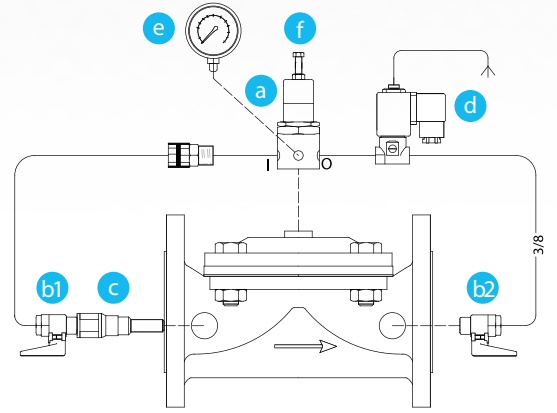




# PREL | Solenoid Controlled Pressure Reducing Valve



- a Pressure Reducing Pilot Valve
- b Ball Valves
- c In-line Finger Filter
- d Solenoid Pilot Valve
- e Pressure Gauge
- f Adjustment Bolt

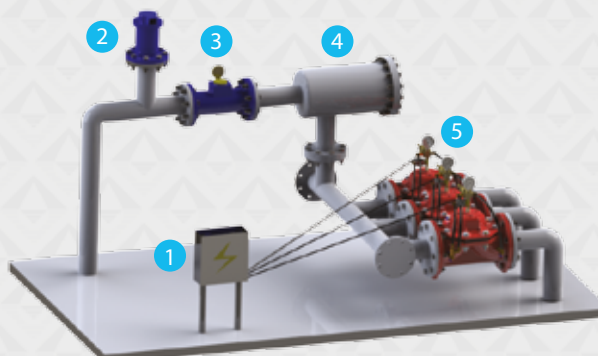
## Description

Armaş "PREL" model pressure reducing valve is the hydraulic control valve which reduces high upstream pressure value into desired lower pressure value. Control of main valve is achieved by means of built-in 3/2-way solenoid pilot valves. Electric signal for solenoid pilot valves is ensured by means of a control device, time relay, main switch and PLC control units etc. Automated control may be easily ensured by this way in application systems.

## Installation

- Connect cables of solenoid pilot valve in accordance with control device.
- Make sure that is on a level with the pipeline while mounting it.
- Mount valve in direction of arrow indicated on it.
- It is recommended that insulation valves (butterfly or gate valves etc.), air relief valve, quick pressure relief valve (QR), and strainer valves will be used in line-mounting of valve (See sample montage illustration).
- During pressure decrease, cavitation risk is dangerous for valve body. Adjust downstream pressure value by referring cavitation data or consult our technical service.

## Typical Application



- 1 Controller
- 2 Air Valve
- 3 Watermeter
- 4 Filter
- 5 Solenoid Controlled Pressure Reducing Valve

## Adjustment

- Operate pump. Open main valve on network and deliver water to the system.
- Open ball valve indicated with "b1".
- Make system active by giving energy to coil of solenoid pilot valve from your control device.
- Adjust desired downstream pressure value by means of adjustment bolt indicated with "f" on pilot valve indicated with "a" by referring pressure gauge indicated with "d".
- When you turn adjustment bolt clockwise, downstream pressure value will increase and when you turn adjustment bolt counter-clockwise it will decrease.
- After adjusting desired downstream pressure value, tighten contra nut below adjustment bolt. Open ball valve indicated with "b2" and deliver water into system. Pressure gauge will show zero value after opening "b2" valve.

## Troubleshooting

Failure	Causes	Correcting/Repair
Valve not opening	<ul style="list-style-type: none"> <li>• Ball valves in valve upstream and downstream may be close.</li> <li>• Valve upstream pressure may be too low.</li> <li>• Adjustment bolt of pilot valve may be too loosened.</li> <li>• Voltage value of solenoid pilot valve may be wrong.</li> <li>• Solenoid coil may be burnt.</li> </ul>	<ul style="list-style-type: none"> <li>• Check ball valves and open them if they are closed.</li> <li>• Check your system.</li> <li>• Bring adjustment bolt into desired value and tighten contra nut.</li> <li>• Measure voltage value and select cable with suitable diameter for coil.</li> <li>• Replace coil.</li> </ul>
Valve not closing	<ul style="list-style-type: none"> <li>• Diaphragm may be punctured.</li> <li>• Foreign substances may exist in diaphragm seat.</li> <li>• Connections of pilot valve may be clogged because of foreign substances.</li> <li>• Finger filter may be clogged.</li> <li>• Manual control screw of solenoid valve may be in wrong position.</li> </ul>	<ul style="list-style-type: none"> <li>• Check diaphragm and replace with the new one if it is punctured.</li> <li>• Check diaphragm seat and remove foreign substances if any.</li> <li>• Check connections and clean them.</li> <li>• Clean if it is clogged.</li> <li>• Check manual control screw.</li> </ul>
Valve does not regulate	<ul style="list-style-type: none"> <li>• Movable parts of pilot valve may be clogged because of calcification.</li> <li>• Needle valve or orifice in pilot valve upstream may be clogged.</li> <li>• Pressure gauge may be failed.</li> </ul>	<ul style="list-style-type: none"> <li>• Replace with new one. Bring it into correct position if not.</li> <li>• Clean it.</li> <li>• Replace with new one.</li> </ul>

## Order Information

Please submit following information to our sales department while ordering.

Maximum flow rate	m <sup>3</sup> /h
Maximum network/line pressure	bar
Main line size	mm
Valve connection type	
Maximum upstream pressure	bar
Minimum upstream pressure	bar
Desired downstream pressure	bar
Electric voltage value to be used	volt

## Solenoid Pilot Valve Specifications

Body	Function	Voltage	Power	Options
Brass-16 bar	3-way N.O. 3-way N.C.	6,12,24,110,240	AC 8W - 5,5W 50 Hz AC 8W - 5,5W 60 Hz DC 5,5 W	0,8 mm 1,6 mm 2,0 mm
Plastic-12 bar	3-way N.O. 3-way N.C.	6,12,24 9,12	AC,DC Latch	

## Pilot Valve Pressure Adjustment Range

Standard Pressure Range	5 - 160 m	7,5 - 240 psi
Medium Pressure Range	10 - 100 m	15 - 150 psi
High Pressure Range	5 - 240 m	7,5 - 360 psi

## Sample order form

Model	Connection	Size	Control Feature	Additional Features	Options
67-67D	F: Flanged (ISO-ANSI)	2"-16"	Solenoid Controlled Pressure Reducing	NV: On/Off Speed Adjustment	Position Indicator
66-66D-64	TH: Threaed (BSPT-NPT)	1½"-3"		PG: Pressure Gauge	
63-63D	VIC: Grooved End	2"-4"		SV-3: 3-Way Selector Valve	
<b>67</b>	<b>F</b>	<b>6"</b>	<b>PREL</b>	<b>NV</b>	<b>PIR</b>