DIRECT OPERATED VALVES FOR 4/3 AND 4/4-WAY OPERATION

D92x Series Proportional Valves D93x Series Servo-proportional Valves

ISO 4401 Sizes 03 and 05



EXPERIENCE ADVANCED TECHNOLOGY IN A DURABLE DESIGN, OFFERING FLEXIBILITY, EASY INSTALLATION, AND STRAIGHTFORWARD REPLACEMENT

The Moog Direct Operational Valve (DOV) series, seamlessly replace other valves currently on the market, providing viable alternatives to traditional supplier products. This comes with no risk, minimal engineering effort, and little to no modification needed for industrial machines.

The new direct operated valves comprise two different series: the D93x Servoproportional and the D92x Proportional Valves. While the D93x valves are designed with a spool in a bushing and are made for higher dynamics, the D92x valves are designed with a spool in body and are therefore suitable for higher flow rates.

Together the new DOVs cover a rated flow range of 4 to 100 l/min, are available in ISO 4401 sizes 03 and 05 and can handle fluid temperatures up to 80 $^{\circ}$ C at ambient temperatures up to 60 $^{\circ}$ C.

The DOV series are designed to offer high resistance to thermal stress, benefiting machine builders, application developers, and end users. The innovative design separates the electronics from their housing, and the heavier components are firmly bonded to the PCB, ensuring reliable operation even under heavy use. As a result, these new valve series not only extend the service life of your machine but also minimize machine downtime.

These new valves come with a comprehensive set of standard features in a cost-effective package, setting a new standard for reliability, quality, delivery, and support.

ADVANTAGES

- Comprehensive set of standard features
- High vibration resistance for longer service life and less machine down time
- Innovative electronics design for lower thermal stress and longer electronics lifetime
- Compact design for minimal space requirements and easy integration

APPLICATIONS (EXAMPLES)

- Metal forming and presses
- Die casting
- Blow molding
- Heavy industry
- Test benches
- Wood processing
- Gas turbines
- Marine
- Mobile



D926 and D927



D936 and D937

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TECHNICAL DATA AND DIMENSIONS 1)

		D926	D927	D936	D937
Features and benefits		 Proportional valve design with large spool diameters and long spool stroke for high rated flows Wide variety of spool overlaps, flow characteristics and signal options for easy configuration to different applications 		 4/4-way design with fail-safe position reduces need for additional safety components Servo valve design with fully hardened spool and bushing for high accuracy and wear resistance Optimized overlaps and clearances between spool and bushing for low internal leakage and high contamination resistance 	
Valve design		1-stage, with spool-in-body		1-stage, with spool and bushing	
Mounting pattern		ISO 4401-03-03-0-05 (with or without leakage oil port Y)	ISO 4401-05-05-0-05 (without leakage oil port Y)	ISO 4401-03-03-0-05 (with or without leakage oil port Y)	ISO 4401-05-05-0-05 (without leakage oil port Y)
Rated flow	at ∆p _№ 5 bar (75 psi)/spool land	4 to 32 l/min (1.06 to 8.5 gpm)	25 to 75 l/min (6.6 to 19.8 gpm)	-	-
	at ∆p _N 35 bar (500 psi)/spool land	-	-	4 to 40 l/min (1.06 to 10.6 gpm)	50 or 100 l/min (13.2 or 26.4 gpm)
Maximum operating pressure - port P, A, B		350 bar (5,000 psi)			
Step response time for 0 to 100 % stroke		18 ms	< 28 ms (for spool with < 3 % overlap)	11 ms	18 ms



¹⁾ Dimensions in mm (in)

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This technical data is based on current available information and is subject to change at any time. Specifications for specific systems or applications may vary.

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