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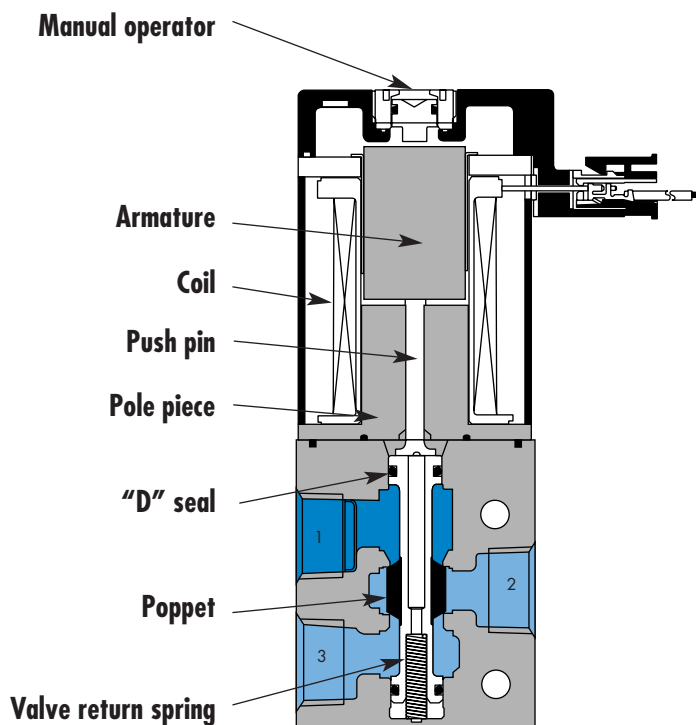
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#### Individual mounting

| Inline | Sub-base non plug-in |
|--------|----------------------|
|--------|----------------------|



#### SERIES FEATURES

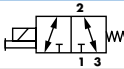
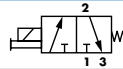
- Balanced poppet equals consistent high shifting forces.
- Valve shifting forces are consistent and independent of pressure fluctuations.
- High solenoid and return spring forces ensure high speed and precise repeatability.
- Built-in wear compensation - valve stroke is shorter than solenoid stroke.
- 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.

| Function         | Port size          | Flow [Max]               | Individual mounting | Series |
|------------------|--------------------|--------------------------|---------------------|--------|
| <b>3/2 NO-NC</b> | <b>1/8" - 1/4"</b> | <b>0.5 C<sub>v</sub></b> | Inline              |        |

## OPERATIONAL BENEFITS

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

## HOW TO ORDER

| Port size        | Universal valve                                                                     | NC only valve                                                                         |
|------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                  |  |  |
| <b>1/8" NPTF</b> | 37A-AA0-H <b>XXX-XXX</b>                                                            | 37A-BA0-H <b>XXX-XXX</b>                                                              |
| <b>1/4" NPTF</b> | 37A-AB0-H <b>XXX-XXX</b>                                                            | 37A-BB0-H <b>XXX-XXX</b>                                                              |

## SOLENOID OPERATOR ➤

| H <b>XXX-XXX*</b>        |               |                               |                                                        |
|--------------------------|---------------|-------------------------------|--------------------------------------------------------|
| XX Voltage               | X Wire length | X Manual operator             | XX Electrical connection**                             |
| <b>AA</b> 120 VAC (6.7W) | <b>A</b> 18"  | <b>1</b> Non-locking recessed | <b>MA</b> Plug-in wire assembly                        |
| <b>DA</b> 24 VDC (5.2W)  | <b>B</b> 24"  | <b>2</b> Locking recessed     | <b>MC</b> Plug-in wire assembly with light             |
| <b>DB</b> 24 VDC (2.4W)  |               |                               | <b>BA</b> Flying leads                                 |
| <b>DC</b> 24 VDC (1.8W)  |               |                               | <b>BC</b> Flying leads with light                      |
|                          |               |                               | <b>MT</b> Plug-in wire assembly with rectifier & light |

Note : AC voltage requires connector with rectifier.

\* Other options available, see page 315.



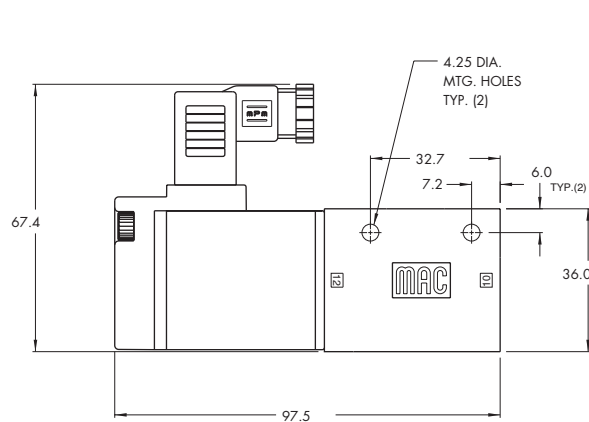
#### TECHNICAL DATA

|                                       |                                                                                         |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| Fluid :                               | Compressed air, vacuum, inert gases                                                     |
| Pressure range :                      | Vacuum to 120 PSI                                                                       |
| Lubrication :                         | 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 :                                | 5.2 W : (0.5 C <sub>v</sub> ) – 2.4 W : (0.35 C <sub>v</sub> )                          |
| Coil :                                | Class A wire (#22 AWG x 18), continuous duty                                            |
| Voltage range :                       | -15% to +10% of nominal voltage                                                         |
| Power :                               | 5.2 W – 2.4 W                                                                           |
| Response times :<br>(with 5.2 W coil) | Energize : 16.9 ms<br>De-energize : 6.7 ms                                              |

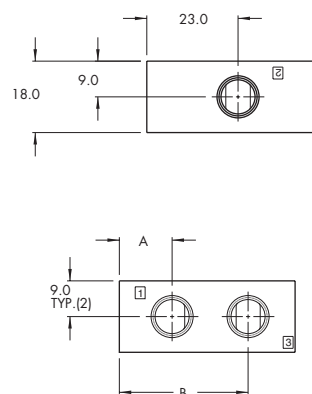
Options : • BSPP ports

#### DIMENSIONS

Dimensions shown are metric (mm)



Shown with Mini Square Connector ("K" Type)



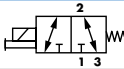
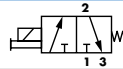
| Dim  | A    | B     |
|------|------|-------|
| 1/8" | 13.3 | 32.45 |
| 1/4" | 14.7 | 33.7  |

| Function         | Port size          | Flow [Max]               | Individual mounting  | Series |
|------------------|--------------------|--------------------------|----------------------|--------|
| <b>3/2 NO-NC</b> | <b>1/8" - 1/4"</b> | <b>0.5 C<sub>v</sub></b> | Sub-base non plug-in |        |

## OPERATIONAL BENEFITS

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

## HOW TO ORDER

| Port size              | Universal valve                                                                     | NC only valve                                                                         |
|------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|                        |  |  |
| <b>Valve less base</b> | 37A-C10-H <b>XXX-XXX</b>                                                            | 37A-D10-H <b>XXX-XXX</b>                                                              |
| <b>1/8" NPTF</b>       | 37A-CAA-H <b>XXX-XXX</b>                                                            | 37A-DAA-H <b>XXX-XXX</b>                                                              |
| <b>1/4" NPTF</b>       | 37A-CBA-H <b>XXX-XXX</b>                                                            | 37A-DBA-H <b>XXX-XXX</b>                                                              |

## SOLENOID OPERATOR ➤

| H <b>XXX-XXX*</b>        |               |                               |                                                        |
|--------------------------|---------------|-------------------------------|--------------------------------------------------------|
| XX Voltage               | X Wire length | X Manual operator             | XX Electrical connection                               |
| <b>AA</b> 120 VAC (6.7W) | <b>A</b> 18"  | <b>1</b> Non-locking recessed | <b>MA</b> Plug-in wire assembly                        |
| <b>DA</b> 24 VDC (5.2W)  | <b>B</b> 24"  | <b>2</b> Locking recessed     | <b>MC</b> Plug-in wire assembly with light             |
| <b>DB</b> 24 VDC (2.4W)  |               |                               | <b>BA</b> Flying leads                                 |
| <b>DC</b> 24 VDC (1.8W)  |               |                               | <b>BC</b> Flying leads with light                      |
|                          |               |                               | <b>MT</b> Plug-in wire assembly with rectifier & light |

Note : AC voltage requires connector with rectifier.  
\* Other options available, see page 315.

## OPTIONS

Base only :

|                |
|----------------|
| 37A-0AA (1/8") |
| 37A-0BA (1/4") |

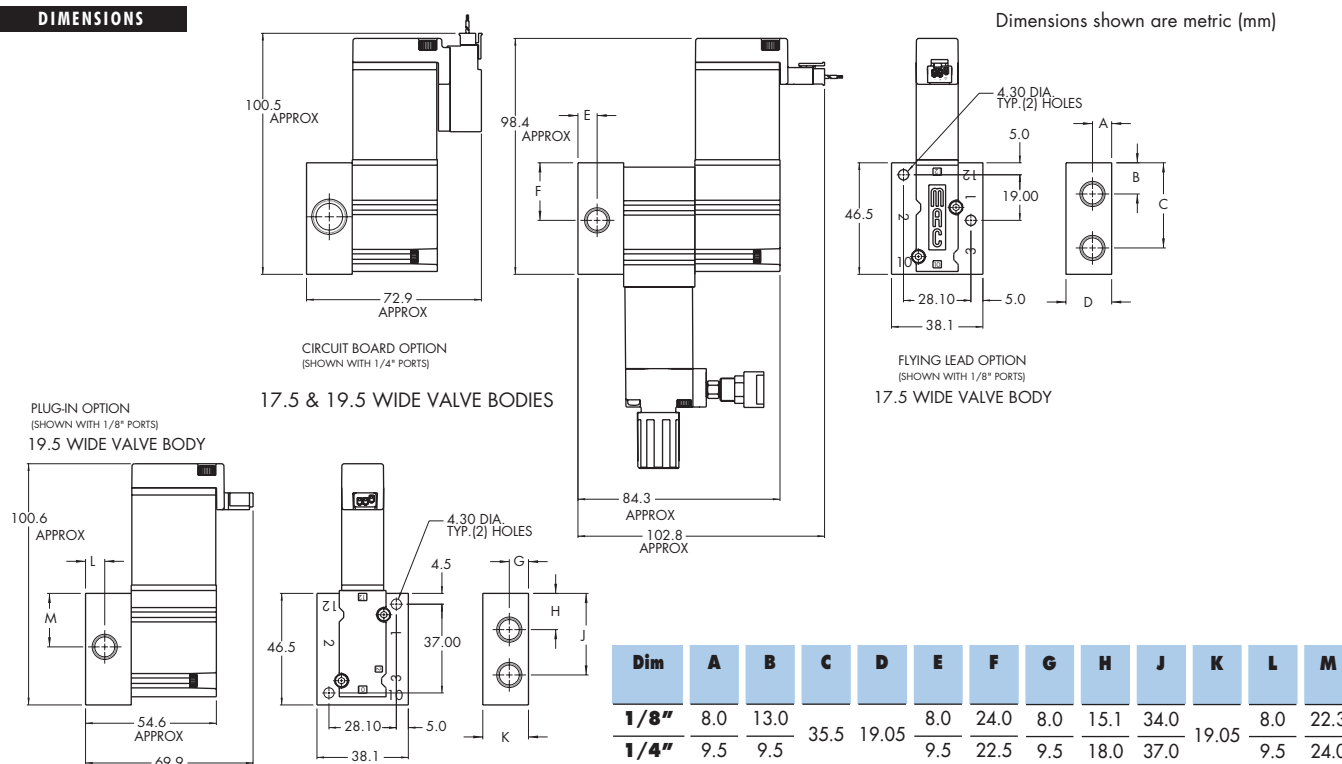
#### TECHNICAL DATA

|                     |                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------|
| Fluid :             | Compressed air, vacuum, inert gases                                                     |
| Pressure range :    | Vacuum to 120 PSI                                                                       |
| Lubrication :       | 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 :              | 5.2 W : (0.5 C <sub>v</sub> ) – 2.4 W : (0.35 C <sub>v</sub> )                          |
| Coil :              | Class A wire (#22 AWG x 18), continuous duty                                            |
| Voltage range :     | -15% to +10% of nominal voltage                                                         |
| Power :             | 5.2 W – 2.4 W                                                                           |
| Response times :    | Energize : 16.9 ms                                                                      |
| (with 5.2 W coil)   | De-energize : 6.7 ms                                                                    |

Options : • BSPP ports • Sandwich regulator - see "Regulator" Section

#### DIMENSIONS

Dimensions shown are metric (mm)



**Codification table for voltages / Manual operators / Electrical connections**

VALVE CODE ➤ **H XX X-X XX**  
**1 2 3 4**

**OPTIONS AVAILABLE FOR**

- Solenoid valves 37 & 47 Series

| 1. VOLTAGE  |                                                          |
|-------------|----------------------------------------------------------|
| H-XX X-X XX | VOLTAGE                                                  |
| AA          | 120/50, 120/60 (6.7 W)<br>(use connector with rectifier) |
| AB          | 220/50, 220/60 (5.6 W)<br>(use connector with rectifier) |
| AC          | 240/50, 240/60 (5.8 W)<br>(use connector with rectifier) |
| AD          | 24/50, 24/60 (7.8 W)<br>(use connector with rectifier)   |
| DA          | 24 VDC (5.2 W)                                           |
| DB          | 24 VDC (2.4 W)                                           |
| DC          | 24 VDC (1.8 W)                                           |
| DD          | 24 VDC (1.0 W)                                           |
| DF          | 12 VDC (5.2 W)                                           |
| DG          | 12 VDC (2.4 W)                                           |
| DH          | 12 VDC (1.8 W)                                           |
| DJ          | 12 VDC (1.0 W)                                           |
| DL          | 120 VDC (6.3 W)                                          |

| 2. WIRE LENGTH |                                                     |
|----------------|-----------------------------------------------------|
| H-XX X-X XX    | WIRE LENGTH                                         |
| O              | No lead wire (use with "MJ, MM & K Type connectors) |
| A              | 18"                                                 |
| B              | 24"                                                 |
| C              | 36"                                                 |
| D              | 48"                                                 |
| E              | 72"                                                 |
| F              | 96"                                                 |
| G              | 120"                                                |
| H              | 144"                                                |

| 3. MANUAL OPERATOR |                      |
|--------------------|----------------------|
| H-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 |                                                                      |
|--------------------------|----------------------------------------------------------------------|
| H-XX X-X XX              | ELECTRICAL CONNECTION                                                |
| BA                       | Flying leads                                                         |
| BB                       | BA with ground wire                                                  |
| BC                       | BA with light                                                        |
| BD                       | BA with light & ground wire                                          |
| BE                       | BA with suppression diode                                            |
| BF                       | BA with suppression diode & ground wire                              |
| BG                       | BA with suppression diode plus light                                 |
| BH                       | BA with suppression diode plus light & ground wire                   |
| *BN                      | BA with suppression diode plus blocking diode                        |
| *BP                      | BA with suppression diode plus blocking diode & ground wire          |
| *BR                      | BA with suppression diode plus blocking diode & light                |
| *BS                      | BBA with suppression diode plus blocking diode & light & ground wire |
| BK                       | BA with full wave rectifier                                          |

| H-XX X-X XX                   |                                                                           |
|-------------------------------|---------------------------------------------------------------------------|
| BL                            | BA with full wave rectifier & ground wire                                 |
| BT                            | BA with full wave rectifier plus light                                    |
| BU                            | BA with full wave rectifier plus light & ground wire                      |
| H-XX X-X XX PLUG-IN CONNECTOR |                                                                           |
| FA                            | Base plug-in                                                              |
| FB                            | FA with ground wire                                                       |
| FC                            | FA with light                                                             |
| FD                            | FA with light & ground wire                                               |
| FE                            | FA with suppression diode                                                 |
| FF                            | FA with suppression diode & ground wire                                   |
| FG                            | FA with suppression diode & light                                         |
| FH                            | FA with suppression diode plus light & ground wire                        |
| FK                            | FA with full wave rectifier                                               |
| FL                            | FA with full wave rectifier & ground wire                                 |
| *FN                           | FA with suppression diode plus blocking diode                             |
| *FP                           | FA with suppression diode plus blocking diode & ground wire               |
| *FR                           | FA with suppression diode plus blocking diode plus light                  |
| *FS                           | FA with suppression diode plus blocking diode & light & ground wire       |
| FT                            | FA with full wave rectifier plus light                                    |
| FU                            | FA with full wave rectifier plus light & ground wire                      |
| MA                            | Solenoid plug-in wire assembly                                            |
| MB                            | MA with ground wire                                                       |
| MC                            | MA with light                                                             |
| MD                            | MA with light & ground wire                                               |
| ME                            | MA with suppression diode                                                 |
| MF                            | MA with suppression diode & ground wire                                   |
| MG                            | MA with suppression diode plus light                                      |
| MH                            | MA with suppression diode plus light & ground wire                        |
| MK                            | MA with full wave rectifier                                               |
| ML                            | MA with full wave rectifier & ground wire                                 |
| *MN                           | MA with suppression diode plus blocking diode                             |
| *MP                           | MA with suppression diode plus blocking diode & ground wire               |
| *MR                           | MA with suppression diode plus blocking diode & light                     |
| *MS                           | MA with suppression diode plus blocking diode & light & ground wire       |
| MT                            | MA with full wave rectifier plus light                                    |
| MU                            | MA with full wave rectifier plus light & ground wire                      |
| MJ                            | Plug-in housing without wire assembly ('MA' option without wire assembly) |
| MM                            | Plug-in housing without wire assembly ('MB' option without wire assembly) |
| KA                            | Mini square connector                                                     |
| KB                            | KA with suppression diode                                                 |
| KC                            | KA with M.O.V.                                                            |
| KD                            | KA with light                                                             |
| KE                            | KA with light & suppression diode                                         |
| KF                            | KA with light & M.O.V.                                                    |
| KJ                            | Mini square connector – male only                                         |
| KK                            | KJ with suppression diode                                                 |
| KL                            | KJ with M.O.V.                                                            |
| KM                            | KA with full wave rectifier                                               |
| KN                            | KA with full wave rectifier & M.O.V.                                      |
| KP                            | KA with full wave rectifier & light                                       |
| KR                            | KA with full wave rectifier plus light & M.O.V.                           |
| KS                            | KJ with full wave rectifier                                               |

\* Blocking diode is located in the lead wire

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