

Technical data sheet

Type WKB2

Membrane solenoid valves

Applications and special features



- Membrane solenoid valve, indirect action (pilot) normally closed, 2 way.
- Absorbed power : 9 W CA/15 W CC.
- Viscosity : max 50cSt
- Ambient temperature : max. +40°C
- Particularly suitable against waterhammer
- Integrated filter to protect the pilot system
- Adjustable closing system : on request
- Optional : manual actuation
- 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.

Technical description

		DN		220V/50Hz 9 W	24V/50Hz 9 W	24VDC 15 W
		"	mm			
EPDM	3/8	15	149B 6699	149B 6706	149B 6713	
	1/2	15	149B 6700	149B 6707	149B 6714	
	3/4	20	149B 6701	149B 6708	149B 6715	
	1	25	149B 6702	149B 6709	149B 6716	
	1 1/4	32	149B 6703	149B 6710	149B 6717	
	1 1/2	40	149B 6704	149B 6711	149B 6718	
	2	50	149B 6705	149B 6712	149B 6719	
FKM	3/8	15	149B 6699V	149B 6706V	149B 6713V	
	1/2	15	149B 6700V	149B 6707V	149B 6714V	
	3/4	20	149B 6701V	149B 6708V	149B 6715V	
	1	25	149B 6702V	149B 6709V	149B 6716V	
	1 1/4	35	149B 6703V	149B 6710V	149B 6717V	
	1 1/2	40	149B 6704V	149B 6711V	149B 6718V	
	2	50	149B 6705V	149B 6712V	149B 6719V	

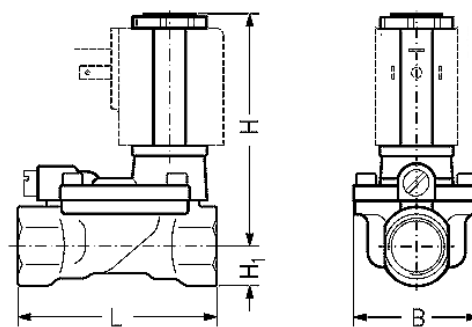
- **Connection** : Female/female, BSP thread
- **Permissible operating pressure PFA - water-** (for supply, distribution and disposal of water) : See table
- **θ** : EPDM Mini. : -30° C
maxi : 100° C
FKM Mini : 0° C
maxi : 100° C
- **Mediums** : EPDM : water,
FKM : oil, air, water (maxi 60° C)
- **Approvals** : EPDM version : **WRAS** - ACS

The technical data listed is for the standard coils.
All our solenoid valves can be delivered, ON REQUEST, with different coil voltages.

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Overall dimensions

Connection FF "	Passage	B mm	H mm	H1 mm	L mm	Weight kg
3/8	15	52	94,0	15,0	80	0,96
1/2	15	52	94,0	15,0	80	0,96
3/4	20	58	98,0	18,0	90	1,16
1	25	70	108,0	22,0	109	1,56
1 ^{1/4}	32	82	115,0	27,0	120	2,16
1 ^{1/2}	40	95	124,0	32,0	130	3,36
2	50	113	130,0	37,0	162	4,46



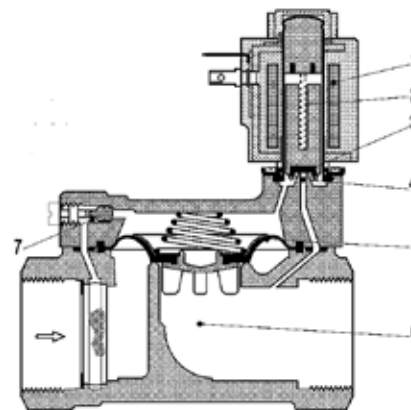
Working principle

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.



Spare parts list and materials

• Valve body	: Brass N° 2.0402
• Armature	: Stainless steel N° 1.4105
• Armature tube	: Stainless steel N° 1.4306
• Spring	: Stainless steel 1.4310
• Valve plate	: EPDM/FKM)
• Diaphragm	: EPDM/FKM) according to the type

Working details

DN "	Maxi. pressure bar	Differential pressure - bar Coil 9W ca or 15W cc			Time to open m/s	Time to close m/s	Kv m3/h	Class
		Mini	Maxi					
			EPDM	FKM				
3/8	16	0,3	16	10	40	350	2,5	3,3
1/2		0,3			40	350	4	3,3
3/4		0,3			40	1000	8	3,3
1		0,3			300	1000	11	3,3
1 ^{1/4}		0,3			1000	2500	18	3,3 exceptGaz G1
1 ^{1/2}		0,3			1500	4000	24	3,3 exceptGaz G1
2		0,3			5000	10000	40	3,3 exceptGaz G1

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

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Socla SAS

365 rue du lieutenant Putier
71530 VIREY LE GRAND
Postal address : BP 10273
71107 CHALON SUR SAONE Cedex

Tel : 33 3 85 97 42 52
Fax : 33 3 85 97 97 42
<http://www.socla.com>
e-mail: commerfr@socla.com