

B91 VPW Bulk Valve Control Ultrasonic Water Meter



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Bove Intelligent Technology Co., Ltd

Add: Level 5, Building 5, No. 36,
Changsheng South Road, Jiaxing,
Zhejiang, China, 314000

Tel: +86 573 83525916

Fax: +86 573 83525912

Email: bove@bovetech.com

www.bovetech.com

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1 Product overview

The Smart Control Unit include of three parts which are water meter, smart valve, IoT unit. Easy for customer bulk meter valve control purpose.

2 Technical Specification

2.1 Completer meter

Manufacturer		<i>Bove</i>			
Dimension					
DN (mm)	Length	Height	Width	D	Bolt (flange) End Connection
<i>50</i>	<i>308</i>	<i>410</i>	<i>165</i>	<i>125</i>	<i>4*M16</i>
<i>65</i>	<i>312</i>	<i>430</i>	<i>182</i>	<i>145</i>	<i>4*M16</i>
<i>80</i>	<i>339</i>	<i>452</i>	<i>197</i>	<i>160</i>	<i>8*M16</i>
<i>100</i>	<i>357</i>	<i>475</i>	<i>218</i>	<i>180</i>	<i>8*M16</i>
<i>125</i>	<i>390</i>	<i>503</i>	<i>245</i>	<i>210</i>	<i>8*M16</i>
<i>150</i>	<i>440</i>	<i>540</i>	<i>283</i>	<i>240</i>	<i>8*M20</i>
<i>200</i>	<i>502</i>	<i>582</i>	<i>335</i>	<i>295</i>	<i>12*M20</i>
<i>250</i>	<i>615</i>	<i>720</i>	<i>405</i>	<i>355</i>	<i>12*M24</i>
<i>300</i>	<i>678</i>	<i>790</i>	<i>460</i>	<i>410</i>	<i>12*M24</i>
<i>350</i>	<i>690</i>	<i>853</i>	<i>520</i>	<i>470</i>	<i>16*M24</i>
<i>400</i>	<i>716</i>	<i>964</i>	<i>580</i>	<i>525</i>	<i>16*M27</i>
Flow Measurement					
DN (mm)	Flow Rate (m ³ /h) @R500				
	Q ₃	Q ₂	Q ₁		
<i>50</i>	<i>25</i>	<i>0.08</i>	<i>0.05</i>		
<i>65</i>	<i>40</i>	<i>0.128</i>	<i>0.08</i>		
<i>80</i>	<i>63</i>	<i>0.2016</i>	<i>0.126</i>		
<i>100</i>	<i>100</i>	<i>0.315</i>	<i>0.2</i>		
<i>125</i>	<i>160</i>	<i>0.512</i>	<i>0.32</i>		
<i>150</i>	<i>250</i>	<i>0.8</i>	<i>0.5</i>		

200	400	1.28	0.8
250	630	2.016	1.26
300	1000	3.2	2
350	1000	3.2	2
400	1600	5.12	3.2
Pressure Loss ΔP		$\leq 40 \text{KPa}$	
MAP		1.6 MPa	
Water temperature range (Optional)		0.1-30°C (T30) / 0.1-50°C (T50)	
Q ₃ /Q ₁ (optional)		R160/ R200/ R250	
Accuracy		Class 2	
Maximum permissible error in upper flow rates range Q ₂ ≤ Q ≤ Q ₄		± 2 % (at Temperature ≤ 30°C) ± 3% (at Temperature > 30°C)	
Maximum permissible error in lower flow rates range Q ₁ ≤ Q < Q ₂		± 5%	
Scale interval (m ³)		0.001	
Capacity of calculator		99999,999	
Type of liquid		Drink Water	
Installation requirements		Min. 5*DN length of straight pipe before the meter, and Min. 3*DN length of straight pipe after the meter (DN is the diameter of meter)	
Basic mounting orientation and other specified orientations		Horizontal/ Vertical	
Display & Indication			
Display unit (Optional)		m ³ / L/ Gal	
Display LCD		8-digit	
Volume		0.001m ³	
Time to LCD off		Always on	
Environmental Requirement			
Environmental Class		E1, M1	
Ambient temperature		5 ~ 55°C (Indoor and non-condensing)	
Storage temperature		-20 ~ 60°C	
Protection Class (Optional)		IP68	
Data history (Optional)		24/120 logs, daily/ weekly/ monthly	

Interface & Communication	
Output signal for normal operation (Optional)	<i>Wired communication</i>
	<i>RS485/ M-Bus</i>
	<i>Wireless communication</i>
	<i>LoRaWAN/ NB-IoT/ Sigfox</i>
Output display/signal for testing (Optional)	<i>M-Bus, RS485, Infrared</i>
Power Supply	
Battery	<i>Lithium Battery</i>
Battery Life (Optional)	<i>6 Years / 10 Years / 16 Years</i>
24V DC (Optional)	<i>External supply for special version</i>
Mechanical Specification	
Meter Body	<i>Cast Iron</i>

2.2 Valve part

Working temperature	-30 to 210°C
Power	DC12V/ External power (optional)
Pressure	PN16
Connection	Flange
Water protect	IP68
Size	DN50-400

