



# Single Accumulator Charging Valves



## PRINCIPLES OF OPERATION

These MICO® Single Accumulator Charging Valves are designed for installation in an open-center hydraulic system between the pump and its relief valve and the downstream secondary hydraulic devices; for example, a power steering control valve and cylinder installed in the same hydraulic circuit.

These single accumulator charging valves supply oil to an accumulator from an open center circuit on demand. This is accomplished at a preset rate, L/min (GPM), at a selected pressure and is constant within the preset pressure limits.

The flow to the downstream secondary hydraulic devices will be reduced when the accumulator is charging. This does not noticeably affect the operation of these components. Full system pressure is available to the downstream secondary hydraulic devices at all times provided oil delivery and pressure from the pump and relief valve are not impeded.

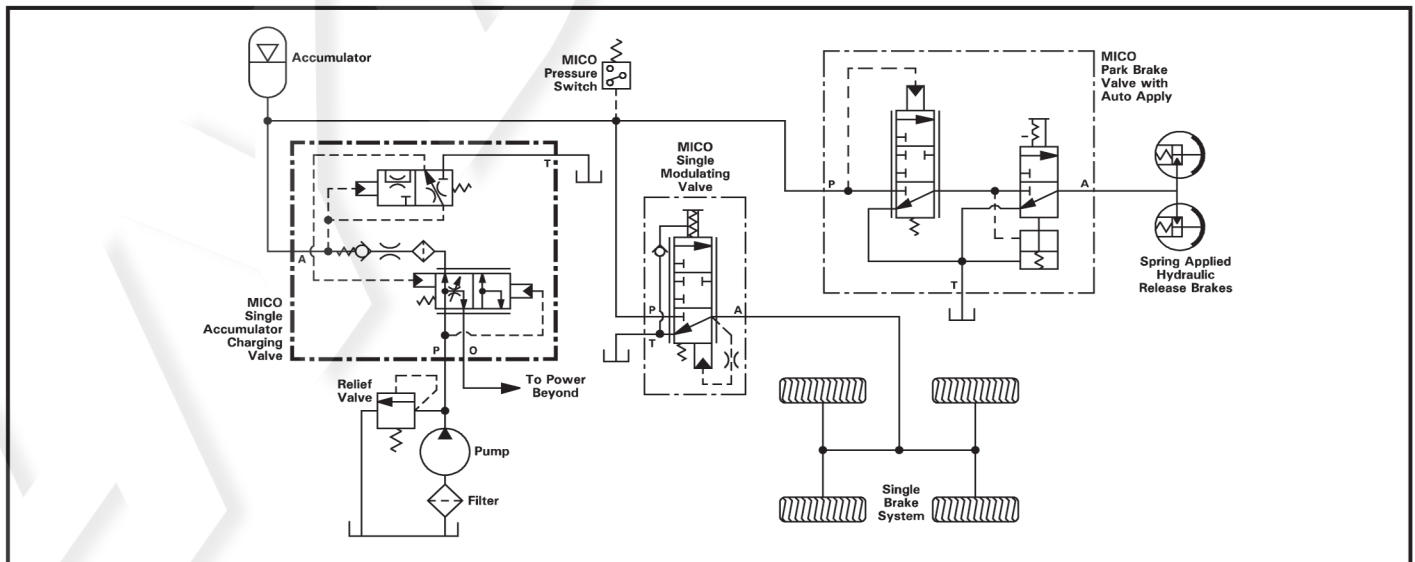
The accumulator charging flow rates and upper and lower accumulator pressure limits are set at the time of manufacture.

MICO also offers a complete line of hydraulic pressure switches for your application. Contact MICO for more information.

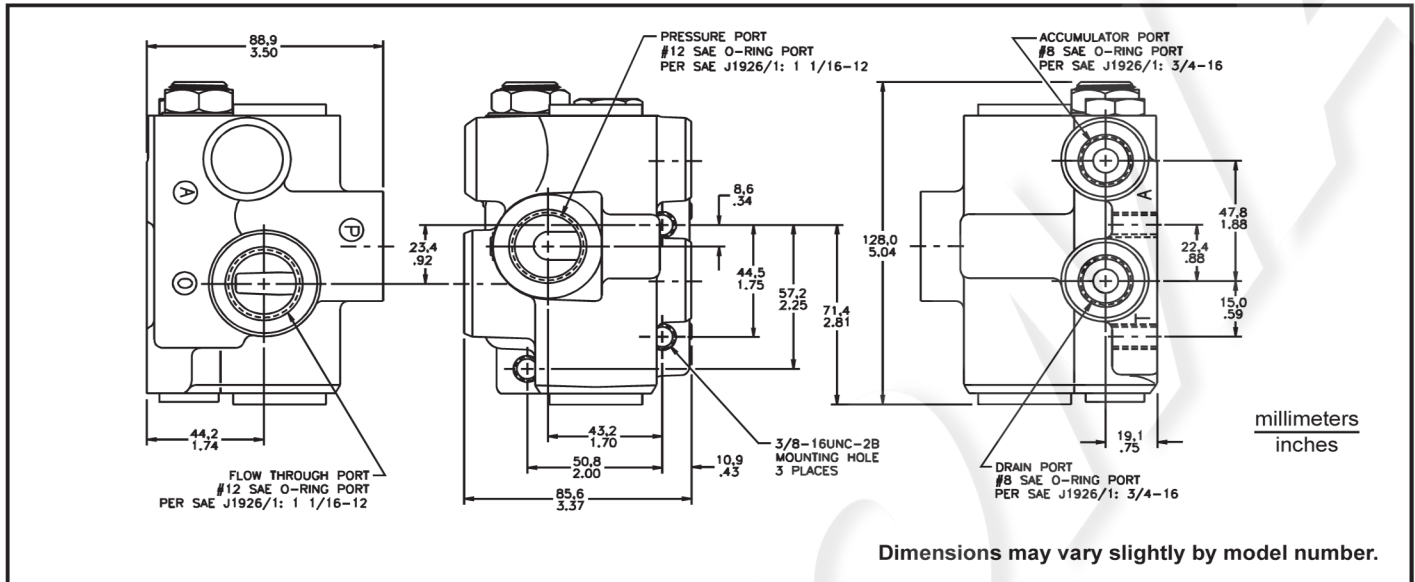
## FEATURES

- Uses power developed in the main hydraulic system
- Remotely mounted from brake valves
- Snap action control section promotes positive unloading of the pump
- Designed to improve efficiency by having no continuous drain of oil to reservoir
- Large variety of pressure ranges between high and low limits are available in order to reduce pump cycle time
- Designed for mobile equipment with varying pump flows
- Flow rates to 113 L/min (30 GPM)

## Typical Circuit Schematic



## Typical Valve



## SPECIFICATIONS

Model Number	Catalog Code (refer to page 5)	Low Limit Tolerance		High Limit Tolerance		Accumulator Charging Rate Tolerance	
		bar	(PSI)	bar	(PSI)	L/min	(GPM)
06-463-008	ACV-SMO11 - 67 - 95 - 10	± 3.5	(± 50)	± 1.7	(± 25)	± 2.3	(± 0.6)
06-463-010	ACV-SMO11 - 41 - 90 - 10	± 3.5	(± 50)	± 1.7	(± 25)	± 2.3	(± 0.6)
* 06-463-012	ACV-SMO11 - 94 - 124 - 6	± 2.6	(± 37)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-014	ACV-SMO11 - 55 - 76 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-016	ACV-SMO11 - 83 - 103 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-018	ACV-SMO11 - 145 - 190 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-020	ACV-SMO11 - 128 - 159 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-022	ACV-SMO11 - 155 - 186 - 10	± 3.5	(± 25)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-024	ACV-SMO11 - 103 - 128 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-026	ACV-SMO11 - 103 - 138 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-028	ACV-SMO11 - 94 - 124 - 10	± 2.6	(± 37)	± 3.5	(± 50)	± 1.9	(± 0.5)
* 06-463-030	ACV-SMO11 - 55 - 76 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
* 06-463-032	ACV-SMO11 - 103 - 128 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-034	ACV-SMO11 - 124 - 152 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-036	ACV-SMO11 - 114 - 138 - 17	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-038	ACV-SMO11 - 86 - 124 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-040	ACV-SMO11 - 114 - 138 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-044	ACV-SMO11 - 86 - 124 - 4	± 3.5	(± 50)	± 3.5	(± 50)	± 1.1	(± 0.3)
06-463-048	ACV-SMO11 - 103 - 138 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-050	ACV-SMO11 - 117 - 145 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
* 06-463-052	ACV-SMO11 - 114 - 138 - 6	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)
06-463-054	ACV-SMO11 - 72 - 103 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-056	ACV-SMO11 - 93 - 124 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-058	ACV-SMO11 - 114 - 138 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-060	ACV-SMO11 - 45 - 60 - 3	± 1.7	(± 25)	± 1.7	(± 25)	± 0.1	(± 0.25)
06-463-064	ACV-SMO11 - 128 - 159 - 3	± 3.5	(± 50)	± 3.5	(± 50)	± 0.1	(± 0.25)
06-463-066	ACV-SMO11 - 48 - 90 - 6	± 3.5	(± 50)	± 1.7	(± 25)	± 1.9	(± 0.5)
06-463-078	ACV-SMO11 - 116 - 159 - 10	± 3.5	(± 50)	± 3.5	(± 50)	± 1.9	(± 0.5)

\* Water emulsion models

## PERFORMANCE DATA

System pressure . . . . . to 206.8 bar (3000 PSI)  
 Power beyond flow capacity . . . . . 7.5 to 113 L/min (2 to 30 GPM)  
 Flow through pressure drop . . . . . 4.8 bar at 56.8 L/min (70 PSI at 15 GPM)  
 Accumulator capacity is determined from brake line pressure, displacement and number of power-off emergency brake applications.