

WP- Dynamic

Flowsensor
for hot water up to 130 °C
DN 40 ... DN 300



Special Features

Patented hydrodynamically balanced rotor
Patented symmetrical calibration adjustment
Hermetically sealed register (IP 68)
Register may be rotated through 360°
High overload capability
Pattern approved removable measuring element
Up to 3 pulsers (1 x OD, 2 x RD) may be fitted without breaking the approval seal
Powder coating ensures maximum corrosion protection

Flowsensors Pressure rate PN 40 please see separate leaflet

Application

Measurement of high, relatively constant flow rates

Pattern Approval

22.16

Nominal Diameter DN 50 ... 150

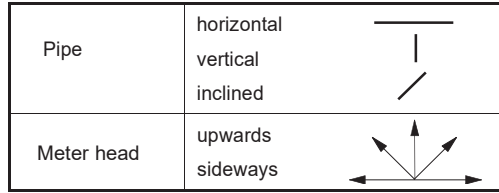
96.01

Marking:
Metrological class B

B.E.S.
FLOWMETERS

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Installation



Installation Requirements

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

Technical Data

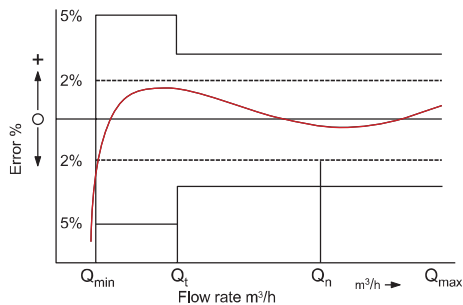
Performance data WP-Dynamic 130 °C

Nominal Diameter		DN	40	50	65	80	100	125	150	200	250	300
Size of meter (acc. to PTB-A22)		Q _n	10	15	25	40	60	100	150	250	400	600
Q _{max}	maximum peak flow once lifetime 24 h Q _{max} or 5 min. 1.2 x Q _{max}	m ³ /h	20	30	60	90	140	200	300	500	1000	1200
Q _n	continuous flow (±2%)	m ³ /h	10	15	25	45	70	100	150	250	500	600
Q _t	transitional flow (±2%)	m ³ /h	1.8	1.8	2.0	3.2	4.8	8.0	12	20	45	50
Q _{min}	minimum flow (±5%)	m ³ /h	0.6	0.6	1.0	1.4	2.0	3.5	4.5	8	20	25
	starting flow	m ³ /h	0.25	0.25	0.3	0.35	0.6	1.1	1.7	2.0	10	15

Performance data table according to PTB-A22 specification class B

Nominal Diameter		DN	50	65	80	100	125	150	200	250	300
Size of meter (acc. to PTB-A22)		Q _n	15	25	40	60	100	150	250	400	600
Q _{max}	maximum peak flow short time	m ³ /h	30	50	80	120	200	300	500	800	1200
Q _n	continuous flow (±3%)	m ³ /h	15	25	40	60	100	150	250	400	600
Q _t	transitional flow (±3%)	m ³ /h	2.25	3.75	6.0	9.0	15.0	22.5	37.5	60	90
Q _{min}	minimum flow (±5%)	m ³ /h	0.6	1.0	1.6	2.4	4.0	6.0	10.0	16.0	24.0

Typical Accuracy Curve



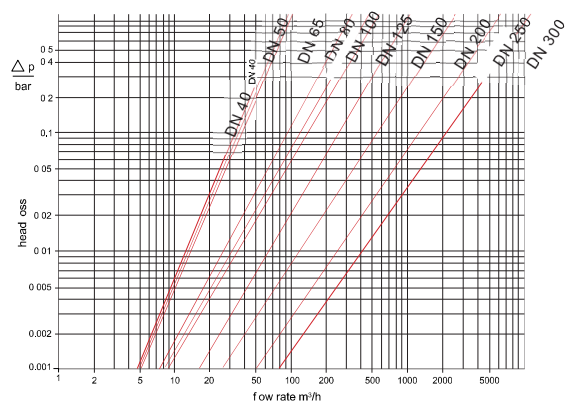
Q_{max} = maximum peak flow

Q_n = continuous flow ±2%

Q_t = transitional flow ±2%

Q_{min} = minimum flow ±5%

Typical Head Loss Curve

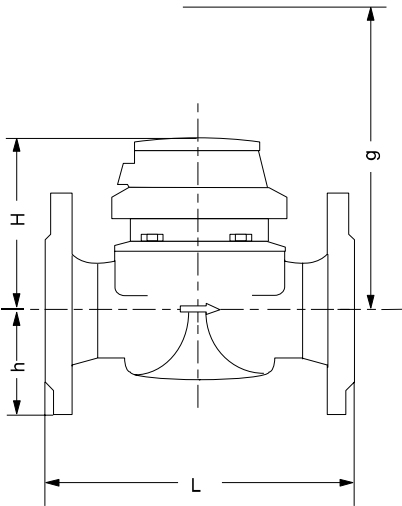


Dimensions and Weights

Nominal Diameter	DN	40	50	65	80	80	100	125	150	200	250	300		
Size of meter (acc. to PTB-A22)	Q _n	10	15	25	40	40	60	100	150	250	400	600		
Dimensions	overall length	L *)	mm	220	200	200	200	225	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	71.3	91.8	

*) Other overall lengths on request

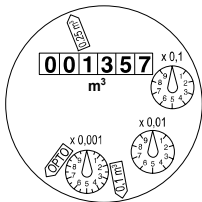
Dimension Picture



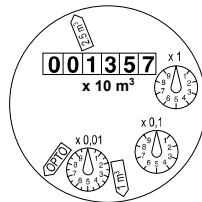
Materials

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

Dials





DN 40 ... DN 125



DN 150 ... DN 300

Nominal Diameter DN	Smallest reading m ³	Max. reading m ³
40 ... 125	0.0005	1 000 000
150 ... 300	0.005	10 000 000

Pulse Values

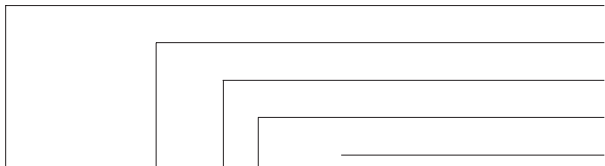
Pulser		Pulse value	
		DN 40 ... DN 125	DN 150 ... DN 300
RD02 / RD022		0.25 and 0.1 m ³ or 0.25 and 0.025 m ³	1 and 2.5 m ³ or 2.5 and 0.25 m ³
OD 02		0.001 m ³	0.01 m ³
OD 04		0.01 m ³	0.1 m ³

Available Design

Nominal Diameter	DN	40	50	65	80	80	100
Size (acc. to PTB-A22)	Qn	10	15	25	40	40	60
Overall Length	mm	220	200	200	200	225	250
Order-No.	PN 16	82 85 94	82 85 96	82 85 98	82 86 00	82 86 02	82 86 04

Nominal Diameter	DN	125	150	200	250	300	
Size (acc. to PTB-A22)	Qn	100	150	250	400	600	
Overall Length	mm	250	300	350	450	500	
Order-No.	PN 16	82 86 06	82 86 08	82 87 18	82 87 20	82 87 44	

Order Example

	Type
	Nominal Diameter
	Temperature
	Pressure rate
	Overall length
WP-Dynamic, DN 50, 130/16, L= 200 mm, 0,25/0,1 m ³	Pulse values
drilled acc. to EN 1092 PN 16	Flange drilling
82 85 96	Order-No.

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