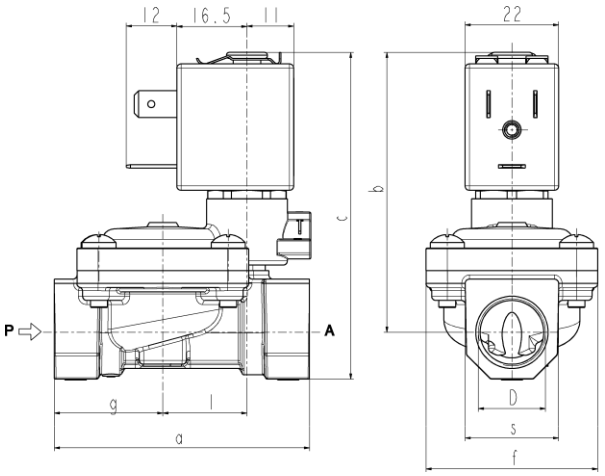
SOLENOID VALVE
2/2- NC (Normally closed)
Pilot operated
G 3/8 – G 1

HVSOLV
Issue 0724



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

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

► TECHNICAL FEATURES

Maximum allowable pressure (PS)	20bar
Opening time	from ~300ms to ~1500ms
Closing time	from ~1000ms to ~2000ms
Fluid temperature	-10°C +90°C (NBR) 0°C +130°C (FPM) -10°C +140°C (EPDM)
Max viscosity	5°E (~37 cStokes or mm²/s)

► 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

► COIL

		ZB10A	ZB12A ✱	ZB14A ✱
Approval		/	UL and CSA	UL and CSA
Encapsulation material		PA fiberglass reinforced	PET fiberglass reinforced	PET fiberglass reinforced
Insulation class		F (155°C)	F (155°C)	H (180°C)
Ambient temperature		-10°C +60°C	-10°C +60°C	-10°C +75°C
Continuous duty		ED 100%		
Electric connection		DIN 46340 - 3 poles plug connector		
Protection degree		IP 65 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector	IP 67 (EN 60529) with plug connector
Voltages	*DC*	12-24V (+10% -5%)		
	AC	24V/50-60Hz - 115V/50Hz - 230V/50-60Hz (+10% -15%)		

(Other voltages and frequencies on request).

Port size ISO 228	Orifice size (mm)	Differential pressure (bar) Δp min	Δp max Gases AC	Δp max Gases DC	Δp max Liquids AC	Δp max Liquids DC	Kv (m³/h)	Series and type: Valve	Series and type: Valve with manual override	Series and type: Coil	Power absorption AC (VA) Inrush VA	Power absorption AC (VA) Holding VA	Power absorption AC (VA) Holding W	Power absorption DC W	Sealings	Notes	Weight (kg)
3/8	13,5	0,35	16 (12)	16 (12)	16 (12)	16 (12)	2,5	L182(*)01	L182(*)02	ZB10A ZB12A	12	6	4	5,5	(*) = B (NBR) (*) = V (FPM) (*) = D (EPDM)	1-3	0,32
1/2							3,8										0,38
3/4	18		12 (10)	12 (10)	12 (10)	12 (10)	5									2-3	0,52
1	24						12										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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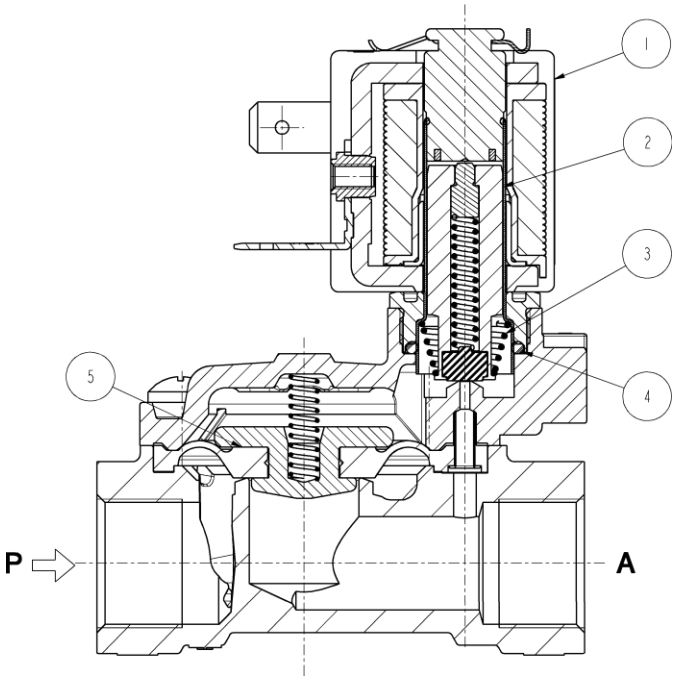
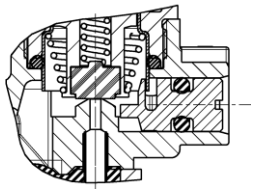
L182

► **SPARE PARTS**

L182 B-V-D01



L182 B-V-D02



Kit description			Kit P.N.	Consisting of:
Core kit	L182B-V L182D		G3138201 G3138202	Core kit pos.2 Core return spring pos. 3 O-Ring guide assembly pos. 4
Diaphragm assembly	L182B L182V L182D	3/8-1/2 3/8-1/2 3/8-1/2	2844302R 2844303R 2844306R	Diaphragm assembly pos.5
	L182B	3/4 1	2299701R 2380101R	
	L182V	3/4 1	2299702R 2380102R	
	L182D	3/4 1	2299708R 2380106R	
Coil			ZB10 ZB12 ZB14	Coil pos.1

►**INSTALLATION**

- Solenoid valve can be mounted in any position; vertical with coil upwards preferred.

► PIPE CONNECTIONS:

- Make sure that the arrow or the part numbering on the valve body correspond to the flow direction
- Make sure that no foreign bodies enter the solenoid valve during the assembly.
- At a very low ambient temperature, the medium can solidify and damage the solenoid valve.
- Make sure that the piping is perfectly clean. If possible, let the fluid circulate free for a few seconds without the solenoid valve.
- Due to their internal construction, these solenoid valves tend to retain solid particles, residues for machining, dirt and sediment conveyed by or suspended in the fluid.
- Therefore, we recommend that a close-mesh demountable filter should be installed upstream of the solenoid valve.
- Use good quality components for sealing the piping (tapes, glues, adhesives, bi-conical fittings, etc.). Never use hemp or similar products. Do not use adhesive or glue for solenoid valves with techno-polymer body, since they can corrode it.
- Use the right size wrench, applied to the hexagon or to the parallel planes of the body, when screwing the valves to the piping. Never use the valve as a lever arm, since this can deform the core tube, thus preventing the valve from working properly and causing it to burn out.
- Valves can work in any position. However, apart from special versions, we recommend vertical mounting with the coil upwards. While it is technically possible to mount the valve with the coil facing other directions, this can lead to an accumulation of foreign matters in core tube that negatively affect the regular solenoid valve working.
- In case of connection to flexible piping, in order to secure the solenoid valve, use its body through or blind holes.
- PINCH solenoid valves: join the soft tube to the provided slot before coil electrical connection. Do not use tubes with Shore hardness different from the recommended one.
- Always bear in mind the clamping force and any other data provided in the technical information.

► ELECTRICAL CONNECTIONS:

- Verify the correspondence of voltage and frequency values printed on the coil with the main power supply ones.
- Solenoid valves must be connected to any suitable earthing system depending on the voltage and the local regulations. As for DC models, no polarity is pre-determined for electrical connections, excepting for latching models
- Do not connect the coil before its mounting on the solenoid valve.
- PINCH solenoid valves: do not connect the coil before the soft tube has joined the proper slot.
- Apart from special cases, all coils can rotate to adapt to different requirements. Afterwards lock the lock-nut of models having this possibility.
- All our solenoids are suitable for continuous duty with the exception of special models, where this is indicated on the coil. Obviously, under this condition the valve heats up and should not be touched with bare hands.
- The maximum temperature reached by the coil is a function of the temperature of the fluid, the ambient temperature and the conditions of use of the valve. Under certain conditions, the valve should be kept away from heating sources or closed environments that do not permit normal heat dissipation.