700 Series

Pressure Reducing Valve

Model MN-720

Hydraulically operated, pressure reducing control valve that reduces higher upstream pressure to lower constant downstream pressure, regardless of fluctuating demand or varying upstream pressure.

Bermad 700 Series valves are hydraulic, pilot operated, oblique pattern, globe valves with a seat assembly and double chamber unitized actuator that can be disassembled from the body as a separate integral unit.

The valve's hydrodynamic body is designed for unobstructed flow path and provides excellent and highly effective modulation capacity for high differential pressure applications.

The 700 Series operate under difficult operating conditions with minimal cavitation and noise. They are made of the highest quality materials, suitable for different mining applications.

Features and Benefits

- Designed to stand up to the toughest conditions
 - Tamper resistant
 - Excellent anti-cavitation properties
 - High stability and accuracy
 - Drip tight sealing
- Double chamber actuator design
 - Protected diaphragm
 - Provide rapid response to sudden changes in system conditions
 - Simplified maintenance as it can be removed as a single unit. In-line serviceable
- Flexible design Easy addition of features
- Optional V-Port Throttling Plug Allows for low flow stability
- Obstacle free flow path

Typical Installation

Major Additional Features

- Fixed Proportion PRV 720 PD
- 3 Way control **720 X**
- Safety Valve 720 TC
- Independent flow check 720 25
- Hydraulic check valve 720 20
- ON/OFF Solenoid Control 720 55
- Electrically selected multi-level setting 720 45
- High sensitivity pilot 720 12
- Downstream over pressure guard 720 48
 See relevant BERMAD publications

List of Components:

- [1] Pressure Reducing Valve 720
- [2] Pressure Relief Valve 73Q
- [3] Combination Air Valve C70

[1]

[4] Strainer 70F

[4]

All images in this catalog are for illustration only



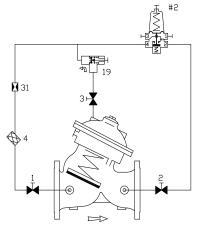
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BERMAD Mining

Model MN-720

Control Schematic (*)



Standard Configuration

- 2W Isolation Valve
- 2W Isolation Valve
- 2W Isolation Valve
- Control Filter Speed Control
- 19
- 31 **Restriction Orifice**
- 2W Pressure Reducing Pilot #2

Additional features (OPTIONAL)

700 Series

- V-Port Plua
- F Large Control Filter
- F1 Extra Large Control Filter
- 6 Pressure Gauge
 - Visual Position Indicator
 - Electric Limit Switch
- S Position Transmitter 4-20 mA 0

(*) As a reference only. Components may vary based on valve's size and class.

Operation

 Model MN-720 is equipped with an adjustable pressure reducing pilot, which senses downstream pressure.

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- Should this pressure rise above the pilot setting, the pilot throttles, enabling pressure in the control chamber to accumulate; thereby, causing the main valve to throttle closed, decreasing downstream pressure to pilot setting.
- Should the downstream pressure fall below the pilot setting, the pilot releases accumulated pressure, and the main valve modulates open.
- Opening and/or closing speed can be set hydraulically using an opening and/or closing needle valve (optional)

Pilot Options

V

Various pilots and calibration springs are available. Select according to valve size and operation conditions. For more details check pressure reducing pilots product page.

	PSI	Bar	
Adjustment Ranges	11-150	0.7-10	
	15-230	1-16	
	30-430	2-30	



Pressure Rating

	Class 150			Class 300				
Max. Recommended Pressure	250 PSI			400 PSI				
Available End Connection	Flanged ANSI#150	Grooved ANSI/AWWA	606	Threaded	Flanged	ANSI#300	Grooved ANSI/AWWA C606	Threaded

Materials

Components		Water Applications	Thermal Shock Applications	Base Solutions Applications	Acid Solutions Applications (**)	
Main Valve	Body & Cover	Ductile Iron	Carbon Steel	Ductile Iron	Stainless Steel 316	
	Internals	Stainless Steel	Stainless Steel	Stainless Steel	Stainless Steel 316	
	IIIterrials	Brass/Coated Steel	Brass/Coated Steel	Coated Steel		
	Elastomers	Synthetic rubber	Synthetic rubber	Synthetic rubber	Viton	
	Coating	Fusion Bonded Epoxy	Fusion Bonded Epoxy	Fusion Bonded Epoxy	Uncoated	
Pilot	Body	Brass/Bronze	Brass/Bronze	Stainless Steel 316	Stainless Steel 316	
	Internals	Stainless Steel	Stainless Steel	Stainless Steel 316	Stainless Steel 316	
	IIItemats	Brass	Brass	SIGNNESS SIEEL 210	STOILLIESS STEEL 3 IP	
	Elastomers	Synthetic rubber	Synthetic rubber	Synthetic rubber	Viton	
Control Loop Accessories	Accessories	Brass/Bronze	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316	
	Tubing & Fittings	Brass	Stainless Steel 316	Stainless Steel 316	Stainless Steel 316	

(**) For highly aggressive acid solutions: Super Duplex, Hastelloy C-276, SMO-254 6-MO. Others by request.

Notes:

- Inlet pressure, outlet pressure and flow rate are required for optimal sizing and cavitation analysis.
- Recommended average flow velocity: 0.1-3.5m/sec; 0.3-11ft/sec. Intermittent flow velocity: 7.5m/sec-23ft/sec
- Minimum operating pressure: 0.7 bar / 10 PSI. For lower pressure requirements consult factory.



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