

ROTARY CONTROL VALVES



Rotary Control Valves

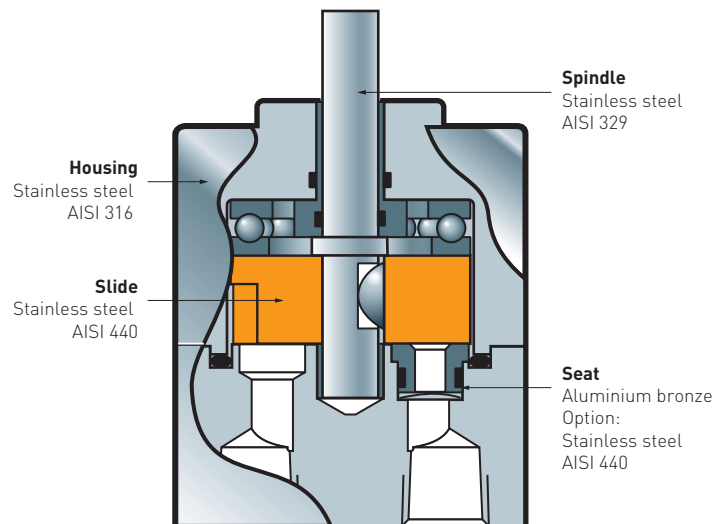
Over the years the skilled craftsmen at Rotator have designed and manufactured a variety of different styles of rotary control valves, each one reflecting a specific market requirement. These include valves developed to work at a pressure of up to 690 bar.

These control valves are designed according to the shear-type-seal principle. The main advantage of these valves compared to conventional valves is that there is negligible internal leakage, and the material on the internal parts is of a quality that gives a very good resistance to wear. We design to a service life of at least 30 years and we try to make certain that our valves will exceed this

service life. Our valves have been qualified by several oil companies. The control valves are designed for mounting onto customer's manifold or pipe mounted.

The control valves are for general application and may be used in most hydraulic circuits.

This folder will introduce you to our standard range of rotary control valves. On request our design team will be happy to assist in finding the best solutions to your specific requirements.

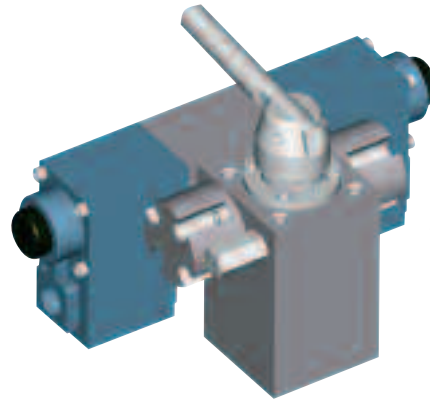


This rotary control valve is widely used in both topside and subsea applications. The valve has been further developed throughout the years since first used in the early seventies. It has metal to metal sealing and different materials are available for internal parts.

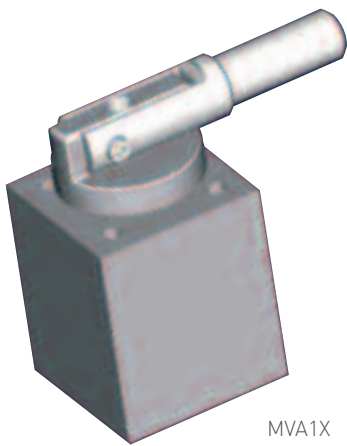
Also available for subsea use fitted with an ROV interface. Pipe connections or manifold connection. Suitable for most known hydraulic fluids.



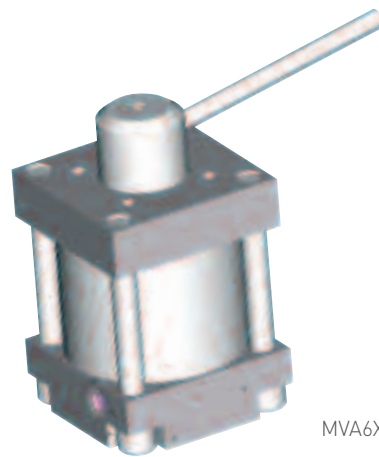
Rotary intervention fixture



Electro hydraulic operated rotary valve with manual override. Specifically developed for applications where a rotary manual operation is required together with a remote operation mode.



MVA1X



MVA6X

Standard manually operated rotary control valve
Different handles available

Technical Data

Serial MVA 1x	
Orifice	3 mm
Cv	P-A=0,21 A-R=0,25
Port size	ref ordering code key
Pressure range	20-690 bar
Torque	2,8-7,4 Nm

Serial MVA 2x	
Orifice	5 mm
Cv	P-A=0,65 A-R=0,58
Port size	ref ordering code key
Pressure range	20-690 bar
Torque	2,2-5,7 Nm

Serial MVA 3x	
Orifice	9 mm
Cv	P-A=1,70 A-R=2,09
Port size	ref ordering code key
Pressure range	20-345 bar
Torque	5-25 Nm

Serial MVA 4x	
Orifice	12 mm
Cv	P-A=3,30 A-R=3,10
Port size	ref ordering code key
Pressure range	20-345 bar
Torque	5-45 Nm

General	
Operator	All models can be fitted with manual or actuated operation
Media	Suitable for most known hydraulic fluids
Admissible fluid temperature	-20°C up to +100°C
Ambient temperature	-20°C up to +100°C

Other specifications on request.

Note: Given Cv value is for valve only

Flow coefficient for the control valves, Cv value, are based on test according to IEC Publication 534 – Part 1, 2.1 and 2.3. Measurements are conducted on pure water at 5°C to 38°C with turbulent flow conditions through the valve. For conditions other than these, Flow can be obtained using the following formulae, rewritten for [l/min] and [bar] as input values plus theoretical compensation of viscosity:

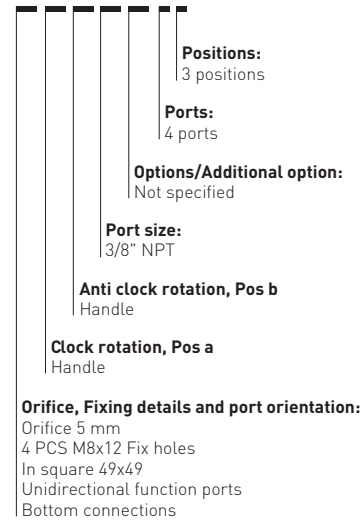
$$Q[l/min] = 14.416 \cdot C_v \cdot \sqrt{\frac{\rho_w@20^\circ C}{\rho_{fluid}} \cdot \frac{\Delta P[bar]}{(v_{fluid}[cSt])^2}}$$

Test according to IEC Publication 534 give the Cv value with a precision of ±5 %.

Ordering code key

Example valve ordering code:

MVA20.10.10.21.00-4.3

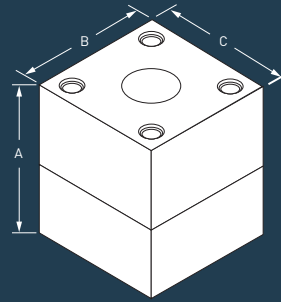


Further details and options on request

Dimensions

	Dimensions (A x B x C):	Total height *
Serial MVA 1X	65 x 55 x 55 mm	97 mm
Serial MVA 2X	80 x 69 x 69 mm	133 mm
Serial MVA 3X	107 x 100 x 100 mm	169 mm
Serial MVA 4X	124 x 116 x 116 mm	186 mm

* Total height depending on handle type

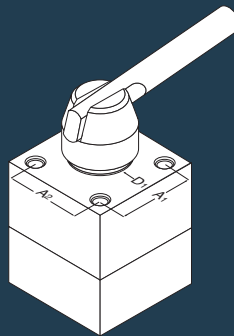


Fixing details

Bolted to panel

Dimensions (mm)*:

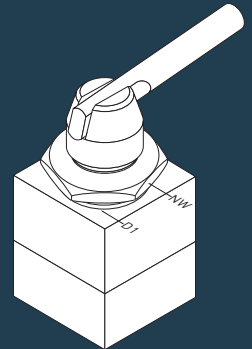
	A1	A2	D1
Serial MVA 1X	36	36	32
Serial MVA 2X	49	49	36
Serial MVA 3X	80	80	50
Serial MVA 4X	90	90	50



Neck mounted

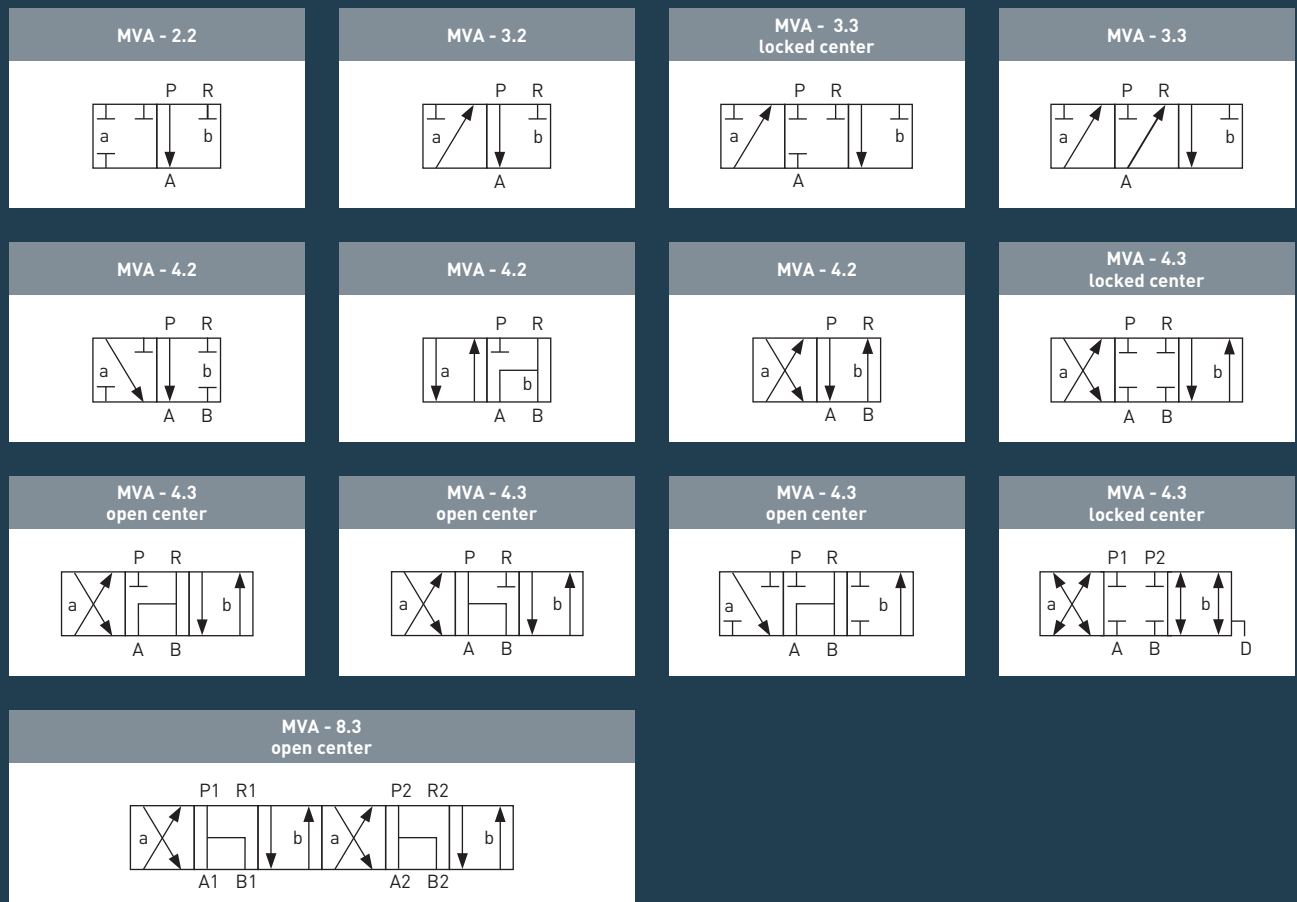
Dimensions (mm):

	D1	NW
Serial MVA 1X	42	60
Serial MVA 2X	48	60



*According to standard valves

Typical Valve Symbols



Clock rotation, pos a
Anti clock rotation, pos b

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