

### DESCRIPTION

Armas "QR" 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 releasing over pressure. When line pressure decreases to normal level, it is closed slowly and automatically as wholly sealed without causing surge.

### PURCHASE SPECIFICATIONS

The valve will be direct diaphragm closing automatic hydraulic control valve which works with line pressure. No wearable parts such as stem, bearing and seat exist in main valve body.

The valve position will be controlled by a hand operated selector valve.

### 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
Desired upstream pressure	: bar

### CONTROL SYSTEM COMPONENTS

- |                                     |                   |
|-------------------------------------|-------------------|
| 1 Quick Pressure Relief Pilot Valve | 4 Pressure Gauge  |
| 2 Ball Valves                       | 5 Adjustment Bolt |
| 3 In-line Finger Filter             |                   |

### QUICK SIZING

• Quick Pressure 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;

$$D = \sqrt{\frac{250 \times Q}{H_m}}$$

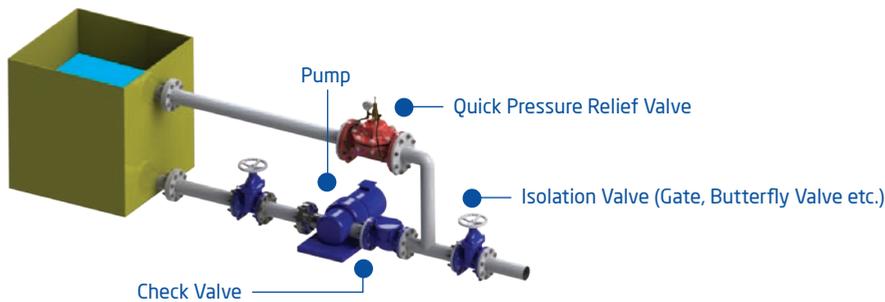
D = Diameter of quick pressure relief control valve (mm)

Q = System Flow Rate (m<sup>3</sup>/h)

H<sub>m</sub> = System Operating Pressure (meter → 1 bar ≈ 10 meter)

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

### TYPICAL APPLICATION



Armas Quick Pressure Relief Valves protect pipe-line and system equipments during pressure fluctuations.