

# WKB2

Membrane solenoid valve indirect action,  
normally closed

## Technical Data Sheet



## Description

Membrane solenoid valve, indirect action (pilot) normally closed, 2 way.

- Absorbed power : see table below. Other power : consult us
- Viscosity : max 25cSt
- Ambient temperature : max. +55°C
- Particularly suitable against waterhammer
- Adjustable closing system : on request
- Optional : manual actuation
- Protection : IP 65 with connector
- Solenoid valve delivered with standard coil 220/50 Hz or 24V/50Hz or 24VDC, and with a not assembled connector



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Membrane solenoid valve indirect action

	Connection	Orifice	220V/50Hz 12W	24V/50Hz 9,5W	24VDC 14W	Weight Kg
EPDM	3/8	12	149B6967	149B6980	149B6993	0,42
	1/2	12	149B6968	149B6981	149B6994	0,39
	3/4	18	149B6969	149B6982	149B6995	0,65
	1	25	149B6970	149B6983	149B6996	1,05
	1 1/4	30	149B6971	149B6984	149B6997	1,70
	1 1/2	37	149B6972	149B6985	149B6998	2,85
	2	50	149B6973	149B6986	149B6999	4,30
FKM	1/2	12	149B6974	149B6987	149B12400	0,39
	3/4	18	149B6975	149B6988	149B12401	0,65
	1	25	149B6976	149B6989	149B12402	1,05
	1 1/4	30	149B6977	149B6990	149B12403	1,70
	1 1/2	37	149B6978	149B6991	149B12404	2,85
	2	50	149B6979	149B6992	149B12405	4,30

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

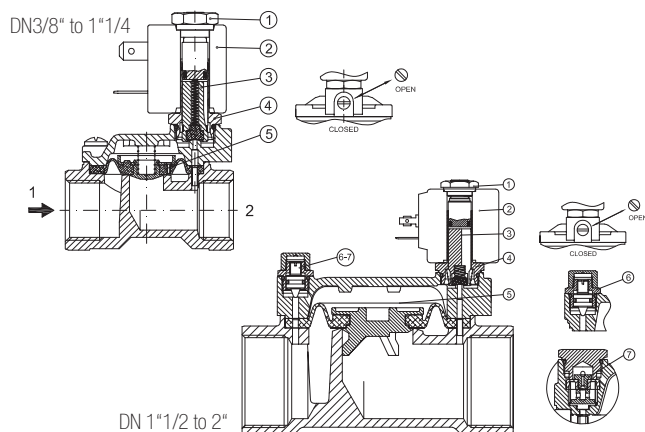
### Technical features

Operating temperature	EPDM : -10 °C to 140 °C	FKM : -10 °C to 140 °C
Mediums	EPDM : Water	FKM : oil, air, water
Permissible operating pressure (PFA) in water	See table p.3	
Connection	Female/female, BSP thread	

### Nomenclature and materials

Designation	Materials
Body and cover	Brass CW617N
Armature tube	AISI 303
Plunger and core	AISI 430FR
Springs	AISI 302
Seal material	EPDM/FKM according to the type

N°	Designation
1	Coil fixing nut
2	Coil
3	Plunger
4	Armature tube with core
5	Membrane assembly
6-7	Speed control valve

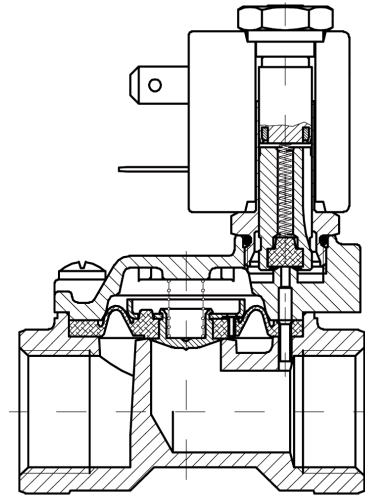


## Approvals

### ACS

NSF certification - according to the REGULATION 4 : consult us

## Functioning



#### Valve open (coil energized) :

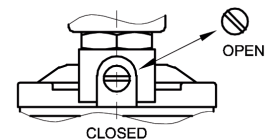
When the coil is energized, the pilot orifice is open.

Since the pilot orifice is larger than the equalization orifice, the pressure exerted on the membrane drops and this allow the main orifice to be opened. The valve is then opened and remains open so as long as the minimum differential pressure it suffers is maintained and as long as the coil is energized.

For the correct functioning, a minimum pressure difference of 0.15 bar is needed.

#### Valve closed (coil de-energized) :

When the coil is de-energized, the spring pushes the plunger with the seal against the pilot orifice. The fluid pressure is transmitted over the diaphragm through the equalization port. As soon as the pressures equalize, the diaphragm close the main orifice. The valve remains closed as long as the coil is de-energized.



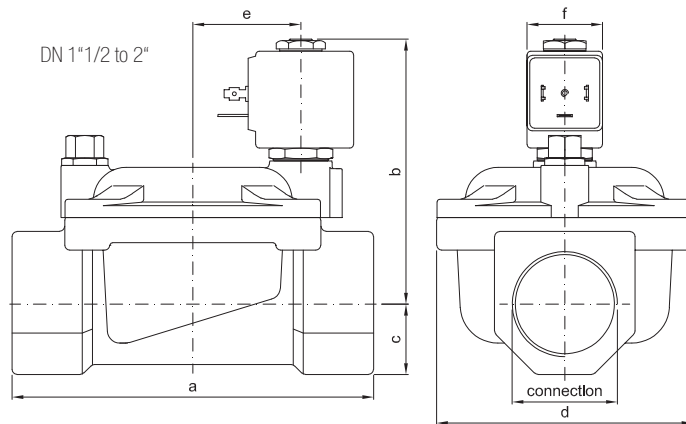
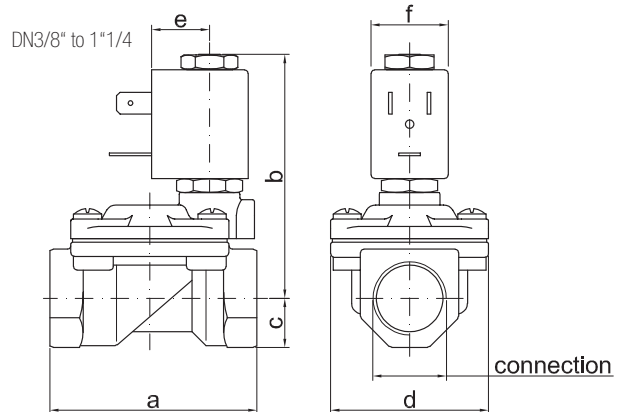
## Operation

DN	PS Maxi pressure bar	Differential pressure in Bar Coil 6,5W ca or 10W cc		Time to open ms*	Time to close ms*	Kv m <sup>3</sup> /h	
		Mini	Maxi				
3/8	25	0,15	EPDM	FKM	30	50	2,2
1/2			15	15	30	50	2,5
3/4			13	13	50	70	5,5
1			10	10	50	70	10,2
1 1/4					150	200	15
1 1/2					250	350	21
2					400	700	36

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

## Sizing

DN	A	B	C	D	E	F
"	mm	mm	mm	mm	mm	mm
3/8	59	70	14	45	16	22
1/2	59	70	14	45	16	22
3/4	79	76	18	55	16	22
1	96	85	20	72	16	22
1 1/4	119	92	25	85	16	22
1 1/2	142	105	28	102	21	30
2	158	115	35	119	21	30



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