



Control Function Quick Pressure Relief (QR)

Control Function Quick Pressure Relief (QR)	
Pressure Relief Using Pilot 68-215	
Applicable Series:	Sizes:
S100	1½" – 4" / 40-100mm

1. Function Description

The DOROT Quick Pressure Relief Valve ('QR') is activated by pressure of the pipeline. The valve opens instantly when pipeline pressure exceeds set safe level, thus relieving excess pressure on the network. When pressure levels return to normal, the valve closes slowly to prevent secondary surges.

2. Technical Features

- Media: Water; natural, non-aggressive fluids
- Pressure rating PN16 (250psi)
- Temp. range S100: 2 – 60°C (35 - 140°F)
- Max. flow velocity for intermittent operation: 15 m/sec (50 ft/sec)

Notes:

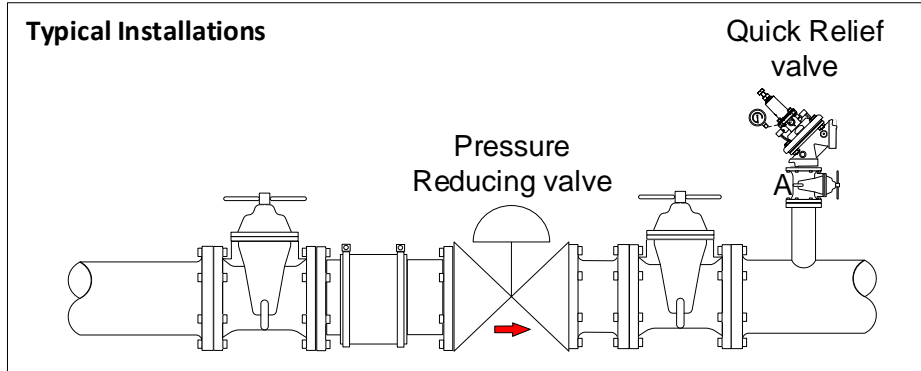
- In case the designed/actual operating conditions are not suitable for the above defined standard features, please contact Aquestia Applications-Engineering.
- Refer to specific valve model publications for further details.

3. Safety Guidelines

- Injury or damage to the system/surroundings may occur if installation, commissioning, operation or maintenance instructions are not followed correctly, or if applicable codes of practice and regulations are ignored.
- Dorot valves are designed for use in fresh water-systems. Please consult Aquestia Applications-Engineering in case other media is to be used.
- Be sure to depressurize the valve, prior to any disassembly of valve or control-trim parts.
- Electrical works (e.g. connection of solenoid-valves, limit-switches etc.), must be executed by a certified electrician.
- Errors in the layout-design, installation or operation may affect valve performance and may be a risk to the system and operators/users. Please note, the system layout, installation and commissioning of valves is the responsibility of the system designer, installer and/or user.
- In any case of doubt and prior to taking any further action, please contact Aquestia representative for assistance.

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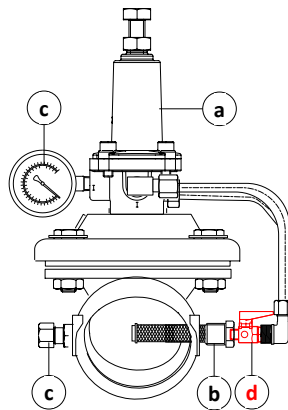
4. Installation



- The valve can be installed in any position, although installation with the bonnet facing up is recommended for ease of maintenance.
- Flow direction should match the engraved arrow on the bonnet.
- For maintenance considerations, it is recommended that manual isolation valves (gate or butterfly) are installed, both sides with a strainer between the upstream isolation valve and the valve inlet (as shown in the diagram above).
- Flush pipeline upstream of the valve, before assembly of the control valve.

5. Control Trim Design

1.5" – 4" / 40 – 100 mm



Main Parts

- Pilot Valve 68-215
- Self-flushing, Inline Control Filter
- Pressure Gauge or Pressure Test Point
- Manometer Valve (optional)

6. Commissioning & Adjustment

- Turn adjusting bolt on Pilot Valve [a] clockwise, all the way.
- Start the Pump or open Isolation Valve [A], under normal operating pressure.
- Bleed air out of the control chamber.
- Slowly turn adjusting bolt on Pilot Valve [a] counterclockwise until valve starts to drip.
- Turn adjusting bolt on Pilot Valve [a] clockwise ½ turn.

Ⓜ Charging the downstream system must be done slowly to prevent pressure surges

Installation, Operation & Maintenance

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7. Manual Activation


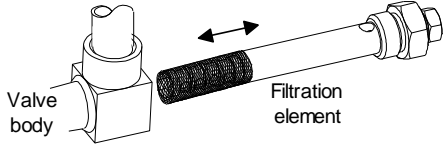
ⓘ Note that

- a. The QR Valve can be opened manually by opening the Manometer Valve [d] at any pressure, to test operation.

ⓘ Return Valve [d] to “Normal” position after test is completed.

8. Maintenance

- a. Inspect and clean the inline filter [c] as water quality dictates. This service should be performed every few months.
- b. During this operation, the main valve must be isolated from external pressure, by closure of up- and downstream isolation valves [A, B].
- c. Inspect valve performance by checking pressure gauge levels periodically.

	 <p>Valve body Filtration element</p> <p>Extraction of screen element, filter</p>
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9. Troubleshooting

General check list	Manometer valves [d]	All must be open when operated
	Schematic diagram	Verify that piping is consistent with the schematic diagram
	Filter	Check and clean
	System adjustment	Verify that the pilot valve is adjusted correctly
Valve open or drips at normal operating pressure	Set point is not correct	Increase set point by turning adjustment bolt clockwise
Valve does not open	Set point is not correct	Decrease set point by turning adjustment bolt counterclockwise

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