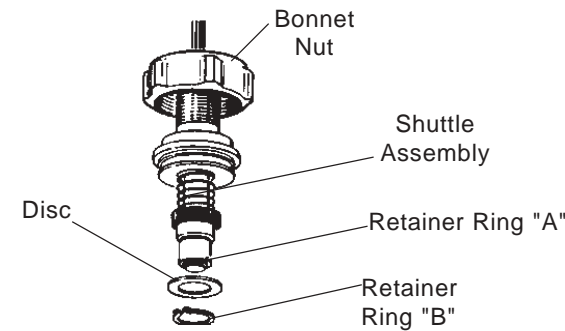




# Globe Valve Flow Switches Series GVS/G9

## Maintenance . . .

Occasional cleaning when excessive contamination is present in the liquid is the only maintenance normally required. With system shut-down and no liquid in piping, remove bonnet nut to disassemble unit for cleaning. **It is not necessary to remove unit body from the system.** Remove retainer ring "A" for complete shuttle disassembly. Remove ring "B" to disassemble disc only.



## MAINTENANCE/REPAIR

Regular maintenance of the total system is recommended to assure sustained optimum performance. These devices are not field repairable and should be returned to the factory if recalibration or other service is required. After first obtaining a Returned Goods Authorization (RGA) number, send the unit freight prepaid to the following. Please include a clear description of the problem plus any application information available.

Dwyer Instruments, Inc.  
Attn: Repair Department  
102 Highway 212  
Michigan City, IN 46360

## Important Points!

Product must be maintained and installed in strict accordance with the National Electrical Code and Dwyer product catalog and instruction bulletin. Failure to observe this warning could result in serious injuries or damages.

For hazardous area applications involving such things as (but not limited to) ignitable mixtures, combustible dust and flammable materials, use an appropriate explosion-proof enclosure or intrinsically safe interface device.

The pressure and temperature limitations shown on the individual catalog pages and drawings for the specified flow switches must not be exceeded. These pressures and temperatures take into consideration possible system surge pressures/temperatures and their frequencies.

Selection of materials for compatibility with the media is critical to the life and operation of Dwyer products. Take care in the proper selection of materials of construction, particularly wetted materials.

Life expectancy of switch contacts varies with applications. Contact Dwyer if life cycle testing is required.

Ambient temperature changes do affect switch set points, since the specific gravity of a liquid can vary with temperature.

Dwyer Products have been designed to resist shock and vibration; however, shock and vibration should be minimized.

Filter liquid media containing particulate and/or debris to ensure the proper operation of our products.

Electrical entries and mounting points in an enclosed tank may require liquid/vapor sealing.

Dwyer Products must not be field-repaired.

Physical damage sustained by the product may render it unserviceable.

## Installation

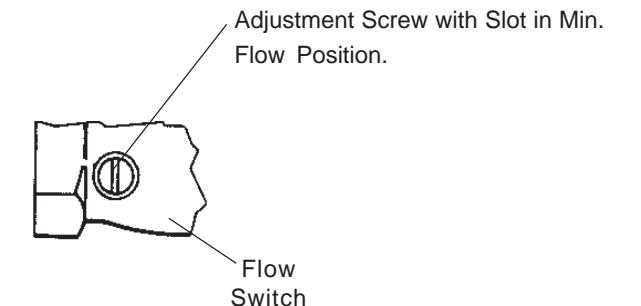
Install GVS or G9 Series units in piping system using standard pipe fitting procedures. **Be careful to keep sealing compound out of the unit.** Be sure to observe direction of flow - marked "IN" and "OUT" on housing. **See chart below for port and wrench hex. sizes.**

GVS Adjustable units are installed horizontally, in line, with lead wires up. G9 Adjustable units are installed vertically; lead wires up, as shown. **150 micron filtration is suggested for use with all units.**

**Note: Bonnet and shuttle assembly should be removed from unit during welding or brazing. (See bonnet assembly removal under "Maintenance" on back of sheet.)**

## Flow Setting Adjustment . . .

Standard units are normally supplied with adjustment set at "minimum flow" - adjustment screw slot (and vane within unit) in vertical position, as shown below. Adjustment may be made with unit on test stand or installed in system. With liquid flowing at desired rate, adjust screw in side of housing until unit just actuates. (Switch closes or opens, as desired.)



## Electrical Connection . . .

Lead wires and 1/2" NPT or junction box with 1/2" NPT.

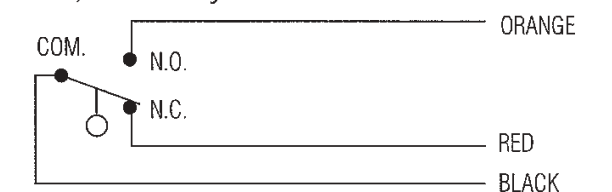
## Electrical Data

### Switch Ratings - Maximum Resistive Load

| VA | Volts  | Amps AC | Amps DC |
|----|--------|---------|---------|
| 20 | 0 - 30 | .4      | .3      |
|    | 120    | .17     | .13     |
|    | 240    | .08     | .06     |

## Typical Wiring Diagram . . .

SPDT, Shown Dry



DWYER INSTRUMENTS, INC.

P.O. BOX 373 MICHIGAN CITY, INDIANA 46361, U.S.A.

Phone: 219/879-8000

Fax: 219/872-9057

Lit-By Fax: 888/891-4963

www.dwyer-inst.com

e-mail: info@dwyer-inst.com

## Specifications (GVS Series)

### Wetted Materials

|                    |                           |
|--------------------|---------------------------|
| Housing            | Bronze                    |
| Shuttle            | Teflon®                   |
| Bonnet             | Bronze or Stainless Steel |
| Spring             | 316 Stainless Steel       |
| Other Wetted Parts | Viton®, Ceramic           |

### Pressure Rating

|           |                           |
|-----------|---------------------------|
| Operating | 400 PSIG @ 100°F (37.8°C) |
| Proof     | 800 PSIG @ 100°F (37.8°C) |

|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | -20°F to +200°F (-29°C to +93.3°C) |
|-----------------------|------------------------------------|

|               |                      |
|---------------|----------------------|
| Repeatability | 1% Maximum Deviation |
|---------------|----------------------|

|                    |      |
|--------------------|------|
| Set Point Accuracy | ±10% |
|--------------------|------|

|                        |             |
|------------------------|-------------|
| Set Point Differential | 15% Maximum |
|------------------------|-------------|

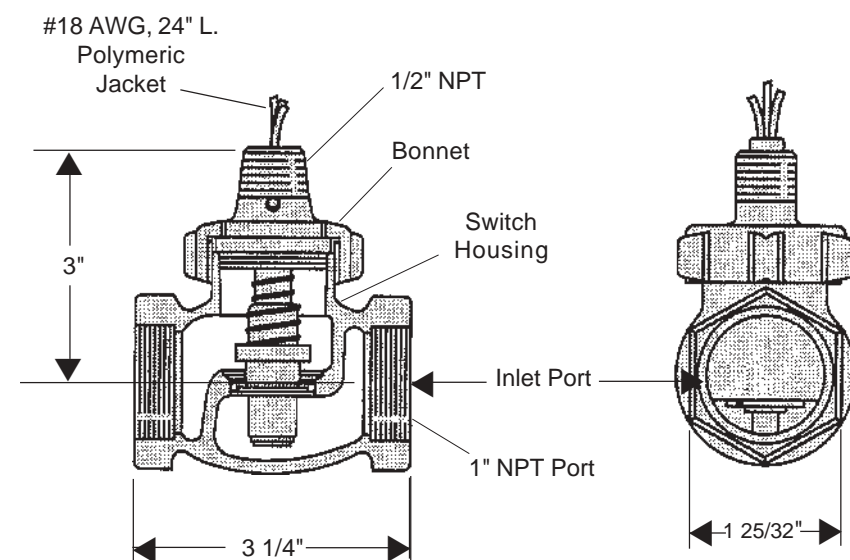
|         |             |
|---------|-------------|
| Switch* | SPDT, 20 VA |
|---------|-------------|

|                    |        |
|--------------------|--------|
| Inlet/Outlet Ports | 1" NPT |
|--------------------|--------|

|                        |   |
|------------------------|---|
| Electrical Termination | No. 18 AWG, 24" L.,<br>Polymeric Lead Wires |
|------------------------|---|

\*See "Electrical Data" on front page

## Dimensions (GVS Series)



## Specifications (G9 Series)

### Wetted Materials

|                    |                     |
|--------------------|---------------------|
| Housing            | Bronze              |
| Shuttle            | Delrin®             |
| Spring             | 316 Stainless Steel |
| O-Ring             | Viton®              |
| Other Wetted Parts | Ceramic             |

### Pressure Rating, Max.

|           |                           |
|-----------|---------------------------|
| Operating | 400 PSI @ 100°F (+37.8°C) |
| Proof     | 800 PSI @ 100°F (+37.8°C) |

|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | -20°F to +180°F (-29°C to +82.2°C) |
|-----------------------|------------------------------------|

|               |                      |
|---------------|----------------------|
| Repeatability | 1% Maximum Deviation |
|---------------|----------------------|

|                    |      |
|--------------------|------|
| Set Point Accuracy | ±10% |
|--------------------|------|

|                        |             |
|------------------------|-------------|
| Set Point Differential | 15% Maximum |
|------------------------|-------------|

|         |             |
|---------|-------------|
| Switch* | SPDT, 20 VA |
|---------|-------------|

|                    |          |
|--------------------|----------|
| Inlet/Outlet Ports | 3/4" NPT |
|--------------------|----------|

|                        |   |
|------------------------|---|
| Electrical Termination | No. 18 AWG, 24" L.,<br>Polymeric Lead Wires |
|------------------------|---|

\*See "Electrical Data" on front page

## Dimensions (G9 Series)

