

## Application Description

- Drop-in solution to replace the OEM supplied valves on Tetra Pak® TBA-9 filling machines.
- ISO 1 Valve controls forming retort pouch for filling and packaging (Includes removal of defective products).

Previous solution



## Challenges

- The valve body and O-ring are easily damaged.
- OEM supplied valve design flaw creates easy contamination, which causes the valve to shut down.
- OEM supplied valve response time is inaccurate which causes production downtime.
- Need to disassemble the components for maintenance each month.
- OEM supplied valve is not easy to assemble and disassemble.

## MAC Solutions

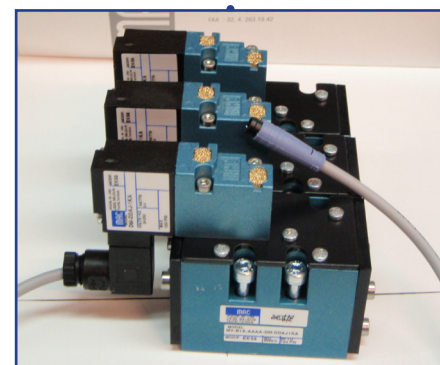
- **Bar :** ISO 1
- **Valves:** MV-B1A-AAAA-DM-DDAJ-1KA Mod. EK58

## Customer Benefits

- Resistance to contamination eliminates blockage in the valve.
- Fewer parts equal easy maintenance and part replacement.
- Low friction and wiping function.

## Cost Savings

- All-in-one design makes it easy to replace, which reduces replacement cost (a KA type connector is designed by MAC.)
- Reduces production downtime caused by valve failure, so the daily production rate is increased and defect rate is decreased.



## Technical Data

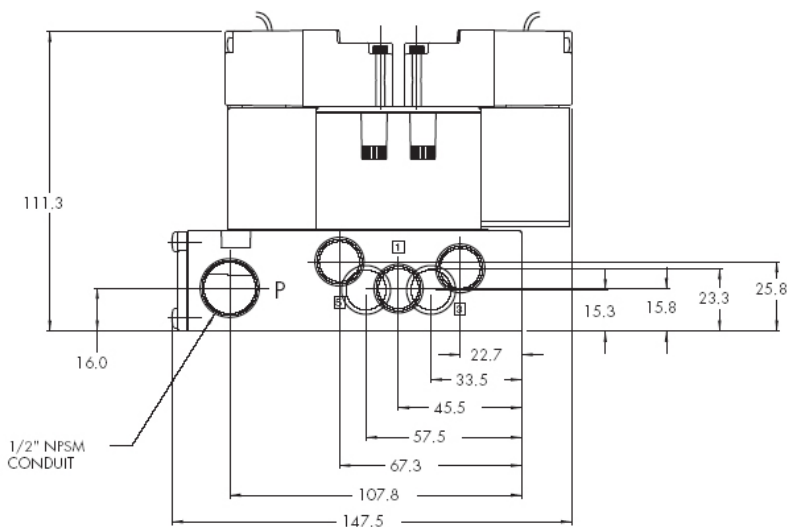
<b>Fluid:</b>	Compressed air, vacuum, inert gases
<b>Pressure range:</b>	Vacuum to 8 bar
<b>Pilot pressure:</b>	Single operator: 1,3 to 8 bar
<b>Lubrication:</b>	Not required, if used select a medium aniline point lubricant (between 80°C and 100°C)
<b>Filtration:</b>	40µ
<b>Temperature:</b>	-18°C to 50°C
<b>Flow (at 6 bar, Δ P=1bar):</b>	1800 NI/min
<b>Coil:</b>	Epoxy encapsulated - class A wires - Continuous duty
<b>Voltage range:</b>	-15% to +10% of nominal voltage
<b>Response times:</b>	Energize: 11,3 ms      De-energize: 7,8 ms

## Response Times Comparison

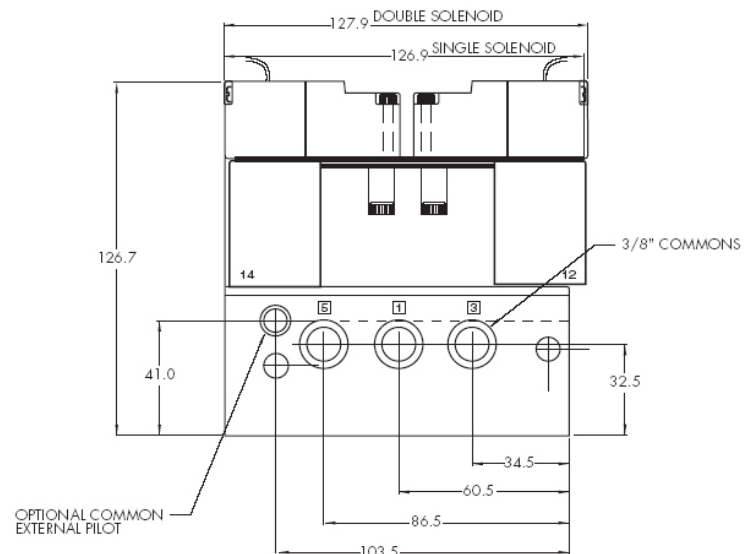
	Pressure	Energization time (ms)	De-energization time (ms)	Total variation (ms) @E + @DE"
<b>MAC ISO 1</b>	2 bar	8,4	6,6	0,2
	4 bar	8,4	6,8	
	6 bar	8,4	6,8	
<b>OEM supplied ISO 1 valve</b>	2 bar	20,8	22,8	4,4
	4 bar	18,4	22,8	
	6 bar	16,8	23,2	

## Dimensions

**Individual base**



**Manifold base**



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To find your local distributor, visit [www.macvalves.com](http://www.macvalves.com)