

WPVD 3=1 Compound Water Meter

for cold water up to 50 °C
DN 50, DN 80, DN 100



Special Features

Three-in-one measuring element 3=1 main meter, spring loaded valve and bypass meter form an integrated unit

Interchangeable measuring unit 3=1

Hermetically sealed register (IP 68)

Register may be rotated through 360°

Maximum corrosion protection by powder coating

Stainless steel screws

For bypass meter all approved domestic water meters can be used

Application

Measurement of high flow rates with extremely wide spread flow profile

Measurement of smallest flow rates for leakage detection

Optimal for fire service pipes

Pattern Approval Sign

6.152

90.11

Marking:

Nominal Diameter DN 50: Metrological class A

Nominal Diameter DN 80, DN 100: Metrological class B

30 °C

Options

Main and bypass meter with pulsers

Overall length acc. to DIN with spool piece

Main meter and bypass meter may be equipped with several electronic registers



HYBRID



ELECTRONIC

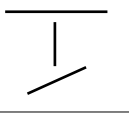
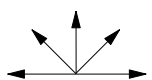


ENCODER

www.sensus.com
info.int@sensus.com

 **SENSUS**
METERING SYSTEMS

Installation

Pipe	horizontal vertical * inclined *	
Meter head	upwards sideways*	

* depends on type of bypass meter

Installation requirements

- Unrestricted straight pipe in front of the meter 3 x DN
- No requirements behind the meter

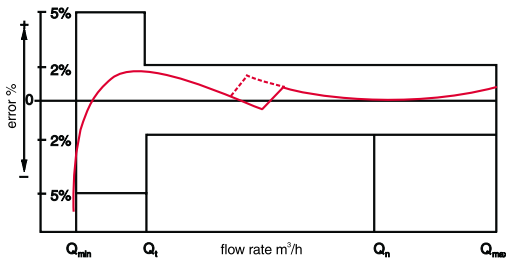
Performance Table

Nominal Diameter DN		50	80	100
Size of meter (EEC) Q_n		15	40	60
Working pressure PN bar		16	16	16
Maximum peak flow Q_{max} m ³ /h (few minutes)		80	200	250
Continuous flow Q_n m ³ /h		40	120	180
Bypass meter Q_n m ³ /h		2.5	2.5	6
Transitional flow $\pm 2\% Q_t$ m ³ /h		0.0375	0.0375	0.090
Change over with increasing flow	m ³ /h	2.3	2.3	3.9
decreasing flow	m ³ /h	1.2	1.4	2.3
Lower measuring limit $\pm 5\%$	Q_{min} m ³ /h	0.02	0.02	0.025

Pulse Values

Main meter	RD 01	0.1 m ³ and 1 m ³
	OD 01	0.001 m ³
	OD 03	0.01 m ³
Bypass meter	Reed	0.01m ³ ; 0.1 m ³ or 1 m ³

Typical Accuracy Curve



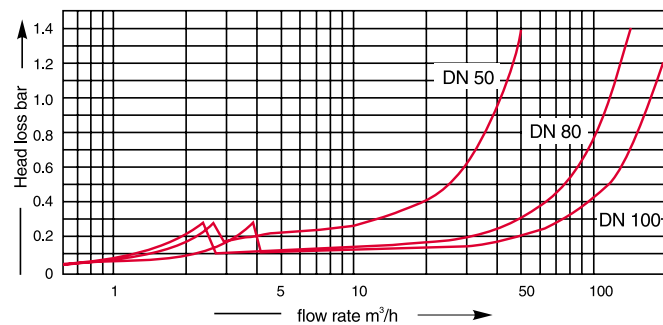
Q_{max} = maximum peak flow

Q_n = continuous flow

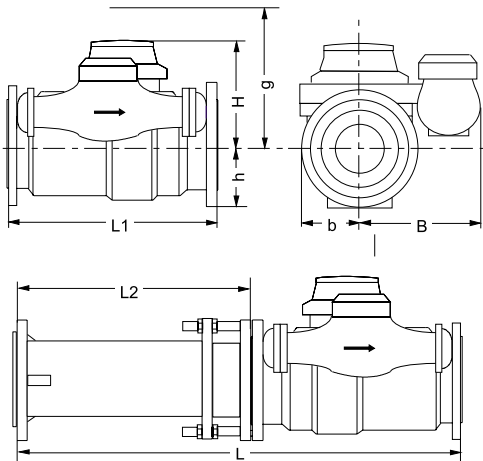
Q_t = transitional flow $\pm 2\%$

Q_{min} = minimum flow $\pm 5\%$

Typical Head Loss Curve



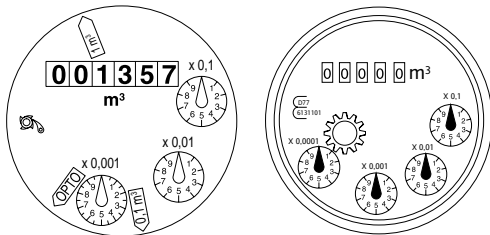
Dimension Pictures



Dimensions and Weights

Nominal Diameter DN			50	80	100
Size of meter	Q _n		15	40	60
Overall length	L1	mm	270	300	360
Bypass meter	Q _n		2.5	2.5	6
Height	H	mm	190	220	205
	h	mm	75	95	105
	g	mm	330	410	410
Length	L2	mm	330±40	400±60	440±60
	L	mm	600±40	700±60	800±60
Width	B	ca. mm	178	193	212
	b	ca. mm	83	106	124
Weight	meter	kg	22.5	32.5	39
	meas. element	kg	11.5	13.5	17.0
	spool piece	kg	10.5	16.5	20.5

Dials



Main meter

Bypass meter
(Type MN QN ... XN.EBH)

Materials

Body	main meter	cast iron
	bypass meter	brass
Measuring element (both meters)		plastic
Rotor (both meters)		plastic
Spring loaded valve		plastic and stainless steel

By-Pass Meters

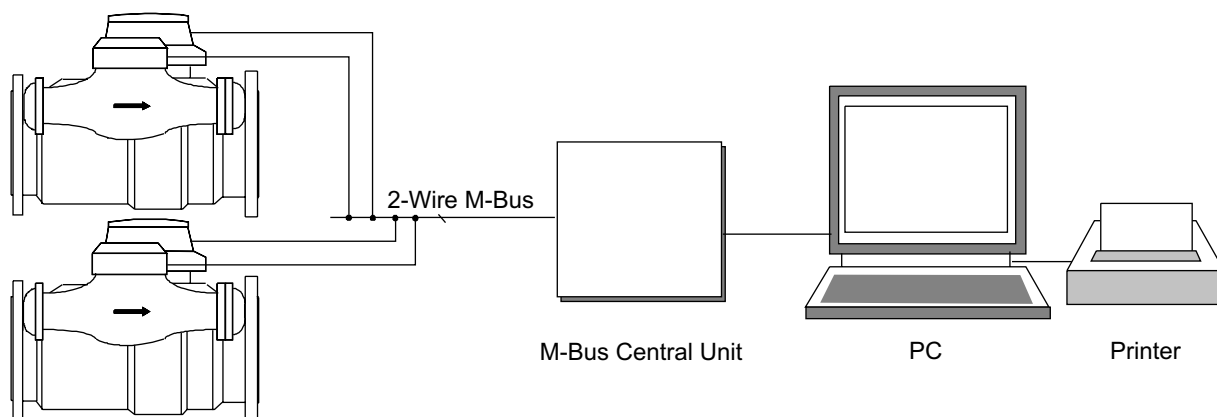
Standard Bypass Meter
MN QN ... XN.EBH



Rotary Piston Meter
RKD QN 2,5

Standard Bypass Meter:	
Multi Jet Meter wet dial	Type: MN QN ... XN.EBH
Options:	
Multi Jet Meter wet dial with pulser dry dial with Encoder register	Type: MN QN ... XN.EBH K ... Type: MT QN 2.5 Encoder
Rotary Piston Meter with Standard register with Hybrid register with Electronic register with Encoder register	Type: RKD QN 2.5 Standard Type: RKD QN 2.5 Hybrid Type: RKD QN 2.5 Electronic Type: RKD QN 2.5 Encoder
Rotary Piston Meter with Encoder register	Type: R-TP QN 2.5 Encoder

Application example for automatic meter reading



WPVD 3=1/R DN 50
Main and By pass meter
with HYBRID-register

Order Text

Quantity:

Specification: WPVD 3=1

Bypass meter: right / left

Nominal Diameter: DN

Size of meter: Q_n

Working temperature: 50 °C

Working pressure: PN 16

Metrological class: A / B

Pulse values: main meter / m³
bypass meter m³

Flange drilling: acc. to DIN 2501,
PN 16

Certification: with / without

Accessories:

Nominal Diameter: DN

Order Example

Quantity: 1

Specification: WPVD 3=1

Bypass meter: right

Nominal Diameter: DN 50

Size of meter: Q_n 15

Working temperature: 50 °C

Working pressure: PN 16

Metrological class: B

Pulse values: main meter 1 / 0.1 m³
bypass meter 0.01 m³

Flange drilling: acc. to DIN 2501, PN 16

Certification: with

Accessories: spool piece

Nominal Diameter: DN 50