

BALEM 421 [Combi Valve]

► Special Feature

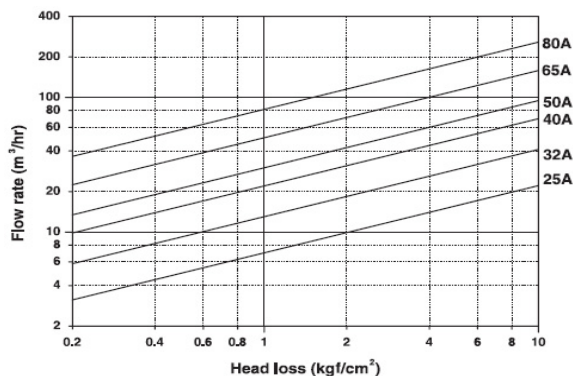
- A buoyancy type of level control valve which is pilot integrated.
- It is automatic level control valve that doesn't need any power source.
- Designed with inner control pipe and integrated pilot.
- Easy to install as unifying the body and the pilot.
- Excellent service life due to the valve worked by pressure difference and piston style.
- Good to use where much flow rate is needed in short time.
- All materials are corrosion resistant and heatproof.



BALEM 421 (Combi Valve) is a buoyancy type of water level control valve which is pilot integrated as one body for supply and controls water level in a storage tank by utilizing the line static and differential pressure.

BALEM 421 Valve has a full mechanical structure, so it functions by itself without any external power source. It is easy to install due to inner control pipe and integrated pilot. Durability of the valve is excellent and shutting off is stable in high pressure since the valve functions by piston style opening/closing. This valve can get much flow rate of water quickly as it has pilot styled structure using the pressure difference.

► Flow Chart



► Patents

- Korea Patents No. : 0207682
- US Patent No. : 4830042
- Japan Utility Model No. : 2014053

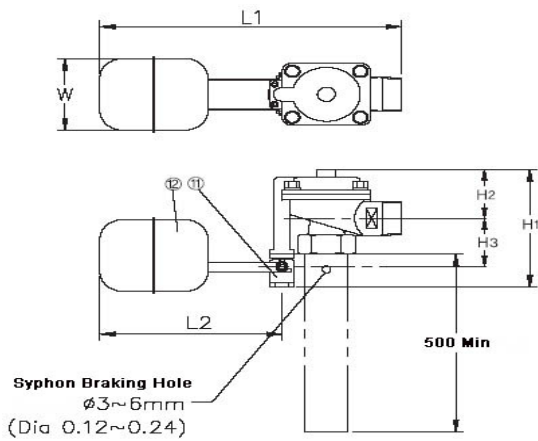
► Applications

- As for buildings, apartments, plants
- For controlling the water level of water tank at ground /roof top water reservoir.
 - Substitute for motorized valve with electrode bar for controlling high & low water level.
 - For controlling the valve control of fuel oil tank.

► Specifications

BALEM 421 (Combi Valve)						
Model No.	421-025	421-032	421-040	421-050	421-065	421-080
Size	25A(1")	32A(1 1/4")	40A(1 1/2")	50A(2")	65A(2 1/2")	80A(3")
Operating Pressure	0.05 ~ 0.98 MPa (0.5 ~ 10 kgf/cm ²)					
Test Pressure	1.72 MPa (17.5 kgf/cm ²)					
Media	Water, Oil (Order-Made)					
	Temperature : 0° C ~ 80° C					
End Connections	Screwed : KSPT(Standard) / NPT(Optional)					
Weight	2.7 kg	3.2 kg	4.4 kg	5.5 kg	7.2 kg	10.2 kg

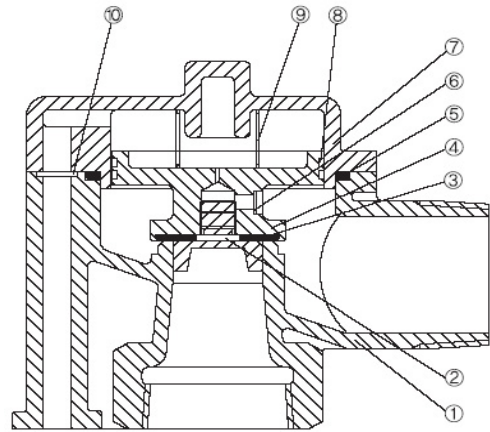
► Dimensions



(mm)

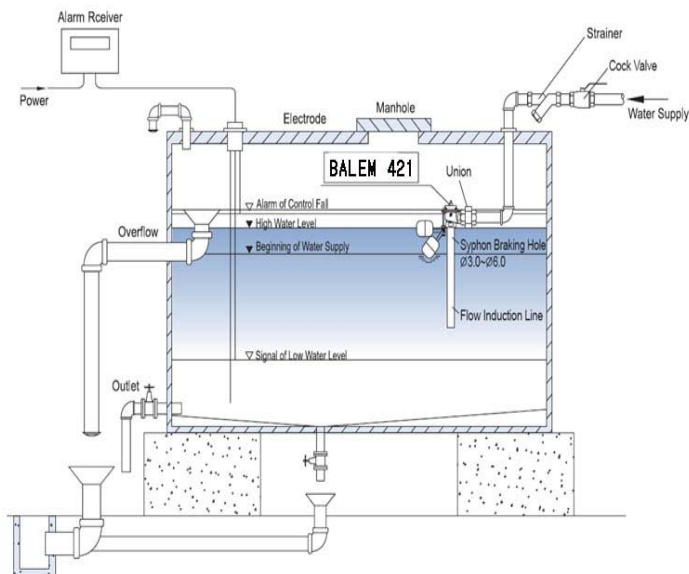
Size	Model No.	H1	H2	H3	L1	L2	W(Ø)
25A	421-025	135	57	53	315	216	124
32A	421-032	152	64	63	336		
40A	421-040	169	76	68	351		
50A	421-050	181	78	78	358		
65A	421-065	214	96	93	393		
80A	421-080	224	101	98	411		

► Materials



Item No.	Descriptions	Materials
1	Body	BrC 6
2	Piston Guide	C 3771 BE
3	Disk Seal	N.B.R
4	Piston	C3771 be
5	O-Ring	N.B.R
6	Mesh	STS 304
7	Cap	BrC 6
8	Piston Ring	PTFE
9	Spring	STS 304
10	O-Ring	N.B.R
11	Pilot Valve Assy	-
12	Floating Ball Assy	STS 304

► Installation



Standard Piping Diagram

1. Refer to the standard piping diagram when installing the valve.
2. Install near a manhole, install a union for ease of maintenance, repair and servicing.
3. Before installation, finish to clean pipeline.
4. A receiver alarm system needs to be installed in monitoring room for early detection of malfunction.
5. To prevent waves while filling, an induction tube with syphon barking hole must be installed.
6. The water level sensor must be placed in the following order :
 - low water level(pump start)
 - high water level(pump stop)
 - warning water level(alarm control fail)
 - emergency stop(closing pilot valve)