

# WP-Dynamic

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



## Main characteristics

- 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

## Application

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

## 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
- May be equipped with 2 different electronic registers



HYBRID



ENCODER

Cold water meters pressure rate PN 40 please see special leaflet

## Pattern Approval Sign

D95

Nominal Diameter DN 40 ...  
DN 300

6.132.36

Marking:  
Metrological class B  
30 °C

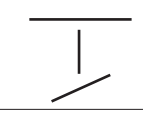
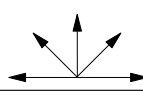
D80

Nominal Diameter DN 400

6.132.01

Marking:  
Metrological class B  
30 °C

## 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 Table

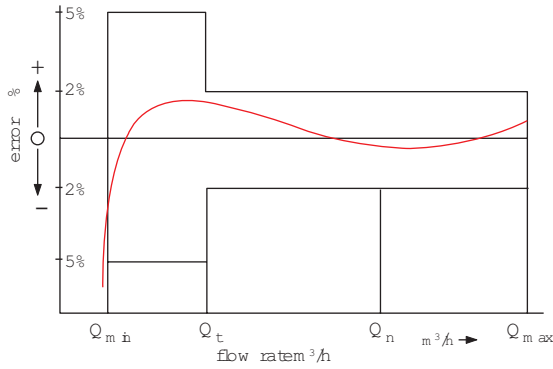
### Performance data WP-Dynamic 50 °C

Nominal Diameter		DN	40	50	65	80	100	125	150	200	250	300	400
Size of meter (acc. to EEC)		$Q_n$	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 $Q_{max}$ ( $\pm 2\%$ )	$m^3/h$	60	90	120	200	300	350	600	1200	1600	2000	3000
$Q_n$	continuous flow ( $\pm 2\%$ )	$m^3/h$	40	50	70	120	230	250	450	800	1250	1400	2000
$Q_t$	transitional flow ( $\pm 2\%$ )	$m^3/h$	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 ( $\pm 5\%$ )	$m^3/h$	0.30	0.30	0.40	0.50	0.80	1.00	1.8	4.0	6.0	12.0	25
	starting flow	$m^3/h$	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 EEC-specification 30 °C class B

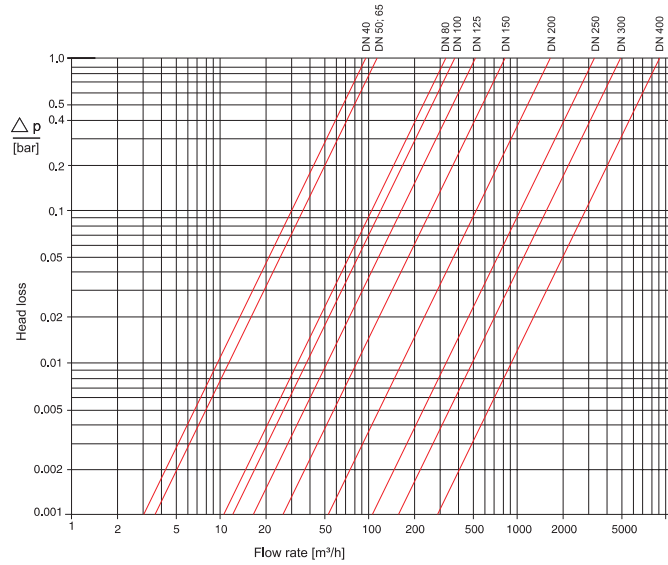
Nominal Diameter		DN	40	50	65	80	100	125	150	200	250	300	400
Size of meter (acc. to EEC)		$Q_n$	10	15	25	40	60	100	150	250	400	600	1000
$Q_{max}$	maximum peak flow short time	$m^3/h$	30	30	50	80	120	200	300	500	800	1200	2000
$Q_n$	continuous flow	$m^3/h$	15	15	25	40	60	100	150	250	400	600	1000
$Q_t$	transitional flow	$m^3/h$	3.0	3.0	5.0	8.0	12.0	20.0	30	50	80	120	200
$Q_{min}$	minimum flow	$m^3/h$	0.45	0.45	0.75	1.20	1.80	3.00	4.5	7.5	12.0	18.0	30

## 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

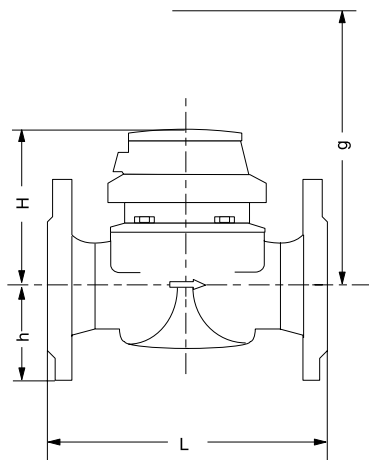


## Dimensions and Weights

Nominal Diameter		DN	40	50	65	80	80	100	125	150	200	250	300	400
Size of meter (acc. to EEC)		$Q_n$	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
	height	H	mm	120	120	120	150	150	150	160	177	206	231	256
		h	mm	69	73	85	95	95	105	118	135	162	194	226
		g	mm	200	200	200	270	270	270	280	356	441	466	491
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	
	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	
	body	kg	6.0	6.3	8.6	10.6	11.0	15.0	17.5	30.0	43.0	63.8	91.8	

\*) Other overall lengths on request

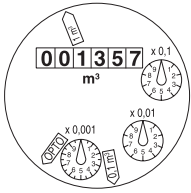
## Dimension Picture



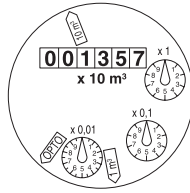
## Materials

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

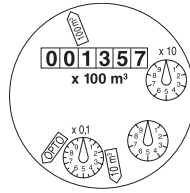
## Dials



DN 40 ... DN 125





DN 150 ... DN 300



DN 400

Diameter Nominal 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

## Pulse Values

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

## Available Designs

Diameter Nominal	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

Diameter Nominal	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

\*) Other overall lengths on

## Order Example

WP-Dynamic, DN 50, 50/16, L= 200 mm, 1/0.1 m³ \_\_\_\_\_ type  
 drilled according to EN 1092 PN 16 \_\_\_\_\_ diameter nominal  
 828595 \_\_\_\_\_ working temperature  
 \_\_\_\_\_ pressure rate  
 \_\_\_\_\_ overall length  
 \_\_\_\_\_ pulse values  
 \_\_\_\_\_ flange drilling  
 \_\_\_\_\_ order no.



qualityaustria  
Succeed with Quality

Certified according to ISO 9001  
Quality Management System Quality Austria Reg.no. 3496/0



### UK & Ireland Enquiries

Sensus UK Systems Ltd, International House, Southampton International Business Park,  
George Curl Way, Southampton SO18 2RZ UK  
T: +44 (0) 1794 526100 F: +44 (0) 1794 526101 Email: info.gb@sensus.com www.sensus.com

### International Enquiries

Sensus GmbH Hannover, Meineckestraße 10, D-30880 Laatzen Germany  
T: +49 (0) 5102 74-0 F: +49 (0) 5102 74-3341 Email: info.int@sensus.com www.sensus.com