

## SMALL 3-WAY

All MAC small 3-way valves are direct operated poppet valves. The four series of solenoid valves that fall in this section (34, 35, 100, 200) all operate on the same design principal: a push type solenoid acting on a blanced poppet. The fifth series (1100) is a range of mechanically operated valves using the 100 series body assemblies.

Patents and Patents Pending

### SMALL 3-WAY SOLENOID, AIR AND MECHANICALLY OPERATED VALVES

The 34 series is a direct operated 10mm valve that is available as an inline or manifold type valve. Each valve may be mounted to a circuit bar. It has an all molded encapsulated coil for which multiple electrical connector options are available.



34 SERIES (Cv 0.1)



34 SERIES BAR

SMALL 3-WAY

LARGE 3-WAY

SMALL 4-WAY

LARGE 4-WAY

ISO VALVES

PPC VALVES

PULSE VALVES

BULLET VALVES



35 SERIES (Cv 0.18)



35 SERIES BAR

The 35 series is the most versatile solenoid valve in this group. It has an all molded encapsulated coil and can be supplied as an individual inline, stacking or manifold base mounted valve. It is also available mounted on an extruded circuit bar which can be machined to customers specs. Other options include pressure regulators and exhaust flow controls. This valve is also used as the pilot valve for the 4-way 82 series.

The 100 series has the same flow as the 35 series. It is also available as an individual inline, stacking or manifold base mounted valve. The solenoid for the 100 series is the solenoid for the majority of the 4-way, and the 55 and 56 series 3-way solenoid pilot operated valves.



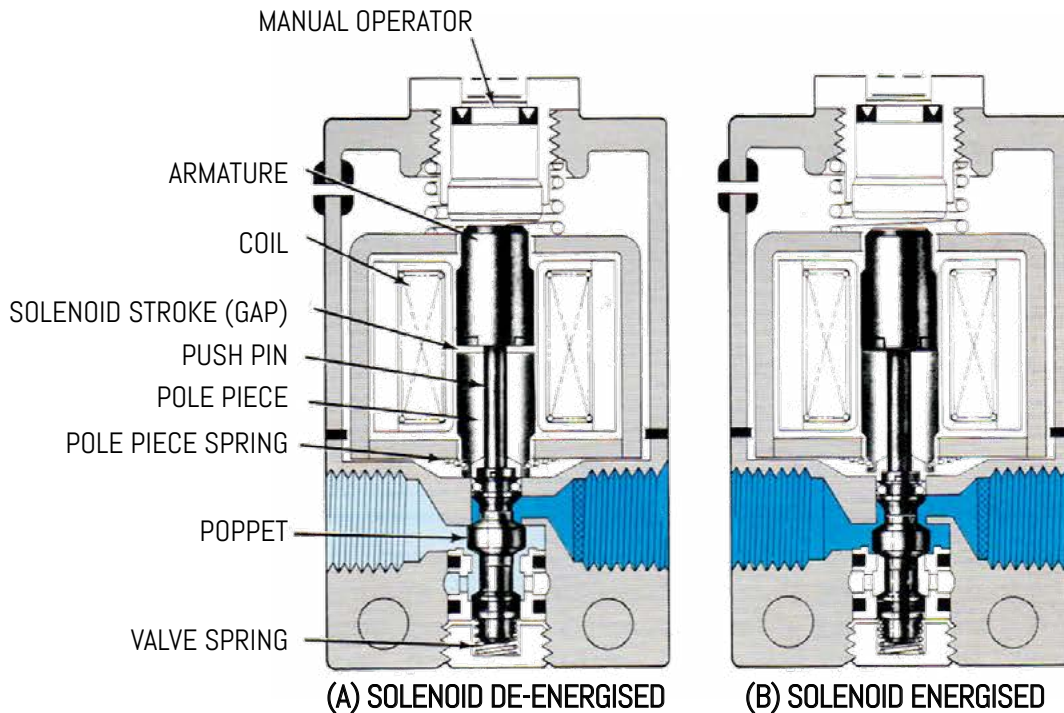
100 SERIES (Cv 0.18)



200 SERIES (Cv 0.5)

The 200 series is the largest of these four series of valves. It has the greatest flow and is available as an individual inline or manifold base mounted valve. The manifold base can be supplied with intergral pressure regulators.

## OPERATIONAL BENEFITS

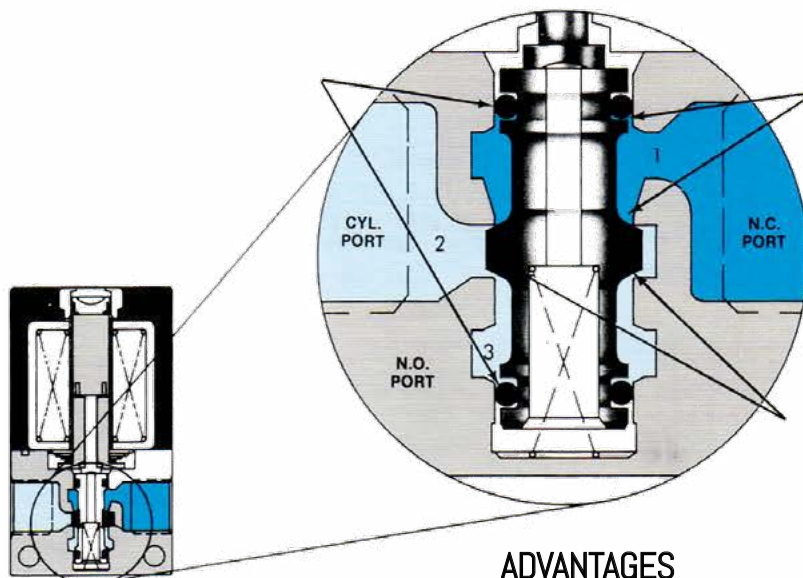


## SEQUENCE OF EVENTS

- (A) - Solenoid is de-energised.
- (B) - Solenoid is energised.
- Armature is attracted magnetically downwards, extending push pin which shifts poppet from upper to lower seat.
- Moving pole piece is attracted magnetically upwards to meet the armature which compensates for difference between longer solenoid stroke and shorter valve stroke. Armature and pole piece therefore close regardless of valve position.

## ADVANTAGES

- Short stroke solenoid produces high energisation shifting force.
- High force return spring due to high force solenoid maximises both energisation and de-energisation shifting forces.
- Built-in wear compensation valve stroke is shorter than solenoid stroke.
- Solenoid closes regardless of position of valve virtually eliminating coil burnout on AC service.



**BALANCED POPPET = CONSISTANT HIGH SHIFTING FORCES**  
**EXHAUST CONTAMINANTS ISOLATED FROM SOLENOID PARTS**  
**= CLEAN SOLENOID**

- Sealing areas are equal.
- End seals balance poppet seals.
- Forces created by air pressure are equal in both directions.
- Changing pressure therefore has no effect on shifting forces.

## ADVANTAGES

- Short stroke solenoid produces high energisation shifting force.
- Valve shifting forces are consistant and independant of pressure fluctuations.
- High solenoid and return springs forces ensure high speed and precise repeatability.
- Exhaust contaminants are isolated from the solenoid.
- Manual override - standard.
- Constant high flow maintained throughout the pressure range, including pilot valves.
- Full flow exhaust
- Universal porting - 6 functions in one valve.



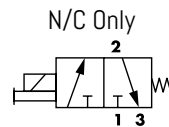
The MAC 33 Series is a direct solenoid operated 3-way - 8mm - poppet valve. A direct operated 3-way of this size with such high flow is unique to MAC due to patented design innovations. It features an oval armature in the solenoid, a balanced poppet and powerful return spring. These features translate into high shifting forces, fast consistent response times, high flow in a small package and long life. For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 33A-AAB-RDAA-1BD

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 N/C	M3	0.082 Cv	Vac. to 120PSI	Inline

**OPERATIONAL BENEFITS:**

- 8mm valve, direct solenoid operated.
- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- Patented solenoid develops high shifting forces.
- Powerful return spring.
- Low wattage solenoids.
- Extremely fast response times.



33 SERIES

## 33 SERIES

33A - X X X - R XX X - X XX  
 1 2 3 4 5 6 7

- 1 - Body Type**  
A Inline L Base Mount Body
- 2 - Port Size & Thread Type**  
0 Base Mount Body A M3 (Metric)
- 3 - Body Function**  
A 1.8 Watt & Above
- 4 - Voltage**  
DC 24VDC (1.8w) DJ 12VDC (1.8w)  
DF 24VDC (4.0w) DM 12VDC (4.0w)

- 5 - Lead Wire Length**  
0 No Lead Wire P Base Plug-In  
A 18" Coil Leads
- 6 - Manual Operator**  
0 No Manual Operator  
1 Recessed Non-Locking Operator  
3 Extended Non-Locking Operator
- 7 - Electrical Connectors**  
BA Flying Leads BD Flying Leads w/ LED and MOV

\* Other voltages available

## 33 SERIES - CIRCUIT BAR NON PLUG-IN

EBM33A - XX X X X - XX - 9  
 1 2 3 4 5 Valves and cover plates assembled to bar

- 1 - Spacing**  
00 8.5mm Spacing
- 2 - Configuration**  
1 Side Cylinder Port 2 Bottom Cylinder Port
- 3 - Style**  
A Standard Bar

- 4 - Port Size (Cylinder Ports)**  
E #10-32 (1/8" BSPPL Common Thru Ports)
- 5 - Stations**  
Number of Stations (02, 03, 04, etc.)
- Accessories**  
M-33001 Blank Station Cover Plate

## 33 SERIES - CIRCUIT BAR PLUG-IN

ECD33A - XX X X X - XX XX - 9  
 1 2 3 4 5 6 Valves and cover plates assembled to bar

- 1 - Spacing**  
00 8.5mm Spacing
- 2 - Configuration**  
1 Side Cylinder Port 2 Bottom Cylinder Port
- 3 - Style**  
A Standard Bar
- 4 - Port Size (Cylinder Ports)**  
F #10-32 (1/8" BSPT Common Thru Ports)  
J M5 (1/8" BSPT Common Thru Ports)

- 5 - Base Electrical**  
A0 Standard (No Light)
- 6 - Stations**  
Number of Stations (02, 03, 04, etc.)
- Accessories**  
M-33001 Blank Station Kit  
N-33001 Body to Base Fastening Kit

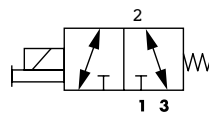
The MAC 34 Series is a direct solenoid operated 3-way - 10mm - poppet valve. A direct operated 3-way of this size with such high flow is unique to MAC due to patented design innovations. It features an oval armature in the solenoid, a balanced poppet and powerful return spring. These features translate into high shifting forces, fast consistent response times, high flow in a small package and long life. For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 34B-L00-GDJA-1BA, 34C-ABA-GDEA-1KA

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 NO-NC, 2/2 NO-NC	M5	0.12 Cv	Vac. to 120PSI	Inline

### OPERATIONAL BENEFITS

- 10mm valve, direct solenoid operated.
- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- Patented solenoid develops high shifting forces.
- Powerful return spring.
- Manual operator standard on all valves.



34 SERIES

### 34 SERIES VALVE & BASE OPTIONS

34C - X X X - G XX X - X XX  
 1 2 3 4 5 6 7

#### 1 - Body Type

- A Individual Inline
- L Base Mount Body

#### 2 - Port Size & Thread Type

- 0 Base Mount Body
- B M5 (Metric, Inline)

#### 3 - Body Function

- 0 No base (body only)
- A Universal 3-Way (inline)
- B 3-Way N.C. only (inline)

#### 4 - Voltage

- AB 240 VAC (4.0w) - Use with "HA" or "HD" connector
- AC 24 VAC (4.0W)
- DC 24 VDC (1.8W)
- DF 24 VDC (4.0W)
- DJ 12 VDC (1.8W)
- DN 12 VDC (4.0W)

#### 5 - Lead Wire Length

- 0 No Lead Wire
- A 18" Coil Leads

#### 6 - Manual Operator

- 1 Recessed Non-Locking Operator
- 2 Recessed Locking Operator
- 3 Extended Non-Locking Operator
- 4 Extended Locking Operator

#### 7 - Electrical Connectors

- BA Flying leads
- BE Flying leads with suppression diode
- BA Flying leads
- BE Flying leads, suppression diode
- BS Flying leads, suppression diode, blocking diode & LED Light parallel to leads & ground wire
- BT Flying leads, LED light on top
- BU Flying leads, LED light on top & ground wire
- BV Flying leads, suppression diode, LED light on top
- BW Flying leads, suppression diode, LED light on top & ground wire
- BX Flying leads, suppression diode, blocking diode & LED on top
- BY Flying leads, suppression diode, blocking diode, LED on top & ground wire

#### 7 - Electrical Connectors

- DC\* Base/Manifold Plug-In w/ Rectifier & LED
- DD\* Base/Manifold Plug-In w/ Rectifier & LED w/ Ground
- DE\* Plug-in with suppression diode
- DF\* Plug-in with suppression diode with ground pin
- DJ\* Plug-in
- DM\* Plug-in with ground pin
- DT\* Plug-in with LED light
- DU\* Plug-in with LED light with ground pin
- DV\* Plug-in with suppression diode with LED light
- DW\* Plug-in with suppression diode with LED light with ground pin
- HA Circuit board plug-in with full wave rectifier & LED (w/ground wire)
- KA Plug-in wire assembly
- KB Plug-in wire assembly with ground wire
- KC Solenoid Plug-In Wire assembly. w/Rectifier and LED
- KD Solenoid Plug-In Wire assembly. w/Rectifier and LED w/ground
- KE Plug-in wire assembly w/ suppression diode
- KF Plug-in wire assembly w/ suppression diode & ground wire
- KN Plug-in wire assembly w/ suppression diode + blocking diode
- KP Plug-in wire assembly with suppression diode + blocking diode & ground wire
- KT Plug-in wire assembly with LED light on top (no ground wire)
- KU Plug-in wire assembly with LED light on top & ground wire
- KV Plug-in wire assembly with suppression diode plus LED light on top
- KW Plug-in wire assembly with suppression diode plus LED light on top & ground wire
- KX Plug-in wire assembly with suppression diode plus blocking diode & LED light on top
- KY Plug-in wire assembly with suppression diode plus blocking diode & LED light on top & ground wire
- PA Pico



## 34 SERIES - CIRCUIT BAR NON PLUG-IN

EBM 34A -  $\overbrace{XX}^1 \overbrace{X}^2 \overbrace{X}^3 - \overbrace{XX}^4 - 9$   
Valves and cover plates assembled to bar

### 1 - Spacing

00 10.5mm Spacing

### 2 - Profile

1 12mm Low Profile  
 2 16mm High Profile

### 3 - Port Size & Thread Type

C 1/8" BSPPL  
 D M5 Metric

### 4 - Stations

Number of Stations (02, 03, 04, etc.)

### Accessories

30456-A Blank station cover plate



EBP 34B -  $\overbrace{XX}^1 \overbrace{X}^2 \overbrace{X}^3 - \overbrace{XX}^4 - 9$   
Valves and cover plates assembled to bar

### 1 - Spacing

00 10.5mm Spacing

### 2 - Configuration

1 Side cylinder

### 3 - Port Size & Thread Type (Cyl. Prt)

D M5 Metric

### 4 - Stations

Number of stations (02, 03, 04, etc.)

### Accessories

M34005 Blank station cover plate



## 34 SERIES - CIRCUIT BAR PLUG-IN COMMON CONDUIT

ECD034B -  $\overbrace{XX}^1 \overbrace{X}^2 \overbrace{X}^3 \overbrace{X}^4 - \overbrace{XX}^5 \overbrace{XX}^6 - 9$   
Valves and cover plates assembled to bar

### 1 - Spacing

00 Standard Spacing (10.5 mm)

### 2 - Configuration

1 Side Cylinder Port  
 2 Bottom Cylinder Port  
 3 Side Cylinder Port w/ Regulator  
 4 Bottom Cylinder Port w/Regulator  
 5 Side Cylinder Port w/Flow Control  
 6 Bottom Cylinder Port w/ Flow Control  
 7 Bottom Cylinder Port w/Regulator and Flow Control  
 8 Side Cylinder Port w/ Regulator and Flow Control

### 3 - Style

A Standard Bar  
 B Add-On Style Bar (Includes End Plate)  
 C Add-A-Unit Station

### 4 - Port Size

B #10-32  
 D M5 Metric

### 5 - Lights

A0 Standard (No Light)

### 6 - Stations

Number of Stations (02, 03, 04, etc.)

### Accessories

E-34041-018G	Base Lead Wire Assembly w/Ground
M-34004-01P	Right Hand End Plate Kit
N-44002	Flow Control Needle Assembly
N-44003	Regulator Blank Plate Kit
28415	Isolator Disc, Inlet and Exhaust
16573	End Station Base Wire Way Plug
17012-01-1	"O" Ring Port Seal
19412-01	Tie Rod (10.5mm)
19413-01	Tie Rod (15mm)
24180	Base Wire Plug-In Protector
M-34005	Valve Blank Station Cover Plate
35048	End Plate Mounting Screw

\*Note: Regulator must be ordered separately



# 35 SERIES

The MAC 35 Series is a direct solenoid operated 3-way poppet valve. It features a short stroke solenoid, a balanced poppet and powerful return spring. These features translate into high shifting forces, fast consistent response times, and long life. Our unique balanced design means versatility in piping - the valve can be configured as a 3-way or 2-way - normally closed or normally open or can be used for vacuum, diverter or selector applications.

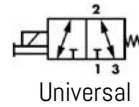
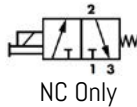
For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 35A-ACA-DAAJ-2KD, 35A-ACA-DAFA-1BA, 35A-ACA-DAFJ-1JD  
 35A-ACA-DAJJ-2JD, 35A-ACADAJJ-2KD, 35A-ACA-DDAA-1BA Mod532F, 35A-ACA-DDAJ-1JD

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 NO-NC, 2/2 NO-NC	1/8"	0.17 Cv	Vac. to 120PSI	Inline

### OPERATIONAL BENEFITS

- Burn-out proof solenoid on AC service.
- Balanced poppet.
- Short stroke with high flow.
- Patented solenoid develops high shifting forces.
- Powerful return spring.
- Manual operator standard on all valves.



### 35 SERIES VALVE & BASE OPTIONS

35A - X X X - D XX X - X XX  
 1 2 3 4 5 6 7 8

#### 1 - Body Type

- |               |                      |
|---------------|----------------------|
| <b>Inline</b> | <b>Stacking Body</b> |
| A Inline Body | S Stacking Body      |

#### Base Mount Body

- O No Valve Body or Regulator
- B Manifold Valve (Universal Poppet)

#### 2 - Port Size And Thread Type

- O Manifold Body Only or Regulator Only
- C 1/8" BSPPL

#### 3 - Valve Function/Manifold Type

- Inline or Stacking Body**
- A Universal 3-Way Inline
  - B 3-Way N.C. Only Inline/Stacking

#### Manifold/Base & Regulators

- |  |                                     |
|--|-------------------------------------|
| O No Manifold Base   | E N.C. Manifold Base                |
| F N.O. Manifold Base   | G N.C. Manifold Base with regulator |
| H N.O. Manifold Base w/ regulator                              |                                     |
| J N.C. Manifold Base w/ regulator with adjust knob             |                                     |
| K N.O. Manifold Base w/ regulator with adjust knob             |                                     |
| N N.C. Manifold Base Cascade Type                              |                                     |
| P N.C. Manifold Base w/ regulator Cascade Type                 |                                     |
| R N.C. Manifold Base w/ regulator - adjust knob (Cascade Type) |                                     |
| S N.C. Manifold Base w/ regulator - locking stem               |                                     |
| T N.O. Manifold Base w/ regulator - locking stem               |                                     |

#### Regulators Only

- L Regulator only (standard)
- M Regulator only with adjust knob
- U Regulator only with locking stem

#### 4 - Operator

- D Solenoid
- RA14 Remote Air

#### 5 - Voltage - \*Further voltage options contact MVP

- |                   |                                 |
|-------------------|---------------------------------|
| AA 120/60, 110/50 | DE 12VDC (12.7W)(MOD CLSF only) |
| AC 24/60, 24/50   | DF 24VDC (12.7W)(MOD CLSF only) |
| AF 240/50         | DA 24VDC (54W)                  |
| FB 24VDC (1.8W)   | DB 12VDC (54W)                  |
| FE 12VDC (24W)    | DC 12VDC (7.5W)                 |
| FF 24VDC (24W)    |                                 |

#### 6 - Lead Wire Length

- A 18" Coil Leads
- J External Plug-in Lead

#### 7 - Manual Operator

- |                             |                               |
|-----------------------------|-------------------------------|
| 0 No Operator               | 1 Non-Locking Manual Operator |
| 2 Locking Manual Operator   | 3 Non-Locking Ext. Operator   |
| 4 Locking Extended Operator |                               |

#### 8 - Electrical Connector

- |                                 |                                    |
|---------------------------------|------------------------------------|
| BA Grommet                      | KC Mini Plug-in with M.O.V.        |
| CA Conduit 1/2"                 | KD Mini Plug-in with Light         |
| JB Rectangular Plug-in          | KE Mini Plug-in with Light & Diode |
| JD Rectangular Plug-in w/ Light | KJ Mini Plug-in Male Only          |
| JM Rectangular Male Only        | TA Dual Tabs (.110) w/ Receptacles |
| KA Mini Plug-in                 |                                    |
| KB Mini Plug-in with Diode      |                                    |

#### Accessories

- |             |   |
|-------------|---|
| M-35001-01P | End Plate Kit with out Conduit Stacking               |
| M-35002-01P | End Plate Kit — Common Conduit Stacking               |
| M-35003-01P | End Plate Kit — Manifold                              |
| M-35004     | Blank Station Cover Plate (Manifold)                  |
| M-35004-01  | Blank Station Cover Plate w/Pressure Outlet(Manifold) |
| M-35005     | Manifold Base End Cover Plate Plain                   |
| M-35006-01P | End Plate Kit — Manifold (Cascade)                    |
| M-45004     | Spacer Plate Conduit Kit                              |
| N-35001     | Inlet and Exhaust Isolator — Stacking                 |
| N-35002     | Inlet Isolator — Stacking                             |
| N-35003     | Exhaust Isolator — Stacking                           |
| N-35005     | #10-32 to 1/8" Adaptor                                |
| N-35006     | Inlet & Exhaust Isolator Manifold                     |
| N-35007     | Inlet Isolator Manifold                               |
| N-35008     | Exhaust Isolator Manifold                             |

#### Modifications

- O446 High Temp Body
- RPT E Energised Repeatability
- CLSF High Temp Coil
- 532F Washdown (Not suitable for DM pilots)
- T65C Temp up to 65C

**\*Note: Low wattage sold as complete valves only**



## 35 SERIES - CIRCUIT BAR NON PLUG-IN

EBM35A-XX X X -XX -9  
1 2 3 4 Valves and cover plates  
assembled to bar

### 1 - Spacing

00 21mm Spacing

### 2 - Configuration

1 Side Cylinder Port

### 3 - Regulator with Side Cylinder Port

3 Port Size & Thread Type

C 1/8" BSPPL

### 4 - Stations

Number of Stations (02, 03, 04, etc.)

### Accessories

M-35004 Valve Blanking Plate

M-35005 Regulator Blanking Plate

### Manifold accessories

35A-00L Slotted Stem

35A-00M Adjusting Knob

35A-00U Locking Stem



*Note: Regulator must be ordered separately.*



The MAC 36 Series is a high flow, direct solenoid operated 3-way poppet valve. It features a short stroke solenoid with oval armature and a powerful return spring and balanced poppet. These features translate into high shifting forces, fast consistent response times, high flow in a small package and long life.

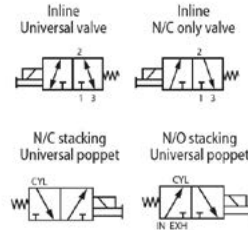
For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 36A-ACA-JDBA-OBL Mod 532S, 36A-B00-JDAA-1GA

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2	1/8"	0.3 Cv	Vac. to 120PSI	Inline

### OPERATIONAL BENEFITS

- Balanced poppet, immune to variations of pressure.
- Patented solenoid develops high shifting forces.
- Short stroke with high flow.
- Higher forces result in lower wattages for given flow.
- Powerful return spring.



36 SERIES

### 36 SERIES + SOLENOID OPTIONS

36A - X X X - J XX X - X XX (G)  
 1 2 3 4 5 6 7 8

#### 1 - Body Type

##### Inline

A Inline Body

##### Base Mount

- B Base Mount Body (Universal) - For use with Circuit Bars
- E Base Mount Body (N.C. Only) - For use with Circuit Bars
- J Base Mount Body - Universal Normally Closed

##### Stacking Body

- S Stacking Body
- T Stacking Body with Bottom Inlet

#### 2 - Port Size And Thread Type

- 0 Base Mount Body Only
- C 1/8" BSPPL
- D M5 (Metric) (Stacking Body Only)
- 1 Base Mount Body ("J" Only) - For use with plastic cover
- 2 Base Mount Body w/ Light ("J" Only) - For use with plastic cover

#### 3 - Configuration

- 0 Base Mount Body Only
- A Inline Universal
- B Inline/Stacking N.C. Only
- C Stacking (Universal Poppet - N.C.)
- D Stacking (Universal Poppet - N.O.)

#### 4 - Operator

J SOLENOID

#### 5 - Voltage

- |                  |                                |
|------------------|--------------------------------|
| AA 120 VAC (54W) | DE 24 VDC (1.8W)               |
| AC 24 VAC (54W)  | DF 12 VDC (1.8W)               |
| DA 24 VDC (54W)  | LA 120 VAC (54w) - Max Cv 0.23 |
| DB 12 VDC (54W)  | LB 24 VAC (54w) - Max Cv 0.23  |
| DC 24 VDC (24W)  | MA 24 VDC (54w) - Max Cv 0.23  |
| DD 12 VDC (24W)  | MB 12 VDC (54w) - Max Cv 0.23  |

#### 6 - Lead Wire Length

- 0 No Lead Wires (Use only with J, K, & L type connectors)
- A 18" Leads
- B 24" Leads
- C 36" Leads
- D 48" Leads
- E 72" Leads
- F 96" Leads

#### 7 - Manual Operator

- |                    |                        |
|--------------------|------------------------|
| 0 No Operator      | 1 Non-Locking Recessed |
| 2 Locking Recessed | 3 Non-Locking Extended |
| 4 Locking Extended |                        |

#### 8 - Electrical Cover Connection

- BA Flying Leads
- GA MAC JAC Solenoid Plug-In
- GB MAC JAC Solenoid Plug-In w/ Diode
- GC MAC JAC Solenoid Plug-In w/ MOV
- GD MAC JAC Solenoid Plug-In w/ Light
- GE MAC JAC Solenoid Plug-In w/ Diode and Light
- GF MAC JAC Solenoid Plug-In w/ MOV and light
- GG MAC JAC Solenoid Plug-In w/ Rectifier
- GH MAC JAC Solenoid Plug-In w/ Rectifier and Light
- GJ MAC JAC Solenoid Plug-In (Male Only)
- GK MAC JAC Solenoid Plug-In w/ Diode (Male Only)
- GL MAC JAC Solenoid Plug-In w/ MOV (Male Only)
- GM MAC JAC Solenoid Plug-In w/ LED (Male Only)
- GN MAC JAC Solenoid Plug-In w/ Diode and LED (Male Only)
- GP MAC JAC Solenoid Plug-In w/ MOV and LED (Male Only)
- GR MAC JAC Solenoid Plug-In w/ Rectifier (Male Only)
- GS MAC JAC Solenoid Plug-In w/ Rectifier and LED (Male Only)
- JA Square Connector
- JC Square Connector w/ Light
- JE Square Connector w/ Diode
- JF Square Connector w/ Mov
- JG Square Connector w/ Diode & Light
- JH Square Connector w/ Mov & Light
- JK Square Connector w/ Rectifier
- JL Square Connector w/ Rectifier w/ Light
- JJ Square Connector Male Only
- JB Rectangular Connector
- JD Rectangular Connector w/ Light
- JN Rectangular Connector w/ Diode
- JP Rectangular Connector w/ Mov
- JR Rectangular Connector w/ Diode & Light
- JS Rectangular Connector w/ Mov & Light
- JT Rectangular Connector w/ Rectifier
- JU Rectangular Connector w/ Rectifier w/Light
- JM Rectangular Connector Male Only



Continued next page



## 9 - Ground

G Ground Pin/Wire

## Accessories

M-36001-01P	Stacking End Plate Kit
N-36001	Inlet and Exhaust Isolator - Stacking
N-36002	Inlet Isolator - Stacking
N-36003	Exhaust Isolator - Stacking

## 94mm Pin Spacing

KA	Mini Plug-In
KB	Mini Plug-In w/ Diode
KC	Mini Plug-In w/ Mov
KD	Mini Plug-In w/ Light
KE	Mini Plug-In w/ Diode & Light

KF	Mini Plug-In w/ Mov & Light
KG	Mini Plug-In w/ Rectifier
KH	Mini Plug-In w/ Rectifier & Light
KJ	Mini Plug-In - Male Only
KK	Mini Plug-In w/ Diode - Male Only
KL	Mini Plug-In w/ MOV - Male Only
KM	Mini Plug-In w/ Light - Male Only
KN	Mini Plug-In w/ Diode & Light - Male Only
KP	Mini Plug-In w/ MOV & Light - Male Only
KR	Mini Plug-In w/ Rectifier - Male Only
KS	Mini Plug-In w/ Rectifier & Light - Male Only

## 36 SERIES - PLUG-IN MANIFOLD

36A -  $\begin{matrix} X & X & X & - & X & X & - & J & XX & P & - & X & XX & (G) \\ \downarrow & \downarrow & \downarrow & & \downarrow & \downarrow & & \downarrow & \downarrow & \downarrow & & \downarrow & \downarrow & \downarrow \\ 1 & 2 & 3 & & 4 & 5 & & 6 & 7 & 8 & & 9 & 10 & 11 \end{matrix}$  When ground is required

### 1 - Body Type

0	Base only
J	Base Mount Body Universal Valve N.C.
K	Base Mount Body Universal Valve N.O.
L	Base Mount Body N.C. Only Valve

### 2 - Manifold Style

0	Valve only
S	Plug-in (12" base leads)

### 3 - Port Size & Thread Type

0	Valve only
A	1/8" NPT
C	1/8" BSPPL
E	1/8" BSPTR
F	5/32 Pressed-in tube receptacle

### 4 - Manifold Wiring

0	Valve only
A	Plug-In

### 5 - Manifold Configuration

0	Valve only
E	N.C. Manifold Side Cyl. Port
F	N.O. Manifold Side Cyl. Port
G	N.C. Manifold Bottom Cyl. Port & Reg w/ Slotted Stem
H	N.O. Manifold Bottom Cyl. Port & Reg w/ Slotted Stem
J	N.C. Manifold Bottom Cyl. Port & Reg w/ Adjusting Knob
K	N.O. Manifold Bottom Cyl. Port & Reg w/ Adjusting Knob
S	N.C. Manifold Bottom Cyl. Port & Reg w/ Locking Stem
T	N.O. Manifold Bottom Cyl. Port & Reg w/ Locking Stem

### 6 - Solenoid

J	Solenoid
---	----------

### 7 - Voltage - \* MaxCv = 0.3, \*\*MaxCv=0.23

AA	120 VAC (54w)*	DE	24 VDC (1.8w)
AC	24 VAC (54w)*	DF	12 VDC (1.8w)
DA	24 VDC (54w)*	LA	120 VAC (54w)**
DB	12 VDC (54w)*	LB	24 VAC (54w)**
DC	24 VDC (24w)	MA	24 VDC (54w)**
DD	12 VDC (24w)	MB	12 VDC (54w)**

### 8 - Lead Wire

P	Plug-in
---	---------

### 9 - Manual Operator

0	No operator
1	Recessed non-locking operator
2	Recessed locking operator
3	Extended non-locking operator
4	Extended locking operator

### 10 - Electrical Connection

FA	Base Plug-In
FB	Base Plug-In with Diode
FC	Base Plug-In with MOV
FD	Base Plug-In with LED
FE	Base Plug-In with Diode and LED
FF	Base Plug-In with MOV and LED
FG	Base Plug-In with Rectifier
FH	Base Plug-In with Rectifier and LED

### 11 - Ground

G	Ground Pin/Wire
---	-----------------

### Parts

M-46003-01P	End plate kit
M-36003	Valve and Electrical Blanking Plate
M-46002	Valve blanking plate
28502	Exhaust isolator
285012	Inlet isolator
632996	Electrical Plug-In Protector



## 36 SERIES - MACONNECT

36A -  $\overset{\text{1}}{\text{X}} \overset{\text{2}}{\text{X}} \overset{\text{3}}{\text{X}} - \overset{\text{4}}{\text{X}} \overset{\text{5}}{\text{X}} - \overset{\text{6}}{\text{J}} \overset{\text{7}}{\text{XX}} \overset{\text{8}}{\text{P}} - \overset{\text{9}}{\text{X}} \overset{\text{10}}{\text{XX}} \overset{\text{11}}{\text{(G)}}$   
When ground is required

### 1 - Body Type

- 0 Base only
- J Base Mount Body Universal Valve N.C.
- K Base Mount Body Universal Valve N.O.
- L Base Mount Body N.C. Only Valve

### 2 - Style

- 0 Valve only
- M MACConnect

### 3 - Port Size & Thread Type

- 0 Valve only
- C 1/8" BSPPL
- F 5/32 Pressed-in tube receptacle

### 4 - Base Electrical

- 0 Valve only
- A Plug-In To Left
- B Plug-In To Right

### 5 - Manifold Configuration

- 0 Valve only
- E N.C. Manifold Side Cyl. Port
- F N.O. Manifold Side Cyl. Port
- G N.C. Manifold Bottom Cyl. Port & Reg w/Slotted Stem
- H N.O. Manifold Bottom Cyl. Port & Reg w/Slotted Stem
- J N.C. Manifold Bottom Cyl. Port & Reg w/Adjusting Knob
- K N.O. Manifold Bottom Cyl. Port & Reg w/Adjusting Knob
- S N.C. Manifold Bottom Cyl. Port & Reg w/Locking Stem
- T N.O. Manifold Bottom Cyl. Port & Reg w/Locking Stem

### 6 - Solenoid

- J Solenoid

### 7 - Voltage

- AA 120 VAC (54w) Cv to 0.3
- AC 24 VAC (54w) Cv to 0.3
- DA 24 VDC (54w) Cv to 0.3
- DB 12 VDC (54w) Cv to 0.3
- DC 24 VDC (24w)
- DD 12 VDC (24w)

### 8 - Lead Wire

- P Plug-in

### 9 - Manual Operator

- 0 No operator
- 1 Recessed non-locking operator
- 2 Recessed locking operator
- 3 Extended non-locking operator
- 4 Extended locking operator

### 10 - Electrical Connection

- FA Base Plug-In
- FB Base Plug-In with Diode (Positive Common)
- FC Base Plug-In with MOV
- FD Base Plug-In with LED
- FE Base Plug-In with Diode and LED (Positive Common)
- FF Base Plug-In with MOV and LED
- FG Base Plug-In with Rectifier
- FH Base Plug-In with Rectifier and LED
- FJ Base Plug-In with Diode (Negative Common)
- FK Base Plug-In with Diode and LED (Negative Common)

### 11 - Ground

- G Ground Pin/Wire

### Parts

M-46002	Valve blanking plate
M-36003	Valve and Electrical Blanking Plate
28502	Exhaust isolator
28501	Inlet isolator
63299	Electrical Plug-In Protector
M-46006-01-01P	Fastening End Plate Kit (Left End)
M-46006-02-01P	Fastening End Plate Kit (Right End)

## 36 SERIES - MACONNECT ADAPTER ASSEMBLY

M - 46005 -  $\overset{\text{1}}{\text{XX}} \overset{\text{2}}{\text{X}} \overset{\text{3}}{\text{X}}$

### 1 - Type of Connector

- 09 9 Pin Sub D
- 10 10 Pin
- 15 15 Pin Sub D
- 16 16 Pin
- 20 20 Pin
- 24 24 Pin Amp CPC
- 25 25 Pin Sub D
- 26 26 Pin

### 2 - Location of Adapter

- 1 Left End
- 2 Right End

### 3 - Thread Type

- Blank (NPTF Threads)
- P BSPPL Threads
- T BSPTR Threads

### Modifications

- MOD 1974 Negative commons

Note: For washdown approved Sub D connectors use MOD 532M



## 36 SERIES - CIRCUIT BAR NON PLUG-IN

EBM36A -  $\frac{XX}{1} \frac{X}{2} \frac{X}{3} \frac{X}{4} - \frac{XX}{5} - \frac{9}{6}$   
Valves and cover plates assembled to bar

### 1 - Spacing

00 16.5mm Spacing

### 2 - Configuration

- A Side Cylinder Port
- B Bottom Cylinder Port
- C Bottom Cylinder Port with Regulator
- D Side Cylinder Port with Regulator

### 3 - Style

A Standard

### 4 - Port Size & Thread Type

- B 1/8" BSPPL
- E 5/32 Pressed-In Tube Receptacle w/ BSPPL Through Ports

### 5 - Stations

Number of Stations (01, 02, 03, etc.)

### Accessories

- M-36002 Valve Blanking Plate
- N-46004 Regulator Blanking Plate

Note: Regulator must be ordered separately.

## 36 SERIES - ECD PLUG-IN CIRCUIT BAR

ECD36A -  $\frac{XX}{1} \frac{X}{2} \frac{X}{3} \frac{X}{4} - \frac{XX}{5} - \frac{XX}{6} - \frac{9}{7}$   
Valves and cover plates assembled to bar

### 1 - Spacing

00 16.5mm Spacing

### 2 - Configuration

- A Side Cylinder Port
- B Bottom Cylinder Port
- C Bottom Cylinder Port with Regulator

### 3 - Style

A Standard

### 4 - Port Size & Thread Type

- B 1/8" BSPPL
- E 5/32 Pressed-In Tube Receptacle with BSPPL Through Ports

### 5 - Lights

A0 Standard (No Light)

### 6 - Stations

Number of Stations (01, 02, 03, etc.)

### Accessories

- M-36002 Valve Blanking Plate
- 63299 Electrical Plug-In Protector

Note: Regulator must be ordered separately.

## 36 SERIES - REGULATOR

PR46A -  $\frac{X}{1} \frac{X}{2} \frac{X}{3} \frac{X}{4} - \frac{9}{5}$   
Valves and cover plates assembled to bar

### 1 - Style

0 Regulator Only

### 2 - Adjustment

- A Slotted Stem
- B Adjusting Knob
- C Slotted Stem with Locknut

### 3 - Gage

A Gage Port Plugged

### 4 - Pressure Range

- A 0-120 psi
- B 0-80 psi
- C 0-30 psi

The MAC 37 Series valve is a high flow direct solenoid operated 3-way poppet valve. It features a short stroke solenoid with oval armature, balanced poppet and powerful return spring. These features translate into high shifting forces, fast consistent response times, high flow in a small package and long life.

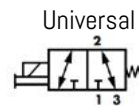
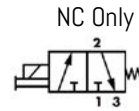
For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 37A-AF0-HDAA-1BC

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2	1/8"	0.50 Cv	Vac. to 120PSI	Inline

### OPERATIONAL BENEFITS

- Balanced poppet equals consistent high shifting forces.
- Valve shifting forces are consistent and independent of pressure fluctuations.
- High solenoid and return spring forces ensure high speed and precise repeatability.
- Built-in wear compensation – valve stroke is shorter than solenoid stroke.
- Constant high flow maintained throughout the pressure range.
- Exhaust contaminants are isolated from the solenoid.
- Full flow exhaust.
- Universal porting – 6 functions in one valve.



37 SERIES

### 37 SERIES

37A -  $\begin{matrix} X & X & X \\ \hline 1 & 2 & 3 \end{matrix}$  - H  $\begin{matrix} XX & X & X \\ \hline 4 & 5 & 6 \end{matrix}$   $\begin{matrix} XX \\ \hline 7 \end{matrix}$

#### 1 - Body Configuration

- 0 Base Only
- A 3 Port Universal Inline

#### 2 - Port Size & Thread Type

- D 1/4 BSPPL

#### 3 - Style

- 0 Inline / Valve Only
- A Individual Base Non Plug-In

### 37 SERIES SOLENOID OPTIONS

H  $\begin{matrix} XX & X & X \\ \hline 4 & 5 & 6 \end{matrix}$   $\begin{matrix} XX \\ \hline 7 \end{matrix}$

#### 4 - Voltage

- AA 110 VAC (6.7w) (Req. full wave Rectifier in Cover)
- AB 220 VAC (5.6w) (Req. full Wave Rectifier in Cover)
- AC 240 VAC (5.8w) (Req. full Wave Rectifier in Cover)
- AD 24 VAC (7.8w) (Req. full Wave Rectifier in Cover)
- DA 24 VDC (5.2w)
- DB 24 VDC (24w)
- DF 12 VDC (5.2w)
- DG 12 VDC (24w)

#### 5 - Lead Wire Length

- 0 No Lead Wire
- A 18" Coil Leads

#### 6 - Manual Operator

- 0 No Operator
- 1 Recessed Non Locking Operator
- 2 Recessed Locking Operator
- 3 Extended Non Locking Operator
- 4 Extended Locking Operator

#### 7 - Electrical Connector

- BA Flying Leads
- KA Mini Plug-In
- KB Mini Plug-In w/ Diode
- KC Mini Plug-In w/ Mov
- KD Mini Plug-In w/ Light

Note: USE "0" WITH MJ & MM OPTIONS and "K" Type Connectors



## 37 SERIES - REGULATOR

PR37A -  $\begin{matrix} X & X & X & X & X \\ T & T & T & T & T \\ 1 & 2 & 3 & 4 & 5 \end{matrix}$

### 1 - Adjustment Method

#### Manual Adjust w/ Screwdriver Slot

- A Plug-In
- B Non Plug-In
- C Regulator Only
- D Regulator Only Non Plug-In w/ Gage Port Extension

#### Manual Adjust w/ Knob

- E Plug-In
- F Non Plug-In
- G Regulator Only
- H Regulator Only Non Plug-In w/ Gage Port Extension

#### Manual Adjust w/ Screwdriver Slot and Locknut

- J Plug-In
- K Non Plug-In
- L Regulator Only
- M Regulator Only Non Plug-In w/ Gage Port Extension

### 2 - Configuration

- O Regulator Only
- A Sandwich Regulator Block

### 3 - Gauge Port Option

- A No Gage Port
- B Gage Port (plugged)
- C Gage (order separately)

### 4 - Pressure Range

- A 0 to 120 psi
- B 0 to 80 psi
- C 0 to 30 psi

### 5 - Assembly

- 9 Assembled to Valve/Bar

### Gauges

24165-150	15mm 0 to 150 psi
24177-160	23mm 0 to 160 psi
24177-100	23mm 0 to 100 psi
24177-060	23mm 0 to 60 psi

## 37 SERIES - EBM CIRCUIT BAR

EBM37A -  $\begin{matrix} XX & X & X & X & XX & 9 \\ T & T & T & T & T & T \\ 1 & 2 & 3 & 4 & 5 & \end{matrix}$  Valves and cover plates assembled to bar

### 1 - Spacing

- 00 18mm spacing
- 01 20mm spacing

### 2 - Configuration

- A Side cylinder port
- B Bottom cylinder port
- C No cylinder port
- D Side cylinder port
- E Bottom cylinder port
- F Side cylinder port with regulator
- G Bottom cylinder port with regulator
- H No cylinder port
- J No cylinder port with regulator

Note: Regulator priced separately

### 3 - Style

- A Standard bar
- B Add-On-Style (includes end plate)
- C Add-A-Unit (single station)

### 4 - Cylinder Port Size and Thread Type

- M BSPTR Commons

### 5 - Stations

Number of Stations (01, 02, 03, etc.)

### Accessories

M-37001	Blank station cover plate (17.5mm)
M-37002	Blank station cover plate (19.5mm)
M-37005-01P	Right hand end plate kit
28438	Inlet/Exhaust Isolator



## 37 SERIES - ECD CIRCUIT BAR

ECD37A -  $\begin{matrix} XX & X & X & X & X & XX & 9 \\ T & T & T & T & T & T & T \\ 1 & 2 & 3 & 4 & 5 & 6 & \end{matrix}$  Valves and cover plates assembled to bar

### 1 - Spacing

- 00 18mm spacing
- 01 30mm spacing

### 2 - Configuration

- A Side cylinder port
- B Bottom cylinder port
- C Bottom cylinder port with regulator

Note: Regulator priced separately

### 3 - Style

- A Standard Bar
- D Standard Bar
- E Add-On Style (Includes End Plate)
- F Add-A-Unit (single station)

### 4 - Cylinder Port Size and Thread Type

- D 1/4" BSPPL AB Light (240v)
- AD No light AD Light (24v)
- AA Light (120v)

### 6 - Stations

Number of Stations (01, 02, 03, etc.)

### Accessories

M-37001	Blank station cover plate (17.5mm)
M-37003-01P	End plate kit (32.5mm)
M-37004-01P	End plate kit (44mm)
16520	Wire connector protector for blank station
28438	Inlet/Exhaust Isolator



# 100 SERIES

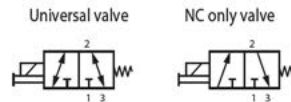
The MAC 100 Series is a direct solenoid operated 3-way poppet valve. It features a short stroke solenoid, a balanced poppet and a powerful return spring. These features translate into high shifting forces, fast consistent response times and long life. Our unique balanced design means versatility in piping - the valve can be configured as a 3-way or 2-way - normally closed or normally open, or can be used for vacuum, diverter or selector applications. For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 117B-50-1BA

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 NO-NC, 2/2 NO-NC	1/8"-1/4"	0.18 Cv	Vac. to 150PSI	Inline

### OPERATIONAL BENEFITS

- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- The patented solenoid develops high shifting forces.
- Powerful return spring.
- Manual operator standard on all valves.
- Burn-out proof solenoid on AC service.



## 100 SERIES

1 X X B - XX X XX  
 1 2 3 4 5

### 1 - Valve Function

- 1 Universal Ind. Inline
- 2 3 Way Universal Manifold
- 8 Stacking Models

### 2 - Port Size/Body Size

- 0 Manifold Valve Less Base
- 6 1/8" BSPP Inline or Universal Stacking or Manifold
- 7 1/4" BSPP Inline or Universal Stacking
- 8 1/8" BSPP Stacking, 3 Way N.C. Only
- 9 1/4" BSPP Stacking, 3 Way N.C. Only

### 3 - Voltage

AC Voltage	DC Voltage
11 120/60, 110/50	50 24VDC (6W)
22 24/50-60	55 12VDC (6W)
26 400/50	57 12VDC (2.5W)
39 240/50	59 24VDC (2.5W)
*Further Options Available	60 12VDC (8.5W)
	61 24VDC (8.5W)

### 4 - Manual Operator Indicator Lights

- 0 No Operator
- 1 Non-Locking Recessed (Std.)
- 2 Locking Recessed
- 3 Non-Locking Extended
- 4 Locking Extended

### 5 - Enclosure

- BA Grommet, Flying 18" Lead
- CA Conduit 1/2" NPS
- JA Square - No Light
- JB Rectangle - No Light
- JC Square w/Light
- JD Rectangle w/Light

Mod. No.	Description	Model Availability
CLS F	Class F Coil	All Voltages
T65 C	For Ambient Temperatures up to 65 degrees C	All Models
044 9	For long extended energisation applications	Solenoid Models

### 100B Accessories

106	1/8" Add-A-Unit Base	M-01002-01P	Conduit Box End Plate Kit
A2-5004-01P	Manifold End Plate Kit	N-01003	Stacking Inlet Isolator Plate
A2-8002	Mounting Bracket	N-01004	Stacking Exhaust Isolator Plate
M-01001-01P	Stacking End Plate Kit		

### Modifications 100B

0004	For all Bottom and Side Ports (Manifold Base)	0389	Rotate Cover 180°
0009	For all Bottom and Side Cylinder Ports (Manifold Base)	416F	Pre-Wire Option 10 Ft. Cord
0210	Additional Bottom Inlet (Manifold and Stacking)	416Y	Pre-Wire Option 6 Ft. Cord
0300	5-Pin Plug-In Connector	0449	Extended Solenoid Energization
300B	3-Pin Plug-In Connector	CLS F	High Temperature Coil Option
313P	Inlet Isolation (Manifold Base)	R P T E	Energize Repeatability
313E	Exhaust Isolation (Manifold Base)	T65 C	Ambient Temperatures Up to 65°C (150°F)

The MAC 200 Series is a direct solenoid operated 3-way poppet valve. It features a short stroke solenoid, a balanced poppet and powerful return spring. These features translate into high shifting forces, fast consistent response times and long life. For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

*This unique series is available for hazardous location applications (Class I/Div B, C & D - Class II/Div E, F & G).*

**Stock Part Number:** 225B-112JC

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 NO-NC, 2/2 NO-NC	1/8" - 1/4"	0.5 Cv	Vac. to 150PSI	Inline

### OPERATIONAL BENEFITS

- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- The patented solenoid develops high shifting forces.
- Powerful return spring.
- Manual operator standard on all valves.
- Burn-out proof solenoid on AC service.

Universal valve



NC only valve



200 SERIES

## 200 SERIES

2 X X B - XX X XX  
T T T  
1 2 3 4 5

### 1 - Valve Function

- 2 Universal 2 or 3 Way Individual Line
- 5 Universal 3 Way Manifold Base Mounted

### 2 - Port Size/Body Size

- 0 Universal Manifold Less Base
- 1 N.C Only Manifold with 1/4" NPTF Manifold Base, Integral Pressure Regulator, Common Outlet (Cascade)
- 2 Universal or N.C. Only Manifold, with 1/4" NPFT Manifold Base, Integral Pressure Regulator, Indv. Outlet
- 4 Individual Inline, 1/8" BSPP - MOD 0005
- 5 Individual Inline, 1/4" BSPP - MOD 0005

### 3 - Voltage

AC Voltage	DC Voltage
11 120/60, 110/50	50 24VDC (6W)
22 24/50-60	55 12VDC (6W)
25 240/50	61 24VDC (8.5W)
*Further Options Available	69 220-250VDC (11.3W)

### 4 - Manual Operator

- 0 No Operator
- 1 Non-Locking Recessed (Std.)
- 2 Locking Recessed
- 3 Non-Locking Extended
- 4 Locking Extended

### 5 - Enclosure

- BA Grommet - Flying 18" Lead
- CA Conduit 1/2" NPS
- CC Conduit 1/2" NPT (CSA Threads)
- EA Hazardous Location
- JA Din Square Plug - No Light
- JC Din with Light

Mod. No.	Description	Model Availability
CLSF	Class F Coil	All Voltages
T65C	For Ambient Temperatures up to 65 degrees C	All Models
0449	For long extended energisation applications	All Models
0005	BSP Threads	All Models

# 1100 SERIES

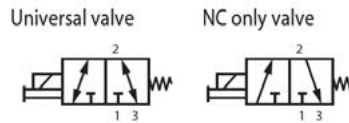
The MAC 1100 Series is a versatile 3-way mechanically operated valve. This series features a wide variety of manual operator options, from levers and push buttons, to cams and remote air operated versions. Our unique balanced design means versatility in piping - the valve can be configured as a 3-way or 2-way - normally closed or normally open or can be used for vacuum, diverter or selector applications. For more info regarding voltage, plug options, & certifications (such as UL, CSA, RoHS and CE) please ask our team at Mac Valves Pacific.

**Stock Part Number:** 1116A-037

Function	Port size	Flow (Max)	Pressure Range	Individual Mounting
3/2 NO-NC, 2/2 NO-NC	1/8" - 1/4"	0.18 Cv	Vac. to 150PSI	Inline

### OPERATIONAL BENEFITS

- Balanced poppet, immune to variations of pressure.
- Short stroke with high flow.
- Powerful return spring.



## 1100 SERIES

11 XXA - XXX  
 1            2

### 1 - Body Type

Individual Body Models

- 16A 1/8" BSP Universal 2 or 3 Way (N.C or N.O.)
- 17A 1/4" BSP Universal 2 or 3 Way (N.C or N.O.)

Stacking Body Models

- 86A 1/8" BSP Universal 3 Way (N.C or N.O.)
- 87A 1/4" BSP Universal 3 Way (N.C or N.O.)

Manifold Base Models - Universal 3-Way(N.C. & N.O.)

- 30A Valve No-Base
- 36A Valve with Base

### 2 - Description

- 011 Straight Cam Roller - Parallel to Ports 1 & 2
- 012 Straight Cam Roller - Perpendicular to Port 1 & 2
- 013 Lever Cam Perpendicular to Ports 1 & 2
- 014 Lever Cam Parallel to Ports 1 & 2
- 015 Lever Cam Parallel to Ports 1 & 2 (Override right)
- 016 Lever Cam Parallel to Ports 1 & 2 (Override Left)
- 017 Lever Cam Perpendicular to Ports 1 & 2 (Override Forward)
- 018 Lever Cam Perpendicular to Ports 1 & 2 (Override Backward)
- 021 Lever Locking Push - Perpendicular to Ports 1 & 2
- 022 Lever Non-Locking Push - Perpendicular to Ports 1 & 2
- 023 Lever Locking Pull - Perpendicular to Ports 1 & 2
- 024 Lever Non-Locking Pull - Perpendicular to Ports 1 & 2
- 025 Lever Locking Push - Parallel to Ports 1 & 2
- 026 Lever Non-Locking Push - Parallel to Ports 1 & 2
- 027 Lever Locking Pull - Parallel to Ports 1 & 2
- 028 Lever Non Locking Pull - Parallel to Ports 1 & 2
- 031 Push Button\*
- 032 Push Button, Panel Mount\*
- 033 Push Button with Guard\*
- 036 Palm Button\*
- 037 Palm Button, Panel Mount\*
- 038 Palm Button with Guard\*

\*Palm & Push Buttons are White (Standard). Available are Black, Blue, Green, Red, or Yellow. Specify Colour.  
 114 Air Pilot (1/8" BSPP Pilot Port)

### Stacking Body Accessories

End Plate Kit - For each gang one kit is required.  
 TO ORDER - #M-01001-01P (1/4" BSPP)

### Manifold Base Accessories

Manifold End Plate Kit - For each gang one kit is required.  
 TO ORDER - #A2-5004-01P (1/4" BSPP)

### Modifications

- 0004 All Bottom and Side Ports - Manifold Models
- 0009 bottom and Side Cylinder Ports - Manifold Models
- 0210 Additional Bottem Inlet - Manifold and Stacking Models
- 313P Inlet Isolation - Manifold Models
- 313E Exhaust Isolation - Manifold Models

### Accessories

- A2-5004-01P Manifold End Plate Kit
- M-01001-01P Stacking End Plate Kit
- N-01003 Inlet Isolator Plate - Stacking
- N-01004 Exhaust Isolator Plate - Stacking

