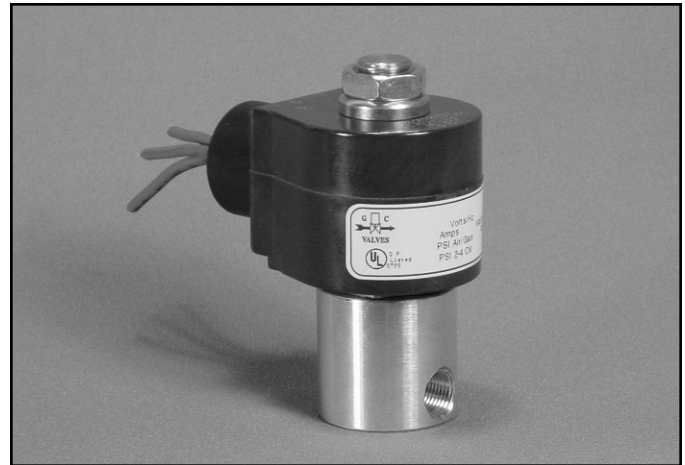


## 1/8" NPT Brass Body 2-Way Direct Acting Normally Open



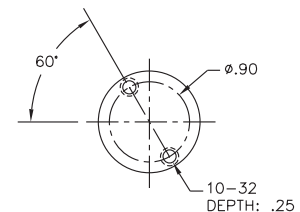
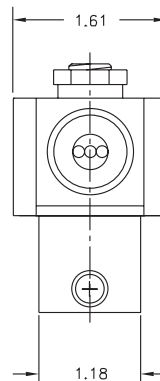
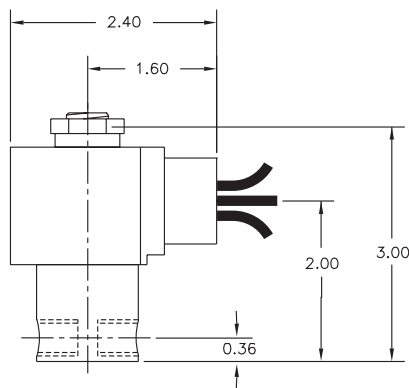
|                       |                       |   |
|-----------------------|-----------------------|---|
| Materials             | Seals:                | Nitrile, Viton®, Ethylene Propylene, Teflon®, Rulon   |
|                       | Orifice:              | Stainless Steel   |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4/4X)   |
|                       | Optional Housings:    | Metallic Conduit, Explosion-proof (NEMA 7), Grommet, Open Frame, Junction Box (single or dual knockouts), DIN; Contact GC Valves Customer Service for others. |
|                       | Standard Voltages:    | 24, 120, 240 AC 60 Hz; 50 Hz available<br>6, 12, 24 DC;<br>Contact GC Valves Customer Service for Additional Voltages.  |
|                       | Voltage Tolerance:    | ±10% of applicable voltage  |
|                       | Coil Classes:         | F, H, N   |
|                       | Standard Lead Length: | 24 inch   |
| Operating Temperature | Ambient (Nominal):    | 32°F to 125°F   |
| Mounting              | Position:             | Any   |
| Approvals*            | Agency:               | UL Listed, UL Recognized, CSA Approved  |

\* Not available for all variations

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## Dimensions/Weight

**Weight (lbs.)**  
0.9



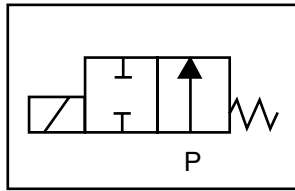
GC Valves Customer Service: 800-828-0484 (7:30am to 4pm ET) or 800-582-4232 (7:30am to 4pm PT)



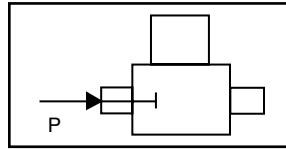
# S312 – 1/8" NPT, Brass Body, Normally Open

## Valve Selection List

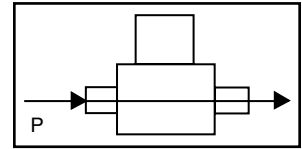
Normally Open



Energized



De-Energized



| Pipe Size<br>NPT | Orifice Size<br>in. | C <sub>v</sub> | Minimum | Operating Pressure Differential (psi) |      |       |      |           |      |        |     | Max<br>Fluid Temp.<br>°F | Seal Material | Power Consumption (Watts) |         | Model Code<br>(120V/60HZ — 110V/50HZ<br>Shown) |               |               |
|------------------|---------------------|----------------|---------|---------------------------------------|------|-------|------|-----------|------|--------|-----|--------------------------|---------------|---------------------------|---------|--|---------------|---------------|
|                  |                     |                |         | Maximum                               |      |       |      |           |      |        |     |                          |               | AC                        | DC      |  |               |               |
|                  |                     |                |         | Air/Gas                               |      | Water |      | Light Oil |      | Steam* |     |                          |               |                           |         |  |               |               |
|                  |                     |                |         | AC                                    | DC   | AC    | DC   | AC        | DC   | AC     | DC  |                          |               | AC                        | DC      | AC   | DC            | Brass Body    |
| 1/8              | 1/32                | .03            | 0       | 2000                                  | 2000 | 2000  | 2000 | 2000      | 2000 | —      | —   | 150*                     | 150*          | 295                       | EPR     | AC   | AC            | S312GF02C8AC1 |
|                  | 3/64                | .05            | 0       | 350                                   | 350  | 350   | 350  | 350       | 350  | —      | —   | 150*                     | 150*          | 295                       | EPR     | 8  | 9             | S312GF02C8AC3 |
|                  | 1/16                | .10            | 0       | 200                                   | 200  | 200   | 200  | 200       | 200  | —      | —   | 150*                     | 150*          | 295                       | EPR     | 8  | 9             | S312GF02C8AC5 |
|                  | 5/64                | .15            | 0       | 140                                   | 140  | 140   | 140  | 140       | 140  | —      | —   | 140*                     | 140*          | 295                       | EPR     | 8  | 9             | S312GF02C8AC7 |
|                  | 3/32                | .20            | 0       | 105                                   | 105  | 105   | 105  | 105       | 105  | —      | —   | 105*                     | 105*          | 295                       | EPR     | 8  | 9             | S312GF02C8AC9 |
|                  | 7/64                | .25            | 0       | 80                                    | 80   | 80    | 80   | 80        | 80   | —      | —   | 80*                      | 80*           | 295                       | EPR     | 8  | 9             | S312GF02C8AD3 |
|                  | 1/8                 | .30            | 0       | 60                                    | 60   | 60    | 60   | 60        | 60   | —      | —   | 60*                      | 60*           | 295                       | EPR     | 8  | 9             | S312GF02C8AD5 |
|                  | 5/32                | .43            | 0       | 45                                    | 45   | 45    | 45   | 45        | 45   | —      | —   | 45*                      | 45*           | 295                       | EPR     | 8  | 9             | S312GF02C8AD7 |
| 3/16             | .65                 | 0              | 30      | 30                                    | 30   | 30    | 30   | 30        | —    | —      | 30* | 30*                      | 295           | EPR                       | 8       | 9  | S312GF02C8AE1 |               |
| 1/8              | 1/32                | .03            | 0       | 2000                                  | 2000 | 2000  | 2000 | 2000      | 2000 | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AC1 |
|                  | 3/64                | .05            | 0       | 350                                   | 350  | 350   | 350  | 350       | 350  | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AC3 |
|                  | 1/16                | .10            | 0       | 200                                   | 200  | 200   | 200  | 200       | 200  | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AC5 |
|                  | 5/64                | .15            | 0       | 140                                   | 140  | 140   | 140  | 140       | 140  | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AC7 |
|                  | 3/32                | .20            | 0       | 105                                   | 105  | 105   | 105  | 105       | 105  | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AC9 |
|                  | 7/64                | .25            | 0       | 80                                    | 80   | 80    | 80   | 80        | 80   | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AD3 |
|                  | 1/8                 | .30            | 0       | 60                                    | 60   | 60    | 60   | 60        | 60   | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AD5 |
|                  | 5/32                | .43            | 0       | 45                                    | 45   | 45    | 45   | 45        | 45   | —      | —   | 180                      | 180           | 180                       | Nitrile | 8  | 9             | S312GF02N8AD7 |
| 3/16             | .65                 | 0              | 30      | 30                                    | 30   | 30    | 30   | 30        | —    | —      | 180 | 180                      | 180           | Nitrile                   | 8       | 9  | S312GF02N8AE1 |               |
| 1/8              | 1/32                | .03            | 0       | 2000                                  | 2000 | 2000  | 2000 | 2000      | 2000 | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AC1 |
|                  | 3/64                | .05            | 0       | 350                                   | 350  | 350   | 350  | 350       | 350  | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AC3 |
|                  | 1/16                | .10            | 0       | 200                                   | 200  | 200   | 200  | 200       | 200  | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AC5 |
|                  | 5/64                | .15            | 0       | 140                                   | 140  | 140   | 140  | 140       | 140  | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AC7 |
|                  | 3/32                | .20            | 0       | 105                                   | 105  | 105   | 105  | 105       | 105  | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AC9 |
|                  | 7/64                | .25            | 0       | 80                                    | 80   | 80    | 80   | 80        | 80   | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AD3 |
|                  | 1/8                 | .30            | 0       | 60                                    | 60   | 60    | 60   | 60        | 60   | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AD5 |
|                  | 5/32                | .43            | 0       | 45                                    | 45   | 45    | 45   | 45        | 45   | —      | —   | 230                      | 230           | 230                       | Viton   | 8  | 9             | S312GF02V8AD7 |
| 3/16             | .65                 | 0              | 30      | 30                                    | 30   | 30    | 30   | 30        | —    | —      | 230 | 230                      | 230           | Viton                     | 8       | 9  | S312GF02V8AE1 |               |

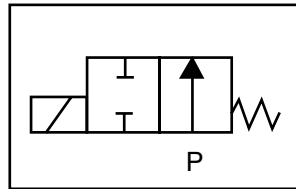
\* Class H Coil Recommended for Steam and Other High Temperature Applications

# S312 – 1/8" NPT, Brass Body, Normally Open

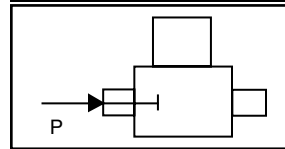


## Valve Selection List

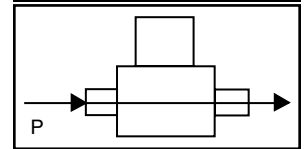
Normally Open



Energized



De-Energized



| Pipe Size<br>NPT | Orifice Size<br>in. | C <sub>v</sub> | Minimum | Operating Pressure Differential (psi) |      |       |      |           |      |        |      | Max<br>Fluid Temp.<br>°F | Seal Material | Power Consumption (Watts) |               | Model Code<br>(120V/60HZ — 110V/50HZ<br>Shown) |
|------------------|---------------------|----------------|---------|---------------------------------------|------|-------|------|-----------|------|--------|------|--------------------------|---------------|---------------------------|---------------|--|
|                  |                     |                |         | Maximum                               |      |       |      |           |      |        |      |                          |               | AC                        | DC            |  |
|                  |                     |                |         | Air/Gas                               |      | Water |      | Light Oil |      | Steam* |      |                          |               |                           |               |  |
|                  |                     |                |         | AC                                    | DC   | AC    | DC   | AC        | DC   | AC     | DC   |                          |               | AC                        | DC            | Brass Body                                     |
| 1/8              | 1/32                | .03            | 0       | 2000                                  | 2000 | 2000  | 2000 | 2000      | 2000 | 150*   | 150* | 366                      | Rulon         | 8                         | 9             | S312GF02R8AC1                                  |
|                  | 3/64                | .05            | 0       | 350                                   | 350  | 350   | 350  | 350       | 350  | 150*   | 150* | 366                      | Rulon         | 8                         | 9             | S312GF02R8AC3                                  |
|                  | 1/16                | .10            | 0       | 200                                   | 200  | 200   | 200  | 200       | 200  | 150*   | 150* | 366                      | Rulon         | 8                         | 9             | S312GF02R8AC5                                  |
|                  | 5/64                | .15            | 0       | 140                                   | 140  | 140   | 140  | 140       | 140  | 140*   | 140* | 366                      | Rulon         | 8                         | 9             | S312GF02R8AC7                                  |
|                  | 3/32                | .20            | 0       | 105                                   | 105  | 105   | 105  | 105       | 105  | 105*   | 105* | 366                      | Rulon         | 8                         | 9             | S312GF02R8AC9                                  |
|                  | 7/64                | .25            | 0       | 80                                    | 80   | 80    | 80   | 80        | 80   | 80*    | 80*  | 366                      | Rulon         | 8                         | 9             | S312GF02R8AD3                                  |
|                  | 1/8                 | .30            | 0       | 60                                    | 60   | 60    | 60   | 60        | 60   | 60*    | 60*  | 366                      | Rulon         | 8                         | 9             | S312GF02R8AD5                                  |
|                  | 5/32                | .43            | 0       | 45                                    | 45   | 45    | 45   | 45        | 45   | 45*    | 45*  | 366                      | Rulon         | 8                         | 9             | S312GF02R8AD7                                  |
| 3/16             | .65                 | 0              | 30      | 30                                    | 30   | 30    | 30   | 30        | 30*  | 30*    | 366  | Rulon                    | 8             | 9                         | S312GF02R8AE1 |  |
| 1/8              | 1/32                | .03            | 0       | 2000                                  | 2000 | 2000  | 2000 | 2000      | 2000 | 150*   | 150* | 366                      | Teflon        | 8                         | 9             | S312GF02T8AC1                                  |
|                  | 3/64                | .05            | 0       | 350                                   | 350  | 350   | 350  | 350       | 350  | 150*   | 150* | 366                      | Teflon        | 8                         | 9             | S312GF02T8AC3                                  |
|                  | 1/16                | .10            | 0       | 200                                   | 200  | 200   | 200  | 200       | 200  | 150*   | 150* | 366                      | Teflon        | 8                         | 9             | S312GF02T8AC5                                  |
|                  | 5/64                | .15            | 0       | 140                                   | 140  | 140   | 140  | 140       | 140  | 140*   | 140* | 366                      | Teflon        | 8                         | 9             | S312GF02T8AC7                                  |
|                  | 3/32                | .22            | 0       | 105                                   | 105  | 105   | 105  | 105       | 105  | 105*   | 105* | 366                      | Teflon        | 8                         | 9             | S312GF02T8AC9                                  |
|                  | 7/64                | .25            | 0       | 80                                    | 80   | 80    | 80   | 80        | 80   | 80*    | 80*  | 366                      | Teflon        | 8                         | 9             | S312GF02T8AD3                                  |
|                  | 1/8                 | .30            | 0       | 60                                    | 60   | 60    | 60   | 60        | 60   | 60*    | 60*  | 366                      | Teflon        | 8                         | 9             | S312GF02T8AD5                                  |
|                  | 5/32                | .43            | 0       | 45                                    | 45   | 45    | 45   | 45        | 45   | 45*    | 45*  | 366                      | Teflon        | 8                         | 9             | S312GF02T8AD7                                  |
| 3/16             | .65                 | 0              | 30      | 30                                    | 30   | 30    | 30   | 30        | 30*  | 30*    | 366  | Teflon                   | 8             | 9                         | S312GF02T8AE1 |  |

\* Class H Coil Recommended for Steam and Other High Temperature Applications



# S312 – 1/8" NPT, Brass Body, Normally Open

## Part Numbering

|  |          |          |                  |            |                          |                      |          |   |               |                 |   |          |
|--|----------|----------|------------------|------------|--------------------------|----------------------|----------|---|---------------|-----------------|---|----------|
| 1  | 2        | 3        | 4                | 5          | 6                        | 7                    | 8        | 9   | 10            | 11              | 12  | 13       |
| <b>S</b>   | <b>3</b> | <b>1</b> | <b>2</b>         | <b>G</b>   | <b>F</b>                 | <b>0</b>             | <b>2</b> | <b>C</b>  | <b>8</b>      | <b>A</b>        | <b>C</b>  | <b>1</b> |
| Series   |          |          | Operating Mode   | Housing*   | Coil Class*              | Voltage*             |          | Seal Material   | Body Material | Pipe Connection | Orifice Size  |          |
| S31  |          |          | 2: Normally Open | G: Conduit | F: Class F<br>H: Class H | 02: 120/60<br>110/50 |          | C: EPR<br>N: Nitrile<br>V: Viton<br>R: Rulon<br>T: Teflon | 8: Brass      | A: 1/8" NPT     | C1: 1/32"<br>C3: 3/64"<br>C5: 1/16"<br>C9: 3/32"<br>D5: 1/8"<br>E1: 3/16" |          |
| * See the "Engineering Guide" for additional voltages, variations and options. |          |          |                  |            |                          |                      |          |   |               |                 |   |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S3   |

|                    |         |    |
|--------------------|---------|----|
| Frequency (Hz)     | 60      | 50 |
| Nominal Power (VA) | Inrush  | 36 |
|                    | Holding | 18 |

GC Valves Customer Service: 800-828-0484 (7:30am to 4pm ET) or 800-582-4232 (7:30am to 4pm PT)