

# **SERIES FEATURES**

- Fastest available response time with patented MACSOLENOID®.
- No-stick operation is ensured by wiping action of unique MAC spool/bore combination.
- Balanced poppet pilot valve for high flow, precise repeatability, and consistent operation.
- Large spool piston for high shifting force even at minimum operating pressure
- Air/spring return for consistent shifting on single solenoid models.
- Patented virtually burn-out proof AC solenoid.
- Optional low wattage DC solenoids down to 1.0 watt.
- Various manual operators & electrical connectors are available.
- Muffled or threaded pilot exhaust ports.
- Internal of external pilot models available.

100

200 55

56 **57** 

58 59

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700

900

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6300

6500

6600

1300

800

**ISO** 1 **ISO 2** 

**MAC 125A MAC 250A MAC 500A** 







### **VALVE CONFIGURATIONS AVAILABLE**

- 2-Pos., single or double operators (solenoid or remote air).
- Single or dual pressure.
- 3-Pos., double operator-closed center, open center or pressure center (solenoid or remote gir).
- Individual base.
- Internal pilot or external pilot (including a common external pilot or manifold models).
- Side porting and bottom porting options.

\*International Standards Organization ISO Common Base Interface (ISO Std. 5599/1)

### SPECIAL APPLICATION INSTRUCTIONS:

On all models, energizing the "14" operator (solenoid or remote air) connects Port #1 to Cylinder Port #4 and energizing the "12" operator connects Port #1 to Cylinder Port #2. For the following special applications, additional piping considerations are required.

**EXTERNAL PILOT APPLICATIONS\*** - An External Pilot Supply is only required when the main valve pressure is less than 1.8 BARS on single operators (soleneoid or remote air) or 0.7 BARS on double solenoid valves only. In these cases, use an External Pilot

model and supply a minimum of 1.8 BARS for single operators or a minimum of 0.7 BARS for double solenoid valves to either the "14" or "12" External Pilot Port of the valve base.

**VACUUM APPLICATIONS** - Use an External Pilot model as described above and also connect the vacuum source to Port #3 & 5 and leave Port#1 open to atmosphere on single pressure models. On two pressure models, reverse the single pressure piping.

**SELECTOR APPLICATIONS** - Use an External Pilot Model as described above if both pressures are below the minimum, otherwise use an Internal Pilot model and connect the higher pressure to Port #1 and the lower pressure to either Port #3 or 5 depending on which Cylinder Port is to be active.

**TWO PRESSURE APPLICATIONS** - For Internal Pilot models specify the model number for connecting either port #3 or 5, whichever is to be the higher pressure, to the Internal Pilot supply. For external Pilot models, pipe as described above for "External Pilot Application."

\*Note: 1Bar = 14.5 PSIG



Function	Port size	Flow (Max)	Individual mounting & Manifold mounting		Series
5/2 - 5/3	1/2" - 3/4"	6.3 C <sub>v</sub>	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 force 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. Pilot valve with balanced poppet, high flow, short and consistent response times.
- 8. Long service life.



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### HOW TO ORDER

### SINGLE PRESSURE VALVES

Pilot air	5/2 5/2 Single operator Double operator		5/3 Closed center	5/3 Open center	
	14 4 2 12 14 5 12 12	14 4 2 12 17 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	14 4 2 12 12 12 12 12 12 12 12 12 12 12 12 1	14 4 2 12 12 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Internal	MV-A3B-A111-PM-xxyzz	MV-A3B-A211-PM-xxyzz	MV-A3B-A312-PM-xxyzz	MV-A3B-A311-PM-XXYZZ	
External	MV-A3B-A121-PM-xxyzz	MV-A3B-A221-PM-xxyzz	MV-A3B-A322-PM-xxyzz	MV-A3B-A321-PM-xxyzz	

### **DUAL PRESSURE VALVES**

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Pressure center
	14 4 2 12 14 5 0 1 1 3	14 4 2 12 17 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	14 15 10 10 10 10 10 10 10 10 10 10
Internal port 3	MV-A3B-A131-PM-xxyzz	MV-A3B-A231-PM-xxyzz	MV-A3B-A331-PM-xxyzz
Internal port 5	MV-A3B-A135-PM-xxyzz	MV-A3B-A232-PM-XXYZZ	MV-A3B-A332-PM-xxyzz
External	MV-A3B-A141-PM-XXYZZ	MV-A3B-A241-PM-xxyzz	MV-A3B-A341-PM-xxyzz

SOLENC	DID OPERATOR ➤		<u>XX Y ZZ</u> *		
XX	Voltage	Y	Manual operator	ZZ	Electrical connection
11	120/60, 110/50	1	Non-locking	JB	Rectangular connector
12	240/60, 220/50	2	Locking	JD	Rectangular connector with light
22	24/60, 24/50			JA	Square connector
59	24 VDC (2.5 W)			JC	Square connector with light
<i>87</i>	24 VDC (17.1 W)			BA	Flying leads (18")
61	24 VDC (8.5 W)			N. D	

Other options available, see page 357.

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

### OPTIONS

### MV-A3B-A1<u>1</u>1-<u>PM-xxyzz</u>

- - For CNOMO pilot, consult factory.
- - For universal spool replace by 6 (2 position, sgl. pressure valves only)
- - For use with single pressure sandwich regulator, replace by 5.

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6600 1300

800

**ISO** 1

**ISO 2** 

**MAC 125A MAC 250A MAC 500A** 

Note: Photo shown with JC connector.







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: single operator and 3 positions: 25-150 PSI double operator: 10-150 PSI

External pilot: vacuum to 150 PSI

Pilot pressure: Single operator and 3 positions: 25-150 PSI Double operator: 10-150 PSI

**Lubrication:** Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration:

Temperature range: 0°F to 120°F (-18°C to 50°C)

Flow (at 6 bar, ΔP=1bar): 1/2": (6.3 C<sub>v</sub>), 3/4": (6.3 C<sub>v</sub>)

Coil: Epoxy encapsulated - class A wires - Continuous duty

Voltage range: -15% to +10% of nominal voltage

Protection: Consult factory

~ Inrush : 14.8 VA Power: Holding: 10.9 VA

= 1 to 17.1 W

Response times: 24 VDC (8.5 W) Energize: 18 ms De-energize: 20 ms 120/60 Energize: 15-25 ms De-energize: 19-28 ms

• Pilot valve: PME-XXYZZ, including seal 16337. • Pressure seal between valve and base: 16436. • Mounting screw valve to base (x4): 35416. • Check valve: 70002 (+M-00011).

 $\bullet$  Solenoid operator (power  $\geq 4$  W) : D1-XXAA, cover mounting screws 35206 and seal 16234.

### DIMENSIONS

**TYPE** 

JA & JC

JB & JD

Spare parts:

Dimensions shown are metric (mm) В 119,9 136,2 124,4 43,5 22,0 20,5 20,5 49,0 1/8" EXTERNAL 49,0 140,0 PILOT Ø 8,3 MTG. HOLES 168,0 70.0 ISO 3 Individual mounting 15,0 32.0 79,0 64,0 326.6 247.3 349.6 258.8

**OPTIONAL** BOTTOM PORTS



# Direct solenoid and solenoid pilot operated valves

Function	Port size	Floш (Max)	Individual/Manifold mounting	Series
5/2, 5/3	1/2" - 3/4"	6.1 C <sub>v</sub>	Valve only - No base "plug-in" Conform to ISO 5599/2	

### OPERATIONAL BENEFITS

- 1. Unique patented Macsolenoid® for fastest possible response times and virtually burnout 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
- 8. Air only return. Optional memory spring is also available.
- 9. Optional low wattage DC solenoid down to 1.0 watt.



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47 **48P** 

48

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ISO 01

**ISO** 1

### HOW TO ORDER

### SINGLE PRESSURE MODELS

Pilot air	5/2 Single operator	Single operator Double operator		5/3 Open center	
	14 4 2 12 TD T T W	14 4 2 12 T V V T Q Z	14 4 2 12 30 12 5 \$\frac{4}{2} \frac{7}{2} \frac{1}{2} \frac{1} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \frac{1}{2} \f	14 4 2 12 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Internal	MV-P3A-AAAA-DM-DxxP-xxx	MV-P3A-ABAA-DM-DxxP-xxx	MV-P3A-AEAA-DM-DxxP-xxx	MV-P3A-AFAA-DM-DxxP-xxx	
External "12" end	MV-P3A-AAAB-DM-DxxP-xxx	MV-P3A-ABAB-DM-DxxP-xxx	MV-P3A-AEAB-DM-DxxP-xxx	MV-P3A-AFAB-DM-DxxP-xxx	

### **DUAL PRESSURE MODELS**

Pilot air	5/2 Single operator	5/2 Double operator	5/3 Pressure center
	14 4 2 12 14 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	14 4 2 12 	
Internal pilot From port #3	MV-P3A-ACAD-DM-DxxP-xxx	MV-P3A-ADAD-DM-DxxP-xxx	MV-P3A-AGAD-DM-DxxP-xxx
Internal pilot From port #5	MV-P3A-ACAE-DM-DxxP-xxx	MV-P3A-ADAE-DM-DxxP-xxx	MV-P3A-AGAE-DM-DxxP-xxx
External pilot From "12" end	MV-P3A-ACAB-DM-DxxP-xxx	MV-P3A-ADAB-DM-DxxP-xxx	MV-P3A-AGAB-DM-DxxP-xxx

### SOLENOID OPERATOR ➤

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

DM-D XX P-XXX

Other options available, see page 309.

ote: - ISO series, valve and base are ordered separately, see page 241 for base codes.

- Ground wire required for 30 volts or higher.

### OPTIONS

Valve function:

### MV-P3A-A**X**XX-XX-D**xx**P-**xxx**

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

### Pilot style :

### MV-P3A-AXXX-**DM**-DxxP-xxx

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

### Spool return:

### MV-P3A-AX**A**X-XX-D**xx**P-**xxx**

A Standard return B Memory spring return
D Standard return with light
E Memory spring return with light







Fluid: Compressed air, vacuum, inert gases

Pressure range: Internal pilot: 20 to 120 PSI

External pilot : vacuum to 120 PSI

Pilot pressure: Single/double operator: 20 to 120 PSI, 3 positions: 30 to 120 PSI

Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)

Filtration: 40 µ

Temperature range: 0°F to 120°F (-18°C to +50°C)

Flow: 1/2":  $(5.4 C_v) - 3/4$ ":  $(6.1 C_v)$ 

Coil: Class A continuous duty, #22 AWG leads

Voltage range: -15% to +10% of nominal voltage

Protection : Consult factory

Power: ~ Inrush 7.6 VA Holding: 4.8 VA

= 12.7 to 1.0 W

**Response times :** Energize : 16.2 ms

(5.4 W coil) De-energize: 13.6 ms

Options : • Sandwich regulator, see ,Regulators' section

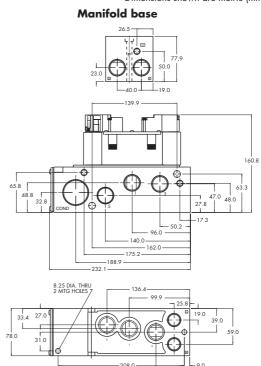
Spare parts : • Pilot valve: DMB-DxxP-xxx • Valve to base pressure seal: 16614

• Valve mounting screws (x4): 35451

### DIMENSIONS

# Individual base 29.0 29.0 29.0 23.5 23.5 28.5 106.5 107.0 69.0 31.0 48.5 107.0 69.0 31.0 48.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 69.0 31.0 106.5 107.0 106.5 106.5 107.0 106.5 106.5 107.0 106.5 107.0 106.5 106.5 107.0 106.5 106.5 106.5 107.0 106.5 106.5 107.0 106.5 106.5 106.5 106.5 106.5 106.5 107.0 106.5 106.5 106.5 107.0 106.5 106.5 106.5 107.0 106.5 106.5 106.5 106.5 107.0 106.5 106

Dimensions shown are metric (mm)





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 th 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

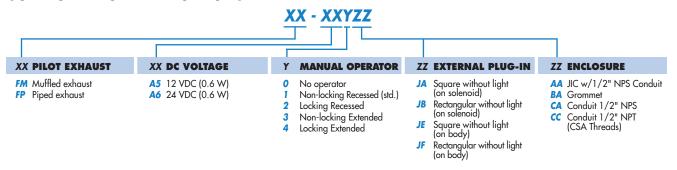
# SOLENOID PILOT OPERATED VALVES LESS BASE SINGLE PRESSURE VALVES

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-A231-FM-A51JA	Int. Pilot-From Port 3	MV-AXB-A331-FM-A51JA
MV-AXB-A135-FM-A51JA	MV-AXB-A232-FM-A51JA	Int. Pilot-From Port 5	MV-AXB-A332-FM-A51JA
MV-AXB-A141-FM-A51JA	MV-AXB-A241-FM-A51JA	External Pilot	MV-AXB-A341-FM-A51JA

### **SOLENOID PILOT VALVE OPTIONS**



### BASE TABLE

ISO TYPE	PORT SIZE	INDIVIDUA BSPP	L BASE NPTF	MANIFOLD BSPP	BASE 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 par number N-63002-01.

Function	Port size	Flow (Max)	Individual/Manifold mounting	Series
5/2 - 5/3	1/2" - 3/4"	6.2 C <sub>V</sub>	Valve only – no base	

# OPERATIONAL BENEFITS

- 1. Balanced spool, immune to variations of pressure.
- 2. Powerful return forces thanks to the combination of mechanical and air springs.
- 3. Bonded spool with minimum friction, shifting in a glass-like finished bore.
- 4. Wiping effect eliminates sticking.
- 5. Long service life.



400

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**ISO 2** 

ISO 3

### HOW TO ORDER

### SINGLE PRESSURE MODELS

OH TOLL THEODORE	.,,,					
Air spring		5/2 Single operator	5/2 Double operator	5/3 Closed center	5/3 Open center	
		14 4 2 12 	14	14 4 2 12 12 D 12 12 12 14 14 14 15 15 15 15 15 15 15 15 15 15 15 15 15	14 4 2 12 12 D T V V T V T 3	
Internal		MV-R3A-BACF	MAN DOA DDAIC	MANADA DEAK	MV DOA DEAK	
External		MV-R3A-BACG	MV-R3A-BBAK	MV-R3A-BEAK	MV-R3A-BFAK	

### **DUAL PRESSURE MODELS**

Air spring	5/2 Single operator	5/2 Double operator	5/3 Pressure center
	14 	$ \begin{array}{c c} 14 & 2 & 12 \\ - \cdot \cdot \boxed{D} & 12 & 3 & - \\ 5 & 5 & 1 & 3 \end{array} $	14 
Internal port #3	MV-R3A-BCCH		
Internal port #5	MV-R3A-BCCJ	MV-R3A-BDAK	MV-R3A-BGAK
External	MV-R3A-BCCG		

Note: ISO series, valve and base are ordered separately, see page 239 for base code.







Fluid: Compressed air, vacuum, inert gases

**Pressure range:** Vacuum to 150 PSI

Air signal pressure: Single/double operator: 20 to 150 PSI 3 position: 30 to 150 PSI

Not required, if used select a medium aniline point lubricant (between 180°F and 210°F)

Filtration: 40 µ

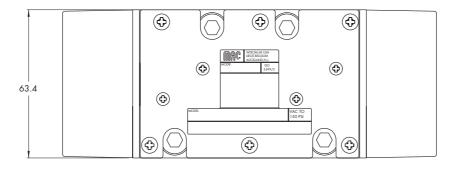
Temperature range: 0°F to 120°F (-18°C to 50°C)

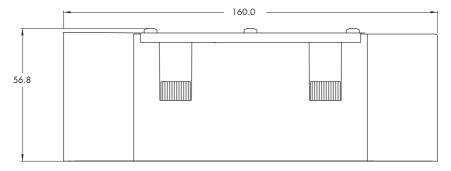
Flow:  $1/2": (5.4 C_v) - 3/4": (6.2 C_v)$ 

Spare parts : • Valve to base pressure seal: 16614 • Valve mounting screws (x4): 35451

### DIMENSIONS

Dimensions shown are metric (mm)







Series

### Non plug-in base / manifold

ISO 01

ISO 02

ISO 1

ISO 2

ISO 3



### HOW TO ORDER

### INDIVIDUAL BASE

Port size	Side ports	Bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
1/2" NPTF	MB-A3B-221	MB-A3B-223	MB-A3B-222	MB-A3B-224
3/4" NPTF	MB-A3B-231	MB-A3B-233	MB-A3B-232	MB-A3B-234

### MANIFOLD BASE

Port size	Side ports	Bottom ports	Bottom cylinder ports 2 and 4.	Bottom inlet port 1
1/2" NPTF	MM-B3A-221-A	MM-B3A-223-A	MM-B3A-222-A	MM-B3A-224-A
3/4" NPTF	MM-B3A-231-A	MM-B3A-233-A	MM-B3A-232-A	MM-B3A-234-A

Manifold fastening kit: N-P3003-01. Valve blanking plate: M-P3001. Inlet/exhaust isolator plug: 32845.

Individual Base Options:

MB-A3B-XXXF

Optional Integral Flow Controls





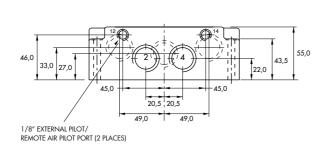


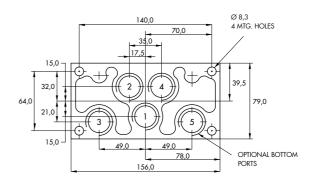
### DIMENSIONS

Dimensions shown are metric (mm)

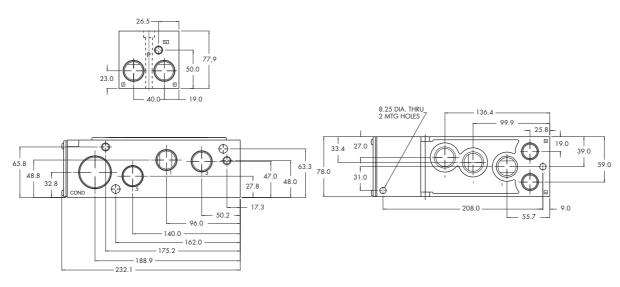
Individual

ISO DIN 5599/1





### Manifold





Series

### Plug-in manifold



ISO 01

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ISO 1

**ISO 2** 

**ISO 3** 

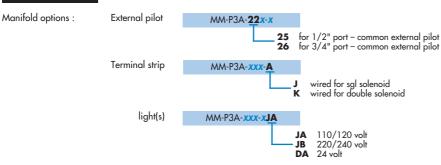
### HOW TO ORDER

### MANIFOLD BASE

Port size	Wired for	Side ports	Side ports w/ bottom 2 & 4 ports	All side & bottom ports (see note)
1/2" NPTF	Single solenoid	MM-P3A-221-A	MM-P3A-222-A	MM-P3A-223-A
1/2 MPIF	Double solenoid	MM-P3A-221-B	MM-P3A-222-B	MM-P3A-223-B
3/4" NPTF	Single solenoid	MM-P3A-231-A	MM-P3A-232-A	MM-P3A-233-A
	Double solenoid	MM-P3A-231-B	MM-P3A-232-B	MM-P3A-233-B

Note : Ports 1, 3 & 5 are always 3/4"

### OPTIONS



Accessories: M-P3001 N-P3003-01 32845 Valve blanking plate. Manifold fastening kit. Inlet/exhaust isolator plug.

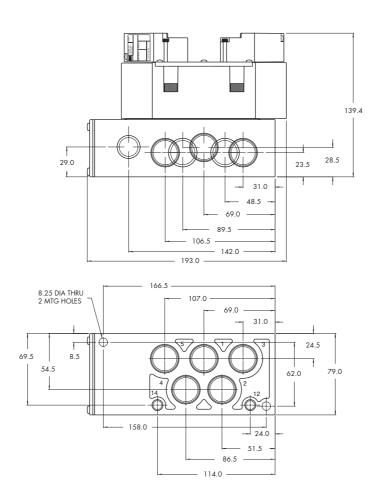






DIMENSIONS

Dimensions shown are metric (mm)



### Non plug-in 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.



PR37A PR42B

PR46A PR47A

PR48B

**PR92C** 

PR93A

PRA01A

PRA02A

PRA 1 A

PRP1A

PRA2D

PRP2B

### 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	PRA3C-1AAA	PRA3C-1EAA	PRA3C-1BAA	PRA3C-1FAA	PRA3C-1JAA
Non-filled gage on regulator(s)	PRA3C-1ADA	PRA3C-1EDA	PRA3C-1BDA	PRA3C-1FDA	PRA3C-1JEA
Non-filled gage opposite to regulator	PRA3C-1CDA	PRA3C-1GDA	PRA3C-1DDA	PRA3C-1HDA	
Glycerine filled gage on regulator(s)	PRA3C-1ABA	PRA3C-1EBA	PRA3C-1BBA	PRA3C-1FBA	PRA3C-1JCA
Glycerine filled gage opposite to regulator	PRA3C-1CBA	PRA3C-1GBA	PRA3C-1DBA	PRA3C-1HBA	

### 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	PRA3C-2AAA	PRA3C-2EAA	PRA3C-2BAA	PRA3C-2FAA	PRA3C-2JAA
Non-filled gage on regulator(s)	PRA3C-2ADA	PRA3C-2EDA	PRA3C-2BDA	PRA3C-2FDA	PRA3C-2JEA
Non-filled gage opposite to regulator	PRA3C-2CDA	PRA3C-2GDA	PRA3C-2DDA	PRA3C-2HDA	
Glycerine filled gage on regulator(s)	PRA3C-2ABA	PRA3C-2EBA	PRA3C-2BBA	PRA3C-2FBA	PRA3C-2JCA
Glycerine filled gage opposite to regulator	PRA3C-2CBA	PRA3C-2GBA	PRA3C-2DBA	PRA3C-2HBA	

<sup>\* -</sup> To be used with dual pressure valves. Note: regulating range for above models is 0-150 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 #35418.

PRA3C

## ADJUSTMENT OPTIONS

PRA3C-xxxx

for slotted stem adjustment (internal pilot) В

for slotted stem adjustment (external pilot) D

Ε

for slotted stem with locknut (internal pilot) for slotted stem with locknut (external pilot) PRP3B







Fluid: Compressed air, inert gases

Pressure range: 0 to 150 PSI

**Regulating range:** 0 to 150 PSI (other ranges see below)

**Lubrication :** Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40 µ

Temperature range: 0°F to 120°F (-18°C to +50°C)

5.4 C<sub>v</sub>

Spare parts: • Pressure regulator (less sandwich block): PRA3C-30AA (KNOB), PRA3C-C0AA (SLOTTED STEM), PRA3C-F0AA (SLOTTED STEM WITH LOCKNUT).

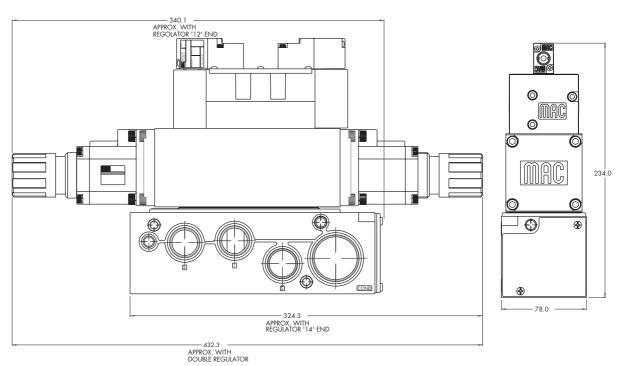
• Gage : • Glycerine filled : N-62015-01 • Non filled : N-62016-01

Regulating range options: PRA3C-XXXA

Replace by B - 0 to 100 PSI
Replace by C - 0 to 45 PSI

# DIMENSIONS

Dimensions shown are metric (mm)



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

### OPERATIONAL BENEFITS

- 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	PRA3C-4AAA	PRA3C-4EAA	PRA3C-4BAA	PRA3C-4FAA	PRA3C-4JAA
Non-filled gage on regulator(s)	PRA3C-4ADA	PRA3C-4EDA	PRA3C-4BDA	PRA3C-4FDA	PRA3C-4JEA
Non-filled gage opposite to regulator	PRA3C-4CDA	PRA3C-4GDA	PRA3C-4DDA	PRA3C-4HDA	
Glycerine filled gage on regulator(s)	PRA3C-4ABA	PRA3C-4EBA	PRA3C-4BBA	PRA3C-4FBA	PRA3C-4JCA
Glycerine filled gage opposite to regulator	PRA3C-4CBA	PRA3C-4GBA	PRA3C-4DBA	PRA3C-4HBA	

### 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	PRA3C-5AAA	PRA3C-5EAA	PRA3C-5BAA	PRA3C-5FAA	PRA3C-5JAA
Non-filled gage on regulator(s)	PRA3C-5ADA	PRA3C-5EDA	PRA3C-5BDA	PRA3C-5FDA	PRA3C-5JEA
Non-filled gage opposite to regulator	PRA3C-5CDA	PRA3C-5GDA	PRA3C-5DDA	PRA3C-5HDA	
Glycerine filled gage on regulator(s)	PRA3C-5ABA	PRA3C-5EBA	PRA3C-5BBA	PRA3C-5FBA	PRA3C-5JCA
Glycerine filled gage opposite to regulator	PRA3C-5CBA	PRA3C-5GBA	PRA3C-5DBA	PRA3C-5HBA	

<sup>\* -</sup> 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 #35418.

PR93A

PRA01A

PRA02A

PRA1A

PRP1A

PRA2D

PRP2B

**PRA3C** 

PRP3B







Fluid: Compressed air, inert gases

Pressure range: 0 to 150 PSI

Regulating range: 0 to 150 PSI

Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration:

40 μ

Temperature range: 0°F to 120°F (-18°C to +50°C)

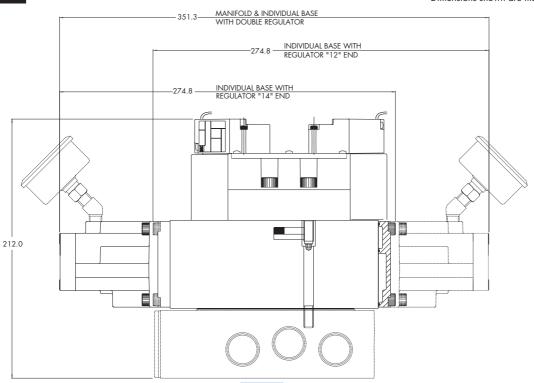
v: 5.4 C<sub>v</sub>

Spare parts: • Pressure regulator (less sandwich block): PRA3C-60AA.

• Gage : • Glycerine filled : N-62015-01 • Non filled : N-62016-01

### DIMENSIONS

Dimensions shown are metric (mm)



Series

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

### **OPERATIONAL BENEFITS**

- 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
No gage	PRP3B-AAAA	PRP3B-AEAA	PRP3B-ABAA	PRP3B-AFAA	PRP3B-AJAA
Glycerine gage	PRP3B-AABA	PRP3B-AEBA	PRP3B-ABBA	PRP3B-AFBA	PRP3B-AJCA
Non-filled gage	PRP3B-AADA	PRP3B-AEDA	PRP3B-ABDA	PRP3B-AFDA	PRP3B-AJEA

### 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
No gage	PRP3B-BAAA	PRP3B-BEAA	PRP3B-BBAA	PRP3B-BFAA	PRP3B-BJAA
Glycerine gage	PRP3B-BABA	PRP3B-BEBA	PRP3B-BBBA	PRP3B-BFBA	PRP3B-BJCA
Non-filled gage	PRP3B-BADA	PRP3B-BEDA	PRP3B-BBDA	PRP3B-BFDA	PRP3B-BJEA

<sup>\*</sup> For use with dual pressure valves.

### ADJUSTMENT OPTIONS

PRP3B-**x**xxx

- **G** for slotted stem (internal pilot)
- for slotted stem (external pilot)
- K for slotted stem with locknut (internal pilot)
- L for slotted stem with locknut (external pilot)

### Notes:

- Regulating range for above models is 0-150 PSI. For other ranges, see technical data page.
- 2. Valves used with above models must be external pilot models.
- 3. Cannot field convert regulator block from single pressure to dual pressure.
- 4. Cannot field convert from internal pilot to external pilot.
- 5. Wired for double solenoid valves.

PR93A

PRA01A

PRA02A

PRA1A

PRP1A

PRA2D

PRP2B

PRA3C

PRP3B







Fluid: Compressed air, inert gases

Pressure range: 0 to 150 PSI

Regulating range: 0 to 150 PSI (other ranges see below)

Lubrication: Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

Filtration: 40 µ

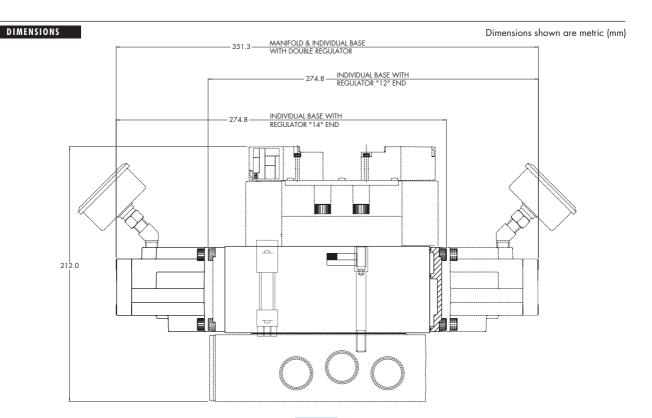
Temperature range:  $0^{\circ}$ F to  $120^{\circ}$ F (- $18^{\circ}$ C to  $+50^{\circ}$ C)

5.4 C<sub>v</sub>

Spare parts:

Pressure regulator (less sandwich block): PRP3B-COAA (knob), PRP3B-JOAA (slotted stem), PRP3B-MOAA (slotted stem with locknut)
Regulating block to base mounting screw: 19457
Regulating range options: PRP3B-xxxA

Part | Replace by B for 0 to 100 PSI Replace by C for 0 to 45 PSI



Series

### 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

### 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
No gage	PRP3B-DAAA	PRP3B-DEAA	PRP3B-DBAA	PRP3B-DFAA	PRP3B-DJAA
Glycerine gage	PRP3B-DABA	PRP3B-DEBA	PRP3B-DBBA	PRP3B-DFBA	PRP3B-DJCA
Non-filled gage	PRP3B-DADA	PRP3B-DEDA	PRP3B-DBDA	PRP3B-DFDA	PRP3B-DJEA

### 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
No gage	PRP3B-EAAA	PRP3B-EEAA	PRP3B-EBAA	PRP3B-EFAA	PRP3B-EJAA
Glycerine gage	PRP3B-EABA	PRP3B-EEBA	PRP3B-EBBA	PRP3B-EFBA	PRP3B-EJCA
Non-filled gage	PRP3B-EADA	PRP3B-EEDA	PRP3B-EBDA	PRP3B-EFDA	PRP3B-EJEA

<sup>\* -</sup> 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.

**PR92C** 

PRA01A

PR93A

PRA02A

PRA1A

PRP1A

PRA2D

PRP2B

PRA3C

PRP3B







Fluid: Compressed air, inert gases

Pressure range: 0 to 150 PSI

Regulating range: 0 to 150 PSI

Not required, if used select a medium aniline point lubricant (between 180°F to 210°F)

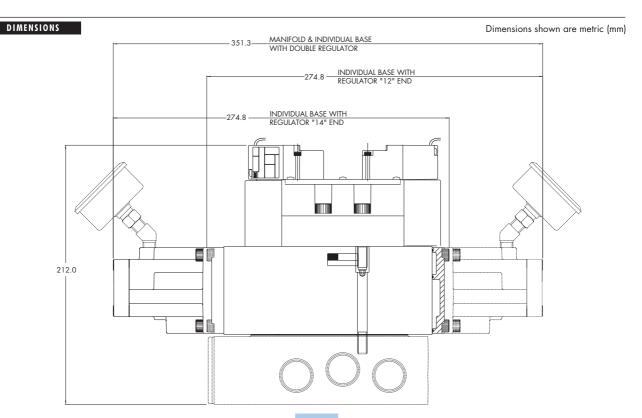
Filtration: 40 µ

Temperature range: 0°F to 120°F (-18°C to +50°C)

**Flow:** 5.4

Spare parts : • Pressure regulator (less sandwich block): PRP3B-F0AA

• Regulator block to base mounting screw: 19457





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

VALVE CODE > -DM- D  $\frac{XX}{1}$   $\frac{X-X}{2}$   $\frac{XX}{3}$ 

### OPTIONS AVAILABLE FOR

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

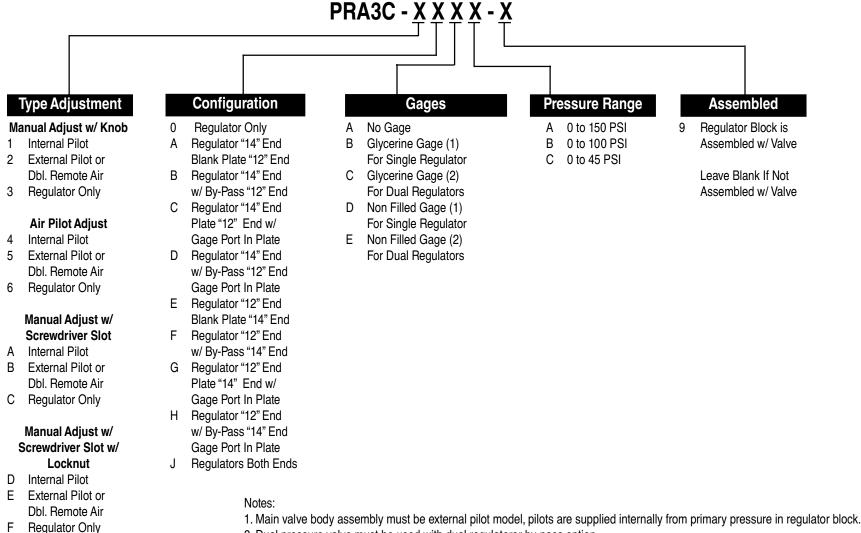


	1. VOLTAGE		4. ELECTRICAL CONNECTION		
D-XX X-X XX	VOLTAGE	D-XX X-X XX	ELECTRICAL CONNECTION		
DA	24 VDC (5.4W)	BA*	Flying leads (grommet)		
DB	12 VDC (5.4W)	BK*	BA with protection diode		
DC	12 VDC (7.5W)	BL*	BA with protection varistor		
DD	24 VDC (7.3W)	BM**	Flying leads (solenoid plug-in)		
DE	12 VDC (12.7W)	BN**	BM with protection diode		
DF	24 VDC (12.7W)	BP**	BM with protection varistor		
DK	110 VDC (4.7W)	BG**	BM with ground		
DJ	28 VDC (5.2W)	BH**	BM with protection diode & ground		
DL	64 VDC (6.0W)	BJ**	BM with protection varistor & ground		
DM	36 VDC (5.3W)	CA*	1/2" NPS conduit with flying leads		
DN	6 VDC (6.0W)	CM*	1/2" NPS metal conduit with flying leads		
DR	90 VDC (6.6W)	CN*	1/2" NPS metal conduit with flying leads & ground		
DS	110 VDC (7.3W)	JB	Rectangular connector		
DT	75 VDC (5.6W)	JD	JB with light		
DP	48 VDC (5.8W)		Rectangular connector (male only)		
FA	12 VDC (1.8W)	KA	Mini square connector		
FB	24 VDC (1.8W)	КВ	KA with protection diode		
FE	12 VDC (2.4W)	KC	KA with protection varistor		
FF	24 VDC (2.4W)	KD	KA with light		
JA	120/60, 110/50 (2.9W)	KE	KA with light and protection diode		
JB	240/60, 220/50 (2.9W)	KF	KA with light and protection varistor		
JC	24/60, 24/50 (3.7W)	KG	KA with light & diode		
JD	100/60, 100/50, 110/60 (3.9W)	KJ	Mini square connector (male only)		
JE	220/60 (3.4W)	KK	KJ with protection diode (male only)		
JF	240/50 (2.8W)	KL	KJ with protection varistor (male only)		
JG	200/60, 200/50 (3.9W)	TA	Dual tabs with receptacles		
		ТВ	TA with protection diode		
	2. WIRE LENGTH	TD	TA with light		
		TE	TA with light and protection diode		
D-XX X-X XX	WIRE LENGTH	TJ	Dual tabs (male only)		
0	No wires	TK	TJ with protection diode		
A	18"	TM	TJ with light		
В	24"	TN	TJ with light and protection diode		
С	36"	* From Lead wire len	* From Lead wire length options choose A through F		
D	48"	** From Lead wire leng	** From Lead wire length options choose 0 through F		
E	72"	Note: When coil is ab	Note: When coil is above 30 volts, a ground wire is required. Applies to option		
F	96"	with flying leads.			

# 3. MANUAL OPERATOR

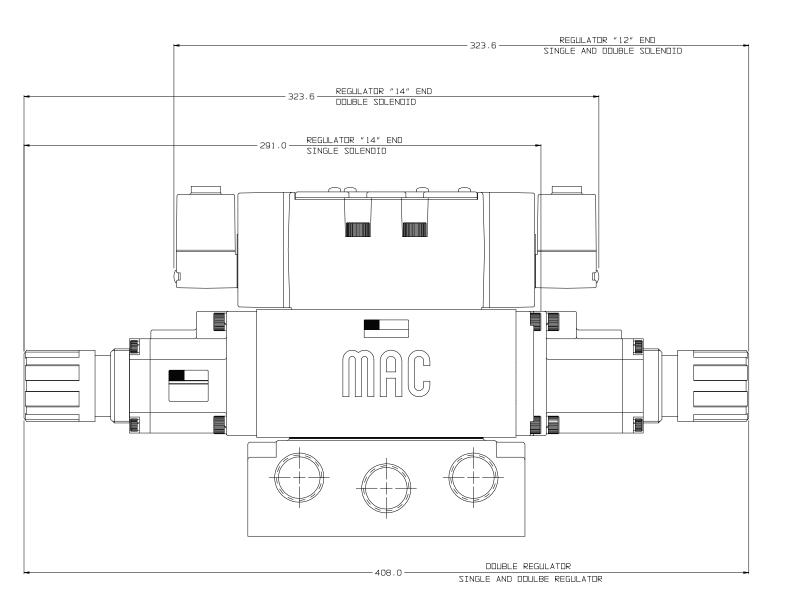
D-XX X-X XX	MANUAL OPERATOR
0	No operator
1	Non-locking recessed
2	Locking recessed
3	Non-locking extended
4	Locking extended

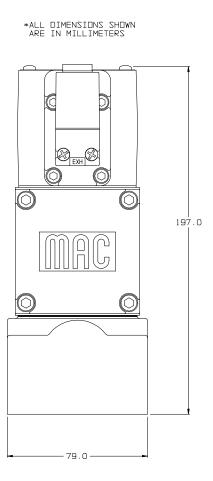
# **How To Order** ISO 3 Non Plug-In Regulator



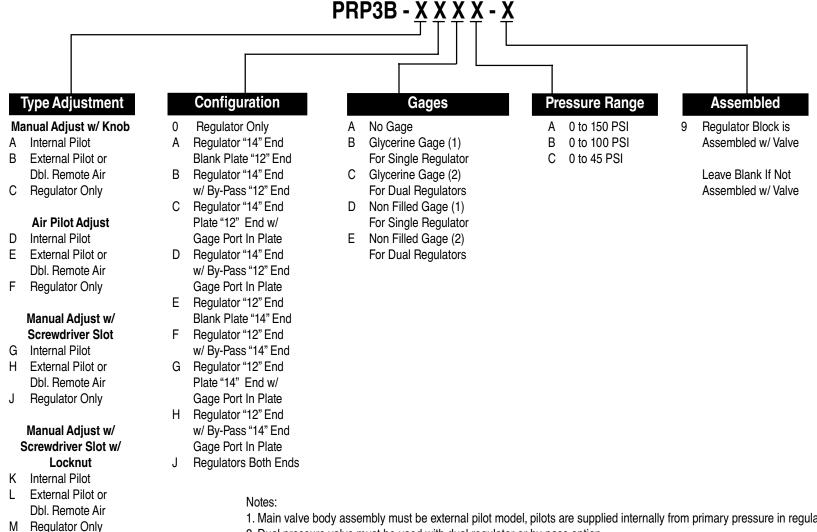
- 2. Dual pressure valve must be used with dual regulatoror by-pass option.
- 3. Cannot field convert regulator block from single pressure to dual pressure.
- 4. Cannot field convert pilot type (Internal to external pilot).
- 5. Regulator block to base mounting screw (#35418).

# ISO3 NON PLUG-IN BASE WITH REGULATOR (PRA3C-XXXX)



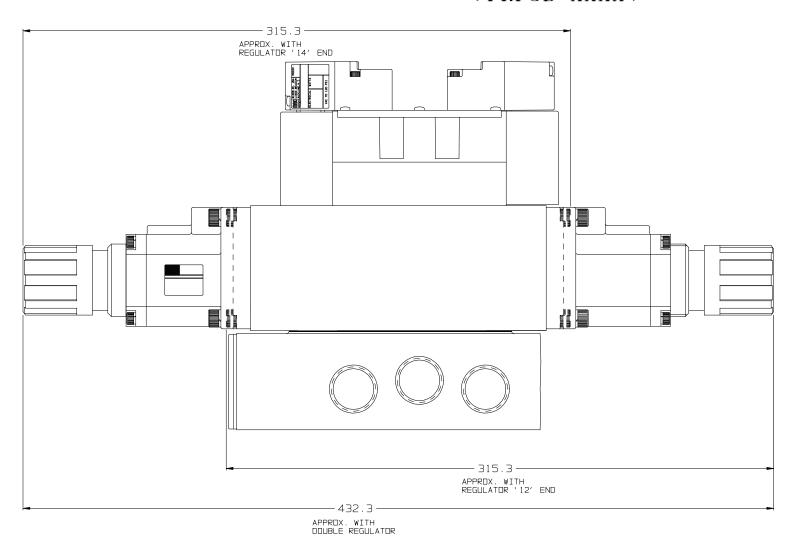


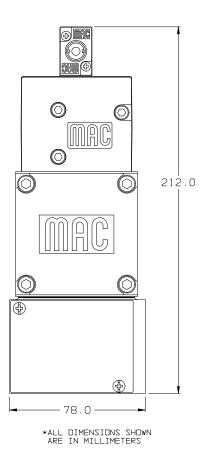
# **How To Order** ISO 3 Plug-In Regulator



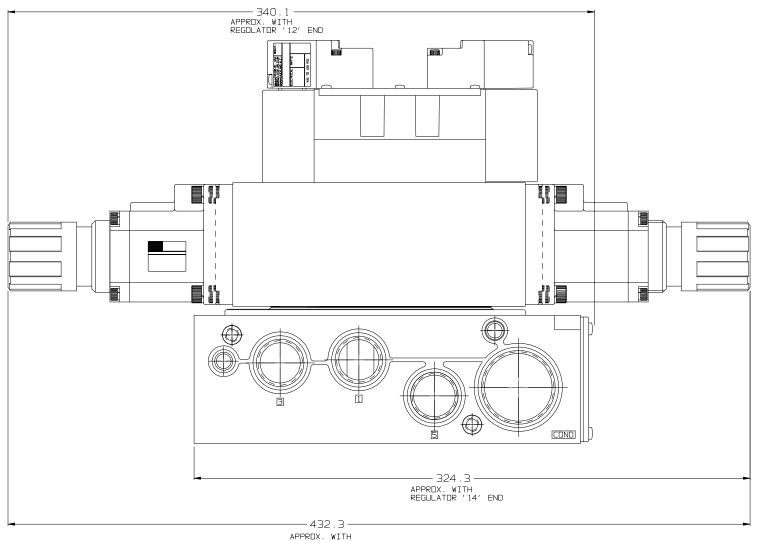
- 1. Main valve body assembly must be external pilot model, pilots are supplied internally from primary pressure in regulator block.
- 2. Dual pressure valve must be used with dual regulator or by-pass option.
- 3. Cannot field convert regulator block from single pressure to dual pressure.
- 4. Regulator block assembly is furnished with double wire assembly.
- 5. Tie rod to assemble regulator block to base (#19457 4mm hex recess).

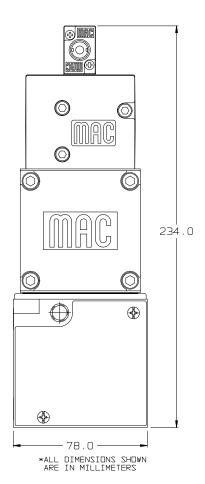
# ISO3 PLUG-IN BASE WITH REGULATOR (PRP3B-XXXX)





# ISO3 PLUG-IN MANIFOLD WITH REGULATOR (PRP3B-XXXX)





APPROX. WITH DOUBLE REGULATOR