



Proportional Pressure Control system with analog or digital command signal. Proportional Multi-Pressure Pak® (PMPP)

OPERATIONAL BENEFITS

1. Fast response.
2. Long life.
3. High flow.
4. The use of an analog or 4 bit or 8 bit command signal brings increased accuracy in pressure control.
5. A compact unit saves room and installation costs.
6. The analog and logic (TTL) outputs allow for constant pressure monitoring from the control unit.
7. Infinite or discrete number of pressures available.
8. For 2, 3 or 4 ported weld guns and other applications.
9. Accuracy of $\pm 2.5\%$ of full scale (consult factory for other accuracies).
10. DeviceNet compatible.

COMPONENTS

The Proportional Multi-Pressure Pak® is made of the following components :

- one proportional pressure controller PPC5C for pressure selection.
- one (or more) directional valves to be selected as a function of the flow required.
- one pilot operated regulator for main pressure control.

FIELDS OF APPLICATION

The Proportional Multi-Pressure Pak® is suitable for all applications requiring multiple pressures. The numerous possibilities of flows and pressure ranges makes it easy to find the best appropriate configuration.

This system has proven its abilities in the automotive industry, for the fast and accurate control of spot welding. Many other applications are satisfied, such as pressure selection for any supply network or machinery, force control in a cylinder, tension control on a drum and robot arm mounting.

OPERATION

PROPORTIONAL PRESSURE CONTROLLER PPC5C

This is the pressure selector controlling the entire system. Depending on the command signal (analog or digital), the PPC5C will quickly adjust the outlet pressure to the requested value.

PILOT OPERATED SANDWICH REGULATOR

The outlet port of the PPC5C gives a pressure signal to the sandwich regulator. This will regulate the main pressure as a function of the command signal at a high flow rate.

DIRECTIONAL VALVE(S)

Depending on the application, one or more directional valves are used. For instance : a 4/2 valve for the welding control (with the regulated pressure) and another one (line pressure) for the control of the back-up on the weld gun. Additional valves for tooling can be added.

PMPP

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TECHNICAL DATA

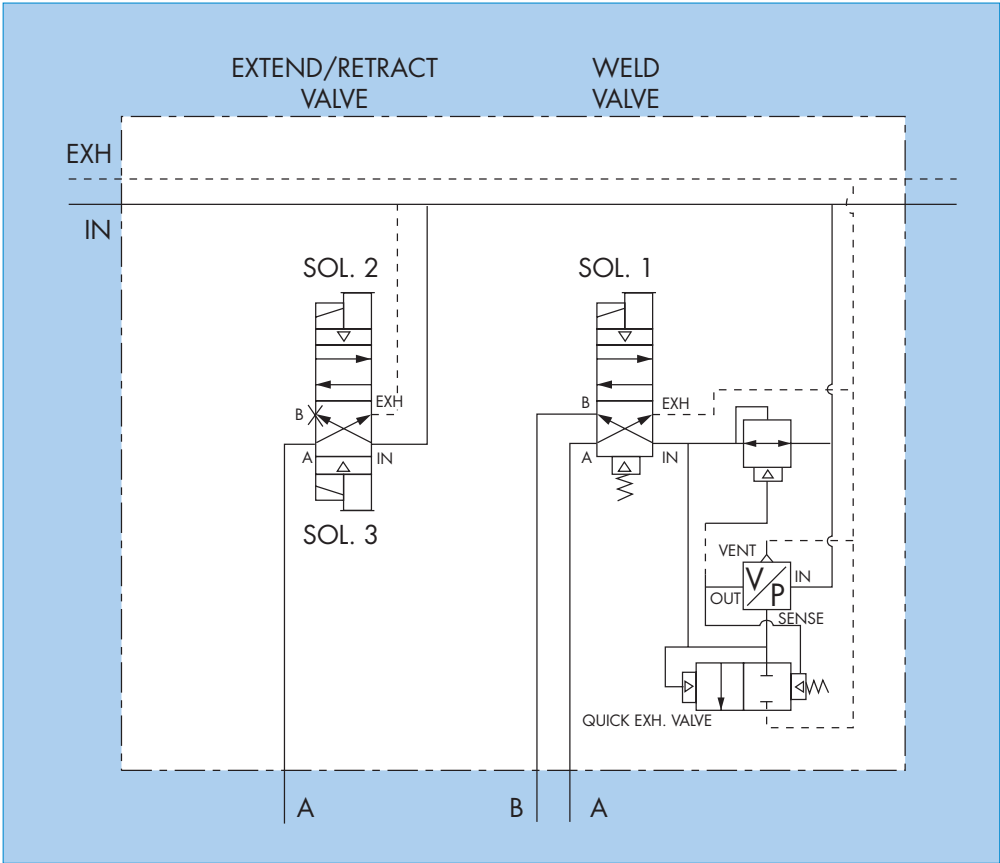
Supply pressure :	2 to 10 bar/30 to 150 PSI
*Output pressure :	Standard : 1.7 to 10 bar, other ranges upon request. 25 to 150 PSI
	* For 82 and ISO 1 - 1.7 to 8 BAR, 25 to 120 PSI

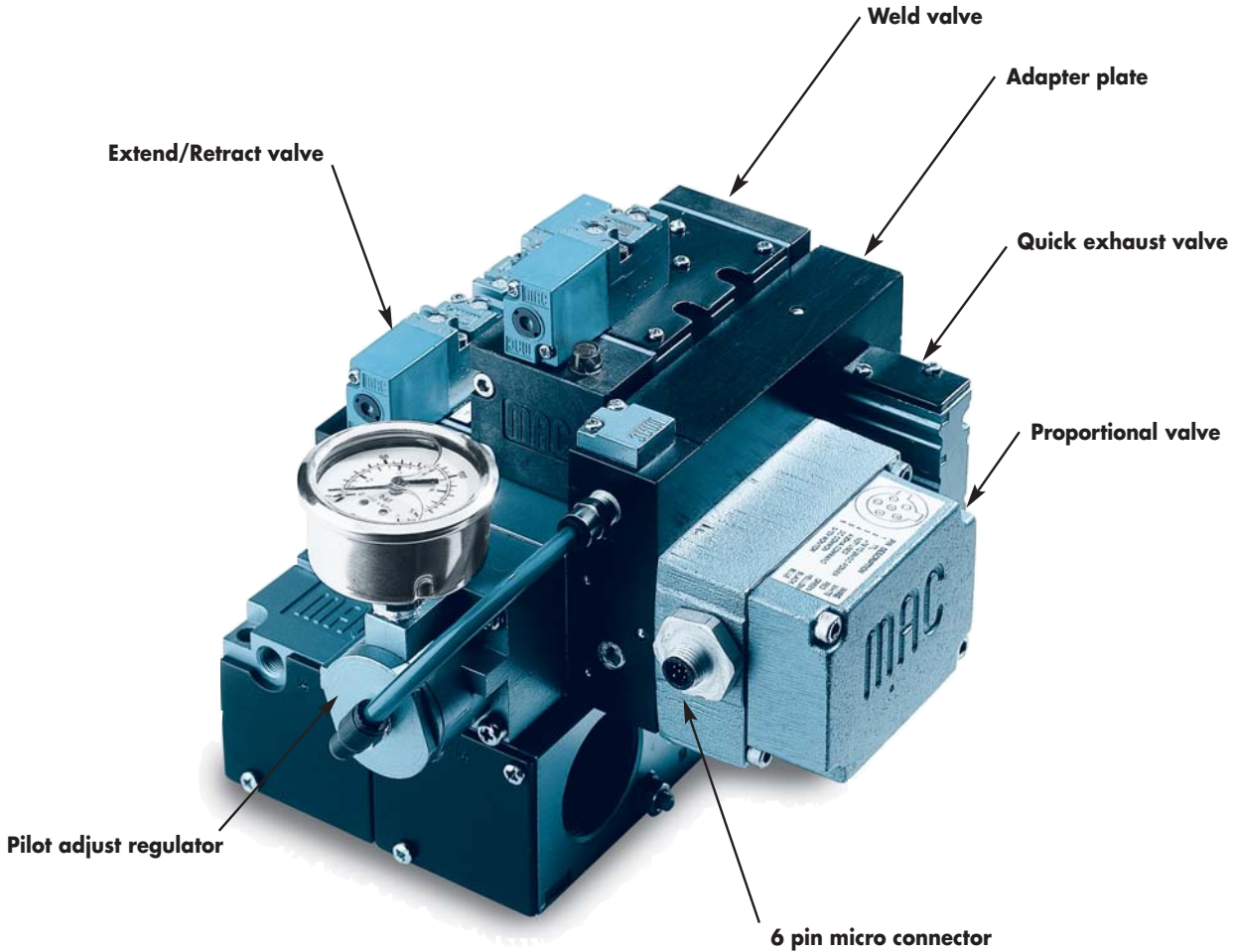
*Series	Port size	Flow
82	1/4" - 3/8"	C _v 0.9 / 900 NI/Min
93	3/8" - 1/2"	C _v 2.4 / 2400 NI/Min
6300	3/8" - 1/2"	C _v 2.1 / 2100 NI/Min
6500	1/2" - 3/4"	C _v 3.5 / 3500 NI/Min
ISO 1	1/4" - 3/8"	C _v 1.1 / 1100 NI/Min
ISO 2	3/8" - 1/2"	C _v 2.1 / 2100 NI/Min
ISO 3	1/2" - 3/4"	C _v 5.0 / 5000 NI/Min

Please consult factory for the selection of best appropriate PMPP.

* Other valve series may be available - consult factory.

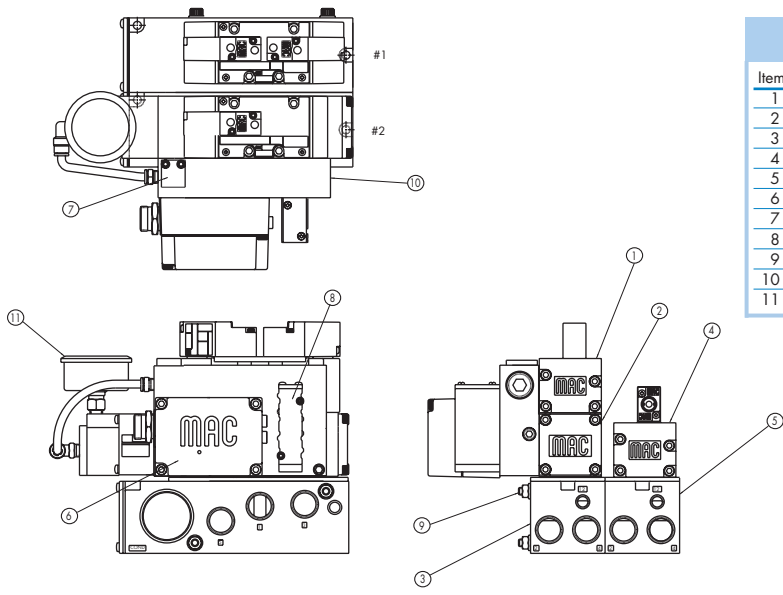
Example circuit with quick exhaust valve





PMPP

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MAC VALVES, INC. MULTI-PRESSURE PAK		
Item	QTY	Description
1	1	MV-P2A-AADB-DM-DDAP-1DS-9
2	1	PRP2A-DABA-9 MOD. 1367
3	1	MM-P2A-231-A-9 MOD. 3176
4	1	MV-P2A-ABDA-DM-DDAP-1DS-9
5	1	MM-P2A-231-B-9 MOD. 3158
6	1	PPC5A-DGB-PGEA-AAE BO-9 MOD. 1238
7	1	M-35004
8	1	416A-00A-9 MOD. 1368
9	1	N-P2004-03
10	1	N-P2009
11	1	24142-160