

DESCRIPTION:

Armaş "87-UL-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 fire 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.

TYPICAL APPLICATIONS:

- Fire Pump Pressure Relief
- Foam Concentration Circulation
- Central and Local Safety Relief



TECHNICAL SPECIFICATIONS:

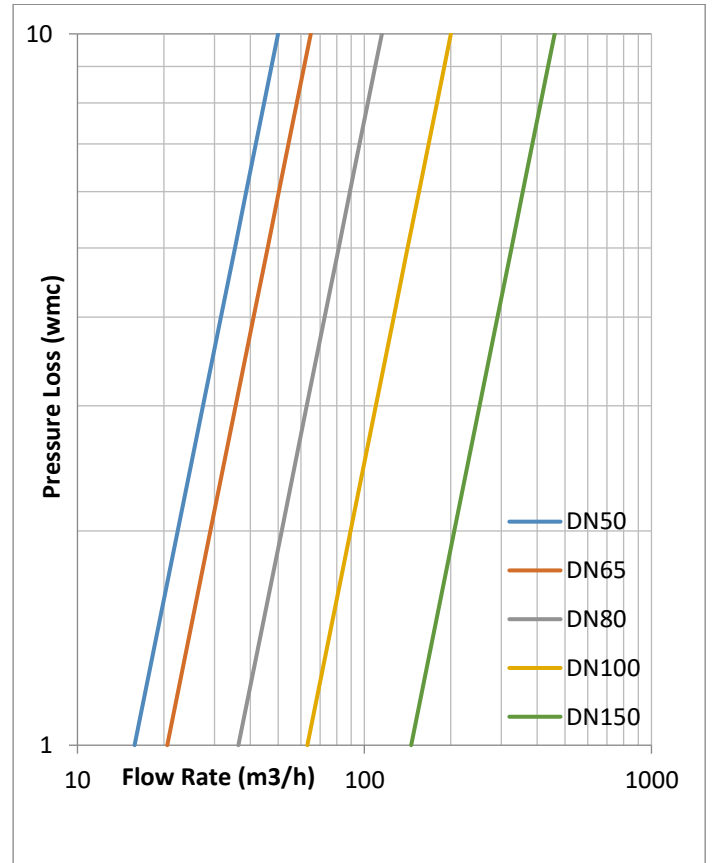
General Specifications	
Pressure Class	16 Bar / 240 Psi
Pressure Adjustment	2 – 15 Bar / 30 – 220 Psi
Temperature	-10 – 80 °C
Valve Sizes	2" – 2 ½" – 3" – 4" – 6"
Material Properties	
Body - Cover	GGG50 Ductile Iron
Diaphragm	EPDM
Spring	AISI 302
Fittings	Ms58
Pilot	Ms58 – AISI 316
Bolt - Nut	Steel – SST A2
Coating	Epoxy
Connection	
Flanged	ANSI, ISO, EN, BS

87-UL-QR

Fire Pump Quick Relief Valve

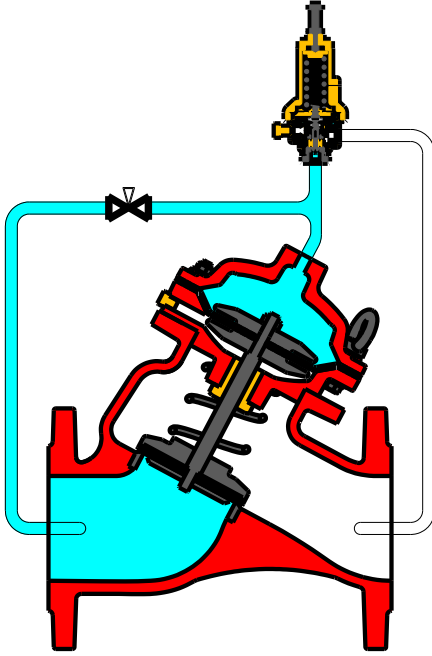


CAPACITY:

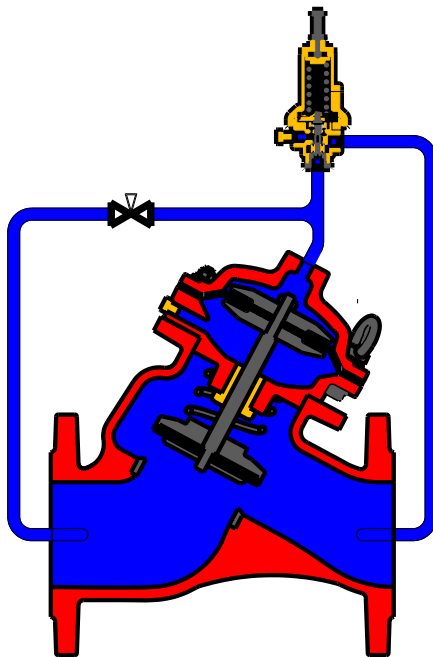


OPERATION PRINCIPLES:

2" – 2 ½" – 3" – 4" – 6"



Valve Closed



Valve Open

87-UL-QR

Fire Pump Quick Relief Valve

Armaş 87-UL-QR Model Quick Pressure Relief Valve is closed until the upstream pressure reaches the pilot valve set pressure. When the pilot valve senses the upstream pressure higher than the pilot valve set pressure, the pilot valve opens the main valve actuator to main valve outlet and discharges water in the actuator quickly. So that the main valve opens quickly to release overpressure. Fire Pump Quick Relief Valve protects the system against the overpressure damages. When the system pressure drops below the pilot valve set pressure, pilot valve locks the main valve actuator and the main valve takes closed position wholly sealed.

The main valve closing time can be adjusted by the needle valve on the control loop of valve. The self-cleaning finger filter on the main valve control system protects the main valve control system. In addition, the pressure gauge on the valve allows continuous of the upstream pressure.

MONTAGE:

- The valve can be installed horizontally or vertically.
- The valve should be aligned with the pipeline when installed.
- Flow direction should match the engraved arrow on the bonnet.
- Installation of isolating valves; both sides, is recommended.
- The valve should be installed with TEE connection on the pipeline.

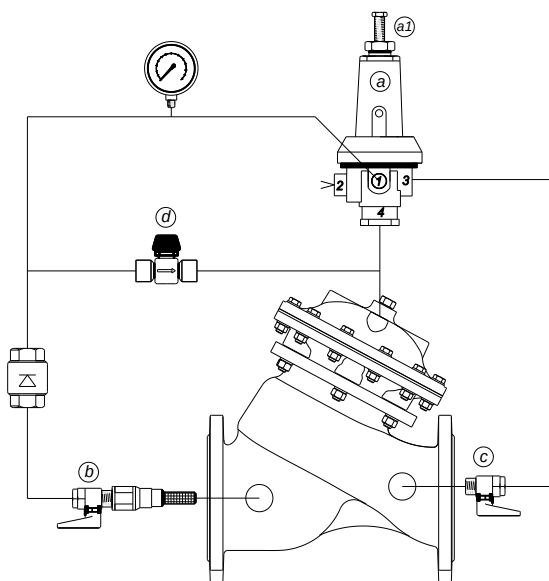
ADJUSTMENT:

- Turn adjusting bolts [a1] in clockwise direction all the way.
- Open ball valve [b] and [c].
- Start the pump or open main valve of the network.
- Adjust upstream pressure using the adjustment bolt [a1] of the pilot. Turn the adjustment bolt [a1] until the valve open.
- Turn the bolt clockwise to increase, counter-clockwise to decrease inlet pressure.
- The closing or opening time of main valve is adjustable with needle valve [d].

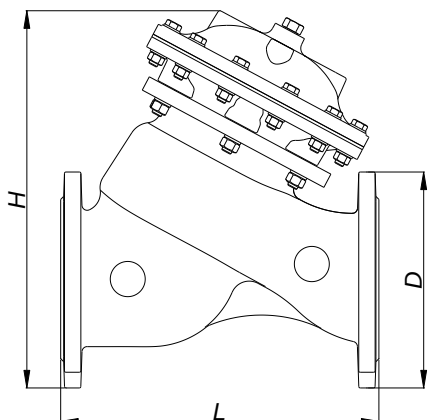
MAINTENANCE:

- Inspect and clean the in-line filter as water quality dictates. Unless the water is very dirty, this service should once in a few months.
- Watch valve performance by checking upstream pressure gauge periodically.

2" – 2 ½" – 3" – 4" – 6"



SIZES:



DN		D		L		H	
inch	mm	inch	mm	inch	mm	inch	mm
2	50	6	152	14,5	210	18,3	265
2½	65	7	178	15,5	225	19,7	285
3	80	7,5	191	18,6	270	22,4	325
4	100	9	229	22,8	330	26,9	390
6	150	11	279	29,7	430	36,6	530

ANSI Class 150

87-UL-QR

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TROUBLESHOOTING:

Failure	Causes	Correcting
Valve Not Opening	• Ball valve upstream and downstream may be closed. • Valve upstream pressure may be too low. • Adjustment pressure of pilot valve may be too high.	• Check ball valves and open them if they are closed. • Check your system • Bring pressure value into adjusting value by means of adjustment bolt.
Valve Not Closing	• Diaphragm or rubber seal may be punctured. • Foreign substances may exist in diaphragm seat. • Connections of pilot valve may be clogged because of foreign substances. • Finger filter may be clogged. • Needle valve on control loop may be closed.	• Check diaphragm, rubber seal and replace with the new one if it is punctured. • Check diaphragm seat and remove foreign substances if any. • Check connections and clean them. • Clean if it is clogged. • Open needle valve one or two tours according to system adjustment.
Non-uniform Regulation	• Movable parts of pilot valve may be clogged because of calcification. • Needle valve adjusting point may be wrong. • Pressure gauge may be failed.	• Replace with new one. • Close needle valve fully and open it one to two tours. • Replace with new one.