

D	a	b	c	f	g	l	s
G 1 ¼	113	106	132	81	50	40	52
G 1 ½	140	110	140	110	64	53	60
G 2	157	114	150	110	72	53	72

► **GENERAL FEATURES**

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 FEATURES**

Maximum allowable pressure (PS) 10 bar

Response times	1 1/4	1 1/2	2
Opening time (ms)	100	360	360
Closing time (ms)	650	650	650

Fluid temperature -10°C +85°C
 Max viscosity 5°E (~37 cStokes or mm²/s)

► **MATERIALS IN CONTACT WITH FLUID**

Body	Brass
Sealing	EPDM
Internal components	Brass and stainless steel
Seat	Brass
Guide assembly	Stainless steel
Shading ring	Copper

► **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
Electric connections	DIN 46340 - 3 poles connectors (EN175301-803)
Protection degree	IP 67 (EN 60529) with plug connector
Voltages DC	12-24V (+10% -5%)
AC	24V/50Hz - 110V/50Hz (120V/60Hz) - 230V/50Hz (+10% -15%)
	(Other voltages and frequencies on request)

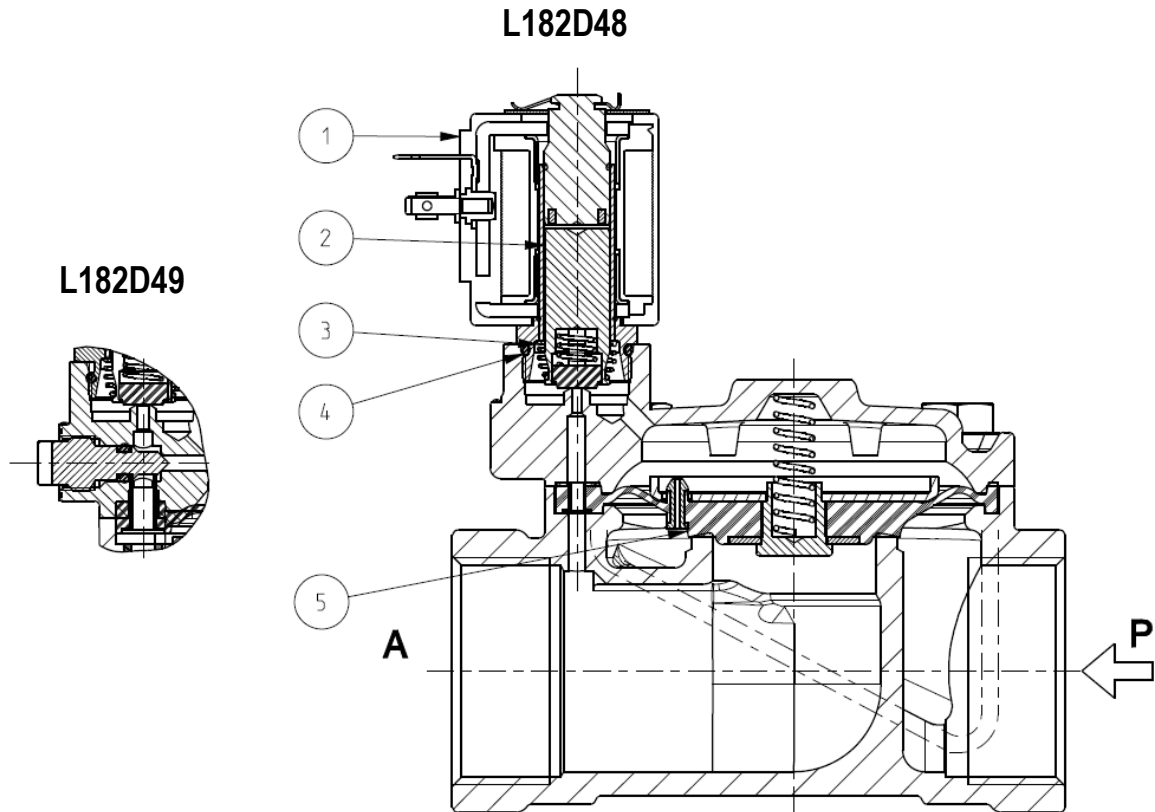
Port size ISO 228	Orifice size (mm)	Differential pressure (bar)				Kv (m³/h)	Series and type			Power absorption			Sealings	Notes	Weight (kg)	
		Δp min	Δp max		Valve		Valve with manual override	Coil	AC (VA)		DC (W)					
			Gases	Liquids					Inrush	Holding						
			AC	DC	AC	DC										
G 1 ¼	30	0.50	10	10	10	10	15	L182D48	L182D49	ZA10A	23	14	9	EPDM	-	1,590
G 1 ½	45															2,510
G 2	45															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)

L182D-BIG G 1" ¼ ÷ 2"

► SPARE PARTS



Kit description

Kit description	Kit P.N.	Consisting of:
Core kit	G3146803	Core pos. 2 Core return spring pos. 3 OR guide assembly pos. 4
Diaphragm kit	G 1 ¼ 2400804R G1 ½ - 2 2401305R	Diaphragm assembly pos. 5
Coil	ZA10A	Coil pos. 1

► MOUNTING

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.