

for cold water up to 40 °C  
for hot water up to 130 °C  
Pressure rate PN 25/40  
DN 50 ... DN 300



## For cold water up to 40 °C

### ■ Special Features

- Sealed register water proof (IP 67)
- Sealed register may be rotated through 360°
- Up to 3 pulsers can be fitted without breaking the meter seal
- Maximum corrosion protection by powder coating
- Not affected by external magnetic fields
- Interchangeable measuring element
- Performance data better than class B

### ■ Application

- Measuring of cold water up to 40 °C (overloadable up to 50 °C) in water supply pipelines with pressure up to 25/40 bar

## For hot water up to 130 °C

### ■ Special Features

- Sealed register water proof (IP 67)
- Sealed register may be rotated through 360°
- Up to 3 pulsers can be fitted without breaking the meter seal
- Maximum corrosion protection by powder coating
- Not affected by external magnetic fields
- Interchangeable measuring element

### ■ Application

- Flow sensor for heat meters
- Measuring of hot water up to 130 °C (overloadable up to 150 °C) in heating systems with pressure up to 25/40 bar




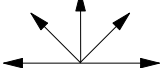

## Pattern Approval Sign

**D 79**  
Cold Water Meter  
Diameter Nom. DN 50 ... 100  
Marking:  
6.132.02 Metrological class B  
30 °C

**D 80**  
Cold Water Meter  
Diameter Nom. DN 150 ... 300  
Marking:  
6.132.01 Metrological class B  
30 °C

**22.16**  
**81.20**  
Hot Water Meter  
Diameter Nom. DN 50 ... 200  
Marking:  
Metrological class A

## Installation

Pipe	horizontal	
	vertical	
	inclined	
Meter head	upwards	
	sideways	

### Installation Requirements

- Unrestricted straight pipe in front of the meter 3 x DN
- No abrupt restrictions directly behind the meter

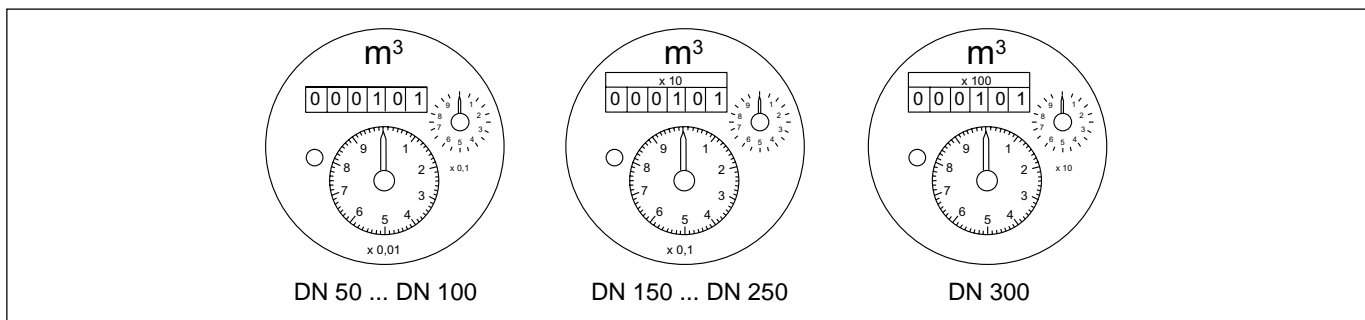
## Performance Table 40 °C

Diameter Nominal		DN	50	80	100	150	200	250	300
Size of meter (acc. to EEC)		Q <sub>n</sub>	15	40	60	150	250	400	600
Q <sub>max</sub>	Maximum peak flow (few minutes)	m <sup>3</sup> /h	80	200	250	600	800	1200	2000
Q <sub>n</sub>	continuous flow ± 2%	m <sup>3</sup> /h	40	120	180	400	550	750	1000
Q <sub>t</sub>	transitional flow ± 2%	m <sup>3</sup> /h	1.0	1.0	2.5	4.0	6.0	12	15
Q <sub>min</sub>	minimum flow ± 5%	m <sup>3</sup> /h	0.5	0.6	1.2	2.75	4.0	6.0	12
	starting flow	m <sup>3</sup> /h	0.2	0.25	0.3	1.7	1.8	3.0	9.0

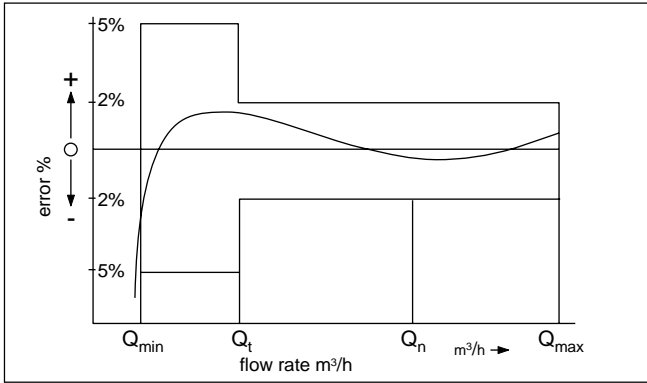
## Performance Table 130 °C

Diameter Nominal		DN	50	80	100	150	200	250	300
Size of meter (acc. to EEC)		Q <sub>n</sub>	15	40	60	150	250	400	600
Q <sub>max</sub>	Maximum peak flow (few minutes)	m <sup>3</sup> /h	30	90	140	300	500	1000	1200
Q <sub>n</sub>	continuous flow ± 3%	m <sup>3</sup> /h	15	45	70	150	250	500	600
Q <sub>t</sub>	transitional flow ± 3%	m <sup>3</sup> /h	1.8	3.2	4.8	12	20	45	50
Q <sub>min</sub>	minimum flow ± 5%	m <sup>3</sup> /h	1.0	1.4	2.0	4.5	8	25	30
	starting flow	m <sup>3</sup> /h	0.25	0.35	0.6	1.7	2.0	10	15

## Dials

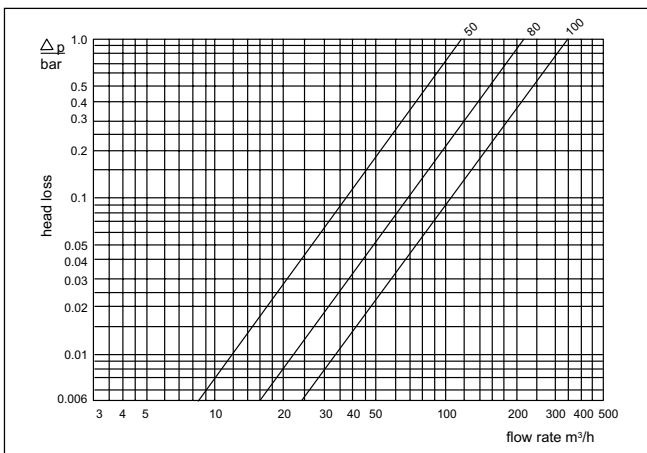


## Typical Accuracy Curve

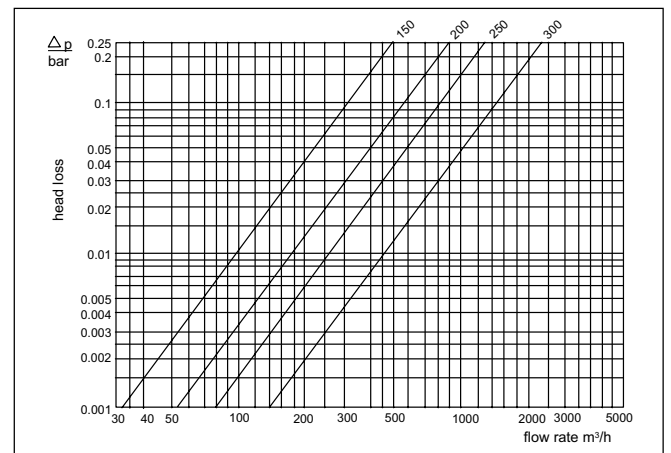


$Q_{max}$  = maximum peak flow  
 $Q_n$  = continuous flow  
 $Q_t$  = transitional flow  $\pm 2\%$   
 $Q_{min}$  = minimum flow  $\pm 5\%$

## Head Loss WP DN 50...125

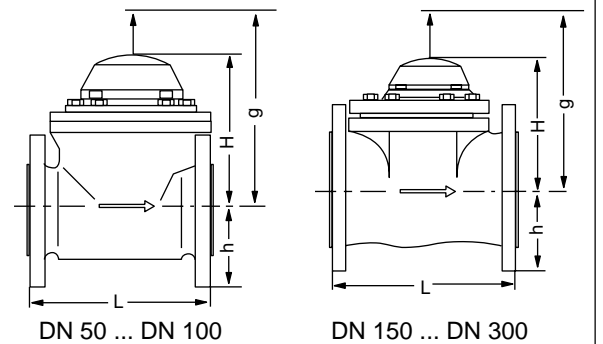


## Head Loss WP DN 150...300



## Dimensions and Weights

Diameter Nominal	DN	50	80	100	150	200	250	300	
Size of meter	$Q_n$	15	40	60	150	250	400	600	
Working pressure PN	bar	40	40	40	40	40	25	25	
Overall length	L mm	200	225	250	300	350	450	500	
Height	H mm	175	175	175	233	233	321	321	
	h mm	82	100	110	135	162	194	219	
	g mm	360	360	360	470	470	680	680	
Weight	meter	kg	15	18	24	43	57	118	154
	measuring element	kg	3	3	3	9	9	22	22
	body	kg	12	15	21	34	48	96	132



## Pulse Values

Diameter Nominal	DN		50 ... 125 1 pulse $\triangleq$ ...	150 ... 250 1 pulse $\triangleq$ ...	300 1 pulse $\triangleq$ ...
Cold water meter	Standard	R 01	1 m <sup>3</sup> 0.1 m <sup>3</sup>	10 m <sup>3</sup> 1 m <sup>3</sup>	100 m <sup>3</sup> 10 m <sup>3</sup>
Hot water meter	Standard	R 02	0.25 m <sup>3</sup> 0.1 m <sup>3</sup>	2.5 m <sup>3</sup> 1 m <sup>3</sup>	25 m <sup>3</sup> 10 m <sup>3</sup>
	with special register	R 02	0.25 m <sup>3</sup> 0.025 m <sup>3</sup>	2.5 m <sup>3</sup> 0.25 m <sup>3</sup>	25 m <sup>3</sup> 2.5 m <sup>3</sup>
Cold water meter		OP 01	0.001 m <sup>3</sup>	0.010 m <sup>3</sup>	0.100 m <sup>3</sup>
		OP 03	0.010 m <sup>3</sup>	0.100 m <sup>3</sup>	1.000 m <sup>3</sup>
Hot water meter		OP 02	0.001 m <sup>3</sup>	0.010 m <sup>3</sup>	0.100 m <sup>3</sup>
		OP 04	0.010 m <sup>3</sup>	0.100 m <sup>3</sup>	1.000 m <sup>3</sup>

## Available Designs

### COSMOS WP DN 50 ... DN 300 · 40 °C / PN 25/40

Diameter Nominal DN	50	80	100	150	200	250 *)	300 *)
Overall length L mm	200	225	250	300	350	450	500
Order no.	827444	827450	827456	827462	827468	828182	828188

\*) only PN 25

### COSMOS WP DN 50 ... DN 300 · 130 °C / PN 25/40

Diameter Nominal DN	50	80	100	150	200	250 *)	300 *)
Overall length L mm	200	225	250	300	350	450	500
Order no.	828364	827451	827457	827463	827469	828183	828189

\*) only PN 25

## Order Example

	type
	diameter nominal
	working temperature
	working pressure
<b>WP-QF 50 40 / 40 L=200 mm</b>	overall length
<b>according to DIN 2501 PN 40</b>	flange drillings
<b>827444</b>	order no.



Quality Management System  
DQS-certified according to DIN ISO 9001,  
Reg.-No. 2173-02

Laboratory Accreditation according to DIN EN 45001  
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