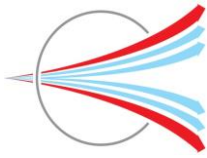


***General imsubs P. Ltd.***

**Quality**  
**Latching Solenoid**

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**Valves**  
**For Auto Taps**  
**Made in India**



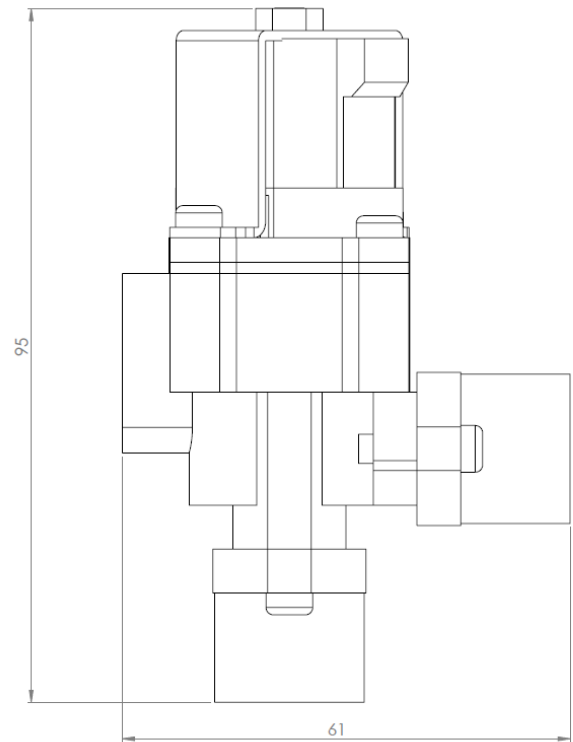
## Magnetically Latching Solenoid Valves

Magnetically latching solenoid valves are used in battery operated auto taps, automatic sensor based touchless water dispenser.

Sensor taps use pilot operated version having operating range of pressure from 0.2 to 6 bar

Right Angle latching solenoid valve with ½" BSP connection

### L 1/90, ½" X ½" SCREW ON CONNECTIONS

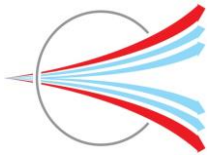


- ✓ Inlet / Outlet : ½" BSP Male threaded, Screw ON, Plastic standard.
- ✓ Available : In 0.2 to 6 bar, pilot operated for auto taps.

- ✓ Operating Voltage : 3.5 – 6.5 V DC (please check detailed specs)
  - ✓ Pulse : Less than 40 mS
- These are primary specifications and may change prior to final product.**

**3711/A, GIDC, Phase-IV, Vatva, Ahmedabad-382445, India**

Ph. : 91-79-25840845, 40085985 CIN : U29120GJ1992PTC018382  
E mail : info@giplindia.com Web : www.giplindia.com



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## Features

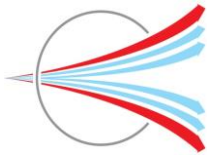
- ✓ Made in India valve. *General imsubs®* is the only manufacturer of latching solenoid valves in India since last 15 years.
- ✓ Used where power supply has limitations to supply continuous power to keep valve ON.
- ✓ Also places where heat transfer from coil to water is not desirable.
- ✓ Operates from 3.5 V DC to 6.5 V DC pulse.
- ✓ **Maximum Pulse width required is 40 mS @ 3.5 to 6.5 V DC, 6 bar pressure.**
- ✓ Food contact compatible construction available.
- ✓ 0.40 mm, removable plastic filter.

## Applications

- ✓ Automatic sensor taps and faucets.
- ✓ Automatic sensor urine flushing system.
- ✓ Battery operated control systems.
- ✓ Sensor based touchless water dispenser

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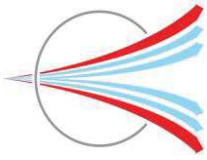
# General imsubs P. Ltd.

## Technical Specifications Magnetically Latching Solenoid:

Sr.No.	PARAMETER	DESCRIPTION
1.	Type	Pilot operated diaphragm type.
2.	Configuration Type	2/2 magnetically latching, Bi stable
3.	Connector	Wired leads, 100 mm L, Red and Black color.
4.	Resistance of Coil	Available in 2 coil options 1. 3.2 to 4.5V DC, coil resistance 9 +/- 1 $\Omega$ 2. 4.5V to 6.5V DC : coil resistance 18 +/- 1 $\Omega$
5.	Required Pulse width	<u>Recommended pulse 40 mS, customer can however use lower pulse as they found suitable.</u>
6.	Insulation Class	Winding: "F", 155° C. Class-II
7.	Fluid Temp.	60° C max.
8.	Operating Pressure	0.2 bar to 6 bar
9.	Mounting Position	Any (Coil upright preferred)
10.	Burst Pressure	16 bar minimum.
11.	Water Leakage	No leakage from 0.2 bar to 6 bar.
12.	Mechanical Life	More than 500,000 cycles.

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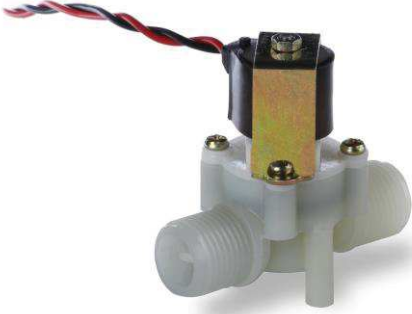





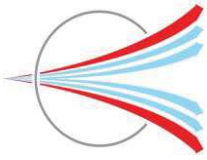
## Magnetically Latching Solenoid Valves

Magnetically latching solenoid valves are used in battery operated auto taps, automatic sensor based touchless water dispenser.


Sensor taps use pilot operated version having operating range of pressure from 0.2 to 6 bar

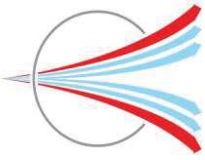
sensor based touchless water dispenser uses direct acting low pressure version, pressure range 0-1500 mm Water Column (WC)

L 1/180 1/2" X 1/2"	L 1/180 1/4" X 1/4"
	
<ul style="list-style-type: none"> <li>✓ <b>Inlet / Outlet :</b> 1/2" BSP Male threaded</li> <li>✓ <b>Mounting:</b> Bottom mounting studs</li> <li>✓ <b>Available :</b> In 2 version, 0.2 to 6 bar, pilot operated for auto taps and 0-1500 mm WC, direct acting for water dispenser</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Inlet / Outlet :</b> 1/4" BSP Female threaded</li> <li>✓ <b>Mounting:</b> Bottom mounting studs</li> <li>✓ <b>Available :</b> In 2 version, 0.2 to 6 bar, pilot operated for auto taps and 0-1500 mm WC, direct acting for water dispenser</li> </ul>
L 1/180 6mm X 6mm Tube	L 1/90 1/4" X 1/4" 3 different types of outlet
	
<ul style="list-style-type: none"> <li>✓ <b>Inlet / Outlet :</b> 1/2" BSP Male threaded</li> <li>✓ <b>Mounting:</b> Bottom mounting studs</li> <li>✓ <b>Available :</b> In 2 version, 0.2 to 6 bar, pilot operated for auto taps and 0-1500 mm WC, direct acting for water dispenser</li> </ul>	<ul style="list-style-type: none"> <li>✓ <b>Outlet :</b> 10.5 mm, 12.5 mm, 1/4" BSPM</li> <li>✓ <b>Inlet :</b> 3/4" BSPM</li> <li>✓ <b>Mounting:</b> Bracket Optional</li> <li>✓ <b>Available :</b> In 2 version, 0.2 to 6 bar, pilot operated for auto taps and 0-1500 mm WC, direct acting for water dispenser</li> </ul>



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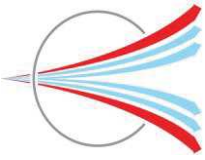
<b>L 1/180, 3 different types of outlet</b>	
	
<ul style="list-style-type: none"><li>✓ <b>Outlet :</b> 10.5 mm, 12.5 mm, ¼" BSPM</li><li>✓ <b>Inlet :</b> ¾" BSPM</li><li>✓ <b>Mounting:</b> Bracket Optional</li><li>✓ <b>Available :</b> In 2 version, 0.2 to 6 bar, pilot operated for auto taps and 0-1500 mm WC, direct acting for water dispenser</li></ul>	
<b>Features</b>	
<ul style="list-style-type: none"><li>✓ Made in India valve. <i>General imsubs®</i> is the only manufacturer of latching solenoid valves in India since last 15 years.</li><li>✓ Used where power supply has limitations to supply continuous power to keep valve ON.</li><li>✓ Also places where heat transfer from coil to water is not desirable.</li><li>✓ Operates from 4.8 V DC to 12 V DC pulse.</li><li>✓ Pulse width required is 60 mS @ 6 VDC, 6 bar pressure.</li><li>✓ Food contact compatible construction available.</li><li>✓ 0.40 mm, removable plastic filter.</li></ul>	
<b>Applications</b>	
<ul style="list-style-type: none"><li>✓ Automatic sensor taps and faucets.</li><li>✓ Automatic sensor urine flushing system.</li><li>✓ Battery operated control systems.</li><li>✓ Sensor based touchless water dispenser</li></ul>	



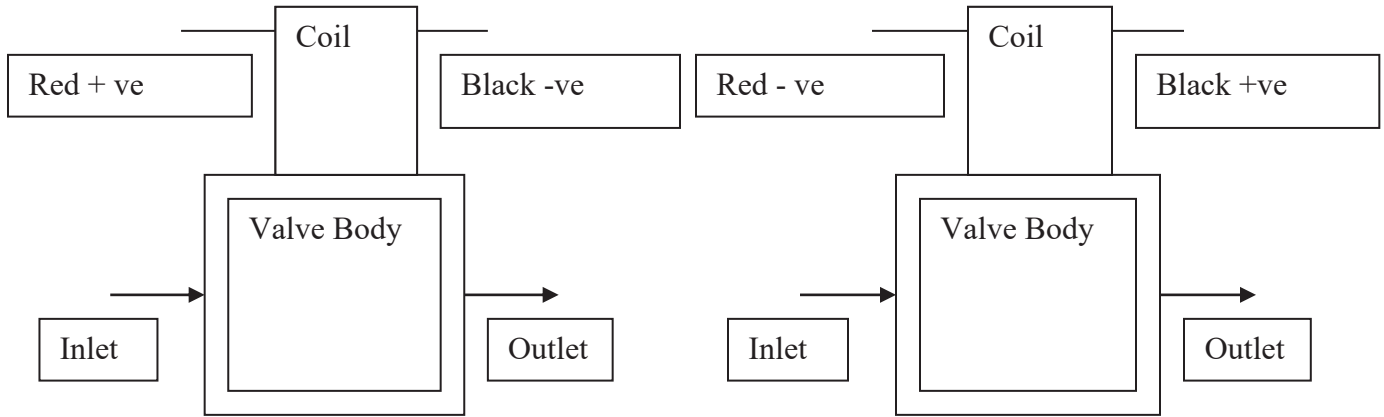
# **General imsubs P. Ltd.**

## **Technical Specifications Magnetically Latching Solenoid:**

<b>Sr.No.</b>	<b>PARAMETER</b>	<b>DESCRIPTION</b>
1.	<b>Type</b>	Pilot operated diaphragm type.
2.	<b>Configuration Type</b>	2/2 magnetically latching, Bi stable
3.	<b>Connector</b>	Wired leads, 100 mm L, Red and Black color.
4.	<b>Resistance of Coil</b>	9 +/- 1 $\Omega$
5.	<b>Operating Range of voltage</b>	4.8-12 V DC, Recommended pulse 60 mS at 4.8 to 6 V DC Recommended Pulse 20 mS for voltage 6 to 12 V DC
6.	<b>Insulation Class</b>	Winding: "F", 155° C. Class-II
7.	<b>Fluid Temp.</b>	60° C max.
8.	<b>Operating Pressure</b>	0.2 bar to 6 bar
9.	<b>Mounting Position</b>	Any (Coil upright preferred)
10.	<b>Burst Pressure</b>	16 bar minimum.
11.	<b>Water Leakage</b>	No leakage from 0.2 bar to 6 bar.
12.	<b>Mechanical Life</b>	More than 500,000 cycles.



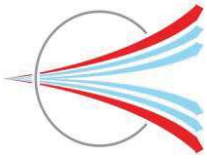
## Latching Valve operation schematic diagram



**Position 1**, if valve is in closed condition and coil is supplied voltage pulsed current having pulse width of 60 mS, than valve comes in open position and remains open till supplied current as shown in position 2

**Position 2**, when valve is opened by supplying current as mention in position 1, it can be closed only by supplying current as mentioned above. Valve remain in off position till power is supplied as mentioned in position 1.

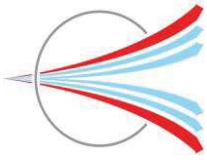




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## **Brief Design Guide:**

- ✓ Life of battery (1.5 V DC X 4 Nos. alkaline) is about 200 000 cycles (only valve operations).
- ✓ Latching valve operates upto 5 V DC, 60 mS pulse. Hence circuit should have cut off voltage or battery low / replace battery indication suitably.
- ✓ It is preferred to mount latching valve in coil up right position.
- ✓ As supply voltage goes higher pulse width decreases.
- ✓ 60 mS pulse is optimum pulse width for valve operation from CLOSE to OPEN position for 4.8 - 6 V DC. For OPEN to CLOSE position, pulse width of 30 mS for 4.8 - 6 V DC may be kept. This will maximize battery life.
- ✓ Circuit employed in operation of valve should be of high quality and should have minimum current consumption in stand by mode to maximize battery life.
- ✓ Test figures mentioned in this document is based on 6 V DC obtained using 1.5 V X 4 Nos. alkaline batteries under ideal conditions.



# ***General imsubs P. Ltd.***

## **About Us :**

*General Imsubs*® is pioneer manufacturer of water valves in India since 1992. We have been manufacturing wide range of water valves catering to the need of growing appliances industry.

Valve manufactured by General Imsubs complies to stringent international product standards like UL, CE, EN, VDE and JIS.

All valves supplied by *General Imsubs*® are warranted for performance and we offer warranty to all OE customers. Our sophisticated manufacturing and tracking systems can track valves upto its component and raw material level. All valves are custom labeled with customer name to ease tracking even at customer end.

Our manufacturing facilities are equipped with sophisticated CNC coil winding machines, specially designed test rigs to check performance of valves.

All valves goes through 100% tests, as per applicable international standards.