



R&B Instrument Inc.

FOCUS ON FLOW METERS

Battery Supply Ultrasonic Water Meter

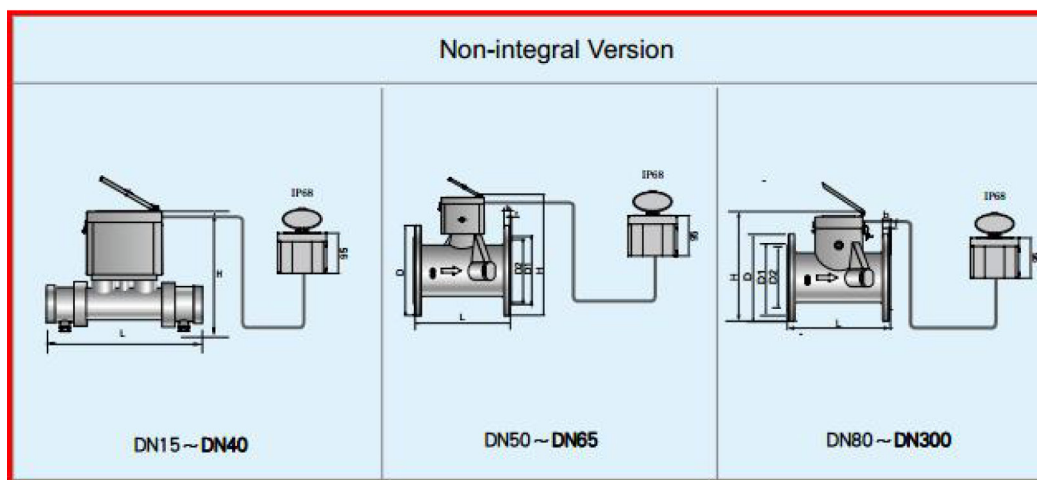
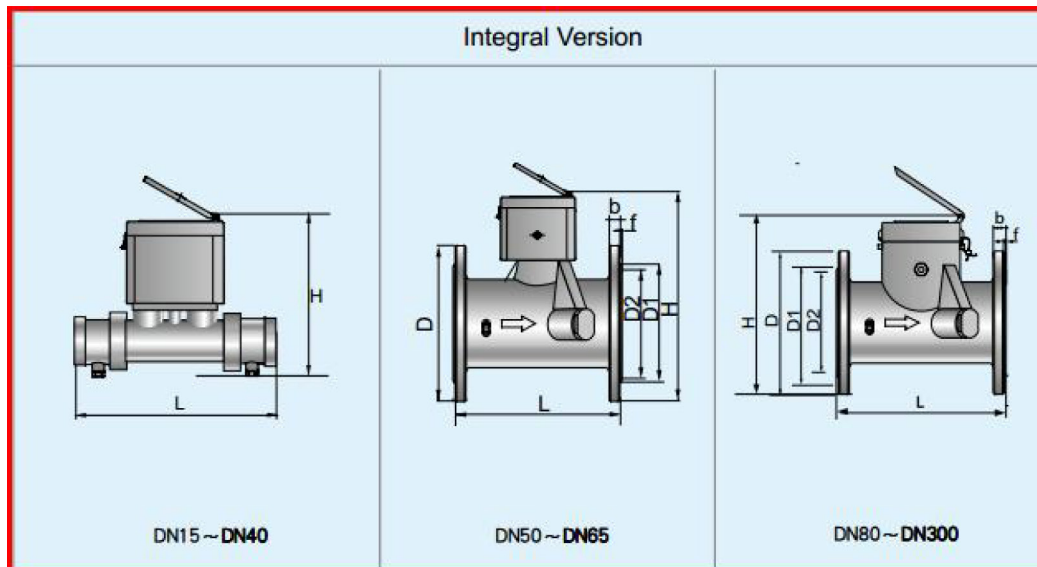
RBBW DN15-300 Battery Supply Ultrasonic Water Meter is an innovative flow meter with static flow sensor based on the ultrasonic measuring principle. RBBW Ultrasonic Water Meter utilizes ultrasonic measuring methodology and microprocessor technology. All calculation and flow measuring circuits are designed on one single board, thus offering exceptional accuracy and reliability.

FEATURES

- l High-precision machining centers, initiating action to prevent the occurrence of product non-conformity, stable and reliable;
- l Adaptable to inferior water quality, low in maintenance cost;
- l Low initial flow rate and min. flow velocity measured is 0.002m/s;
- l No mechanical moving parts, long service life;
- l Ultralow power consumption, battery with over 10-years(DN15-25) & 6-year life time(DN32-300 Flanged type); less than 0.0008W;
- l Available with photoelectric interface, RS485 or M-BUS output interface; available in remote reading(AMR), and easy for central control and management;
- l Operated in ultrasonic flow metering technology, suitable in multi-channel construction design, double cross section measurement and be able to ensure the measurement accuracy to the largest extent;
- l IP68 of the whole meter, for each unit of the meter is IP68 designed; mounting, immune to any impact on measuring and pressure dropping to a minimum meanwhile;
- l Approved according to GB/T 778-2007;
- l Advanced calibrating device, adopt international advanced automatic heat meter calibration device, ensure the product accuracy;
- l Can be used as cooling, heating or combined climatic meter;

DIMENSIONS (mm)

(Single-channel version)



Overall Dimensions(mm) of the Thread-connected Intergral and Non-integral Versions (DN15-DN40)					
DN	L	H	Connecting Thread		Pressure(Mpa)
			W/Connecting Fittings	W/O Connecting Fittings	
15	130	125	R1/2"	G3/4"	1.0
20	130	125	R3/4"	G1"	
25	160	125	R1"	G11/4"	
32	260	160	G11/2"		
40	300	210	G2"		

MOUNTING DIMENSIONS

Mounting Dimensions(mm) of the Flange-connected Compact and Remote Versions(Including the multi-channel version)											
Overall Dimensions(mm)									Weight (kg)	Pressure (MPa)	
DN		D	D1	D2	f	b	dxn	L	H1		
50	D-C	165	125	99	3	20	19x4	200	240	9	1.0/1.6
	M-C	165	125	99	3	20	18x4	200	238	11	
65	D-C	185	145	118	3	20	19x4	200	290	12	
80	D-C	200	160	132	3	20	19x8	225	280	15	
	M-C	200	160	132	3	20	19x8	225	249	18	
100	D-C	220	180	156	3	20	19x8	250	300	19	
	M-C	220	180	156	3	20	19x8	250	269	20	
125	D-C	250	210	184	3	20	19x8	250	360	26	
150	D-C	285	240	211	3	20	23x8	300	355	29	1
	M-C	285	240	211	3	20	23x8	300	326.5	39	
200	D-C	340	295	266	3	20	23x8	350	400	39	
	M-C	340	295	266	3	20	23x8	350	378	43	
250	D-C	395	350	319	3	22	23x12	400	510	54	
	M-C	395	350	319	3	22	23x12	400	510	74	
300	D-C	445	400	370	4	26	23x12	450	550	57	
	M-C	445	400	370	4	26	23x12	450	550	77	
200	D-C	340	295	266	3	20	23x12	350	400	43	1.6
	M-C	340	295	266	3	20	23x12	350	378	43	
250	D-C	405	355	319	3	26	28x12	400	510	60	
	M-C	405	355	319	3	26	28x12	400	510	63	
300	D-C	460	410	370	4	28	28x12	450	550	80	
	M-C	460	410	370	4	28	28x12	450	550	83	

NOTES:

1. The max.pressure-bearing capacity of all the multi-channel pipe section is 1.6MPa
2. Matching flanges not provided;
3. d-Diameter of flange connecting hole; n-Number of flange connecting holes; D1-Flange connecting hole center diameter;
4. For flanged type, pipe standard material is Cast Iron, can order Stainless steel too;

FLOW RANGE

DN		Start-up Flow rate	Q3/Q1	Q2/Q1	Min. Flow rate Q1	Boundary Flow rate Q2	Normal flowrate Q3	Overload flowrate Q4	Max. Flow rate
15		0.002	250	1.6	0.016	0.026	1.6	2	3
20		0.002	250	1.6	0.025	0.040	2.5	3	4
25		0.005	250	1.6	0.040	0.064	4	5	6
32		0.007	50	1.6	0.126	0.202	6.3	8	12
40		0.011	50	1.6	0.200	0.32	10	13	20
50	D-C	0.035	80	1.6	0.313	0.500	25	31.25	50
	M-C	0.013	100	1.6	0.250	0.400	25	31.25	50
65	D-C	0.060	80	1.6	0.500	0.800	40	50	80
80	D-C	0.090	80	1.6	0.788	1.260	63	78.75	100
	M-C	0.034	100	1.6	0.630	1.008	63	78.75	100
100	D-C	0.141	125	1.6	1.280	2.048	160	200	240
	M-C	0.054	160	1.6	1.000	1.600	160	200	240
125	D-C	0.221	125	1.6	2.000	3.200	250	312.5	330
150	D-C	0.318	80	1.6	3.125	5.000	250	312.5	400
	M-C	0.121	100	1.6	2.500	4.000	250	312.5	400
200	D-C	0.565	80	1.6	5.000	8.000	400	500	560
	M-C	0.215	100	1.6	4.000	6.400	400	500	560
250	D-C	0.883	50	1.6	8.000	12.800	400	500	700
	M-C	0.336	63	1.6	6.349	10.158	400	500	700
300	D-C	1.270	50	1.6	12.60 0	20.160	630	787.5	800
	M-C	0.483	80	1.6	7.875	12.600	630	787.5	800

Notes:

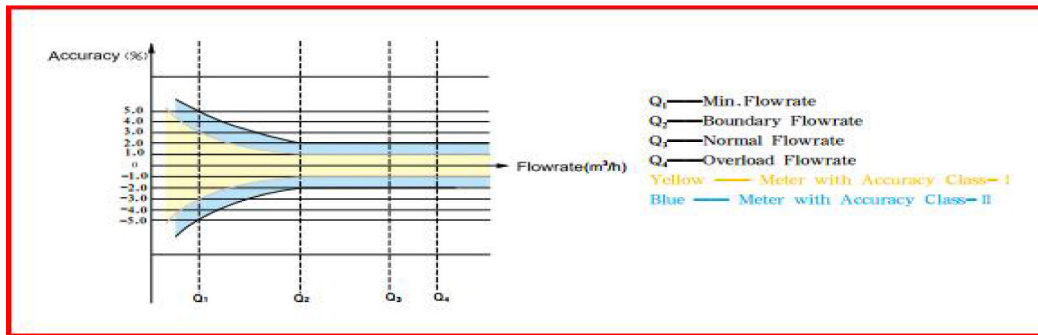
1. D-C: Single-channel; M-C: Multi-channel, DN50-80 is 2-channel; DN100-300 is 4-channel;
2. Max. reading (m3): 9999999.9; Min. reading (m3): 0.001;
3. As per to the unit change of the cumulative flow rate, pls refer to the operating manual;

MAIN TECHNICAL DATA:

Item	RBBW-D Single channel industrial Version	RBBW-M Multi channel industrial Version
Fluids measured	Full pipe flow of water, sewage and other homogenous fluids	
Accuracy	Class	Class ,! Class
Pipe size range	DN15-300	DN50-300
Max. pressure-bearing capacity of pipe section	1.0/1.6MPa	
Working Environment	Humidity	100%(RH)(For use under otherwise specific conditions, pls specify on ordering)
	Temperature:	4" +45# ;
Medium Environment	temperature class	T70
Sensitivity Class of Upstream flow field	U5	
Sensitivity Class of Downstream flow field	D3	
Safe Class of climate and mechanical environment	Class C	
Electromagnetic compatibility class	Class E2	
Output Signal	RS485	
Input	Photoelectric interface/Magnetic induction key	
Display Mode	8-digit LCD+ prompting character word height: 8.5mm; Self-diagnosis presentation:"ERR" Battery symbol	
Display	Instantaneous flow rate: m3/h; Cumulative flow rate: m3; Cumulative effective running time: h; Date: yy/mm/dd; Time: hh/mm/ss	
Data Storage	Cumulative flow rate and cumulative effective running time(Data can be saved in EEPROM for 100 years after power fail	
Power supply	Power by one battery capable of operating continuously for of 6 years	
Measurement Cycle	Check and calibration status: 4 times/second; normal status: 1time/second	
Protection Class	IP68	
Power Consumption	\$ 0.0008W	

PERFORMANCE- DEVIATION CURVE

1. Display-conversion unit connecting cable for non-integral model: standard cable: 6m;
2. All technical data in the catalog refer to the ordinary version;



MODERN SELECTION

RBBW(DN15-300) Ultrasonic Water meter									
RBBW	X	X	DN-X	X	X	X	X		
Trandducer Channel									
D	Single-channel(DN15-300)								
M	Multi-channel(DN50-300)								
Temperature									
N	Normal temperature: 4-50℃								
H	High temperature:4-100℃								
Pipe size									
X	DN15-300								
Power supply									
1	Battery Supply								
D	24VDC								
A	220VAC								
Communication type									
N	No output								
2	M-Bus/RS485(Modbus protocol)								
Display Configuration									
C	Compact structure (Integral; Mounted on Sensor body)								
R	Dividual structure, XX meters cable (Mounted up to 6m distance)								
Flanges									
D	DIN (En13757)								
A	ANSI								
S	Special								
Pipe material									
C	Cast iron								
S	Stainless Steel								
Meter Type									
D	Single channel								
M	Multichannel(only from DN50)								
Ex	Ex-proof type								

APPLICATION

Water supply, District heating/cooling water;
Chemical Industry;
HVAC Facility Management;
Building Automation;
Food & Beverage;
Power & Thermal Plant;
Pulp & Paper;
Oil & Petrochemical;
Pharmaceutical & Semiconductor;
Etc..

GRUPO PIRÁMIDE ASESORES, S.A. DE C.V.

Privada 8 Norte No 120 Entre Blv. Carlos Camacho Espíritu y
Calle Benito Juárez, Barrio la Asunción, C.P. 72960, Junta Auxiliar
San Francisco Totimehuacán, Puebla, Puebla, México.

Tel: Puebla +52 (222) 514-1225, 514-1226

info@grupopiramide.net

www.grupopiramide.net

