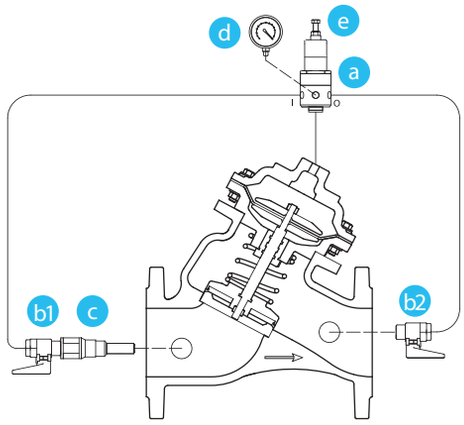
QUICK PRESSURE RELIEF CONTROL VALVE

Model: KVS - 802G



a Quick Pressure Relief Pilot Valve
b Ball Valves
c In-line Finger Filter
d Pressure Gauge
e Adjustment Bolt

DESCRIPTION

KVS -802G model quick relief control valve is the safety control valve designed to protect system by releasing pressure surges to atmosphere quickly caused from sudden changes in water speed because pumps put into/out of service frequently in water network elevation lines. When network pressure goes beyond set point, valve opens by itself quickly and protects system by releas-ing over pressure. When line pressure decreases to normal level, it is closed slowly and automatically as wholly sealed without causing surge.

INSTALLATION

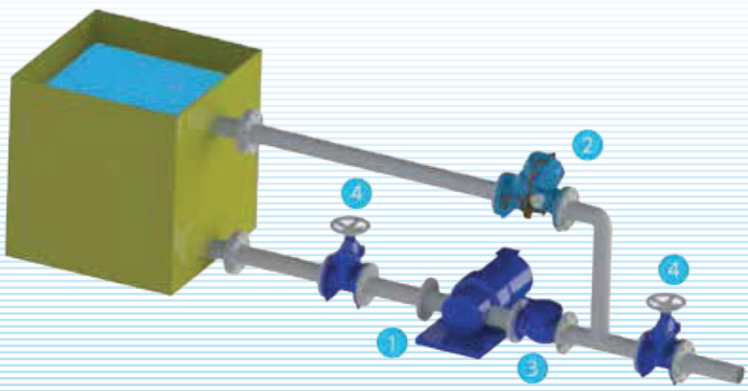
•Quick Pressure Relief control valve is mounted on network in TE configuration.
•Since valve's function is to release pressure, valve diameter may be selected as equal to or in closest smaller size than main pipe diameter. Valve diameter should be selected as smaller than main pipe diameter. Following empirical formula may be used in determining diameter of quick pressure relief control valve. Where;

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

D=	Diameter of quick pressure relief control valve in	(mm)
Q=	System Flow Rate in	(m^3/h)
Hm=	System Operating Pressure	(mSS ⟶ 1 bar ≈ 10 mSS)

Valve closing time is proportional with pipe length. As system pipe length increases, valve closing time should be increased.

TYPICAL APPLICATION



1 Pump
2 Quick Pressure Relief Valve
3 Check Valve
4 Isolation Valve (Gate, Butterfly Valve etc.)

MAINTENANCE

• System operating conditions that effect on the valve should be checked periodically to determent the required preventative maintenance schedule.•
• Check finger filter in valve upstream according to water quality.
• Drain water within actuator of valve not used in winter.

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MAINTENANCE

• Operate pump, open main valve on network and deliver water to the system.
• Open ball valves indicated with "b1" and "b2".
• Wait for a while until water reach valve control chamber. When water reach control chamber, pressure gauge will show a certain pressure value.
• Adjust desired upstream pressure value by means of adjustment bolt indicated with "e" on pilot valve indicated with "a" by referring pressure gauge.
• When you turn adjustment bolt clockwise, upstream 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 set screw. Pressure gauge will show upstream pressure value.

PILOT VALVE PRESSURE ADJUSTMENT RANGE

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

FAITURE	CAUSES	CORRECTING / REPAIR
valve not opening	•Ball valves in valve upstream and downstream may be close. •Valve upstream pressure may be too low. •Adjustment bolt of pilot valve may be too loosened. •Needle valve on pilot valve may be closed.	•Check ball valves and open them if they are closed. •Check your system. •Bring adjustment bolt into desired value and tighten contra nut. •Open needle valve one or two tours according to system adjustment.
valve not closing	•Diaphragm may be punctured. •Foreign substances may exist in disc seat. •Connections of pilot valve may be clogged because of foreign substances. •Finger filter ma be clogged.	•Check diaphragm and replace with the new one if it is punctured. •Check disc seat and remove foreign substances if any. •Check connections and clean them. •Clean if it is clogged
valve does not regulate	•Movable parts of pilot valve may be clogged because of calcification. •Needle valve or orifice in pilot valve upstream may be clogged. •Pressure gauge may be failed.	•Replace with new one. •Clean it •Replace with new one.

ORDER INFORMATION

Please submit following information to our sales department while ordering.

Maximum flow rate _____ m^3/h
Maximum network/line pressure _____ bar
Main line size _____ mm
Valve connection type _____
Maximum upstream pressure _____ bar
Desired upstream pressure _____ bar

SAMPLE ORDER FORM

Model	Connection	Size	Control Feature	Additional Features	Options
802G	F: Flanged (ISO-ANSI)	2"-16"	"Quick Pressure Relief"	SV-3: 3-Way Selector Valve EL: Electric Controll	Position Indicator
	F	6"	PRPS	EL	PIR