

## WP-D



Water Meter  
water up to 50 °C / PN 16  
DN400

### Main characteristics

- Hermetically sealed register (IP 68)
- Patented hydrodynamically balanced rotor (≤DN 300)
- Patented symmetrical calibration adjustment (≤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 3 different electronic registers.



HYBRID



ELECTRONIC



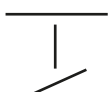
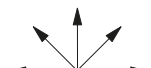
ENCODER

Cold water meters pressure rate PN 40 please see special leaflet

## Pattern Approval Sign

|          |                                           |
|----------|-------------------------------------------|
| D95      | Nominal Diameter DN 40 ...<br>DN 300      |
| 6.132.36 | Marking:<br>Metrological class B<br>30 °C |
| D80      | Nominal Diameter DN 400                   |
| 6.132.01 | Marking:<br>Metrological class B<br>30 °C |

## Installation

|            |                                    |                                                                                     |
|------------|------------------------------------|-------------------------------------------------------------------------------------|
| Pipe       | horizontal<br>vertical<br>inclined |  |
| Meter head | upwards<br>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

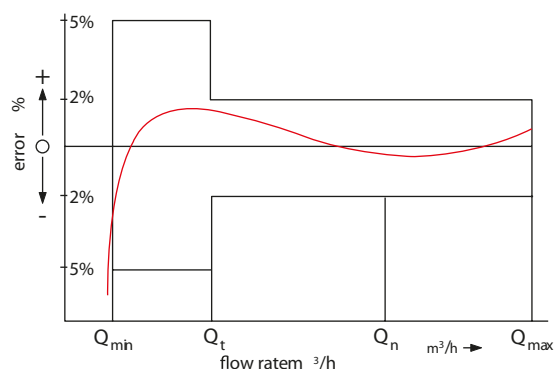
### Performance data WP-D 50 °C

| Nominal Diameter            |                                                                                                        | DN             | 40   | 50   | 65   | 80   | 100  | 125  | 150 | 200  | 250  | 300  | 400  |
|-----------------------------|--------------------------------------------------------------------------------------------------------|----------------|------|------|------|------|------|------|-----|------|------|------|------|
| Size of meter (acc. to EEC) |                                                                                                        | Q <sub>n</sub> | 10   | 15   | 25   | 40   | 60   | 100  | 150 | 250  | 400  | 600  | 1000 |
| Q <sub>max</sub>            | maximum peak flow<br>once in life time 24 h Q <sub>max</sub><br>or 5 min. 1,2 x Q <sub>max</sub> (±2%) | m³/h           | 60   | 90   | 120  | 200  | 300  | 350  | 600 | 1200 | 1600 | 2000 | 3000 |
| Q <sub>n</sub>              | continuous flow (±2%)                                                                                  | m³/h           | 40   | 50   | 70   | 120  | 230  | 250  | 450 | 800  | 1250 | 1400 | 2000 |
| Q <sub>t</sub>              | 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 <sub>min</sub>            | 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 EEC-specification 30 °C class B

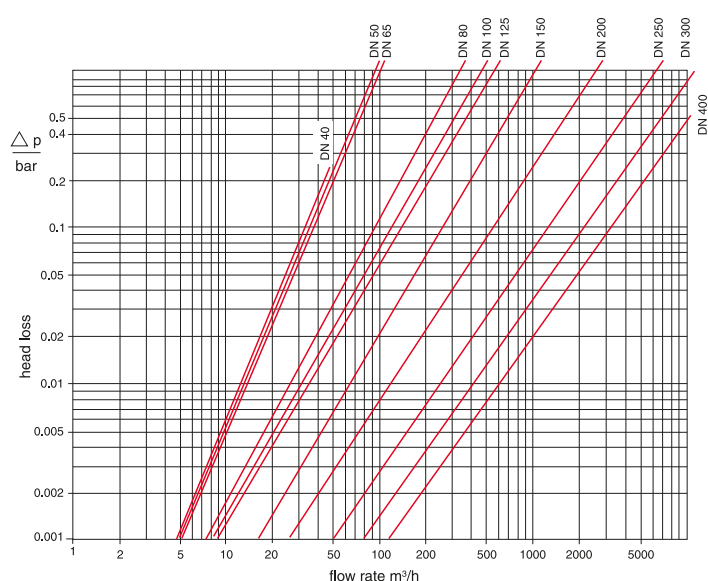
| Nominal Diameter            |                   | DN                | 40   | 50   | 65   | 80   | 100  | 125  | 150 | 200 | 250  | 300  | 400  |
|-----------------------------|-------------------|-------------------|------|------|------|------|------|------|-----|-----|------|------|------|
| Size of meter (acc. to EEC) |                   | Q <sub>n</sub>    | 10   | 15   | 25   | 40   | 60   | 100  | 150 | 250 | 400  | 600  | 1000 |
| Q <sub>max</sub>            | maximum peak flow |                   |      |      |      |      |      |      |     |     |      |      |      |
|                             | short time        | m <sup>3</sup> /h | 30   | 30   | 50   | 80   | 120  | 200  | 300 | 500 | 800  | 1200 | 2000 |
| Q <sub>n</sub>              | continuous flow   | m <sup>3</sup> /h | 15   | 15   | 25   | 40   | 60   | 100  | 150 | 250 | 400  | 600  | 1000 |
| Q <sub>t</sub>              | transitional flow | m <sup>3</sup> /h | 3.0  | 3.0  | 5.0  | 8.0  | 12.0 | 20.0 | 30  | 50  | 80   | 120  | 200  |
| Q <sub>min</sub>            | minimum flow      | m <sup>3</sup> /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

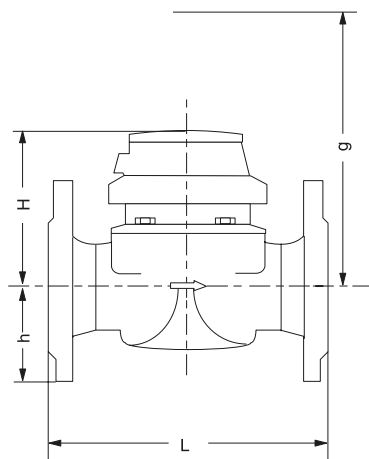


## Dimensions and Weights

| 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  | 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

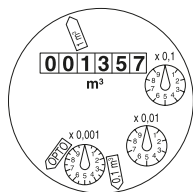
## Dimension Picture



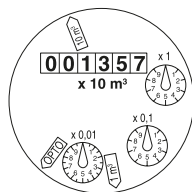
## Materials

|                                        |      |                          |
|----------------------------------------|------|--------------------------|
| Body                                   | PN16 | cast iron                |
| Measuring element                      |      | plastic                  |
| Rotor                                  |      | plastic                  |
| We also use<br>the following materials |      | brass<br>stainless steel |

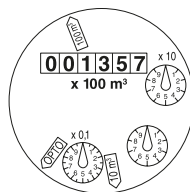
## Dials



DN 40 ... DN 125



DN 150 ... DN 300



DN 400

| Diameter Nominal<br>DN | Smallest reading<br>m <sup>3</sup> | Max. reading<br>m <sup>3</sup> |
|------------------------|------------------------------------|--------------------------------|
| 50 ... 125             | 0.0005                             | 1 000 000                      |
| 150 ... 300            | 0.005                              | 10 000 000                     |
| 400                    | 0.05                               | 100 000 000                    |

## Pulse Values

| Pulser |                                                                                     | DN 40 ... DN 125                                                       | pulse value<br>DN 150 ... DN 300                                      | DN 400                       |
|--------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------------------------|------------------------------|
| RD 01  |   | 0.1 and 1 m <sup>3</sup><br>alternatively<br>0.01 and 1 m <sup>3</sup> | 1 and 10 m <sup>3</sup><br>alternatively<br>0.1 and 10 m <sup>3</sup> | 10 and<br>100 m <sup>3</sup> |
| OD 01  |  | 0.001 m <sup>3</sup>                                                   | 0.01 m <sup>3</sup>                                                   | 0.1 m <sup>3</sup>           |
| OD 03  |                                                                                     | 0.01 m <sup>3</sup>                                                    | 0.1 m <sup>3</sup>                                                    | 1 m <sup>3</sup>             |

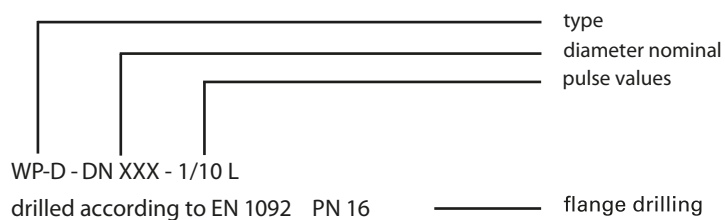
## Available Designs

| 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 request

## Order Example



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