



Simple, compact and heavy duty designed monoblock valves from 1 to 7 sections for open and closed centre hydraulic systems.

- Fitted with a main pressure relief valve and a loadcheck valve.
- Available in 3/8" or 1/2" BSPP.
- High pressure carry-over port.
- Available in manual, pneumatic, hydraulic & electro-pneumatic and fully electric spool control kits.

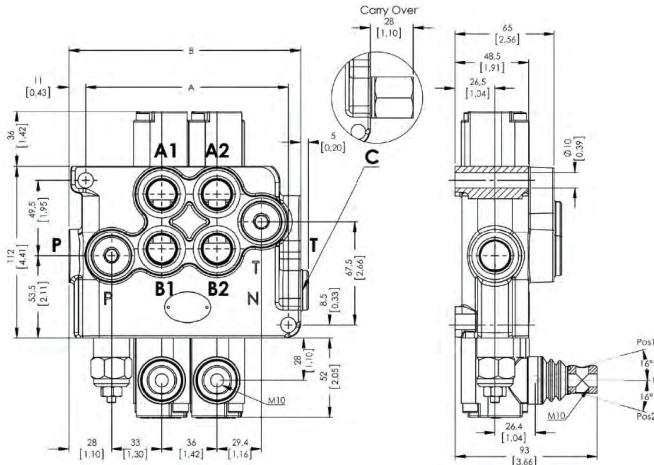
Working Conditions	
Nominal Flow Rating	45 l/min
Maximum Working Pressure (Parallel Circuit)	315 Bar
(Series Circuit)	250 Bar
Max. Back Pressure	25 Bar
Oil Temperature with NBR Seals	-20 to 80°C
with FPM (Viton) Seals	-20 to 100°C
Oil Viscosity – Operating Range	From 10 to 75 cSt
Oil Viscosity – Minimum / Maximum	10 / 400 cSt
Oil Filtration	≤30 μ
Ambient Temperature Range	-35 to 60°C
Number Of Spools	1 to 7
Internal Leakage (at 100 bar (1450 PSI), 40°C (110 F°), 46 cSt – A(B)—T)	3 cm ³ /min

Note: This catalogue shows technical specifications measured with mineral oil of 46 cSt viscosity at 40°C temperature.

Monoblock Directional Control Valve Coding

Body Type	Flow Rate	No. of spools	Spool #1 Type	Controller #1 type	Spool #2 Type	Controller #2 type	Port size	Outlet section
MS-	45-	2-	1A	SR-	4A	D-	3/8"	CO





MS-45 Monoblock Directional Control Valves – 3/8"

Valve Body	A (mm)	B (mm)
M-45-1P	97	116
M-45-2P	133	152
M-45-3P	169	188
M-45-4P	205	224
M-45-5P	241	260
M-45-6P	277	269
M-45-7P	313	332

Base Valve Code	Spools	Max Flow	Max Pressure	Port Size	Weight (Kg)
M-45-1-1ASR-3/8"	1	45LPM	315BAR	P, A & B 3/8" BSPP	4.00
M-45-2-1ASR-3/8"	2				6.00
M-45-3-1ASR-3/8"	3				7.40
M-45-4-1ASR-3/8"	4			9.00	
M-45-5-1ASR-3/8"	5			10.60	
M-45-6-1ASR-3/8"	6			12.30	
M-45-7-1ASR-3/8"	7			14	

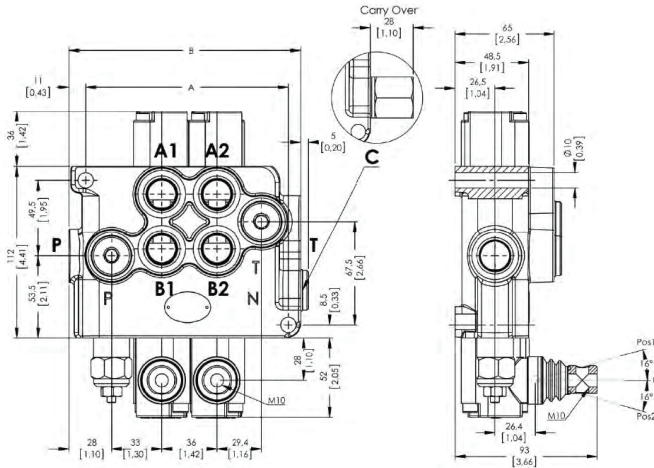
Spool Controllers	Description (SR fitted as standard, add price to change)
MS-45-SR	3 position Spring return kit
MS-45-D	3 position detent kit
MS-45-EP	Electric over pneumatic pilot kit
MS-45-P	Pneumatic pilot kit
MS-45-F	4th position float controller kit
MS-45-LC	Manual lever cap & handle assembly
MS-45-HL	Remote cable kit

Spool Types	Description (No additional price to complete valves)
MS-45-1A-SP	Double acting cylinder spool
MS-45-4A-SP	Motor Spool A & B ports open to tank
MS-45-5A-SP	Single acting spool user in A
MS-45-6A-SP	Single acting spool user in B
MS-45-8A-SP	Double acting with 4th position float

Outlet Options	Description (Add to price)
MS-45-CO	High pressure carry over

Relief Valve	Description (No additional price to complete valves)
2SMR245120	MS45 Relief valve Preset 120 BAR adjustable 60-200 BAR
2SMR345220	MS45 Relief valve Preset 220 BAR adjustable 160-315 BAR





MS-45 Monoblock Directional Control Valves – 1/2"

Valve Body	A (mm)	B (mm)
M-45-1P	97	116
M-45-2P	133	152
M-45-3P	169	188
M-45-4P	205	224
M-45-5P	241	260
M-45-6P	277	269
M-45-7P	313	332

Base Valve Code	Spools	Max Flow	Max Pressure	Port Size	Weight (Kg)
M-45-1-1ASR-1/2"	1	45LPM	315BAR	P, A & B 1/2" BSPP	4.00
M-45-2-1ASR-1/2"	2				6.00
M-45-3-1ASR-1/2"	3				7.40
M-45-4-1ASR-1/2"	4				9.00
M-45-5-1ASR-1/2"	5				10.60
M-45-6-1ASR-1/2"	6				12.30
M-45-7-1ASR-1/2"	7				14

Spool Controllers	Description (SR fitted as standard)
MS-45-SR	3 position Spring return kit
MS-45-D	3 position detent kit
MS-45-EP	Electric over pneumatic pilot kit
MS-45-SEC	Electric pilot kit 12vDC / 24vDC
MS-45-P	Pneumatic pilot kit
MS-45-F	4th position float controller kit
MS-45-LC	Manual lever cap & handle assembly
MS-45-HL	Remote cable kit

Spool Types	Description
MS-45-1A-SP	Double acting cylinder spool
MS-45-4A-SP	Motor Spool A & B ports open to tank
MS-45-5A-SP	Single acting spool user in A
MS-45-6A-SP	Single acting spool user in B
MS-45-8A-SP	Double acting with 4th position float

Outlet Options	Description
MS-45-CO	High pressure carry over

Relief Valve	Description
2SMR245120	MS45 Relief valve Preset 120 BAR adjustable 60-200 BAR
2SMR345220	MS45 Relief valve Preset 220 BAR adjustable 160-315 BAR

