

### Features

- Unique sliding, sealing member
- Optional flow control regulates cylinder speed in either direction
- Dual solenoid versions hold last position, even after loss of electric power
- Dual solenoid operation: solenoid may be energized momentarily (1/10 second) or continuously
- Air/inert gas service only
- Durable and “non-sticking” sealing method
- Standard manual operator both momentary and maintained
- Optional flow control provides adjustable Cv from 0.2 to 0.8

### Construction

| Valve Parts in Contact with Fluids                |                                                     |
|---------------------------------------------------|-----------------------------------------------------|
| Main Valve Body, Sub- and Manifold Base, End Caps | Aluminum                                            |
| Pilot Valve Body                                  | Molded CA                                           |
| End Caps                                          | Stainless Steel (non-metering) Molded CA (metering) |
| Seals                                             | NBR (Carboxylated Nitrile)                          |
| Spool                                             | Molded Delrin                                       |
| Slide                                             | Molded Delrin                                       |
| Flow Plate                                        | Ceramic (alumina)                                   |
| Core Tube                                         | 305 Stainless Steel                                 |
| Core and Plugnut                                  | 430F Stainless Steel                                |
| Core and Plugnut                                  | 302 Stainless Steel                                 |

### Electrical

| Standard<br>Coil and<br>Class of<br>Insulation | Watt Rating and Power Consumption |       |               |           |                     |        |
|------------------------------------------------|-----------------------------------|-------|---------------|-----------|---------------------|--------|
|                                                | DC<br>Watts                       | AC    |               |           | Spare Coil Part No. |        |
|                                                |                                   | Watts | VA<br>Holding | VA Inrush | AC                  | DC     |
| F                                              | 6.9                               | 6.3   | 8.8           | 12.1      | 400125              | 400125 |

**Standard Voltages:** 24, 120, 240, 480 volts AC, 60 Hz (or 110, 220 volts AC, 50 Hz).  
6, 12, 24, 120, 240 volts DC. Must be specified when ordering.  
Other voltages are available when required.

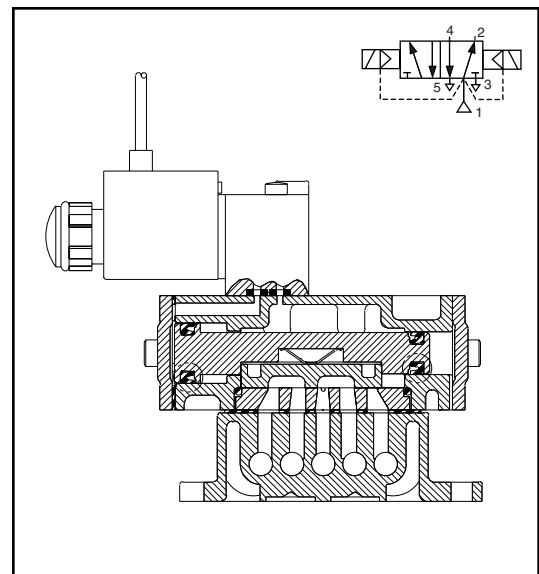
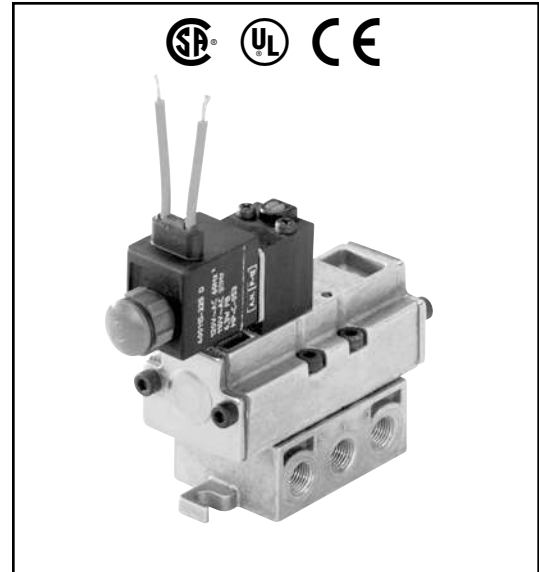
### Solenoid Enclosures

**Standard:** Open Frame Solenoid.

**Optional:** Watertight, Types 1, 2, 3, 3S, 4, and 4X.

(To order, substitute with prefix “WT”.) Explosionproof and Watertight, Types 3, 3S, 4, 4X, 6, 6P, 7, and 9. (To order, substitute with prefix “EF”.)

See *Optional Features Section* for other available options.



### Nominal Ambient Temp. Ranges

Standard Class F insulation:

AC: 0°F to 135°F (-18°C to 57°C) (“U” and “SC” prefix)

AC: 0°F to 104°F (-18°C to 40°C)  
(optional “WT” or “EF” prefix)

DC: 0°F to 77°F (-18°C to 25°C)

Refer to *Engineering Section* for details.

### Approvals

CSA certified. UL recognized components for “U” and “SC” prefix. With prefix “WT”, UL listed as a General Purpose Valve. Meets applicable CE directives.

Refer to *Engineering Section* for details.

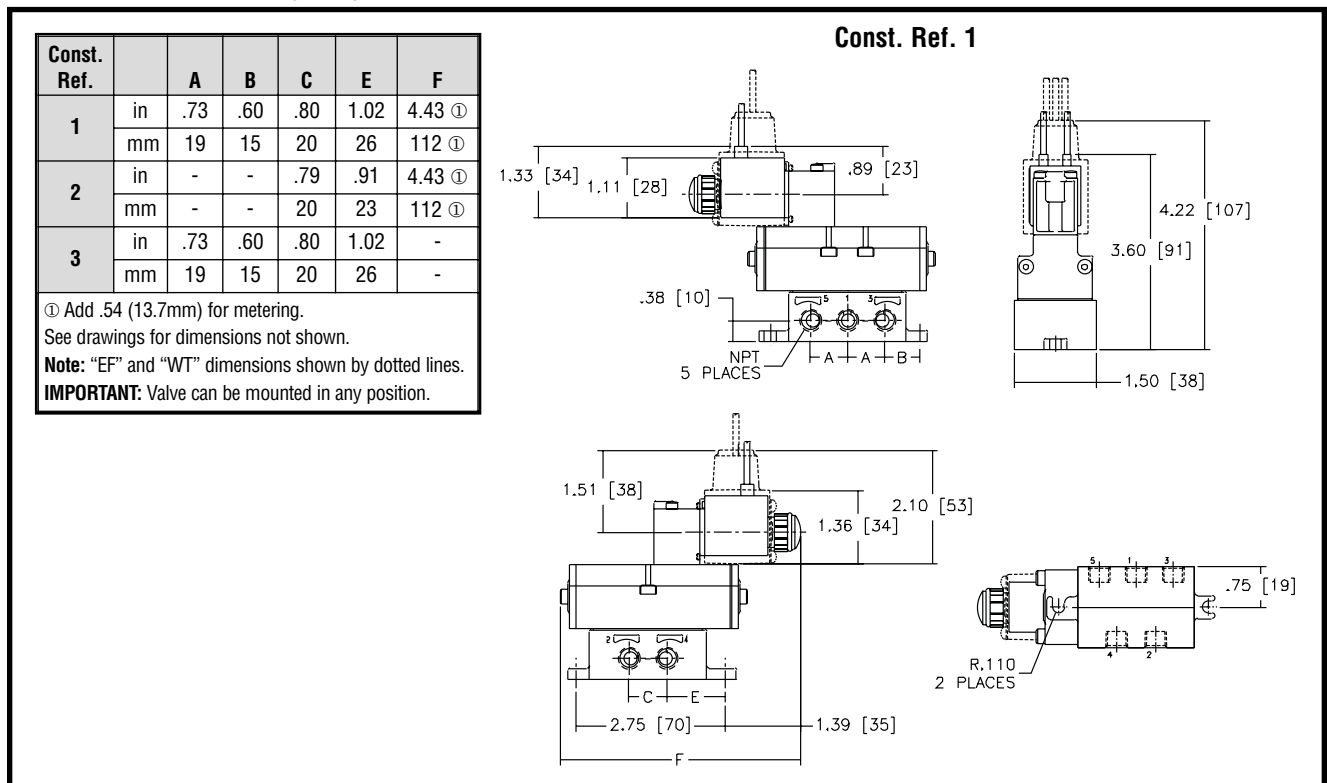
## Specifications (English units)

| Pipe<br>Size<br>(in) | Orifice<br>Size<br>(in) | Cv<br>Flow<br>Factor | Main Line Supply<br>Pressure (psi) |               |             | Max.<br>Fluid<br>Temp. °F |    | Molded Epoxy Open Frame Solenoid |                |                  |                | Watt Rating/<br>Class of Coil<br>Insulation |       |
|----------------------|-------------------------|----------------------|------------------------------------|---------------|-------------|---------------------------|----|----------------------------------|----------------|------------------|----------------|---------------------------------------------|-------|
|                      |                         |                      | Min.                               | Air-Inert Gas |             |                           |    | Sub-Base Mounted                 |                | Manifold Mounted |                |                                             |       |
|                      |                         |                      |                                    | Max.<br>AC    | Max .<br>DC | AC                        | DC | Catalog Number                   | Const.<br>Ref. | Catalog Number   | Const.<br>Ref. | AC                                          | DC    |
|                      |                         |                      |                                    |               |             |                           |    |                                  |                |                  |                |                                             |       |
| SINGLE SOLENOID      |                         |                      |                                    |               |             |                           |    |                                  |                |                  |                |                                             |       |
| 1/4                  | 1/4                     | .80                  | 20                                 | 150           | 150         | 135                       | 77 | U8401B101                        | 1              | U8401B103        | 2              | 6.3/F                                       | 6.9/F |
| DUAL SOLENOID        |                         |                      |                                    |               |             |                           |    |                                  |                |                  |                |                                             |       |
| 1/4                  | 1/4                     | .80                  | 20                                 | 150           | 150         | 135                       | 77 | U8401B105                        | 3              | U8401B107        | 4              | 6.3/F                                       | 6.9/F |

## Specifications (Metric units)

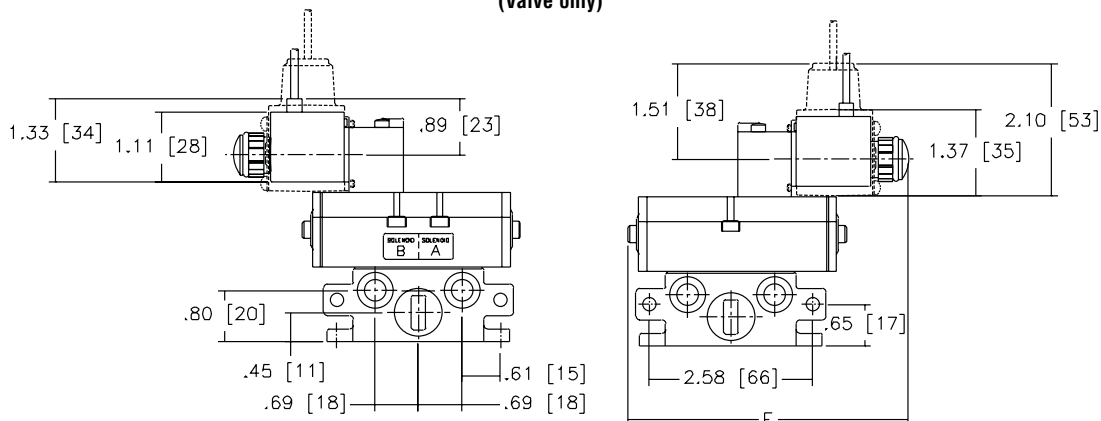
| Pipe<br>Size<br>(in) | Orifice<br>Size<br>(mm) | Kv Flow<br>Factor<br>(m³/h) | Main Line Supply<br>Pressure (bar) |               |             | Max.<br>Fluid<br>Temp. °C |    | Molded Epoxy Open Frame Solenoid |                |                  |                | Watt Rating/<br>Class of Coil<br>Insulation |       |
|----------------------|-------------------------|-----------------------------|------------------------------------|---------------|-------------|---------------------------|----|----------------------------------|----------------|------------------|----------------|---------------------------------------------|-------|
|                      |                         |                             | Min.                               | Air-Inert Gas |             |                           |    | Sub-Base Mounted                 |                | Manifold Mounted |                |                                             |       |
|                      |                         |                             |                                    | Max.<br>AC    | Max .<br>DC | AC                        | DC | Catalog Number                   | Const.<br>Ref. | Catalog Number   | Const.<br>Ref. | AC                                          | DC    |
| SINGLE SOLENOID      |                         |                             |                                    |               |             |                           |    |                                  |                |                  |                |                                             |       |
| 1/4                  | 6.4                     | .69                         | 1.4                                | 10            | 10          | 57                        | 25 | U8401B101                        | 1              | U8401B103        | 2              | 6.3/F                                       | 6.9/F |
| DUAL SOLENOID        |                         |                             |                                    |               |             |                           |    |                                  |                |                  |                |                                             |       |
| 1/4                  | 6.4                     | .69                         | 1.4                                | 10            | 10          | 57                        | 25 | U8401B105                        | 3              | U8401B107        | 4              | 6.3/F                                       | 6.9/F |

## Dimensions: inches (mm)



## Dimensions: inches (mm)

### Const. Ref. 2 (Valve only)

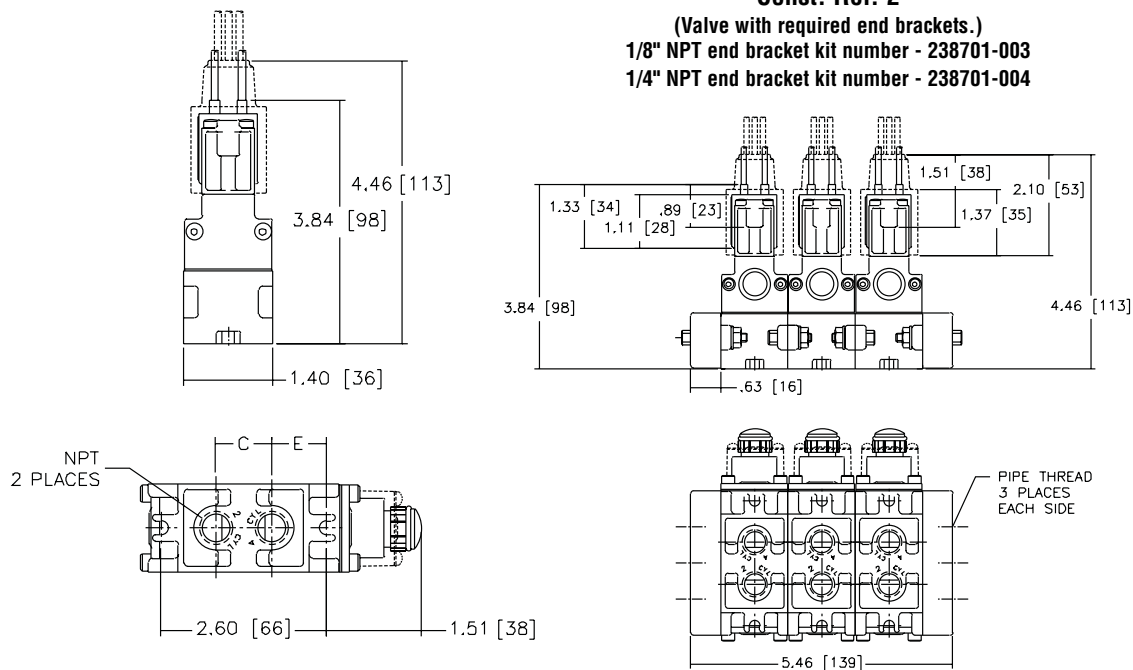


### Const. Ref. 2

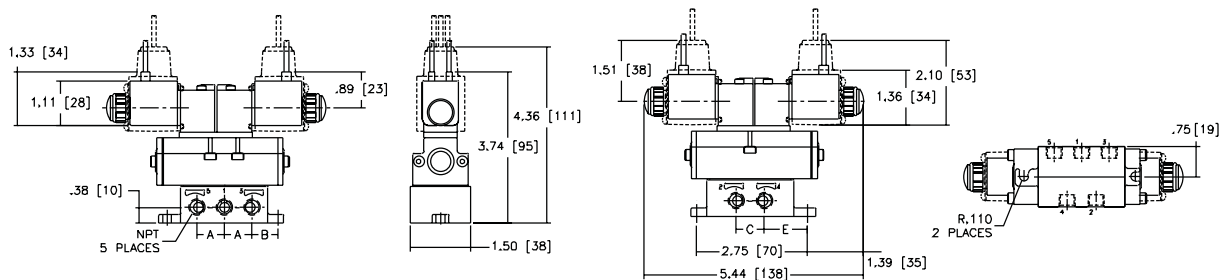
(Valve with required end brackets.)

1/8" NPT end bracket kit number - 238701-003

1/4" NPT end bracket kit number - 238701-004



### Const. Ref. 3



**Dimensions: inches (mm)**

4-WAY

| Const.<br>Ref. |    | A | B | C   | E   | F | G | H |
|----------------|----|---|---|-----|-----|---|---|---|
| 4*             | in | - | - | .79 | .91 | - | - | - |
|                | mm | - | - | 20  | 23  | - | - | - |

① Add .54 (13.7 mm) for metering. ② Add 1.07 (27.2 mm)

See drawings for dimensions not shown.

**Note:** "EF" and "WT" dimensions shown by dotted lines. Male 1/2" connection on EF/WT coil, conduit connector provided.

\*For dimensions with required end brackets see Const. Ref. 3.

**IMPORTANT:** Valve can be mounted in any position.

**Const. Ref. 4**

