

# WBI2

Stainless steel solenoid valves

## Technical Data Sheet



## Description

Membrane solenoid valve, indirect action except DN 1/8", 1/4" direct action normally closed, 2 ways.

- Optional : manual actuation, except DN 1/4"
- Absorbed power : see table below. Other power : consult us
- Viscosity : max 50cSt
- Ambient temperature : max. +40°C
- Protection : IP 65 with connector
- Solenoid valve delivered with standard coil 220/50 Hz ref 5290 or 24V/50Hz ref 5292 or 24VDC ref 5296, and with a connector



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DN		220V/50Hz 12W	24V/50Hz 9,5W	24VDC 14W	Weight Kg
"	mm				
1/4	4,5	<b>149B6742</b>	<b>149B6750</b>	<b>149B6758</b>	0,36
1/2	15	<b>149B6744</b>	<b>149B6752</b>	<b>149B6760</b>	0,96
3/4	20	<b>149B6745</b>	<b>149B6753</b>	<b>149B6761</b>	1,16
1	25	<b>149B6746</b>	<b>149B6754</b>	<b>149B6762</b>	1,56
1 1/4	32	<b>149B6747</b>	<b>149B6755</b>	<b>149B6763</b>	2,16
1 1/2	40	<b>149B6748</b>	<b>149B6756</b>	<b>149B6764</b>	3,36

Every technical data concerns the standard coils.  
All our solenoid valves can be delivered ON DEMAND with a different coil.

### Technical features

Operating temperature	Mini. : 0 °C (except DN 1/4" : -10 °C to 100 °C) Maxi. : 100 °C (except for water : 60 °C)
Permissible operating pressure (PFA) in water	See table p.4
Connection	Female/female, BSP thread
Mediums	Liquids and neutral or corrosive gas (please consult our technical department)

### Nomenclature and materials

Designation		Materials	ANSI
Body	DN 1/4"	Stainless steel 1.4404	AISI 316L
	DN 1/2" - 1"1/2"	Stainless steel 1.4581	AISI 318
Armature		Stainless steel 1.4105	AISI 430FR
Armature tube		Stainless steel 1.4306	AISI 304L
Spring		Stainless steel 1.4310	AISI 301
Valve plate		FKM	
Membrane		FKM	

## Approvals

### ACS

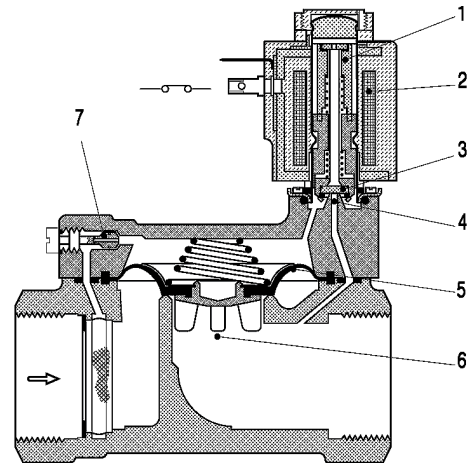
## Application

#### Coil voltage disconnected (closed)

When the voltage is disconnected, the valve plate (3) is pressed down against the pilot orifice (4) by the armature spring (2). The pressure across the diaphragm (5) is built up via the equalising orifice (7). The diaphragm closes the main orifice (6) as soon as the pressure across the diaphragm is equivalent to the inlet pressure. The valve will be closed for as long as the voltage to the coil is disconnected.

#### Coil voltage connected (open):

When voltage is applied to the coil (1), the pilot orifice (4) is opened. As the pilot orifice is larger than the equalising orifice (7), the pressure across the diaphragm (5) drops and therefore it is lifted clear of the main orifice (6). The valve is now open for unimpeded flow and will be open for as long as the minimum differential pressure across the valve is maintained, and for as long as there is voltage to the coil.



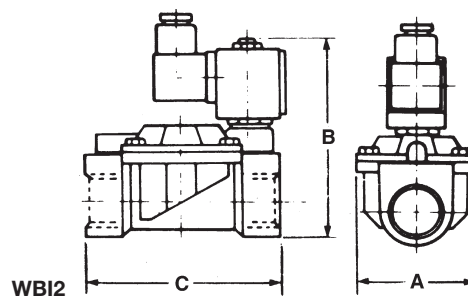
## Operation

DN	Maxi pressure bar	Differential pressure in Bar			Time to open m/s*	Time to close m/s*	Kv m <sup>3</sup> /h	Class
		Mini	Maxi					
				Coil 9W ca	Coil 15W cc			
1/4	35	0	8	3,5	20	20	0,55	4.3
1/2	10	0,3	10	10	40	350	4	4.3
3/4					40	1000	8	4.3
1					300	1000	11	4.3
1 1/4					1000	2500	18	4.3 Gas G1 excluded
1 1/2					1500	4000	24	4.3 Gas G1 excluded

\* The indicated times concern the medium water - The exact time depends of pressure conditions.

## Sizing

Connection FF	Passage	A	B	C
"	mm	mm	mm	mm
1/4	4,5	35	87	35
1/2	15	52	114	80
3/4	20	58	121	90
1	25	70	135	109
1 1/4	32	82	147	120
1 1/2	40	95	161	130



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