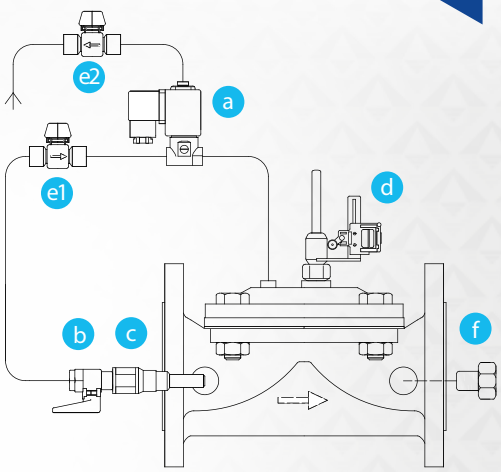
Deep Well (Submersible) Pump Control Valve | DPC



a Solenoid Pilot Valve
b Ball Valves
c In-line Finger Filter
d Limit Switch Assemble
e Needle Valve
f Plug

Description

Armaş "DPC" model deep-well pump control valve is a relief control valve designed for putting deep-well type pumps into/out of service automatically. Valve is connected on main line with a "TE" piece. Valve is in open position before pump operates. When pump starts up, valve is closed by itself slowly without causing surge and increases system pressure gradually. Before pump stops, valve opens by itself slowly and automatically and decreases system pressure gradually.

Valve Sizing

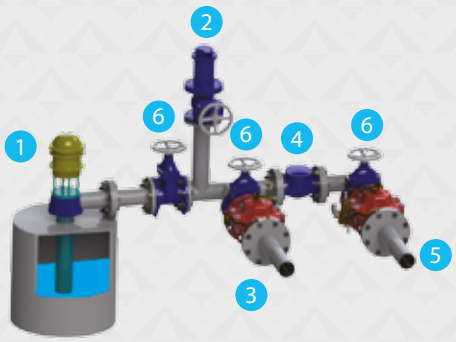
•Deep-well Pump control valve is mounted on network in TE configuration since it is a electric activated release valve.

•Since valve's function is to release, valve diameter may be selected as equal to or in closest smaller size than main pipe diameter. Valve diameter should be selected as smaller than main pipe diameter. Following empirical formula may be used in determining diameter of deep-well pump control valve. Where;

$$D=\sqrt{\frac{250xQ}{\sqrt{Hm}}}$$

D = Diameter of deep-well pump control valve in (mm)
Q = System Flow Rate in (m^3/h)
Hm = System Operating Pressure (meter ⟶ 1 bar ≈ 10 meter)

Typical Application



1 Submersible Pump
2 Air Valve
3 Deep Well (Submersible) Pump Control Valve
4 Check Valve
5 Surge Anticipating Valve
6 Isolation Valve (Gate, Butterfly Valve etc.)

Adjustment

- Connect pump control valve to pump panel according to electric schema of electric panel.
- Open ball valve indicated with "b".
- Valve will be opened slowly. When valve came to full open position, fixate the position of limit switch indicated with "d" according to full closed position of valve. Knob at the end of valve indicator should contact with Limit Switch.
- Adjust valve opening speed by means of needle valve indicated with "e2" and valve closing speed by means of needle valve indicated with "e1".

Maintenance

- Check finger filter indicated with "c" according to water quality and clean it. Do not make cleaning more than one within a few months unless water is too dirty.
- Drain water within actuator and pilot valves of valves not used in winter.
- Check downstream pressure value continuously.
- Consult us if valve does not perform its regulating function.

Troubleshooting

Failure	Causes	Correcting/Repair
Valve not opening	• Ball valve indicated with "b" on valve may be closed. • Solenoid Pilot valve coil may be burnt. • Needle valve may be closed.	• Check the ball valves and open them if they are closed. • Replace it with the new one. • Open needle valve according to valve opening speed.
Valve not closing	• Diaphragm may be punctured. • Foreign substances may exist in diaphragm seat. • Valve's Control panel may be connected incorrect. • Finger filter may be clogged.	• Check diaphragm and replace with the new one if it is punctured. • Check diaphragm seat and remove foreign substances if any. • Check connections and correct them according to electric schema.. • Clean if it is clogged.
Valve is closed but Pump does not stop	• Position of Limit Switch may be wrong. • Connections of Limit Switch to control panel may be wrong.	• Readjust it according to instruction. • Check it and correct its connections

Order Information

Please submit following information to our sales department while ordering.

Maximum flow rate _____ m^3/h
Valve connection type _____
Maximum network/line pressure _____ bar
Maksimum pump pressure _____ bar
Depth of the well _____ m

Sample order form

Model	Connection	Size	Control Feature	Additional Features
67-67D 66-66D-64 63-63D	F: Flanged (ISO-ANSI) TH: Threaded (BSPT-NPT) VIC: Grooved End	2"-16" 1½"-3" 2"-4"	Deep Well Pump Control	QR: Quick Pressure Relief PG: Pressure Gauge
67	**F**	**6"**	**DPC**	**QR**