

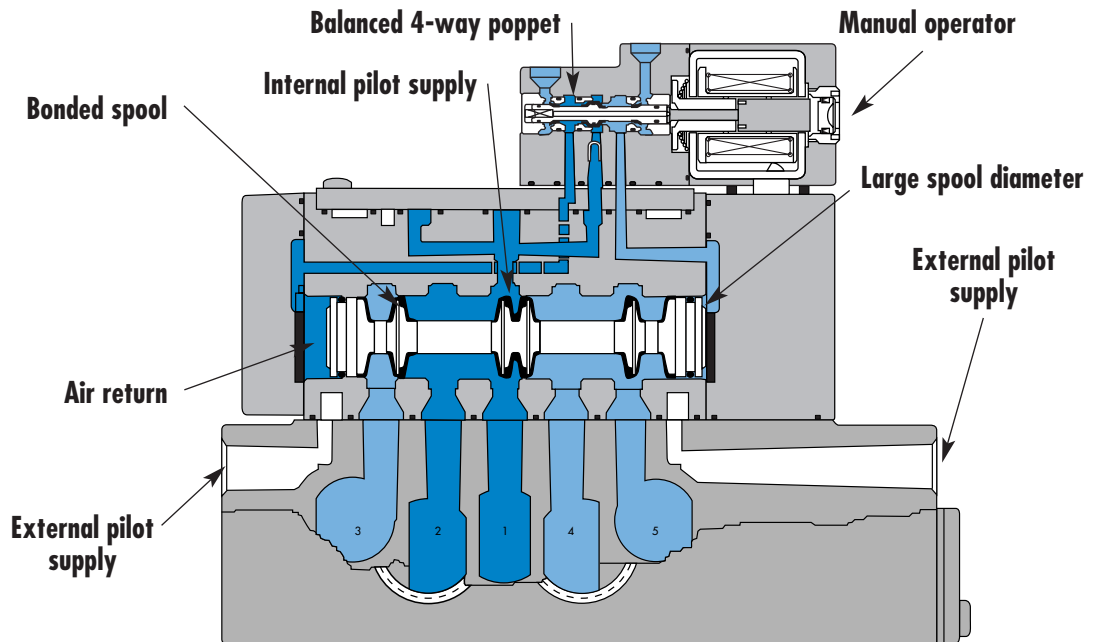
Individual mounting

Valve only - No base non "plug-in" Conform to ISO 5599/1	Valve only - No base "plug-in" Conform to ISO 5599/2
--	--

Series

Manifold mounting

Valve only - No base non "plug-in" Conform to ISO 5599/1	Valve only - No base "plug-in" Conform to ISO 5599/2
--	--



**SERIES FEATURES**

- Plug-in (5599/2) and non plug-in (5599/1) models.
- 2-position, single or double operator. (Solenoid or Remote Air)
- 3-position, double solenoid, open center, closed center, and pressure center.
- Extended or recessed manual operators.
- Single pressure and dual pressure.
- Individual base or add-a-unit manifold base.
- Plug-in, sandwich, single and dual pressure regulators for both individual and manifold valves.

33  
34  
36  
32  
37  
38  
52  
67  
69  
44  
46  
42  
47  
48P  
48  
400  
92  
93  
ISO 01  
ISO 02  
**ISO 1**  
ISO 2  
ISO 3

Function	Port size	Flow [Max]	Individual/Manifold mounting	Series
<b>5/2, 5/3</b>	<b>1/4" - 3/8"</b>	<b>1.8 C<sub>v</sub></b>	Valve only - No base non "plug-in" Conform to ISO 5599/1	

### OPERATIONAL BENEFITS

1. Unique patented Macsolenoid® for fastest possible response times and virtually burn-out proof AC solenoid operation.
2. Balanced poppet 4-way pilot valve provides maximum shifting forces, precise repeatability and consistent operation.
3. MAC spool and bore combination wipes away contamination, eliminates sticking and allows for use on non-lube service.
4. Large spool area for maximum shifting forces even at minimum operating pressure.
5. Very high flow in a compact package.
6. Plug-in design of valves, bases and regulators for modular assembly and ease of maintenance.
7. Internal or external pilot operation. Manifolds supplied with common external pilot.
8. Air only return. Optional memory spring is also available.
9. Optional low wattage DC solenoid down to 1.0 watt.



33  
34  
36  
32  
37  
38  
52  
67  
69  
44

### HOW TO ORDER

#### SINGLE PRESSURE MODELS

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center
Internal	MV-B1A-AAAA-DM-Dxxx-xxx	MV-B1A-ABAA-DM-Dxxx-xxx	MV-B1A-AEAA-DM-Dxxx-xxx	MV-B1A-AFAA-DM-Dxxx-xxx
External "12" end	MV-B1A-AAAB-DM-Dxxx-xxx	MV-B1A-ABAB-DM-Dxxx-xxx	MV-B1A-AEAB-DM-Dxxx-xxx	MV-B1A-AFAB-DM-Dxxx-xxx

46  
42

#### DUAL PRESSURE MODELS

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Pressure center
Internal pilot From port #3	MV-B1A-ACAD-DM-Dxxx-xxx	MV-B1A-ADAD-DM-Dxxx-xxx	MV-B1A-AGAD-DM-Dxxx-xxx
Internal pilot From port #5	MV-B1A-ACAE-DM-Dxxx-xxx	MV-B1A-ADAE-DM-Dxxx-xxx	MV-B1A-AGAE-DM-Dxxx-xxx
External pilot From "12" end	MV-B1A-ACAB-DM-Dxxx-xxx	MV-B1A-ADAB-DM-Dxxx-xxx	MV-B1A-AGAB-DM-Dxxx-xxx

47  
48P  
48  
400

#### SOLENOID OPERATOR ▶

### DM-D **XXX-XXX**\*

XX Voltage	X Lead wire length	X Manual operator	XX Electrical connection
<b>JA</b> 110/50, 120/60	<b>A</b> 18" (Flying leads)	<b>1</b> Non-locking recessed	<b>KA</b> Square connector
<b>JB</b> 220/50, 240/60	<b>B</b> 24" (Flying leads)	<b>2</b> Locking recessed	<b>KD</b> Square connector with light
<b>JC</b> 24/50, 24/60	<b>J</b> Connector		<b>JB</b> Rectangular connector
<b>FB</b> 24 VDC (1.8W)			<b>JD</b> Rectangular connector with light
<b>DA</b> 24 VDC (5.4W)			<b>BA</b> Flying leads
<b>DF</b> 24 VDC (12.7W)			

92

93  
ISO 01  
ISO 02

ISO 1

ISO 2

ISO 3

\* Other options available, see page 309.

Note: ISO series, valve and base are ordered separately, see page 231 for base code.

### OPTIONS

Valve function :

MV-B1A-**AXX**-XX-Dxxx-xxx

- J** for single operator universal spool (ext. pilot only)
- K** for double operator universal spool (ext. pilot only)

Pilot style :

MV-B1A-AXX-**DM**-Dxxx-xxx

- DM** Pilot exhaust muffled
- DP** Pilot exhaust piped (#10-32)

Spool return :

MV-B1A-AX**A**X-XX-Dxxx-xxx

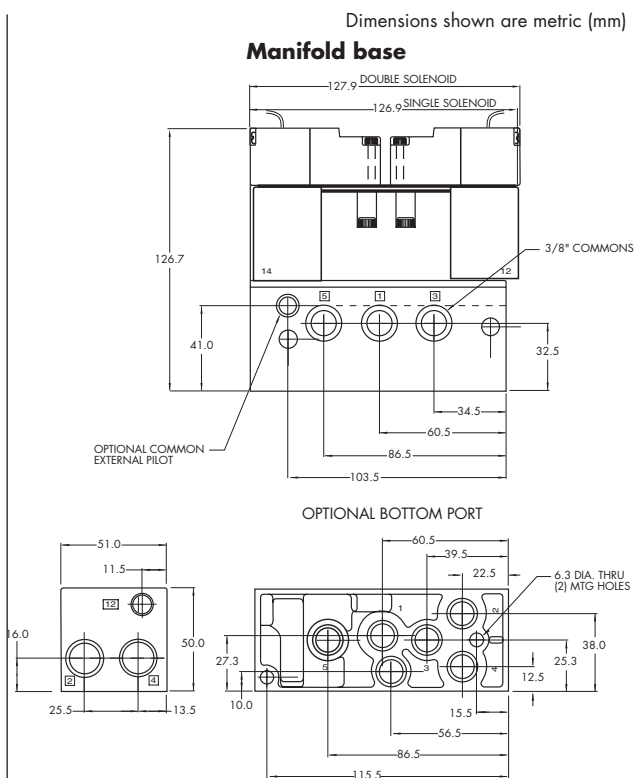
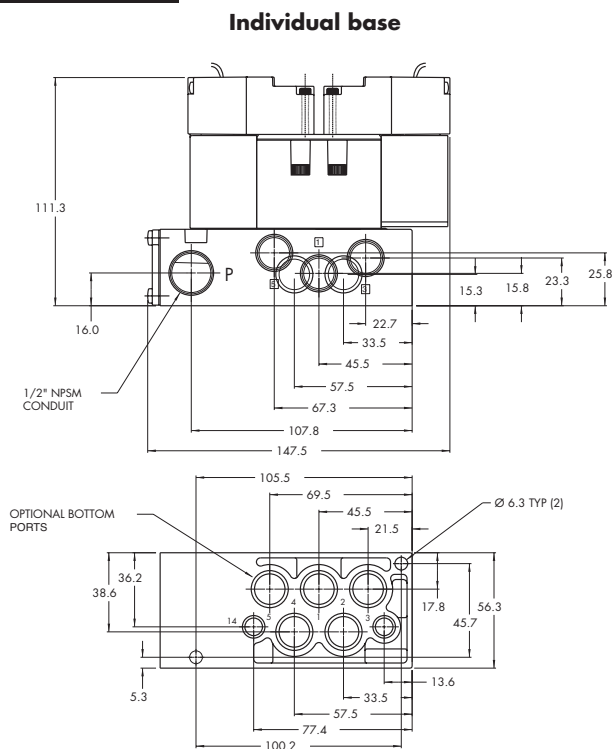
- A** Standard return
- B** Memory spring return

**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Internal pilot : 20 to 120 PSI External pilot : vacuum to 120 PSI
<b>Pilot pressure :</b>	Single/double operator : 20 to 120 PSI, 3 positions : 30 to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to +50°C)
<b>Flow :</b>	3/8": (1.8 C <sub>v</sub> ) – 1/4": (1.6 C <sub>v</sub> )
<b>Coil :</b>	Class A continuous duty, #22 AWG x 18 leads
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Protection :</b>	Consult factory
<b>Power :</b>	~ Inrush 7.6 VA    Holding: 4.8 VA = 1 to 12.7 W
<b>Response times : (with 5,4 W coil)</b>	Energize : 11.3 ms De-energize : 7.8 ms

- Options :
- Sandwich flow controls: FCP1A-BA (screwdriver slot adjustment)  
FCP1A-BB (locking knob adjustment)
  - Sandwich regulator, see „Regulators’ section
- Spare parts :
- Pilot valve: DMB-Dxxx-xxx • Valve to base pressure seal: 16661

**DIMENSIONS**



Function	Port size	Flow [Max]	Individual/Manifold mounting	Series
<b>5/2, 5/3</b>	<b>1/4" - 3/8"</b>	<b>1.8 C<sub>v</sub></b>	Valve only - No base "plug-in" Conform to ISO 5599/2	

**OPERATIONAL BENEFITS**

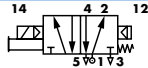
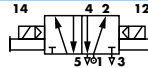
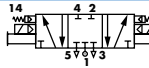
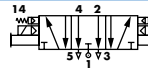
1. Unique patented Macsolenoid® for fastest possible response times and virtually burn-out proof AC solenoid operation.
2. Balanced poppet 4-way pilot valve provides maximum shifting forces, precise repeatability and consistent operation.
3. MAC spool and bore combination wipes away contamination, eliminates sticking and allows for use on non-lube service.
4. Large spool area for maximum shifting forces even at minimum operating pressure.
5. Very high flow in a compact package.
6. Plug-in design of valves, bases and regulators for modular assembly and ease of maintenance.
7. Internal or external pilot operation. Manifolds supplied with common external pilot.
8. Air only return. Optional memory spring is also available.
9. Optional low wattage DC solenoid down to 1.0 watt.



33  
34  
36  
32  
37  
38  
52  
67  
69  
44

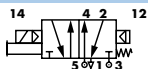
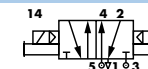
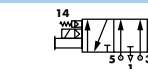
**HOW TO ORDER**

**SINGLE PRESSURE MODELS**

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center
Internal	 MV-P1A-AAAA-DM-DxxP-xxx	 MV-P1A-ABAA-DM-DxxP-xxx	 MV-P1A-AEAA-DM-DxxP-xxx	 MV-P1A-AFAA-DM-DxxP-xxx
External "12" end	MV-P1A-AAAB-DM-DxxP-xxx	MV-P1A-ABAB-DM-DxxP-xxx	MV-P1A-AEAB-DM-DxxP-xxx	MV-P1A-AFAB-DM-DxxP-xxx

46  
42

**DUAL PRESSURE MODELS**

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Pressure center
Internal pilot From port #3	 MV-P1A-ACAD-DM-DxxP-xxx	 MV-P1A-ADAD-DM-DxxP-xxx	 MV-P1A-AGAD-DM-DxxP-xxx
Internal pilot From port #5	MV-P1A-ACAE-DM-DxxP-xxx	MV-P1A-ADAE-DM-DxxP-xxx	MV-P1A-AGAE-DM-DxxP-xxx
External pilot From "12" end	MV-P1A-ACAB-DM-DxxP-xxx	MV-P1A-ADAB-DM-DxxP-xxx	MV-P1A-AGAB-DM-DxxP-xxx

47  
48P  
48  
400

**SOLENOID OPERATOR ▶**

**DM-D XX P-XXX\***

XX Voltage	X Manual operator	XX Electrical connection
<b>JA</b> 110/50, 120/60 (2.9W)	<b>1</b> Non-locking recessed	<b>DM</b> Plug-in
<b>JB</b> 220/50, 240/60 (2.9W)	<b>2</b> Locking recessed	<b>DN</b> Plug-in with diode
<b>JC</b> 24/50, 24/60 (2.9W)		<b>DP</b> Plug-in with M.O.V.
<b>FB</b> 24 VDC (1.8W)		<b>DG</b> Plug-in with ground
<b>DA</b> 24 VDC (5.4W)		
<b>DF</b> 24 VDC (12.7W)		

92  
93

\* Other options available, see page 309.  
Note: - ISO series, valve and base are ordered separately, see page 233 for base codes.  
- Ground wire required for 30 volts or higher.

**OPTIONS**

Valve function :

MV-P1A-AXXX-XX-DxxP-xxx  
**J** for single operator universal spool (ext. pilot only)  
**K** for double operator universal spool (ext. pilot only)

Pilot style :

MV-P1A-AXXX-DM-DxxP-xxx  
**DM** Pilot exhaust muffled  
**DP** Pilot exhaust piped (#10-32)

Spool return :

MV-P1A-AXXX-XX-DxxP-xxx  
**A** Standard return  
**B** Memory spring return  
**D** Standard return with light  
**E** Memory spring return with light

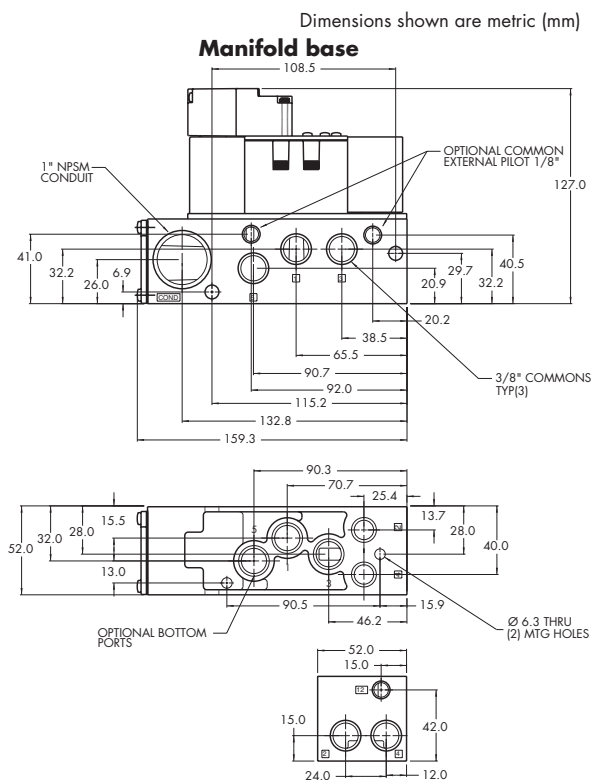
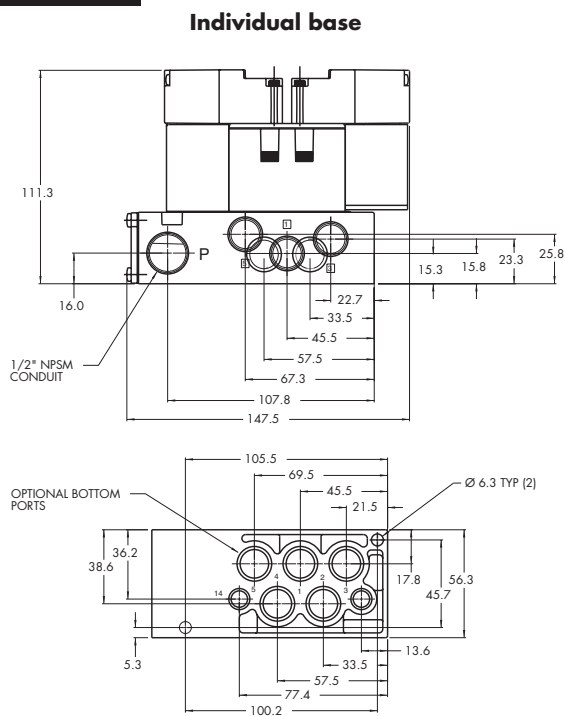
ISO 01  
ISO 02  
**ISO 1**  
ISO 2  
ISO 3

**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Internal pilot: 20 to 120 PSI External pilot : vacuum to 120 PSI
<b>Pilot pressure :</b>	Single/double operator : 20 to 120 PSI, 3 positions : 30 to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)
<b>Filtration :</b>	40 µ
<b>Temperature range :</b>	0°F to 120°F (-18°C to +50°C)
<b>Flow :</b>	3/8": (1.8 C <sub>v</sub> ) – 1/4": (1.6 C <sub>v</sub> )
<b>Coil :</b>	Class A continuous duty, #22 AWG x 12 base leads
<b>Voltage range :</b>	-15% to +10% of nominal voltage
<b>Protection :</b>	Consult factory
<b>Power :</b>	~ Inrush 7.6 VA    Holding: 4.8 VA = 1 to 12.7 W
<b>Response times : (with 5,4 W coil)</b>	Energize : 10 ms De-energize : 9 ms

- Options :
- Sandwich flow controls: FCP1A-AA (screwdriver slot adjustment)  
FCP1A-AB (locking knob adjustment)
  - Sandwich regulator, see „Regulators’ section
- Spare parts :
- Pilot valve: DMB-DxxP-xxx • Valve to base pressure seal: 16661

**DIMENSIONS**



**Non plug-in base / manifold**

- ISO 01
- ISO 02
- ISO 1**
- ISO 2
- ISO 3



**HOW TO ORDER**

INDIVIDUAL BASE

Port size	Side ports	Side & bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
<b>1/4" NPTF</b>	MB-A1C-221	MB-A1C-223	MB-A1C-222	MB-A1C-224
<b>3/8" NPTF</b>	MB-A1C-231	MB-A1C-233	MB-A1C-232	MB-A1C-234

MANIFOLD BASE

Port size	Side ports	Side & bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
<b>1/4" NPTF</b>	MM-A1C-221	MM-A1C-223	MM-A1C-222	MM-A1C-224
<b>3/8" NPTF</b>	MM-A1C-231	MM-A1C-233	MM-A1C-232	MM-A1C-234

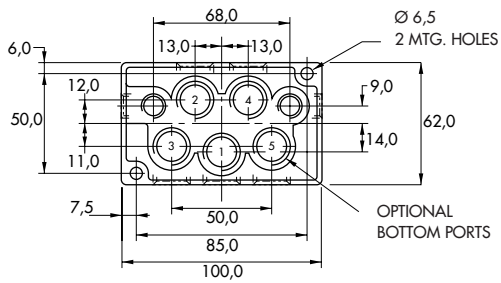
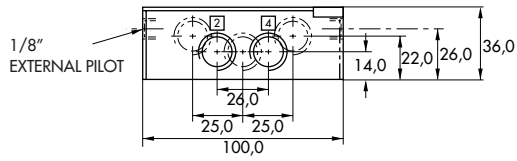
Manifold fastening kit : N-63002-01.  
 Valve blanking plate: MA1003.  
 Inlet/exhaust isolator plug: 32835.

**DIMENSIONS**

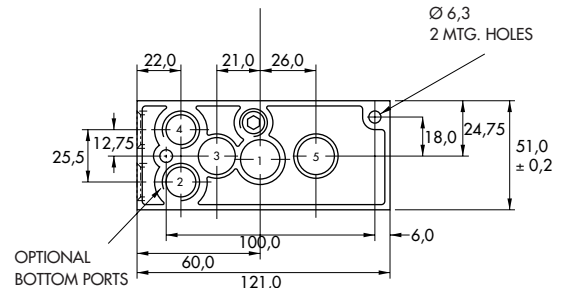
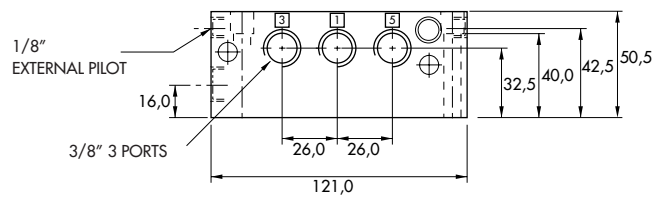
Dimensions shown are metric (mm)

**Individual**

**DIN 5599/1**



**Manifold**





**MV-A1C ISO 1**  
**MV-A2B ISO 2**  
**MV-A3B ISO 3**

MAC ISO valves are built to International Standards Organization (ISO) Std. 5599/1. They are available in 3 sizes; ISO 1, 2 & 3. To select the ISO size required, insert the appropriate ISO number in the 5th position of the model code; EXAMPLE MV-A1C for ISO 1, MV-A2B for ISO 2, or MV-A3B for ISO 3. Bases and manifolds must be ordered separately from the table below.

**HOW TO ORDER**

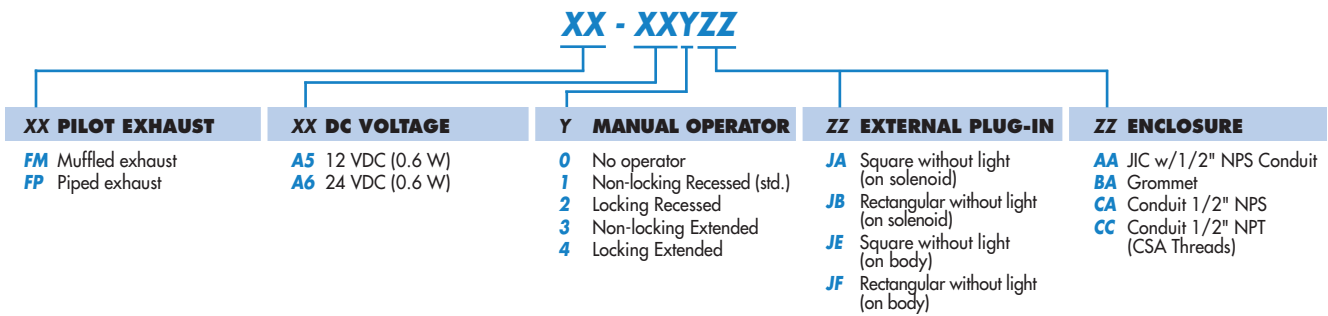
**SOLENOID PILOT OPERATED VALVES LESS BASE**  
**SINGLE PRESSURE VALVES**

SGL. OPERATOR AIR/SPRING RETURN	DBL. OPERATOR 2-POSITION	PILOT SUPPLY	DBL. OPER. 3-POS. CLOSED CENTER	DBL. OPER. 3-POS. OPEN CENTER
MV-AXB-A111-FM-A51JA MV-AXB-A121-FM-A51JA MV-AXB-A151-FM-A51JA	MV-AXB-A211-FM-A51JA MV-AXB-A221-FM-A51JA MV-AXB-A251-FM-A51JA	Internal Pilot External Pilot External Pilot for use with Regulator	MV-AXB-A312-FM-A51JA MV-AXB-A322-FM-A51JA MV-AXB-A352-FM-A51JA	MV-AXB-A311-FM-A51JA MV-AXB-A321-FM-A51JA MV-AXB-A351-FM-A51JA

**DUAL PRESSURE VALVES**

SGL. OPERATOR AIR/SPRING RETURN	DBL. OPERATOR 2-POSITION	PILOT SUPPLY	DBL. OPER. 3-POS. PRESSURE CENTER
MV-AXB-A131-FM-A51JA MV-AXB-A135-FM-A51JA MV-AXB-A141-FM-A51JA	MV-AXB-A231-FM-A51JA MV-AXB-A232-FM-A51JA MV-AXB-A241-FM-A51JA	Int. Pilot-From Port 3 Int. Pilot-From Port 5 External Pilot	MV-AXB-A331-FM-A51JA MV-AXB-A332-FM-A51JA MV-AXB-A341-FM-A51JA

**SOLENOID PILOT VALVE OPTIONS**



**BASE TABLE**

ISO TYPE	PORT SIZE	INDIVIDUAL BASE		MANIFOLD BASE	
		BSPB	NPTF	BSPB	NPTF
ISO 1	1/4"	MB-A1C-121	MB-A1C-221	MM-A1C-121	MM-A1C-221
	3/8"	MB-A1C-131	MB-A1C-231	MM-A1C-131	MM-A1C-231
ISO 2	3/8"	MB-A2B-121	MB-A2B-221	MM-A2B-121	MM-A2B-221
	1/2"	MB-A2B-131	MB-A2B-231	MM-A2B-131	MM-A2B-231
ISO 3	1/2"	MB-A3B-121	MB-A3B-221	MM-A3B-121	N/A
	3/4"	MB-A3B-131	MB-A3B-231	MM-A3B-131	N/A

For manifold bases a common external pilot port is available. One connection only is required for all valves in the manifold whether single or double solenoid. Bottom ports are also available; consult factory for ordering information for these options.

**MANIFOLD FASTENING KIT** — For each gang, one kit is required. To order specify part number **N-63002-01**.



Plug-in base / manifold

- ISO 01
- ISO 02
- ISO 1**
- ISO 2
- ISO 3



HOW TO ORDER

INDIVIDUAL BASE

Port size	Wired for	Side ports	Side ports w/ bottom 2 & 4 ports	All side & bottom ports
1/4" NPTF	Single solenoid	MB-P1A-221-A	MB-P1A-222-A	MB-P1A-223-A
	Double solenoid	MB-P1A-221-B	MB-P1A-222-B	MB-P1A-223-B
3/8" NPTF	Single solenoid	MB-P1A-231-A	MB-P1A-232-A	MB-P1A-233-A
	Double solenoid	MB-P1A-231-B	MB-P1A-232-B	MB-P1A-233-B

MANIFOLD BASE

Port size	Wired for	Side ports	Side ports w/ bottom 2 & 4 ports	All side & bottom ports (see note)
1/4" NPTF	Single solenoid	MM-P1A-221-A	MM-P1A-222-A	MM-P1A-223-A
	Double solenoid	MM-P1A-221-B	MM-P1A-222-B	MM-P1A-223-B
3/8" NPTF	Single solenoid	MM-P1A-231-A	MM-P1A-232-A	MM-P1A-233-A
	Double solenoid	MM-P1A-231-B	MM-P1A-232-B	MM-P1A-233-B

Note : Ports 1, 3 & 5 are always 3/8"

OPTIONS

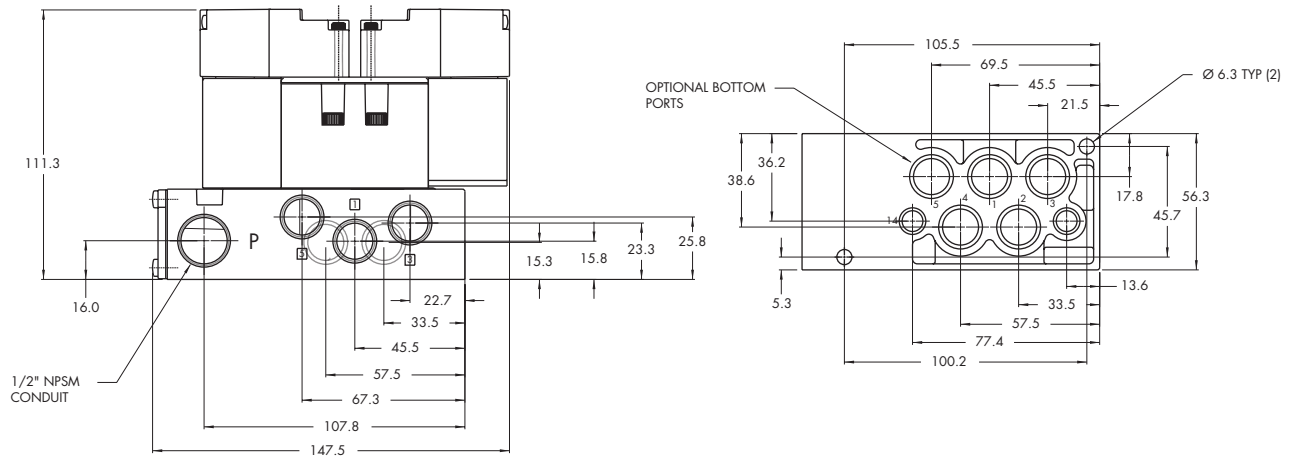
- Manifold options :
- External pilot **MM-P1A-22-x-x**
    - 25** for 1/4" port – common external pilot
    - 26** for 3/8" port – common external pilot
  - Terminal strip **MM-P1A-xxx-A** (N/A with light)
    - J** wired for sgl solenoid
    - K** wired for double solenoid
  - Base / Manifold option: light(s) **MX-P1A-xxx-xJA**
    - JA** 110/120 volt
    - JB** 220/240 volt
    - DA** 24 volt

- Accessories: M-P1001 Valve blanking plate.  
N-P1007-01 Manifold fastening kit.  
32835 Inlet/exhaust isolator plug.

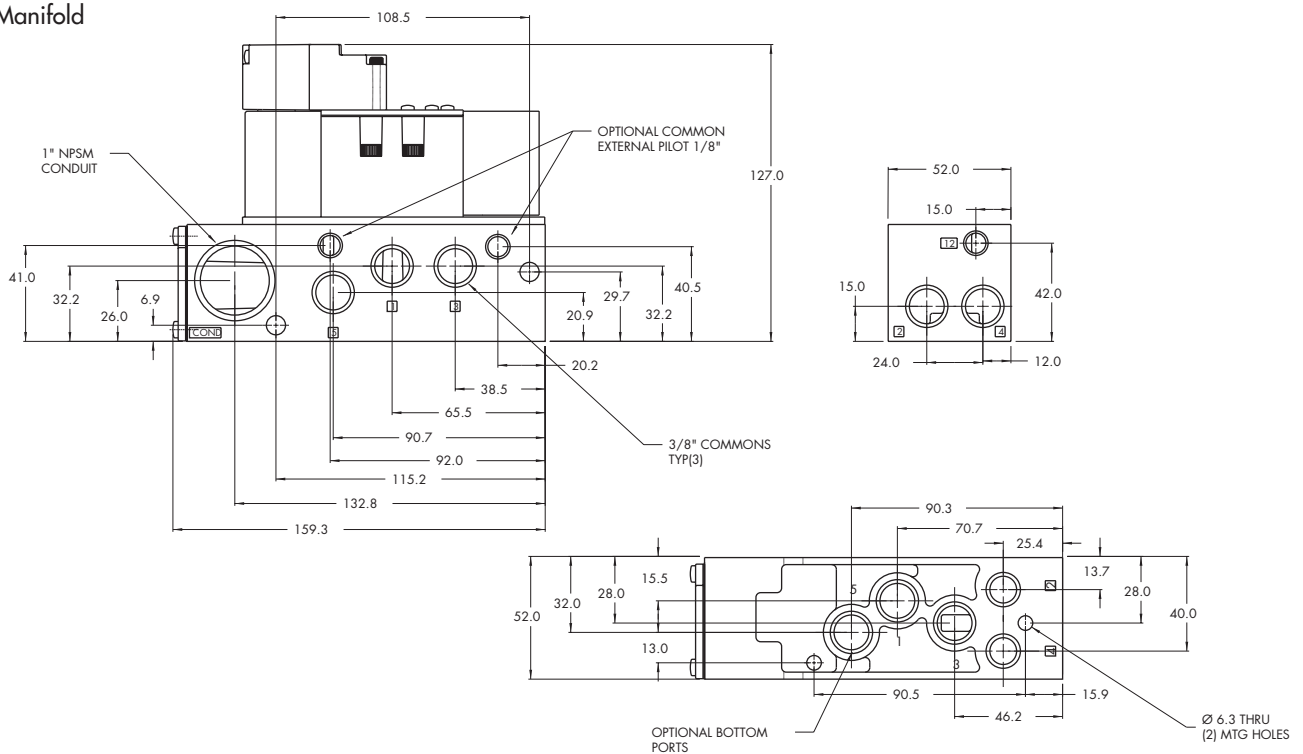
**DIMENSIONS**

Dimensions shown are metric (mm)

Individual



Manifold



**ISO 1**

**ISO 2**

**ISO 3**



**HOW TO ORDER**

INDIVIDUAL BASE

Port size	Side ports	Side & bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
<b>1/4" NPTF</b>	MB-A1C-221	MB-A1C-223	MB-A1C-222	MB-A1C-224
<b>3/8" NPTF</b>	MB-A1C-231	MB-A1C-233	MB-A1C-232	MB-A1C-234

MANIFOLD BASE

Port size	Side ports	Bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
<b>1/4" NPTF</b>	MM-A1C-221	MM-A1C-223	MM-A1C-222	MM-A1C-224
<b>3/8" NPTF</b>	MM-A1C-231	MM-A1C-233	MM-A1C-232	MM-A1C-234

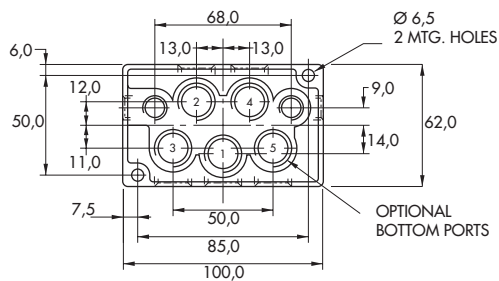
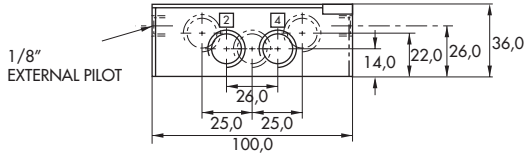
Manifold fastening kit : N-63002-01.

**DIMENSIONS**

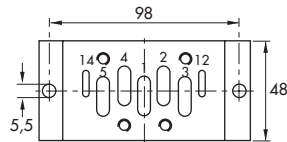
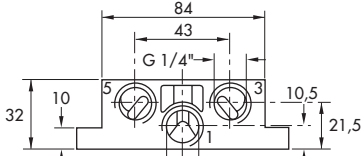
Dimensions shown are metric (mm)

Individual

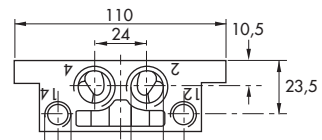
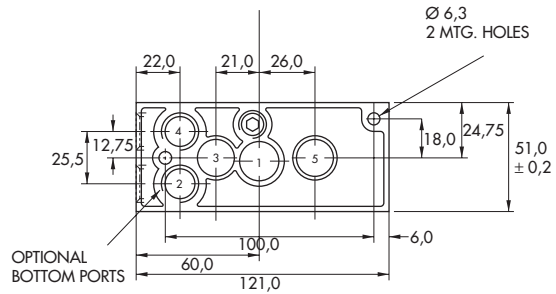
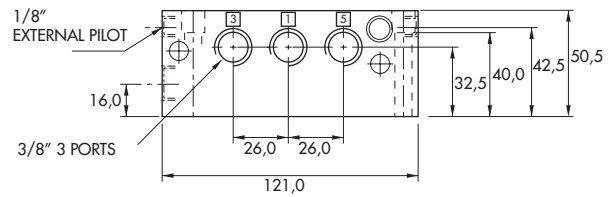
DIN 5599/1



VDMA



Manifold



**Codification table for voltages / Manual operator / Electrical connection / Wire length**

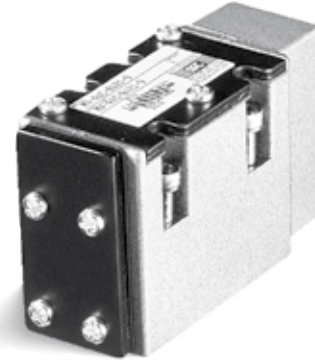
VALVE CODE ► **- XX Y ZZ (-VV)**  
1 2 3 4

OPTIONS AVAILABLE FOR	OPTIONS AVAILABLE FOR
<ul style="list-style-type: none"> <li>- valves type 100 Series</li> <li>- pilot valves "CNOMO"</li> </ul>	<ul style="list-style-type: none"> <li>- valves type 200 Series</li> </ul>
<ul style="list-style-type: none"> <li>- Pilot operated valves with pilots type 100 Series</li> <li>Series : 55 - 56 - 700 - 800 - 900</li> <li style="margin-left: 20px;">- 6300 - 6500 - 6600 - 1300</li> <li style="margin-left: 20px;">- ISO 1 - ISO 2 - ISO 3.</li> <li style="margin-left: 20px;">- MAC 125 - MAC 250 - MAC 500</li> </ul>	<ul style="list-style-type: none"> <li>- pilot operated valves with pilots type 200 Series</li> <li>Series : 200 - 57 - 58 - 59.</li> </ul>
<ul style="list-style-type: none"> <li>- Pilot operated valves with pilots "CNOMO"</li> <li>Series : ISO1 - ISO2 - ISO3</li> </ul>	

Function	Port size	Flow (Max)	Individual mounting & Manifold mounting	Series
<b>5/2 - 5/3</b>	<b>1/4" - 3/8"</b>	<b>1.6 C<sub>v</sub></b>	valve only	

### OPERATIONAL BENEFITS

1. Balanced spool, immune to variations of pressure.
2. Short stroke with high flow.
3. The piston (booster) provides maximum shifting forces.
4. Powerful return thanks to the combination of mechanical and air springs.
5. Bonded spool with minimum friction, shifting in a glass-like finished bore.
6. Wiping effect eliminates sticking.
7. Low leakage rate.



1100  
55  
56  
57  
58  
59

### HOW TO ORDER

#### SINGLE PRESSURE VALVES

Air spring	5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center
Internal	MV-A1C-B111	-----	-----	-----
External	MV-A1C-B121	MV-A1C-B221	MV-A1C-B322	MV-A1C-B321

700  
900

#### DUAL PRESSURE VALVES

Air spring	5/2 Single operator	5/2 Double operator	5/3 Pressure center
Internal port 3	MV-A1C-B131	-----	-----
Internal port 5	MV-A1C-B135	-----	-----
External	MV-A1C-B141	MV-A1C-B241	MV-A1C-B341

82  
6300  
6500  
6600  
2700  
1800

Note : ISO valves are delivered w/o base. See page 281 for base code

ISO 1  
ISO 2  
ISO 3

### TECHNICAL DATA

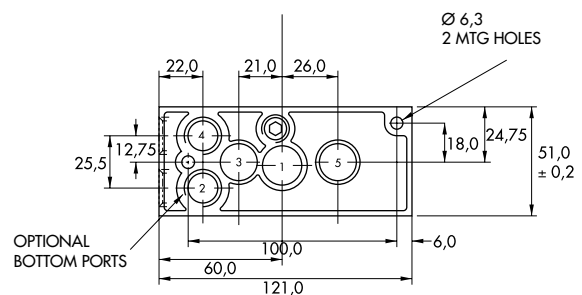
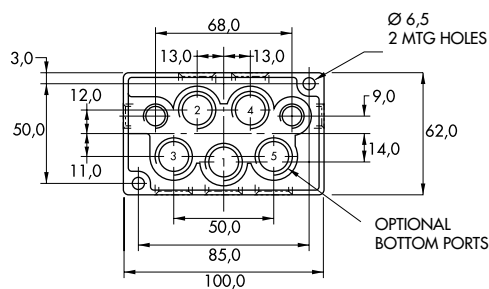
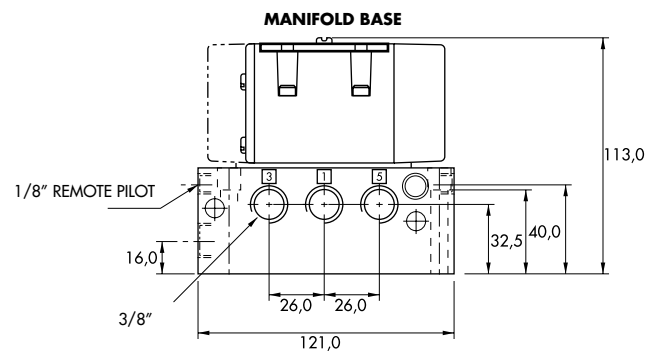
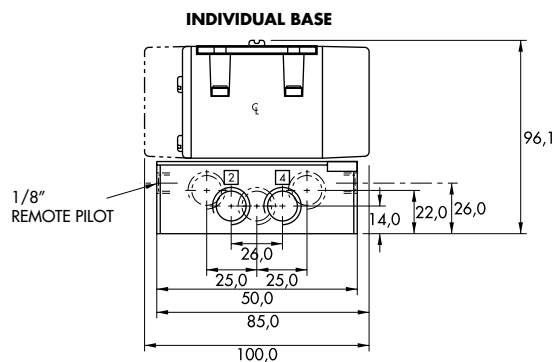
<b>Fluid :</b>	Compressed air, vacuum, inert gases
<b>Pressure range :</b>	Vacuum to 150 PSI
<b>Air signal pressure :</b>	Single operator and 3 positions : 20 to 150 PSI $\geq$ main valve pressure      Double operator : 10 to 150 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 $\mu$
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Flow (at 6 bar, <math>\Delta P=1\text{bar}</math>) :</b>	1/4" - 3/8" : (1.6 C <sub>v</sub> )

Spare parts :

- Remote air operator 2 positions : R-A1010. • Remote air operator 3 positions : R-A1005B.
- Pressure seal between valve and base : 16344. • Mounting screw body to base (x4) : 35304.

### DIMENSIONS

Dimensions shown are metric (mm)



**Sandwich pressure regulator with manual adjust knob.**

**OPERATIONAL BENEFITS**

1. Easy mounting : saves on installation costs in comparison with inline regulators.
2. Allows to have compact, all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



**PR82A**  
**PR63D**  
**PR65C**

**HOW TO ORDER**

INTERNAL PILOT

Gauges	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gauge	PRA1A-GAAA	PRA1A-GCAA	PRA1A-GBAA	PRA1A-GDAA	PRA1A-GEAA
Gauge parallel to regulator(s)	PRA1A-GADA	PRA1A-GCDA	PRA1A-GBDA	PRA1A-GDDA	PRA1A-GEEA
Gauge perpendicular to regulator(s)	PRA1A-GABA	PRA1A-GCBA	PRA1A-GBBA	PRA1A-GDBA	PRA1A-GECA

**PRA1A**

EXTERNAL PILOT AND REMOTE AIR

Gauges	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gauge	PRA1A-HAAA	PRA1A-HCAA	PRA1A-HBAA	PRA1A-HDAA	PRA1A-HEAA
Gauge parallel to regulator(s)	PRA1A-HADA	PRA1A-HCDA	PRA1A-HBDA	PRA1A-HDDA	PRA1A-HEEA
Gauge perpendicular to regulator(s)	PRA1A-HABA	PRA1A-HCBA	PRA1A-HBBA	PRA1A-HDBA	PRA1A-HECA

**PRA2D**

**PRA3C**

\* - To be used with dual pressure valves.  
Valve code is : MV-A1C-AX5X-PM-XXYZZ (sgl. pressure ext. pilot)  
Valve code is : MV-A1C-AX4X-PM-XXYZZ (dual pressure ext. pilot)  
Note : regulating range for above models is 0-120 PSI. For other ranges see technical data page.

Main valve body assembly must be external pilot model. Pilots are supplied internally from primary pressure in regulator block. Cannot field convert regulator block from Single Pressure to dual pressure. Body/Block to base mounting screw #35336.

**ADJUSTMENT OPTIONS**

PRA1A-xxxx

- Replace by A for slotted stem adjustment (internal pilot)
- Replace by B for slotted stem adjustment (external/remote air)
- Replace by K for slotted stem with locknut (internal pilot)
- Replace by L for slotted stem with locknut (external/remote air)

**PR125A**

**PR250B**



**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, inert gases
<b>Pressure range :</b>	0 to 150 PSI
<b>Regulating range :</b>	0 to 120 PSI (other ranges see below)
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 μ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Flow :</b>	(1.0 C <sub>v</sub> )

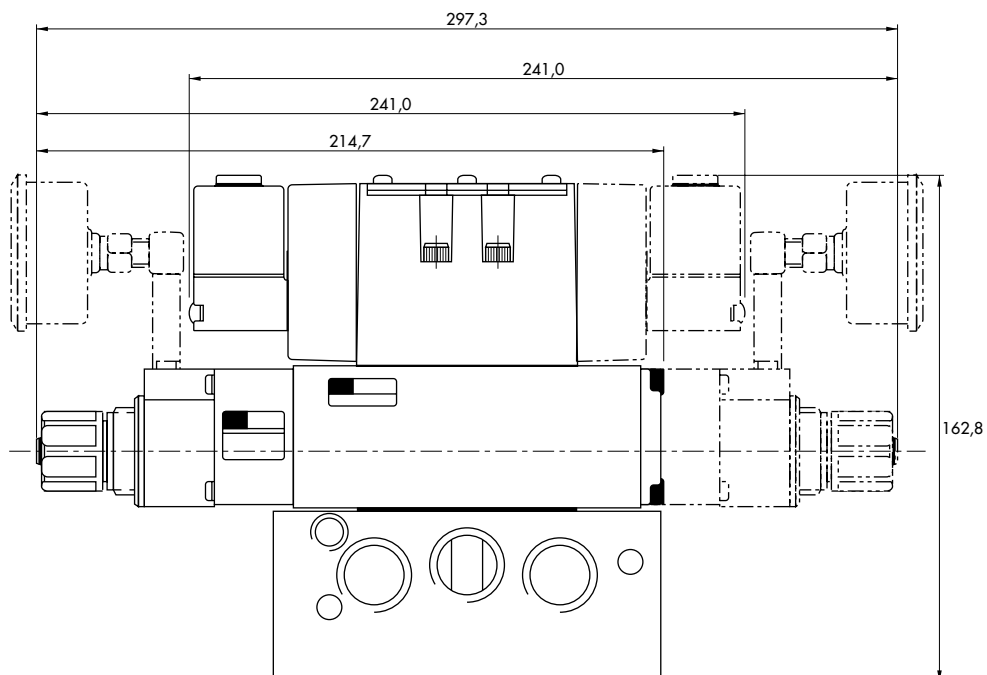
- Spare parts :
- Pressure regulator (less sandwich block) : PRA1A-J0AA (KNOB), PRA1A-C0AA (SLOTTED STEM), PRA1A-M0AA (SLOTTED STEM WITH LOCKNUT).
  - Gauges : N-82016-01 (0-120 PSI perpendicular)  
 N-82016-02 (0-120 PSI parallel)  
 N-82016-03 (0-80 PSI perpendicular)  
 N-82016-04 (0-80 PSI parallel)  
 N-82016-05 (0-30 PSI perpendicular)  
 N-82016-06 (0-30 PSI parallel)

Regulating range options : PRA1A-XXXX

- Replace by B - 0 to 80 PSI
- Replace by C - 0 to 30 PSI
- Replace by D - 0 to 120 PSI on "14" end  
 - 0 to 80 PSI on "12" end
- Replace by E - 0 to 120 PSI on "12" end  
 - 0 to 80 PSI on "14" end
- Replace by F - 0 to 120 PSI on "14" end  
 - 0 to 30 PSI on "12" end
- Replace by G - 0 to 120 PSI on "12" end  
 - 0 to 30 PSI on "14" end
- Replace by H - 0 to 80 PSI on "14" end  
 - 0 to 30 PSI on "12" end
- Replace by J - 0 to 80 PSI on "12" end  
 - 0 to 30 PSI on "14" end

**DIMENSIONS**

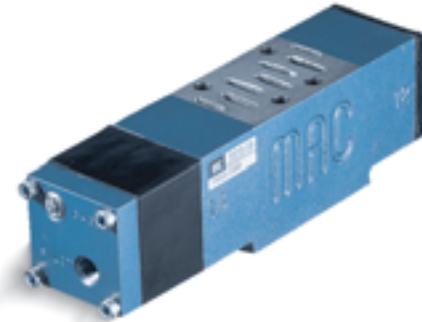
Dimensions shown are metric (mm)



**Sandwich pressure regulator with air pilot adjust.**

**OPERATIONAL BENEFITS**

1. Easy mounting : saves on installation costs in comparison with inline regulators.
2. Allows to have compact, all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



**PR82A**  
**PR63D**  
**PR65C**

**HOW TO ORDER**

INTERNAL PILOT

Gauges	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gauge	PRA1A-DAAA	PRA1A-DCAA	PRA1A-DBAA	PRA1A-DDAA	PRA1A-DEAA
Gauge parallel to regulator(s)	PRA1A-DADA	PRA1A-DCDA	PRA1A-DBDA	PRA1A-DDDA	PRA1A-DEEA
Gauge perpendicular to regulator(s)	PRA1A-DABA	PRA1A-DCBA	PRA1A-DBBA	PRA1A-DDBA	PRA1A-DECA

**PRA1A**  
**PRA2D**  
**PRA3C**

EXTERNAL PILOT AND REMOTE AIR

Gauges	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gauge	PRA1A-EAAA	PRA1A-ECAA	PRA1A-EBAA	PRA1A-EDAA	PRA1A-EEAA
Gauge parallel to regulator(s)	PRA1A-EADA	PRA1A-ECDA	PRA1A-EBDA	PRA1A-EDDA	PRA1A-EEEA
Gauge perpendicular to regulator(s)	PRA1A-EABA	PRA1A-ECBA	PRA1A-EBBA	PRA1A-EDBA	PRA1A-EECA

\* - To be used with dual pressure valves.  
Valve code is : MV-A1C-AX5X-PM-XXYZZ (sgl. pressure ext. pilot)  
Valve code is : MV-A1C-AX4X-PM-XXYZZ (dual pressure ext. pilot)

Main valve body assembly must be external pilot model. Pilots are supplied internally from primary pressure in regulator block. Cannot field convert regulator block from Single Pressure to dual pressure. Body/Block to base mounting screw #35336.

**PR125A**  
**PR250B**

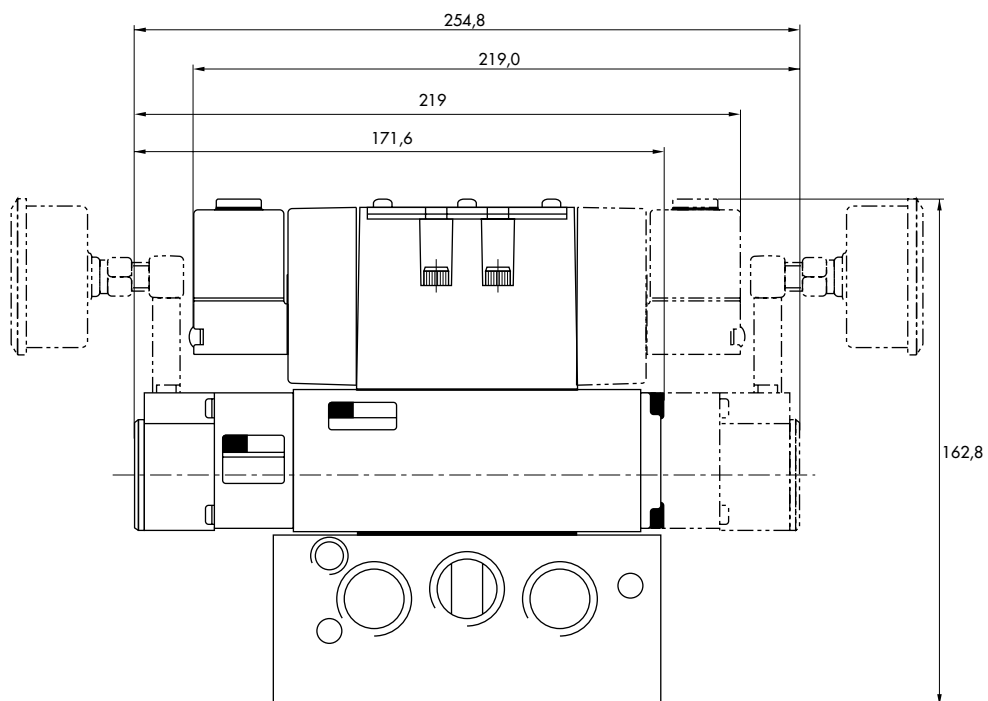
**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, inert gases
<b>Pressure range :</b>	0 to 150 PSI
<b>Regulating range :</b>	0 to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 μ
<b>Temperature range :</b>	0°F to 120°F (-18°C to 50°C)
<b>Flow :</b>	(1.0 C <sub>v</sub> )

- Spare parts :
- Pressure regulator (less sandwich block) : PRA1A-FOAA.
  - Gauges : N-82016-01 (0-120 PSI perpendicular)  
N-82016-02 (0-120 PSI parallel)

**DIMENSIONS**

Dimensions shown are metric (mm)



**Non plug-in sandwich pressure regulator with air pilot adjust**

**OPERATIONAL BENEFITS**

1. Easy mounting : saves on installation costs in comparison with inline regulators.
2. Allows to have compact, all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



PR37A  
PR42B  
PR46A  
PR47A  
PR48B  
  
PR92C

**HOW TO ORDER**

INTERNAL PILOT

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gage	PRA1A-DAAA	PRA1A-DCAA	PRA1A-DBAA	PRA1A-DDAA	PRA1A-DEAA
Gage perpendicular to regulator(s)	PRA1A-DABA	PRA1A-DCBA	PRA1A-DBBA	PRA1A-DDBA	PRA1A-DECA
Gage parallel to regulator(s)	PRA1A-DADA	PRA1A-DCDA	PRA1A-DBDA	PRA1A-DDDA	PRA1A-DEEA

PR93A

PRA01A

PRA02A

EXTERNAL PILOT AND REMOTE AIR

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
No gage	PRA1A-EAAA	PRA1A-ECAA	PRA1A-EBAA	PRA1A-EDAA	PRA1A-EEAA
Gage perpendicular to regulator(s)	PRA1A-EABA	PRA1A-ECBA	PRA1A-EBBA	PRA1A-EDBA	PRA1A-EECA
Gage parallel to regulator(s)	PRA1A-EADA	PRA1A-ECDA	PRA1A-EBDA	PRA1A-EDDA	PRA1A-EEEA

PRA1A

PRP1A

PRA2D

PRP2B

PRA3C

PRP3B

\* - To be used with dual pressure valves.

Main valve body assembly must be external pilot model. Pilots are supplied internally from primary pressure in regulator block. Cannot field convert regulator block from Single Pressure to dual pressure. Body/Block to base mounting screw #35336.

**TECHNICAL DATA**

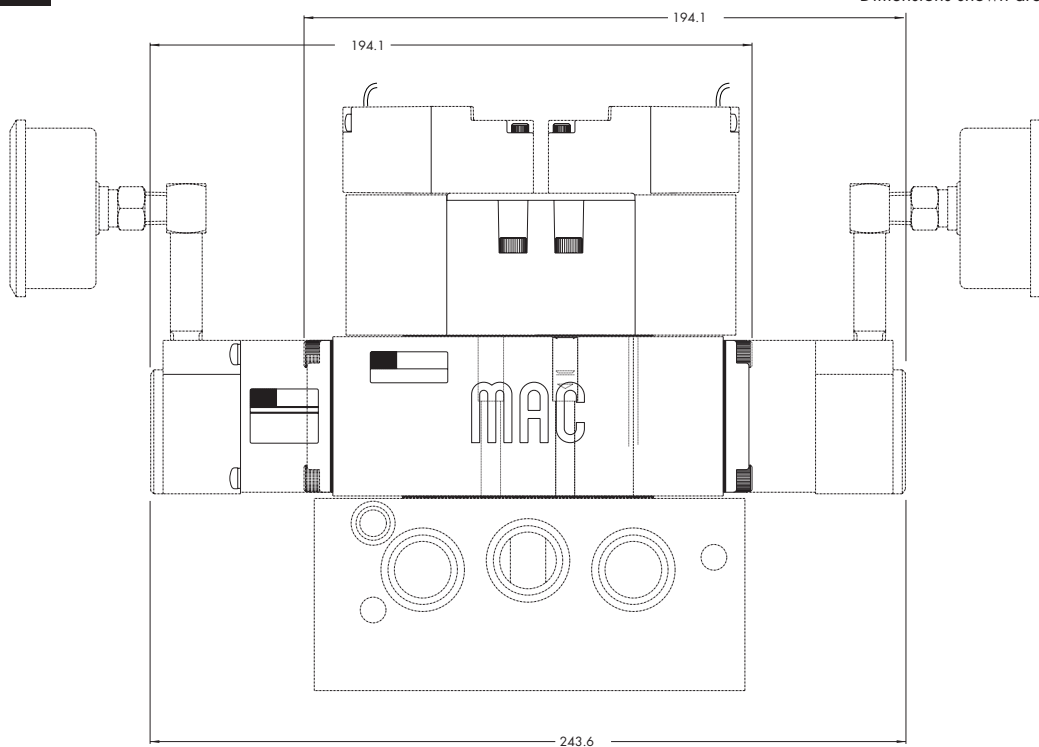
<b>Fluid :</b>	Compressed air, inert gases
<b>Pressure range :</b>	0 to 150 PSI
<b>Regulating range :</b>	0 to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 μ
<b>Temperature range :</b>	0°F to 120°F (-18°C to +50°C)
<b>Flow :</b>	1.0 C <sub>v</sub>

Spare parts :

- Pressure regulator (less sandwich block) : PRA1A-FOAA.
- Gage : N-82016-01 (0-120 PSI perpendicular)  
N-82016-02 (0-120 PSI parallel)

**DIMENSIONS**

Dimensions shown are metric (mm)



**Plug-in sandwich pressure regulator with manual adjust knob**

**OPERATIONAL BENEFITS**

1. Easy mounting; saves on installation costs in comparison with inline regulators.
2. Compact all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



PR37A  
PR42B  
PR46A  
PR47A  
PR48B  
  
PR92C

**HOW TO ORDER**

REGULATORS FOR INTERNAL PILOT (CODED FOR KNOB ADJUSTMENT)

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
<b>Gage port only</b>	PRP1A-GAKA	PRP1A-GCKA	PRP1A-GBKA	PRP1A-GDKA	PRP1A-GEKA
<b>Gage perpendicular to manual operator</b>	PRP1A-GABA	PRP1A-GCBA	PRP1A-GBBA	PRP1A-GDBA	PRP1A-GECA
<b>Gage parallel to manual operator</b>	PRP1A-GADA	PRP1A-GCDA	PRP1A-GBDA	PRP1A-GDDA	PRP1A-GEEA

PR93A

PRA01A

PRA02A

REGULATORS FOR EXTERNAL PILOT AND REMOTE AIR (CODED FOR KNOB ADJUSTMENT)

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
<b>No gage</b>	PRP1A-HAKA	PRP1A-HCKA	PRP1A-HBKA	PRP1A-HDKA	PRP1A-HEKA
<b>Gage perpendicular to manual operator</b>	PRP1A-HABA	PRP1A-HCBA	PRP1A-HBBA	PRP1A-HDBA	PRP1A-HECA
<b>Gage parallel to manual operator</b>	PRP1A-HADA	PRP1A-HCDA	PRP1A-HBDA	PRP1A-HDDA	PRP1A-HEEA

PRA1A

**PRP1A**

PRA2D

PRP2B

\* For use with dual pressure valves.

Note: Regulating range for above models is 0 - 120 PSI. For other ranges see technical data page.

**ADJUSTMENT OPTIONS**

PRP1A-xxxx

- A** for slotted stem adjustment (internal pilot)
- B** for slotted stem adjustment (external/remote air)
- K** for slotted stem with locknut (internal pilot)
- L** for slotted stem with locknut (external/remote air)

Notes:

1. Valves used with above models must be external pilot models.
2. Cannot field convert regulator block from single pressure to dual pressure.
3. Cannot field convert from internal pilot to external pilot.
4. Wired for double solenoid valves.

**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, inert gases
<b>Pressure range :</b>	0 to 150 PSI
<b>Regulating range :</b>	0 to 120 PSI (other ranges see below)
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 μ
<b>Temperature range :</b>	0°F to 120°F (-18°C to +50°C)
<b>Flow :</b>	1.1 C <sub>v</sub>

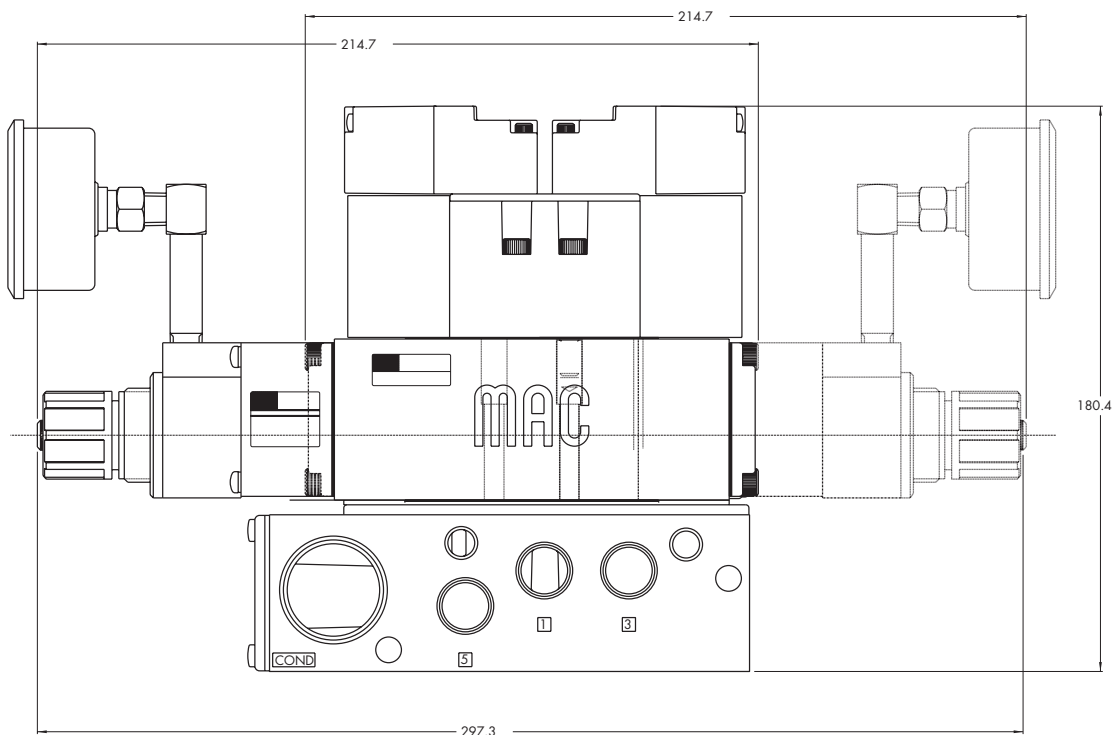
Spare parts :      • Pressure regulator (less sandwich block) : PRP1A-JOKA (knob), PRP1A-COKA (slotted stem)  
PRP1A-MOKA (slotted stem with locknut)

Regulating range options : PRP1A-XXXX

- Replace by B - 0 to 80 PSI
- Replace by C - 0 to 30 PSI
- Replace by D - 0 to 120 PSI on "14" end - 0 to 80 PSI on "12" end
- Replace by E - 0 to 120 PSI on "12" end - 0 to 80 PSI on "14" end
- Replace by F - 0 to 120 PSI on "14" end - 0 to 30 PSI on "12" end
- Replace by G - 0 to 120 PSI on "12" end - 0 to 30 PSI on "14" end
- Replace by H - 0 to 80 PSI on "14" end - 0 to 30 PSI on "12" end
- Replace by J - 0 to 80 PSI on "12" end - 0 to 30 PSI on "14" end

**DIMENSIONS**

Dimensions shown are metric (mm)



**Plug-in sandwich pressure regulator with air pilot adjust**

**OPERATIONAL BENEFITS**

1. Easy mounting; saves on installation costs in comparison with inline regulators.
2. Compact all-included units.
3. Large orifice provides high flow.
4. Various functions available.
5. Simple, reliable and solid design.



PR37A  
PR42B  
PR46A  
PR47A  
PR48B  
  
PR92C

**HOW TO ORDER**

REGULATORS FOR INTERNAL PILOT

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
Gage port only	PRP1A-DAKA	PRP1A-DCKA	PRP1A-DBKA	PRP1A-DDKA	PRP1A-DEKA
Gage perpendicular to manual operator	PRP1A-DABA	PRP1A-DCBA	PRP1A-DBBA	PRP1A-DDBA	PRP1A-DECA
Gage parallel to manual operator	PRP1A-DADA	PRP1A-DCDA	PRP1A-DBDA	PRP1A-DDDA	PRP1A-DEEA

PR93A  
  
PRA01A  
PRA02A

REGULATORS FOR EXTERNAL PILOT AND REMOTE AIR

Gage	Single pressure Regulator 14 end Same regulated pressure to ports 2 and 4	Single pressure Regulator 12 end Same regulated pressure to ports 2 and 4	Dual pressure Regulator 14 end Regulated pressure to port 4 *	Dual pressure Regulator 12 end Regulated pressure to port 2 *	Dual pressure Dual regulator Two regulated pressures to ports 2 and 4 *
Gage port only	PRP1A-EAKA	PRP1A-ECKA	PRP1A-EBKA	PRP1A-EDKA	PRP1A-EEKA
Gage perpendicular to manual operator	PRP1A-EABA	PRP1A-ECBA	PRP1A-EBBA	PRP1A-EDBA	PRP1A-EECA
Gage parallel to manual operator	PRP1A-EADA	PRP1A-ECDA	PRP1A-EBDA	PRP1A-EDDA	PRP1A-EEEA

PRA1A  
**PRP1A**  
PRA2D  
PRP2B  
  
PRA3C  
PRP3B

\* - To be used with dual pressure valves.

Notes:

1. Valves used with above models must be external pilot models.
2. Cannot field convert regulator block from single pressure to dual pressure.
3. Cannot field convert from internal pilot to external pilot.
4. Wired for double solenoid valves.



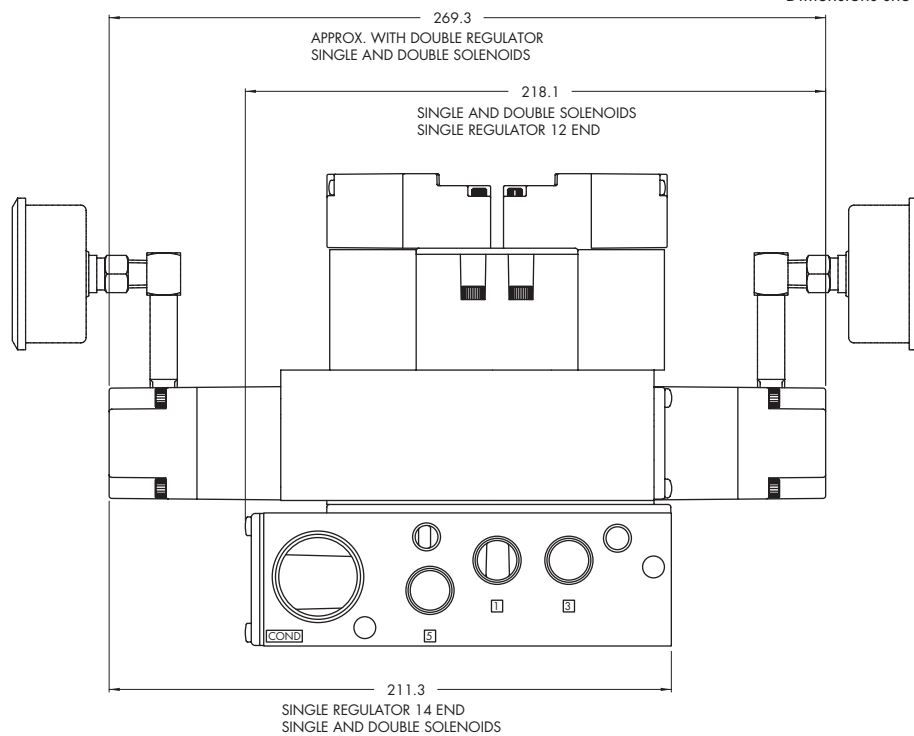
**TECHNICAL DATA**

<b>Fluid :</b>	Compressed air, inert gases
<b>Pressure range :</b>	0 to 150 PSI
<b>Regulating range :</b>	0 to 120 PSI
<b>Lubrication :</b>	Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)
<b>Filtration :</b>	40 μ
<b>Temperature range :</b>	0°F to 120°F (-18°C to +50°C)
<b>Flow :</b>	1.1 C <sub>v</sub>

- Spare parts :
- Pressure regulator (less sandwich block): PRP1A-FOKA
  - Regulator block to base mounting tie rod: 19496

**DIMENSIONS**

Dimensions shown are metric (mm)





---

**Codification table for voltages / Manual operator / Electrical connection**

---

VALVE CODE > **-DM- D XX X-X XX**  
**1 2 3 4**

**OPTIONS AVAILABLE FOR**

- Pilot operated valves 52, 67, 92, 93, 400, ISO1, ISO2, ISO3 Series

---

**1. VOLTAGE**

D-XX X-X XX	VOLTAGE
DA	24 VDC (5.4W)
DB	12 VDC (5.4W)
DC	12 VDC (7.5W)
DD	24 VDC (7.3W)
DE	12 VDC (12.7W)
DF	24 VDC (12.7W)
DK	110 VDC (4.7W)
DJ	28 VDC (5.2W)
DL	64 VDC (6.0W)
DM	36 VDC (5.3W)
DN	6 VDC (6.0W)
DR	90 VDC (6.6W)
DS	110 VDC (7.3W)
DT	75 VDC (5.6W)
DP	48 VDC (5.8W)
FA	12 VDC (1.8W)
FB	24 VDC (1.8W)
FE	12 VDC (2.4W)
FF	24 VDC (2.4W)
JA	120/60, 110/50 (2.9W)
JB	240/60, 220/50 (2.9W)
JC	24/60, 24/50 (3.7W)
JD	100/60, 100/50, 110/60 (3.9W)
JE	220/60 (3.4W)
JF	240/50 (2.8W)
JG	200/60, 200/50 (3.9W)

**2. WIRE LENGTH**

D-XX X-X XX	WIRE LENGTH
0	No wires
A	18"
B	24"
C	36"
D	48"
E	72"
F	96"

**3. MANUAL OPERATOR**

D-XX X-X XX	MANUAL OPERATOR
0	No operator
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

**4. ELECTRICAL CONNECTION**

D-XX X-X XX	ELECTRICAL CONNECTION
BA*	Flying leads (grommet)
BK*	BA with protection diode
BL*	BA with protection varistor
BM**	Flying leads (solenoid plug-in)
BN**	BM with protection diode
BP**	BM with protection varistor
BG**	BM with ground
BH**	BM with protection diode & ground
BJ**	BM with protection varistor & ground
CA*	1/2" NPS conduit with flying leads
CM*	1/2" NPS metal conduit with flying leads
CN*	1/2" NPS metal conduit with flying leads & ground
JB	Rectangular connector
JD	JB with light
JM	Rectangular connector (male only)
KA	Mini square connector
KB	KA with protection diode
KC	KA with protection varistor
KD	KA with light
KE	KA with light and protection diode
KF	KA with light and protection varistor
KG	KA with light & diode
KJ	Mini square connector (male only)
KK	KJ with protection diode (male only)
KL	KJ with protection varistor (male only)
TA	Dual tabs with receptacles
TB	TA with protection diode
TD	TA with light
TE	TA with light and protection diode
TJ	Dual tabs (male only)
TK	TJ with protection diode
TM	TJ with light
TN	TJ with light and protection diode

\* From Lead wire length options choose A through F

\*\* From Lead wire length options choose 0 through F

Note: When coil is above 30 volts, a ground wire is required. Applies to options with flying leads.