



SOLENOID VALVES



Legros sas

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POMPES & PROCÉDÉS
COMPOSANTS D'AUTOMATISME & DE SÉCURITÉ - MESURE

GLOSSARY

This chapter illustrates some of the technical terms used in the ODE catalogue.

Fixed core: component in ferrous-magnetic material which, due to the effect of a magnetic field generated from the coil, attracts the plunger.

Plunger: component in ferrous-magnetic material which, under the effect of a magnetic field, moves towards the fixed core causing directly or indirectly the switching of the solenoid valve. Often the plunger houses one or more shutters which open or close one or more orifices for the solenoid valve functioning.

Complete plunger: this is the grouping of the plunger, the shutters and any springs.

Armature tube: a guide tube in which the plunger runs.

Complete armature tube: the assembly of fixed core and armature tube, generally welded or assembled with rolling, threading or other means.

Coil: it consists of a copper winding, a support bobbin and a holder in ferrous-magnetic material. The whole is covered over with insulating material from which the electrical connections emerge, which may be different depending on the type of coil. (see COIL INDEX). The winding generates the magnetic field while the ferrous-magnetic holder closes the magnetic circuit constituted by the holder itself, the plunger and the fixed core.

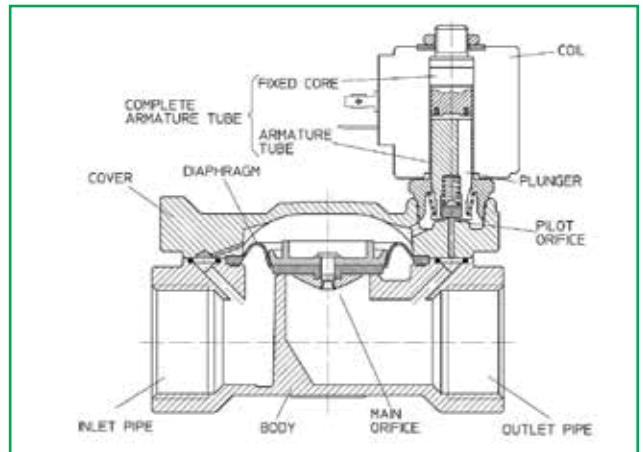
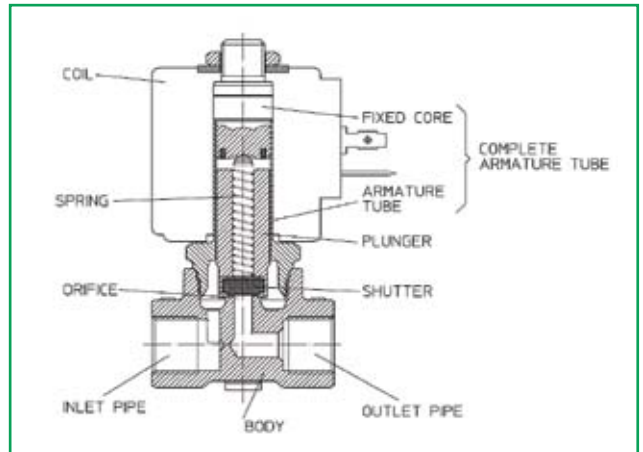
Shutter (or sealing gasket): this component may be housed directly in the plunger, in a gasket housing, in the piston, or be part of the complete diaphragm. With a movement the shutter opens or closes an orifice thus permitting or preventing the flow of fluid. Certain valves have more than one shutter, for example the 3 way direct acting solenoid valves: the two shutters, housed at the ends of the fixed core, alternately open and close the inlet and outlet orifices. There are also two shutters in the combined operation and in the pilot control solenoid valves, one acting on the pilot orifice and the other on the main orifice. Sometimes shutter function is carried out directly by the diaphragm or piston. Note: in the same solenoid valve there may be shutters made of different materials.

Orifice: this is a holed component which is opened or closed by the shutter, permitting or preventing the passage of fluid. It may be either machine-tooled or inserted. The solenoid valve main orifice is the one permitting maximum flow of the valve itself while the pilot orifice, when opened or closed due to an unbalance of pressure, leads to opening or closing the main one by means of a diaphragm or a piston.

Diaphragm: an element of mixed action or solenoid valves with pilot control which opens or closes the main orifice due to the effect of different pressures on its surfaces.

Complete diaphragm: this is the grouping of components united to the diaphragm such as diaphragm bearings, rivet etc.

Piston: an element of mixed action or solenoid valves with pilot control which opens or closes the main orifice due to the effect of different pressures on its surfaces.



Complete piston: this is the grouping of components united to the piston such as rivet, shutter etc.

Body: it is the central part of the solenoid valve. The pipes are on the body and the main orifice is generally inside. In some cases the body is divided in two parts: for example in solenoid valves for drink dispensing there is the upper body with the inlet pipe and the lower body with the main orifice and the outlet pipe.

Cover: this is found in certain solenoid valves, generally in all those with pilot control, the cover of which normally houses the pilot orifice.

Pipe: a mechanical component for connecting the solenoid valve to inlet, outlet and exhaust pipes.

- ▶ 21A N.C./N.O.
- ▶ 21A PROP N.C.
- ▶ 21A-PW N.C./N.O.
- ▶ 21A16 N.C.
- ▶ 21H-EN N.C.
- ▶ 21HT-HN-HF N.C./N.O.
- ▶ 21IH-IN N.C.
- ▶ 21JN N.C.
- ▶ 21L N.C./N.O.
- ▶ 21M N.O.
- ▶ 21T N.C.
- ▶ 21W N.C./N.O.
- ▶ 21X N.C.
- ▶ 21YW-YN N.C./N.O.
- ▶ 31A N.C./N.O.
- ▶ 31A N.C.
- ▶ 31JN N.C.
- ▶ 31L N.C.
- ▶ 512 N.C.
- ▶ 4743 N.C.



- ▶ 21D-K N.C.
- ▶ 21JP N.C.
- ▶ 21SBG N.C.
- ▶ 31JP N.C.



ELECTROVANNES A PINCEMENT

- ▶ 21Z N.C./N.O.
- ▶ 31Z N.C.



ELECTROVANNES ATEX

- ▶ 21A Ex d & Ex m N.C./N.O.
- ▶ 21H Ex d N.C.
- ▶ 21L Ex m Ex d N.C.
- ▶ 21W Ex m, Ex d N.C./N.O.
- ▶ 21X Ex m, Ex d N.C.
- ▶ 31A2 Ex m, Ex d N.C.
- ▶ 31L Ex m, Ex d N.C.





VANNES A PISTONS

- ▶ 21A N.O.
- ▶ 21A N.C.
- ▶ 21A-5 N.C.



- ▶ P992087
- ▶ P992219
- ▶ P990305-P992257



- ▶ BDA-BDV-BSA-BVA
- ▶ BDV08024C3 ÷ BDV08230A3
- ▶ GDH-GDV
- ▶ GDV14024C3 ÷ GDV14230A3
- ▶ LBA-LBF-LBV
- ▶ LBV05024A3 ÷ LBV05230A3
- ▶ UDA-UDV
- ▶ TNA4X024D4 ÷ TNA10024C4

