

# Product Specification

## Solenoid Shut Off Valves (½" - 2")

Smart Valve Monitor (SVM) range of WRAS approved, Normally Closed (power to open), pilot operated, brass solenoid shut off valves, controlled by an on/off switch, a time switch or by a PIR sensor switch for BREEAM credits.

These 230/240v AC solenoid shut off valves enable a water supply to be turned on or off in response to an electrical signal. Our standard valves are Normally Closed – which means that they are closed when de-energised (fail safe) and open when energised.

Please read instructions carefully before installation, we recommend the fitting of a gauze strainer to the inlet to prevent ingress of debris into the valve.



### Product Codes

½" SVM-15 | 1¼" SVM-35

¾" SVM-22 | 1½" SVM-42

1" SVM-28 | 2" SVM-50

### Features

- ◆ 2/2 NC Normally Closed (fail safe) operation
- ◆ Sizes from ½" to 2" BSP female thread
- ◆ Minimum pressure 0.35 Bar. Maximum pressure 13 Bar (½" - 1") 10 Bar (1¼" - 2")
- ◆ Maximum temperature 90°C
- ◆ 230/240 VAC coil 4W
- ◆ WRAS approved
- ◆ Supplied with DIN connector
- ◆ 12-month manufacturer's warranty

### Specification

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- ◆ Minimum pressure 0.35 Bar. Maximum pressure 13 Bar (½" - 1") 10 Bar (1¼" - 2")
- ◆ Maximum temperature 90°C
- ◆ WRAS approved
- ◆ 230/240v coil – other AC & DC coil voltage options available

**Please note:** standard coil voltage is 230/240v AC.

Add alternative coil voltage to product code if required (eg SVM-22-24VAC or SVM-15-12VDC).

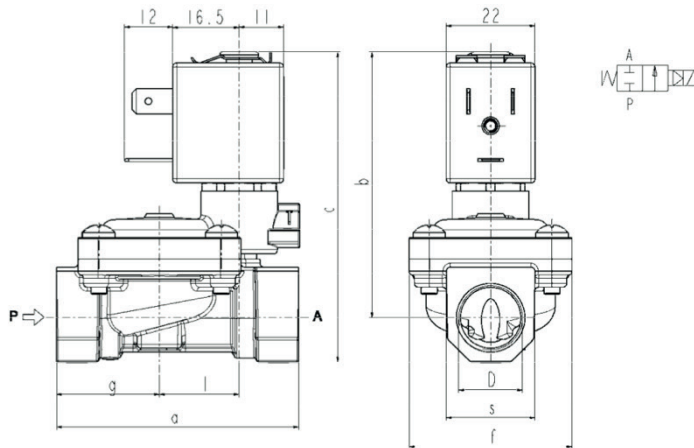
For larger valve sizes and low-pressure options please contact us.

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# SVM-15 to SVM-28 230v 50Hz AC coil

## General

Diaphragm valve, pilot operated, having full orifice. Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with material in contact).



D	a	b	c	f	g	l	s
G 3/8	60	66	77	40	25,5	20	22
G 1/2	66	68	82	40	29	20	27
G 3/4	79	72,5	89	50	35,5	24,5	33
G 1	105	85	106	71	46	28	42

## Technical Specification

Maximum allowable pressure (PS)	20 bar
Opening time	from ~300 ms to ~1500 ms
Closing time	from ~1000 ms to ~2000 ms
Fluid temperature	-10°C +90°C (NBR) / 0°C +130°C(FPM) / -10°C +140°C (EPDM)
Maximum viscosity	5°C (~37 cStokes 0 mm <sup>2</sup> /s)

## Coil

Approval	ZB10A	ZB12*	ZB14A*
Encapsulation material	/	UL and CSA	UL and CSA
Insulation class	PA Fiberglass reinforced	PET Fiberglass reinforced	PET Fiberglass reinforced
Ambient temperature	F (155°C) -10°C +60°C	F (155°C) -10°C +60°C	H (180°C) -10°C +75°C
Continuous duty	ED 100%		

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Approval	ZB10A	ZB12*	ZB14A*
Electrical connection	DIN 46340 – 3 poles plug connector		
Protection degree	5 6 (EN 60529) with plug connector	P IP 67 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector
Voltage DC	12-24V (+10% -5%)		
Voltage AC	24V/50-60Hz – 115V/50Hz – 230V/50-60Hz (+10% - 15%) (Other voltages and frequencies on request)		
On request*	/	ZB12Y	ZB14Y
Approval	/	UL	UL
Voltages	/	220-230V/50Hz	208-240V/60Hz

## Materials in Contact with Fluid

Body	Brass
Sealing	NBR or FPM or EPDM
Internal components	Brass and stainless steel
Seat	Brass
Core tube	Stainless steel
Shading coil	Copper

Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m <sup>3</sup> /h)	Series and type			Power absorption				Sealings	Notes	Weight (kg)									
		Δp min	Δp max				Valve	Valve with manual override	Coil	AC (VA)			DC												
			Gases		Liquids					Inrush	Holding														
			AC	DC	AC						DC	VA					VA	W	W						
8/3	13,5	0,35	16 (12)	16 (12)	16 (12)	16 (12)	L182(*)01	L182(*)02	ZB10A ZB12A	12	6	4	5,5	(*) = B (NBR)	1-3	0,32									
1/2																									0,38
3/4	18		12 (10)	12 (10)	12 (10)	12 (10)																	(*) = V (FPM)	2-3	0,52
1	24																						(*) = D (EPDM)		1,08

### Notes:

Sealings: B(NBR)=Nitrile-butylene elastomer.

V(FPM)=Fluoro-carbon elastomer.

D(EPDM)=Ethylene-propylene elastomer (WRAS/ KTW certified compound)

- Operation with gaseous media, at high pressure without any outlet restriction, can reduce the diaphragm life.

- On request coil in class H (ZB14A – see § “COIL”)

- The bracketed values of Δp max are related to valves with V(FPM) seals.

1 - Low power consumption coil on request (3,5 VA in AC – 3W in DC): Δp max = 12 bar

2 - Low power consumption coil on request (3,5 VA in AC – 3W in DC): Δp max = 8 bar

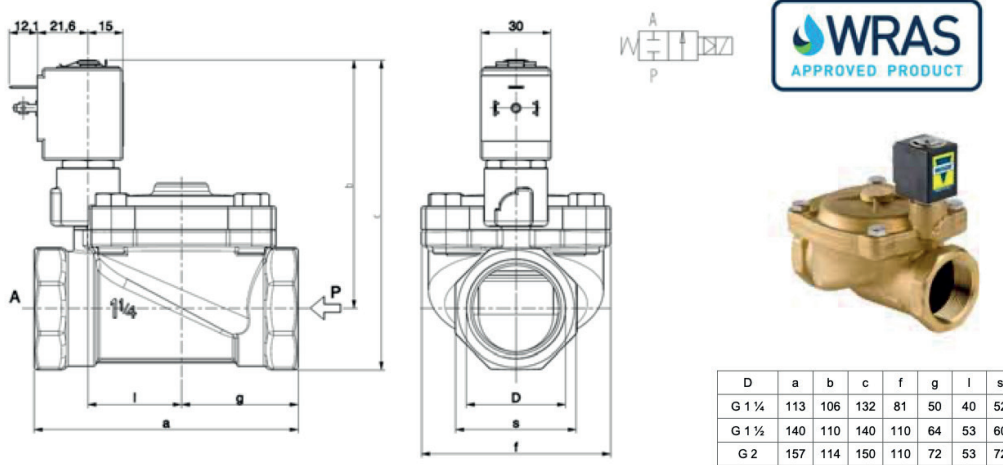
3 - L182D01 – L182D02: WRAS certified solenoid valves (certificate n. 1411048).

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# Solenoid Valve 2/2 – NC (normally closed) Pilot Operated

## General

Diaphragm valve, pilot operated, having full orifice. Suitable to shut off liquid and gaseous fluids (verify the compatibility of fluid with materials in contact). Not suitable for use with dangerous fluids listed in Group 1, therefore they are free from CE marking in conformity with article 3 § 3 of the European Directive 97/23/EC (Pressure Equipment Directive). WRAS certified solenoid valves (certificate n. 1411048).



## Technical Specification

Maximum allowable pressure (PS)	10 bar
Opening time	from ~300 ms to ~1500 ms
Closing time	from ~1000 ms to ~2000 ms
Fluid temperature	-10°C +85°C
Maximum viscosity	5°E (~37 cStokes or mm <sup>2</sup> /s)

## Coil

Approval	UL (class F) – for UL cl.H: ZA34
Continuous duty	ED 100%
Encapsulation material	PPS (Polyphenilsulfure) fiberglass reinforced
Coil insulation class	F (155°C) on request class H (180°C)
Ambient temperature	-10°C +50°C

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Approval	UL (class F) - for UL cl.H: ZA34
Electrical connections	DIN 46340 - 3 poles plug connectors (EN175301-803)
Protection degree	IP 67 (EN 60529) with plug connector
Voltage DC	12-24V (+10% -5%)
Voltage AC	24V/50-Hz - 110V/50Hz (120V/60Hz) 230V/50-Hz (+10% - 15%) (Other voltages and frequencies on request)

## Materials in Contact with Fluid

Body	Brass
Sealing	EPDM
Internal components	Brass and stainless steel
Seat	Brass
Core tube	Stainless steel
Shading coil	Copper

Port size ISO 228	Orifice size. (mm)	Differential pressure (bar)				Kv (m <sup>3</sup> /h)	Series and type			Power absorption			Sealings	Notes	Weight (kg)	
		Δp min	Δp max				Valve	Valve with manual override	Coil	AC (VA)		DC (W)				
			Gases		Liquids					Inrush	Holding					
AC	DC	AC	DC	AC	DC											
G 1 ¼	30					15									1,590	
G 1 ½	45	0.50	10	10	10	27	L182D48	L182D49	ZA10A	23	14	9	EPDM	-	2,510	
G 2	45					34									2,990	

### Notes:

- Sealings: EPDM = Ethylene-propylene elastomer
- Operation with gaseous fluids at high pressure without any outlet restriction can reduce the diaphragm life. - UL approved coil (E153691)

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