diagram

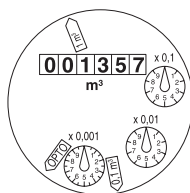


MATERIALS

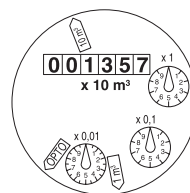
Body	PN16	cast iron
Measuring element		plastic
Rotor		plastic
We also use the following materials		brass, stainless, steel

Turbine Water Meter for cold water up to 50 °C / PN 16, DN 40 ... DN 400

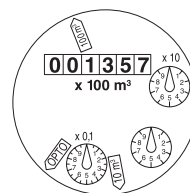
Nominal Diameter DN	Smallest Reading m³	Max. Reading m³
50 ... 125	0,0005	1 000 000
150 ... 300	0,005	10 000 000
400	0,05	100 000 000



DN 40 ... DN 125



DN 150 ... DN 300



DN 400

Pulser		pulse value		
		DN 40 ... DN 125	DN 150 ... DN 300	DN 400
RD 01		0.1 and 1 m³ alternatively 0.01 and 1 m³	1 and 10 m³ alternatively 0.1 and 10 m³	10 and 100 m³
OD 01		0.001 m³	0.01 m³	0.1 m³
OD 03		0.01 m³	0.1 m³	1 m³

Nominal Diameter	DN	40	50	65	80	80	100
Overall length *)	mm	220	200	200	200	225	250
Order no.	PN16	828593	828595	828597	828599	828601	828603

Nominal Diameter	DN	125	150	200	250	300	400
Overall length *)	mm	250	300	350	450	500	500
Order no.	PN16	828605	828607	828717	828719	828743	829195

Order Example

