



# NSF Approved Solenoid Valves

**GC Valves, LLC.**  
456 Crompton Street  
Charlotte, North Carolina 28273  
Ph: (800)-828-0484, Fx: (704)-973-9526



*Solenoid Valves  
For Drinking Water*

## **S20 & S21 Series** Stainless Steel & Noryl Solenoid Valves



*GC Valves rugged, time-proven designs have been certified to meet the most demanding standards for drinking water. Common ac and dc voltages are available with the full array of electrical housings. The DIN coil (on S201 at right) is shown with an optional connector.*

GC Valves is manufacturing and shipping solenoid valves that meet state and federal requirements for drinking water. These valves are fully certified to NSF/ANSI 61 and NSF/ANSI 372, making it easier for OEMs to have their systems approved and assuring installers and end users that they comply with all current standards.

The NSF valves also meet "Lead Free" legislation that California, Vermont, Maryland and Louisiana have enacted. A major amendment to the U.S. Safe Drinking Water Act, which takes effect January 2014, will make the "Lead Free" standard a national requirement.



### **Application Data**

- 2-way Normally Closed & Normally Open operation
- 3/8" through 2" NPT ports
- Maximum OPD to 150 psi on Normally Closed (200 psi on NO)
- Cv as high as 28
- All common electrical housings and ac and dc voltages
- Coils intended for continuous duty (100% duty cycle)
- 316 Stainless Steel or Nylon bodies
- Santoprene or EPDM diaphragm with EPDM seals

### **NSF/ANSI Standard 61**

#### **Drinking Water System Components - Health Effects**

establishes minimum health effects requirements for materials, components, products, or systems that contact drinking water or drinking water treatment chemicals

#### **Annex G**

establishes an evaluation procedure for use when product is required to meet a  $\leq 0.25\%$  weighted average lead content requirement

### **NSF/ANSI Standard 372**

establishes an evaluation procedure for use when product is required to meet a  $\leq 0.25\%$  weighted average lead content requirement

### **To learn more,**

Locate your Region Sales Office at  
[www.gcvalves.com](http://www.gcvalves.com)

GC Valves Customer Service:  
[service@gcvalves.com](mailto:service@gcvalves.com)  
East Coast: 800-828-0484



# NS301 Series



- 1/4" NPT
- 303 SS Body
- 2-Way Zero Differential
- Normally Closed

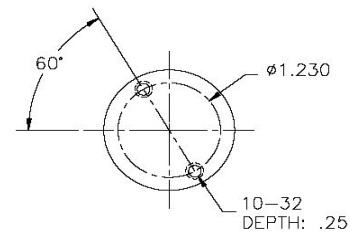
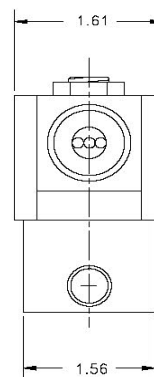
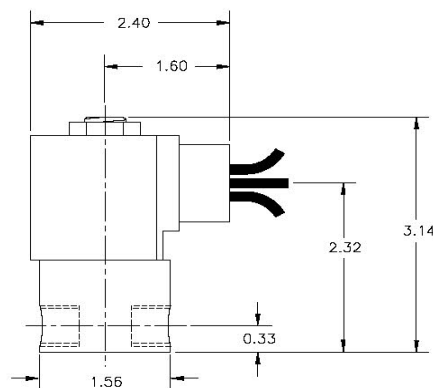


|                       |                       |                                                                                                                         |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved EPDM                                                                                                       |
|                       | Orifice:              | Stainless Steel                                                                                                         |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |
|                       | Coil Classes:         | F, H, N                                                                                                                 |
|                       | Standard Lead Length: | 24 inches                                                                                                               |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |
| Mounting              | Position:             | Any                                                                                                                     |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |

\* Not available for all variations

## Dimensions / Weight

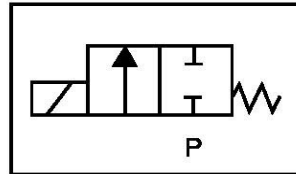
| Weight (lbs.) |
|---------------|
| 1.2           |



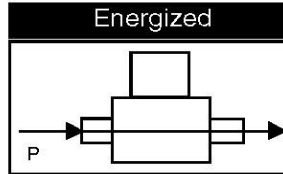
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

# Valve Selection List

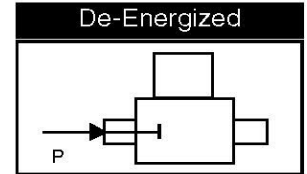
Normally Closed



Energized



De-Energized



| Pipe Size<br><br>NPT | Orifice Size<br><br>in. | C <sub>V</sub> | Minimum | Operating Pressure Differential (psi) |    |       |      |           |    |        |     | Max<br>Fluid Temp.<br><br>°F | Seal Material | Power<br>Consumption<br>(Watts) |                | Model Code<br><br>(120V/60HZ — 110V/50HZ)<br>Shown |  |                      |
|----------------------|-------------------------|----------------|---------|---------------------------------------|----|-------|------|-----------|----|--------|-----|------------------------------|---------------|---------------------------------|----------------|----------------------------------------------------|--|----------------------|
|                      |                         |                |         | Maximum                               |    |       |      |           |    |        |     |                              |               |                                 |                |                                                    |  | Stainless Steel Body |
|                      |                         |                |         | Air/Gas                               |    | Water |      | Light Oil |    | Steam* |     |                              |               |                                 |                |                                                    |  |                      |
|                      |                         |                |         | AC                                    | DC | AC    | DC   | AC        | DC | AC     | DC  |                              |               |                                 |                |                                                    |  |                      |
| 1/4                  | 1/32                    | .03            | 0       | —                                     | —  | 2400  | 2400 | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BC1                                     |  |                      |
|                      | 3/64                    | .05            | 0       | —                                     | —  | 1050  | 1000 | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BC3                                     |  |                      |
|                      | 1/16                    | .10            | 0       | —                                     | —  | 700   | 300  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BC5                                     |  |                      |
|                      | 5/64                    | .15            | 0       | —                                     | —  | 500   | 240  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BC7                                     |  |                      |
|                      | 3/32                    | .21            | 0       | —                                     | —  | 400   | 200  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BC9                                     |  |                      |
|                      | 7/64                    | .29            | 0       | —                                     | —  | 350   | 170  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BD3                                     |  |                      |
|                      | 1/8                     | .36            | 0       | —                                     | —  | 200   | 140  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BD5                                     |  |                      |
|                      | 5/32                    | .44            | 0       | —                                     | —  | 150   | 100  | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BD7                                     |  |                      |
|                      | 3/16                    | .65            | 0       | —                                     | —  | 100   | 70   | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BE1                                     |  |                      |
|                      | 1/4                     | .85            | 0       | —                                     | —  | 50    | 20   | —         | —  | —      | —   | 295                          | EPR           | 10                              | 10             | NS301GF02C3BE7                                     |  |                      |
| 9/32                 | 1.0                     | 0              | —       | —                                     | 35 | 15    | —    | —         | —  | —      | 295 | EPR                          | 10            | 10                              | NS301GF02C3BF1 |                                                    |  |                      |

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

## Part Numbering

| 1                                                                              | 2 | 3 | 4 | 5                  | 6          | 7                        | 8                    | 9 | 10            | 11                 | 12              | 13                                                                                                                           | 14 |
|--------------------------------------------------------------------------------|---|---|---|--------------------|------------|--------------------------|----------------------|---|---------------|--------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------|----|
| N                                                                              | S | 3 | 0 | 1                  | G          | F                        | 0                    | 2 | C             | 3                  | B               | C                                                                                                                            | 1  |
| Series                                                                         |   |   |   | Operating Mode     | Housing*   | Coil Class*              | Voltage*             |   | Seal Material | Body Material      | Pipe Connection | Orifice Size                                                                                                                 |    |
| S30                                                                            |   |   |   | 1: Normally Closed | G: Conduit | F: Class F<br>H: Class H | 02: 120/60<br>110/50 |   | C: EPR        | 3: Stainless Steel | B: 1/4" NPT     | C1: 1/32"<br>C3: 3/64"<br>C5: 1/16"<br>C7: 5/64"<br>C9: 3/32"<br>D5: 1/8"<br>D7: 5/32"<br>E1: 3/16"<br>E7: 1/4"<br>F1: 9/32" |    |
| * See the "Engineering Guide" for additional voltages, variations and options. |   |   |   |                    |            |                          |                      |   |               |                    |                 |                                                                                                                              |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |  | 60 | 50 |
|--------------------|--|----|----|
| Nominal Power (VA) |  |    |    |
| Inrush             |  | 46 | 46 |
| Holding            |  | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS201 Series



- 3/8" NPT
- 316 SS Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

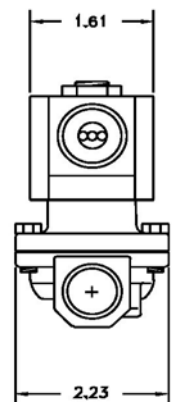
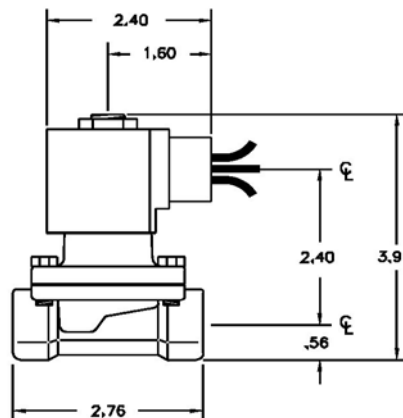


|                       |                       |                                                                                                                         |                                    |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                                    |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                                    |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                                    |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                                    |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                                    |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                                    |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                                    |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                                    |
| Mounting              | Position:             | Any                                                                                                                     |                                    |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                                    |

\* Not available for all variations

## Dimensions / Weight

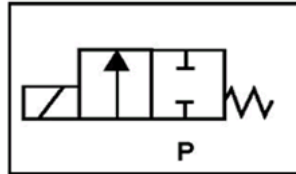
| Weight (lbs.) |
|---------------|
| 1.9           |



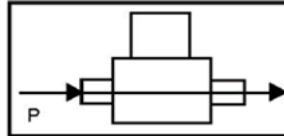
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## Valve Selection List

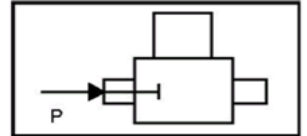
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |                | Operating Pressure Differential (psi) |         |    |       |    |           |    |        | Max<br>Fluid Temp. | Seal Material | Power Consumption (Watts) |                                  | Model Code                         |  |
|-----------|--------------|----------------|---------------------------------------|---------|----|-------|----|-----------|----|--------|--------------------|---------------|---------------------------|----------------------------------|------------------------------------|--|
|           |              |                | Minimum                               | Maximum |    |       |    |           |    |        |                    |               | AC                        | DC                               | ( 120V/60HZ — 110V/50HZ<br>Shown ) |  |
|           |              |                |                                       | Air/Gas |    | Water |    | Light Oil |    | Steam* |                    |               |                           |                                  |                                    |  |
|           |              |                |                                       | AC      | DC | AC    | DC | AC        | DC | AC     |                    |               |                           |                                  |                                    |  |
| NPT       | IN           | C <sub>V</sub> |                                       |         |    |       |    |           |    | °F     |                    | AC            | DC                        | Stainless Steel Body<br>Type 316 |                                    |  |
| 3/8"      | 5/8          | 4.3            | 0                                     | —       | —  | 100   | 90 | —         | —  | —      | 295                | Santo<br>EPR  | 10                        | 10                               | NS201GF02F7CG4                     |  |

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

## Part Numbering

| 1        | 2        | 3        | 4        | 5                  | 6               | 7                        | 8                                  | 9        | 10                     | 11            | 12              | 13           | 14       |
|----------|----------|----------|----------|--------------------|-----------------|--------------------------|------------------------------------|----------|------------------------|---------------|-----------------|--------------|----------|
| <b>N</b> | <b>S</b> | <b>2</b> | <b>0</b> | <b>1</b>           | <b>G</b>        | <b>F</b>                 | <b>0</b>                           | <b>2</b> | <b>F</b>               | <b>7</b>      | <b>C</b>        | <b>G</b>     | <b>4</b> |
| Series   |          |          |          | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |          | Seal Material          | Body Material | Pipe Connection | Orifice Size |          |
| NS20     |          |          |          | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |          | F: Santoprene/<br>EPDM | 7: S. Steel   | C: 3/8"         | G4: 5/8"     |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

|                    |  |    |    |
|--------------------|--|----|----|
| Frequency (Hz)     |  | 60 | 50 |
| Nominal Power (VA) |  | 46 | 46 |
| Inrush             |  |    |    |
| Holding            |  | 18 | 23 |



# NS201 Series



- 3/8" NPT
- Noryl Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

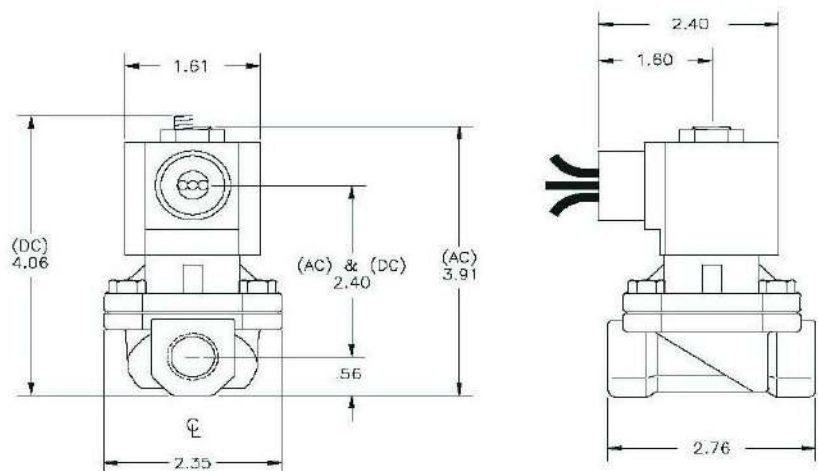


|                       |                       |                                                                                                                         |                          |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                          |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                          |
| Mounting              | Position:             | Any                                                                                                                     |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                          |

\* Not available for all variations

## Dimensions / Weight

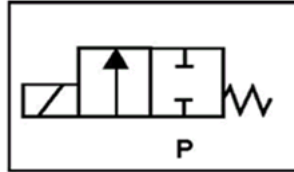
| Weight (lbs.) |
|---------------|
| 1             |



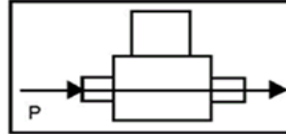
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

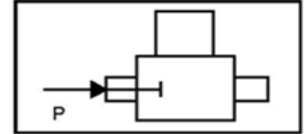
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>V</sub> | Operating Pressure Differential (psi) |         |    |       |    |           |    |        | Max<br>Fluid Temp.<br>°F | Seal Material | Power Consumption (Watts) |    | Model Code                         |  |
|-----------|--------------|----------------|---------------------------------------|---------|----|-------|----|-----------|----|--------|--------------------------|---------------|---------------------------|----|------------------------------------|--|
|           |              |                | Minimum                               | Maximum |    |       |    |           |    |        |                          |               | AC                        | DC | ( 120V/60HZ — 110V/50HZ<br>Shown ) |  |
|           |              |                |                                       | Air/Gas |    | Water |    | Light Oil |    | Steam* |                          |               |                           |    |                                    |  |
|           |              |                |                                       | AC      | DC | AC    | DC | AC        | DC | AC     |                          |               |                           |    |                                    |  |
| NPT       | IN           |                |                                       |         |    |       |    |           |    |        |                          |               |                           |    |                                    |  |
| 3/8"      | 5/8          | 4.3            | 0                                     | —       | —  | 100   | 90 | —         | —  | —      | 295                      | Santo<br>EPR  | 10                        | 10 | NS201GF02FPCG4                     |  |

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

## Part Numbering

| 1        | 2        | 3        | 4        | 5                  | 6               | 7                        | 8                                  | 9        | 10                     | 11            | 12              | 13           | 14       |
|----------|----------|----------|----------|--------------------|-----------------|--------------------------|------------------------------------|----------|------------------------|---------------|-----------------|--------------|----------|
| <b>N</b> | <b>S</b> | <b>2</b> | <b>0</b> | <b>1</b>           | <b>G</b>        | <b>F</b>                 | <b>0</b>                           | <b>2</b> | <b>F</b>               | <b>P</b>      | <b>C</b>        | <b>G</b>     | <b>4</b> |
| Series   |          |          |          | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |          | Seal Material          | Body Material | Pipe Connection | Orifice Size |          |
| NS20     |          |          |          | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |          | F: Santoprene/<br>EPDM | P: Noryl      | C: 3/8"         | G4: 5/8"     |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 3/8" NPT
- 316 SS Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

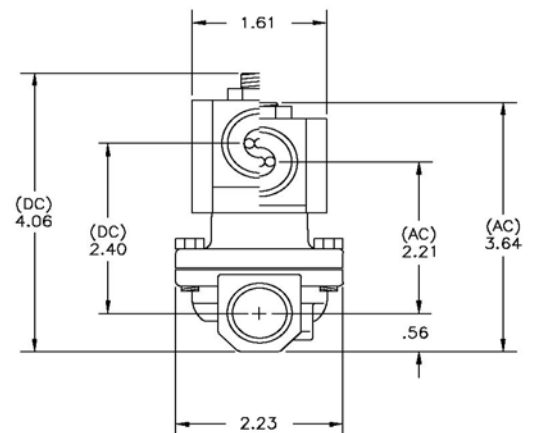
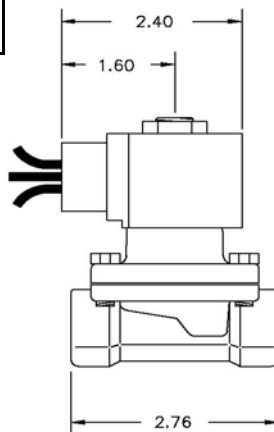


|                       |                       |                                                                                                                         |                                    |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                                    |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                                    |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                                    |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                                    |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                                    |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                                    |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                                    |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                                    |
| Mounting              | Position:             | Any                                                                                                                     |                                    |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                                    |

\* Not available for all variations

## Dimensions / Weight

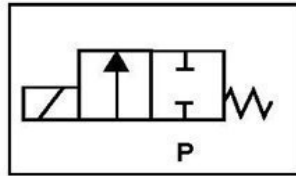
| Weight (lbs.) |
|---------------|
| 1.8           |



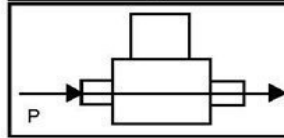
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## Valve Selection List

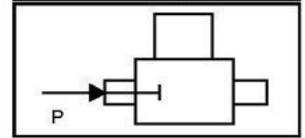
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>v</sub> | Operating Pressure Differential (psi) |    |       |     |           |    |        |   | Max<br>Fluid Temp.<br>°F | Seal Material | Power<br>Consumption<br>(Watts) |                                  | Model Code      |                                    |
|-----------|--------------|----------------|---------------------------------------|----|-------|-----|-----------|----|--------|---|--------------------------|---------------|---------------------------------|----------------------------------|-----------------|------------------------------------|
|           |              |                | Maximum                               |    |       |     |           |    |        |   |                          |               | AC                              |                                  | DC              | ( 120V/60HZ — 110V/50HZ<br>Shown ) |
|           |              |                | Air/Gas                               |    | Water |     | Light Oil |    | Steam* |   |                          |               |                                 |                                  |                 |                                    |
|           |              |                | AC                                    | DC | AC    | DC  | AC        | DC | AC     |   |                          |               |                                 |                                  |                 |                                    |
| NPT       | IN           |                | Minimum                               | AC | DC    | AC  | DC        | AC | DC     |   |                          | AC            | DC                              | Stainless Steel Body<br>Type 316 |                 |                                    |
| 3/8"      | 5/8"         | 4.3            | 4                                     | —  | —     | 150 | 100       | —  | —      | — | 295                      | Santo<br>EPR  | 8                               | 10                               | NS2 11GF02F7CG4 |                                    |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                     | 6                  | 7                        | 8                                  | 9 | 10                     | 11               | 12                 | 13           | 14 |
|--------|---|---|---|-----------------------|--------------------|--------------------------|------------------------------------|---|------------------------|------------------|--------------------|--------------|----|
| N      | S | 2 | 1 | 1                     | G                  | F                        | 0                                  | 2 | F                      | 7                | C                  | G            | 4  |
| Series |   |   |   | Operating<br>Mode     | Housing*           | Coil Class*              | Voltage*                           |   | Seal<br>Material       | Body<br>Material | Pipe<br>Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally<br>Closed | G: 1/2"<br>Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | 7: S. Steel      | C: 3/8"            | G4: 5/8"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 3/8" NPT
- Noryl Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

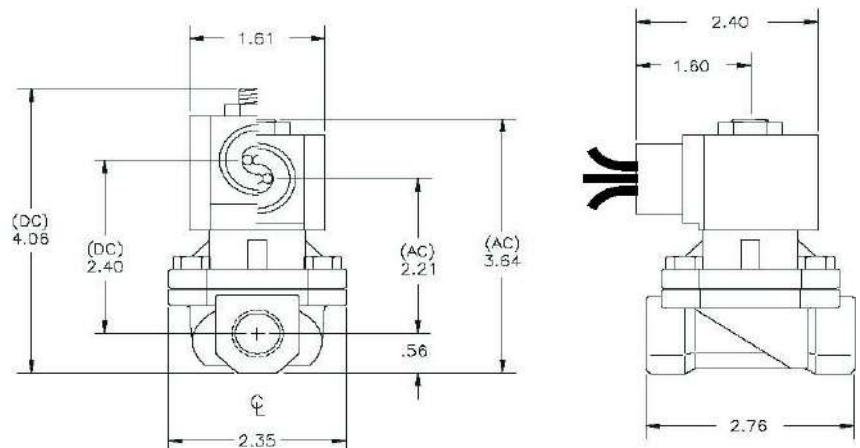


|                       |                       |                                                                                                                         |                          |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                          |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                          |
| Mounting              | Position:             | Any                                                                                                                     |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                          |

\* Not available for all variations

## Dimensions / Weight

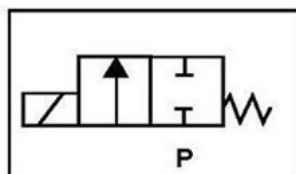
| Weight (lbs.) |
|---------------|
| 0.9           |



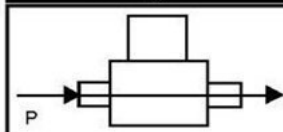
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

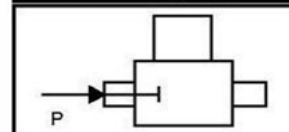
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>V</sub> | Operating Pressure Differential (psi) |         |    |       |     |           |    |        | Max<br>Fluid Temp.<br>°F | Seal Material | Power<br>Consumption<br>(Watts) |            | Model Code                         |  |
|-----------|--------------|----------------|---------------------------------------|---------|----|-------|-----|-----------|----|--------|--------------------------|---------------|---------------------------------|------------|------------------------------------|--|
|           |              |                | Minimum                               | Maximum |    |       |     |           |    |        |                          |               | AC                              | DC         | ( 120V/60HZ — 110V/50HZ<br>Shown ) |  |
|           |              |                |                                       | Air/Gas |    | Water |     | Light Oil |    | Steam* |                          |               |                                 |            |                                    |  |
|           |              |                |                                       | AC      | DC | AC    | DC  | AC        | DC |        |                          |               |                                 |            |                                    |  |
| NPT       | IN           |                |                                       | AC      | DC | AC    | DC  | AC        | DC |        |                          | AC            | DC                              | Noryl Body |                                    |  |
| 3/8"      | 5/8"         | 4.3            | 4                                     | —       | —  | 150   | 100 | —         | —  | —      | 295                      | Santo<br>EPR  | 8                               | 10         | NS211GF02FPCG4                     |  |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                  | 6               | 7                        | 8                                  | 9 | 10                     | 11            | 12              | 13           | 14 |
|--------|---|---|---|--------------------|-----------------|--------------------------|------------------------------------|---|------------------------|---------------|-----------------|--------------|----|
| N      | S | 2 | 1 | 1                  | G               | F                        | 0                                  | 2 | F                      | P             | C               | G            | 4  |
| Series |   |   |   | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |   | Seal Material          | Body Material | Pipe Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | P: Noryl      | C: 3/8"         | G4: 5/8"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

| Frequency (Hz)     |  | 60 | 50 |
|--------------------|--|----|----|
| Nominal Power (VA) |  | 46 | 46 |
| Inrush             |  |    |    |
| Holding            |  | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS201 Series



- 1/2" NPT
- 316 SS Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

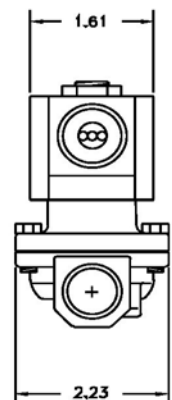
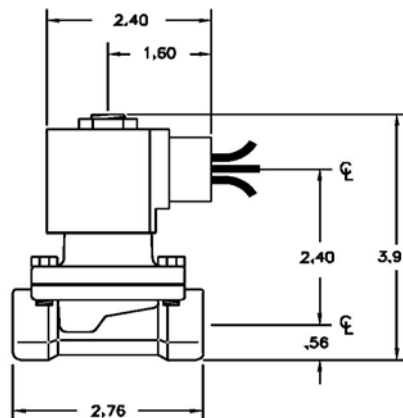


|                       |                       |                                                                                                                         |                 |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                 |
|                       | Orifice:              | Pilot                                                                                                                   | Stainless Steel |
|                       |                       | Main                                                                                                                    | Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                 |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                 |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                 |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                 |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                 |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                 |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                 |
| Mounting              | Position:             | Any                                                                                                                     |                 |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                 |

\* Not available for all variations

## Dimensions / Weight

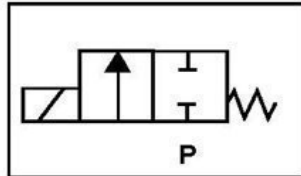
|               |
|---------------|
| Weight (lbs.) |
| 1.9           |



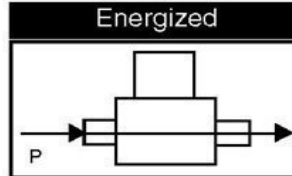
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

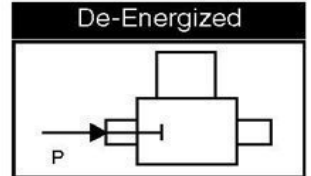
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |                | Minimum | Operating Pressure Differential (psi) |    |       |    |           |    |        |     | Max<br>Fluid Temp. | Seal Material | Power<br>Consumption<br>(Watts) |                                  | Model Code |                                    |
|-----------|--------------|----------------|---------|---------------------------------------|----|-------|----|-----------|----|--------|-----|--------------------|---------------|---------------------------------|----------------------------------|------------|------------------------------------|
|           |              |                |         | Maximum                               |    |       |    |           |    |        |     |                    |               | °F                              | AC                               | DC         | ( 120V/60HZ — 110V/50HZ<br>Shown ) |
|           |              |                |         | Air/Gas                               |    | Water |    | Light Oil |    | Steam* |     |                    |               |                                 |                                  |            |                                    |
|           |              |                |         | AC                                    | DC | AC    | DC | AC        | DC | AC     |     |                    |               |                                 |                                  |            |                                    |
| NPT       | IN           | C <sub>v</sub> |         | AC                                    | DC | AC    | DC | AC        | DC | AC     |     |                    | AC            | DC                              | Stainless Steel Body<br>Type 316 |            |                                    |
| 1/2       | 5/8          | 4.3            | 0       | —                                     | —  | 100   | 90 | —         | —  | —      | 295 |                    | 10            | 10                              | NS201GF02F7DG4                   |            |                                    |

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

## Part Numbering

| 1        | 2        | 3        | 4        | 5                  | 6               | 7                        | 8                                  | 9        | 10                     | 11            | 12              | 13           | 14       |
|----------|----------|----------|----------|--------------------|-----------------|--------------------------|------------------------------------|----------|------------------------|---------------|-----------------|--------------|----------|
| <b>N</b> | <b>S</b> | <b>2</b> | <b>0</b> | <b>1</b>           | <b>G</b>        | <b>F</b>                 | <b>0</b>                           | <b>2</b> | <b>F</b>               | <b>7</b>      | <b>D</b>        | <b>G</b>     | <b>4</b> |
| Series   |          |          |          | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |          | Seal Material          | Body Material | Pipe Connection | Orifice Size |          |
| NS20     |          |          |          | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |          | F: Santoprene/<br>EPDM | 7: S. Steel   | D: 1/2"         | G4: 5/8"     |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS201 Series



- 1/2" NPT
- Noryl Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

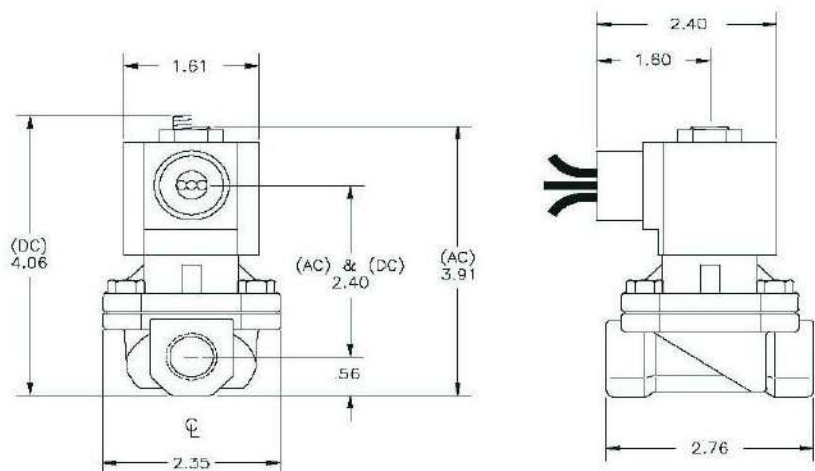


|                       |                       |                                                                                                                         |                          |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                          |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                          |
| Mounting              | Position:             | Any                                                                                                                     |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                          |

\* Not available for all variations

## Dimensions / Weight

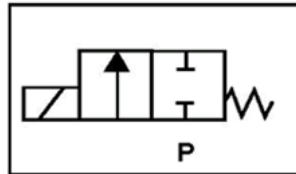
| Weight (lbs.) |
|---------------|
| 1             |



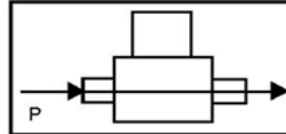
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

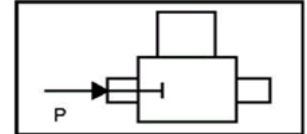
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>v</sub> | Operating Pressure Differential (psi) |         |    |       |    |           |    |        | Max<br>Fluid Temp.<br>°F | Seal Material | Power<br>Consumption<br>(Watts) |    | Model Code<br>( 120V/60HZ — 110V/50HZ<br>Shown ) |  |
|-----------|--------------|----------------|---------------------------------------|---------|----|-------|----|-----------|----|--------|--------------------------|---------------|---------------------------------|----|--------------------------------------------------|--|
|           |              |                | Minimum                               | Maximum |    |       |    |           |    |        |                          |               | AC                              | DC | Noryl Body                                       |  |
|           |              |                |                                       | Air/Gas |    | Water |    | Light Oil |    | Steam* |                          |               |                                 |    |                                                  |  |
|           |              |                |                                       | AC      | DC | AC    | DC | AC        | DC | AC     |                          |               |                                 |    |                                                  |  |
| NPT       | IN           |                |                                       |         |    |       |    |           |    |        |                          |               |                                 |    |                                                  |  |
| 1/2"      | 5/8          | 4.3            | 0                                     | —       | —  | 100   | 90 | —         | —  | —      | 295                      | Santo<br>EPR  | 10                              | 10 | NS201GF02FPDG4                                   |  |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                     | 6                  | 7                        | 8                                  | 9 | 10                     | 11               | 12                 | 13           | 14 |
|--------|---|---|---|-----------------------|--------------------|--------------------------|------------------------------------|---|------------------------|------------------|--------------------|--------------|----|
| N      | S | 2 | 0 | 1                     | G                  | F                        | 0                                  | 2 | F                      | P                | D                  | G            | 4  |
| Series |   |   |   | Operating<br>Mode     | Housing*           | Coil Class*              | Voltage*                           |   | Seal<br>Material       | Body<br>Material | Pipe<br>Connection | Orifice Size |    |
| NS20   |   |   |   | 1: Normally<br>Closed | G: 1/2"<br>Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | P: Noryl         | D: 1/2"            | G4: 5/8"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |  | 60 | 50 |
|--------------------|--|----|----|
| Nominal Power (VA) |  | 46 | 46 |
| Inrush             |  |    |    |
| Holding            |  | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 1/2" NPT
- 316 SS Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

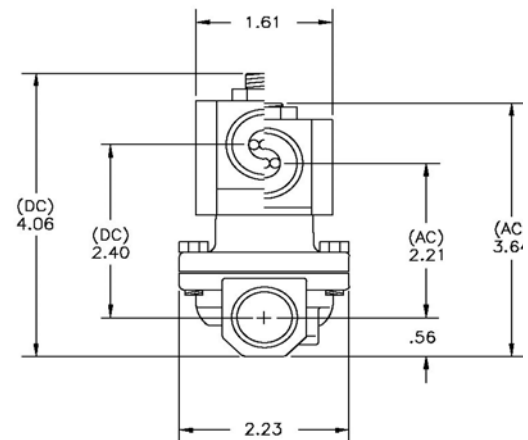
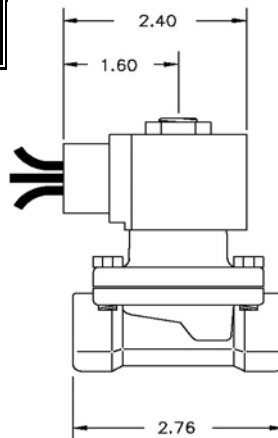


|                       |                       |                                                                                                                         |                                    |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                                    |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                                    |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                                    |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                                    |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                                    |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                                    |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                                    |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                                    |
| Mounting              | Position:             | Any                                                                                                                     |                                    |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                                    |

\* Not available for all variations

## Dimensions / Weight

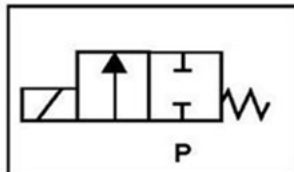
| Weight (lbs.) |
|---------------|
| 1.8           |



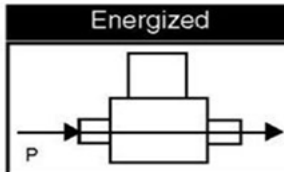
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

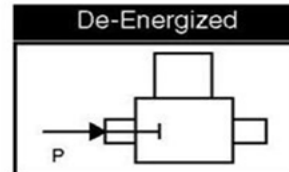
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>V</sub> | Operating Pressure Differential (psi) |    |       |     |           |    |        |    | Max<br>Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code                         |
|-----------|--------------|----------------|---------------------------------------|----|-------|-----|-----------|----|--------|----|--------------------|---------------|---------------------------|----|------------------------------------|
|           |              |                | Maximum                               |    |       |     |           |    |        |    |                    |               | AC                        | DC | ( 120V/60HZ — 110V/50HZ<br>Shown ) |
|           |              |                | Air/Gas                               |    | Water |     | Light Oil |    | Steam* |    |                    |               |                           |    |                                    |
|           |              |                | AC                                    | DC | AC    | DC  | AC        | DC | AC     |    |                    |               |                           |    |                                    |
| NPT       | IN           |                | Minimum                               |    |       |     |           |    |        | °F |                    |               |                           |    | Stainless Steel Body<br>Type 316   |
| 1/2       | 5/8          | 4.3            | 4                                     | —  | —     | 150 | 100       | —  | —      | —  | 295                | Santo<br>EPR  | 8                         | 10 | NS211GF02F7DG4                     |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                  | 6               | 7                        | 8                                  | 9 | 10                     | 11            | 12              | 13           | 14 |
|--------|---|---|---|--------------------|-----------------|--------------------------|------------------------------------|---|------------------------|---------------|-----------------|--------------|----|
| N      | S | 2 | 1 | 1                  | G               | F                        | 0                                  | 2 | F                      | 7             | D               | G            | 4  |
| Series |   |   |   | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |   | Seal Material          | Body Material | Pipe Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | 7: S. Steel   | D: 1/2"         | G4: 5/8"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 1/2" NPT
- Noryl Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

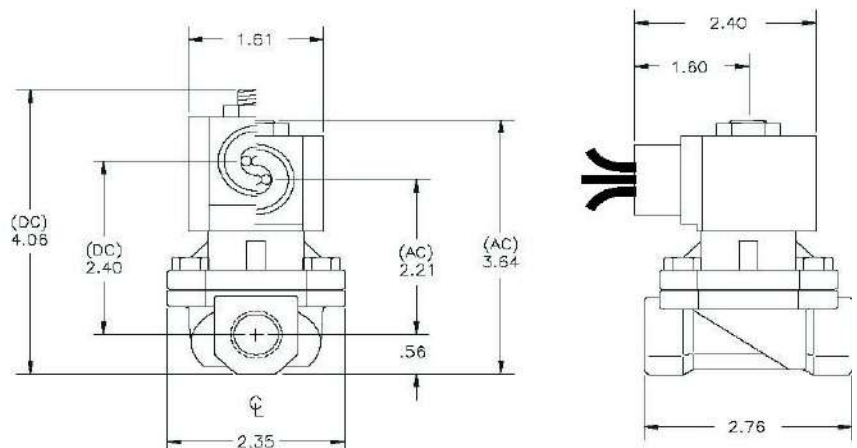


|                       |                       |                                                                                                                         |                          |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                          |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                          |
| Mounting              | Position:             | Any                                                                                                                     |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                          |

\* Not available for all variations

## Dimensions / Weight

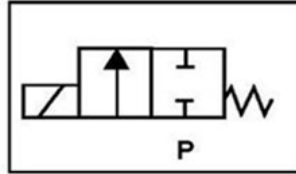
| Weight (lbs.) |
|---------------|
| 0.9           |



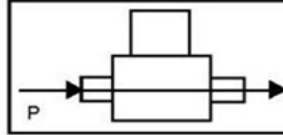
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

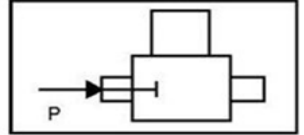
Normally Closed



Energized



De-Energized



| Pipe Size<br><br>NPT | Orifice Size<br><br>IN | C <sub>V</sub> | Operating Pressure Differential (psi) |         |    |       |     |           |    |        | Max<br>Fluid Temp.<br><br>°F | Seal Material | Power<br>Consumption<br>(Watts) |    | Model Code<br><br>( 120V/60HZ — 110V/50HZ<br>Shown ) |  |
|----------------------|------------------------|----------------|---------------------------------------|---------|----|-------|-----|-----------|----|--------|------------------------------|---------------|---------------------------------|----|------------------------------------------------------|--|
|                      |                        |                | Minimum                               | Maximum |    |       |     |           |    |        |                              |               | AC                              | DC | Noryl Body                                           |  |
|                      |                        |                |                                       | Air/Gas |    | Water |     | Light Oil |    | Steam* |                              |               |                                 |    |                                                      |  |
|                      |                        |                |                                       | AC      | DC | AC    | DC  | AC        | DC |        |                              |               |                                 |    |                                                      |  |
| 1/2                  | 5/8                    | 4.3            | 4                                     | —       | —  | 150   | 100 | —         | —  | —      | 295                          | Santo<br>EPR  | 8                               | 10 | NS211GF02FPDG4                                       |  |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                  | 6               | 7                        | 8                                  | 9 | 10                     | 11            | 12              | 13           | 14 |
|--------|---|---|---|--------------------|-----------------|--------------------------|------------------------------------|---|------------------------|---------------|-----------------|--------------|----|
| N      | S | 2 | 1 | 1                  | G               | F                        | 0                                  | 2 | F                      | P             | D               | G            | 4  |
| Series |   |   |   | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |   | Seal Material          | Body Material | Pipe Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | P: Noryl      | D: 1/2"         | G4: 5/8"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |



# NS201 Series



- 3/4" NPT
- 316 SS Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

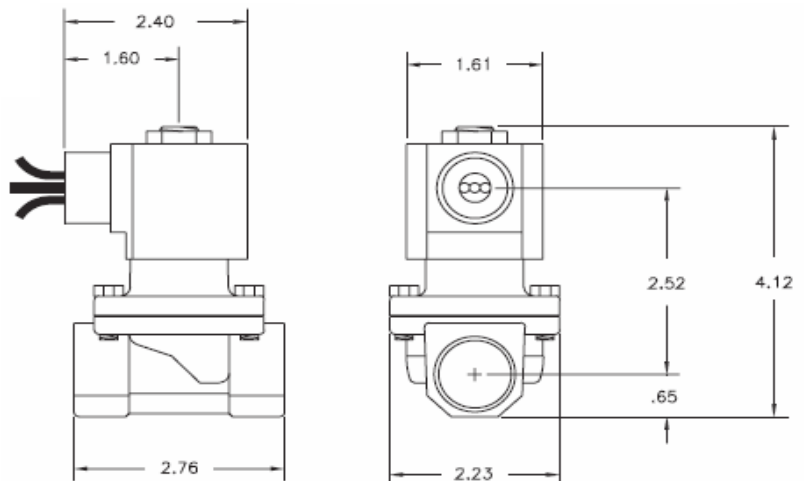


|                       |                       |                                                                                                                         |                                    |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                                    |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                                    |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                                    |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                                    |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                                    |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                                    |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                                    |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                                    |
| Mounting              | Position:             | Any                                                                                                                     |                                    |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                                    |

\* Not available for all variations

## Dimensions / Weight

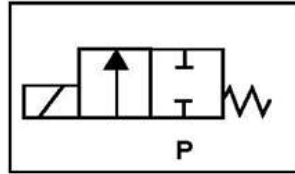
| Weight (lbs.) |
|---------------|
| 2             |



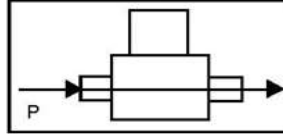
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

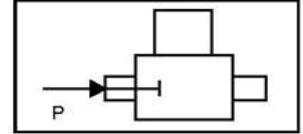
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>V</sub> | Minimum | Operating Pressure Differential (psi) |    |       |    |           |    |        |     | Max<br>Fluid Temp.<br>°F | Seal Material | Power<br>Consumption<br>(Watts) |                | Model Code                         |
|-----------|--------------|----------------|---------|---------------------------------------|----|-------|----|-----------|----|--------|-----|--------------------------|---------------|---------------------------------|----------------|------------------------------------|
|           |              |                |         | Maximum                               |    |       |    |           |    |        |     |                          |               |                                 |                | ( 120V/60HZ — 110V/50HZ<br>Shown ) |
|           |              |                |         | Air/Gas                               |    | Water |    | Light Oil |    | Steam* |     |                          |               |                                 |                |                                    |
|           |              |                |         | AC                                    | DC | AC    | DC | AC        | DC | AC     |     |                          |               | AC                              | DC             | Stainless Steel Body<br>Type 316   |
| NPT       | IN           |                |         |                                       |    |       |    |           |    |        |     |                          |               |                                 |                |                                    |
| 3/4       | 3/4          | 6.7            | 0       | —                                     | —  | 100   | 90 | —         | —  | —      | 295 | Santo<br>EPR             | 10            | 10                              | NS201GF02F7EG5 |                                    |

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

## Part Numbering

| 1        | 2        | 3        | 4        | 5                  | 6               | 7                        | 8                                  | 9        | 10                     | 11            | 12              | 13           | 14       |
|----------|----------|----------|----------|--------------------|-----------------|--------------------------|------------------------------------|----------|------------------------|---------------|-----------------|--------------|----------|
| <b>N</b> | <b>S</b> | <b>2</b> | <b>0</b> | <b>1</b>           | <b>G</b>        | <b>F</b>                 | <b>0</b>                           | <b>2</b> | <b>F</b>               | <b>7</b>      | <b>E</b>        | <b>G</b>     | <b>5</b> |
| Series   |          |          |          | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |          | Seal Material          | Body Material | Pipe Connection | Orifice Size |          |
| NS20     |          |          |          | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |          | F: Santoprene/<br>EPDM | 7: S. Steel   | E: 3/4" NPT     | G5: 3/4"     |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS201 Series



- 3/4" NPT
- Noryl Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

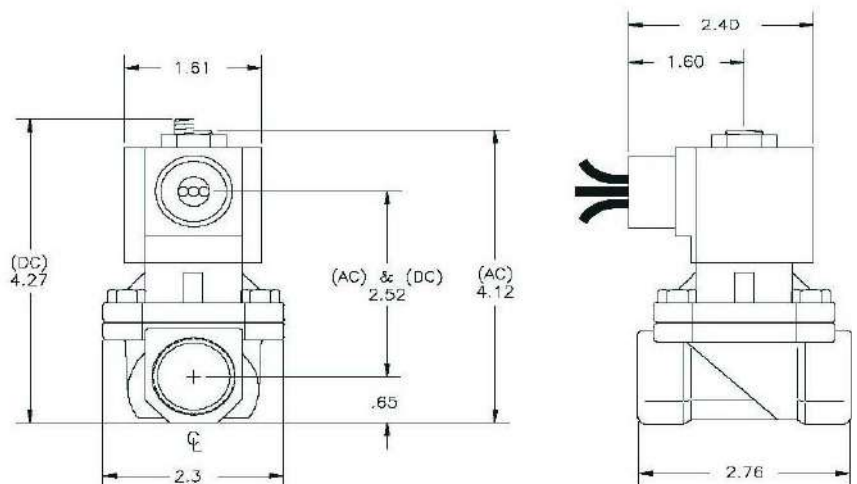


|                       |                       |                                                                                                                         |                          |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                           | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                          |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                          |
| Mounting              | Position:             | Any                                                                                                                     |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                          |

\* Not available for all variations

## Dimensions / Weight

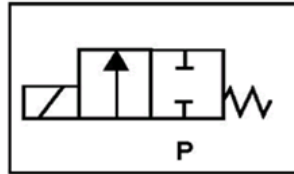
| Weight (lbs.) |
|---------------|
| 1.1           |



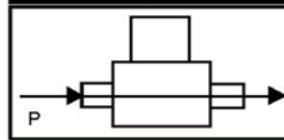
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

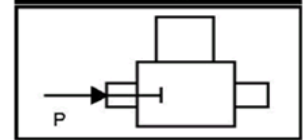
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>v</sub> | Operating Pressure Differential (psi) |    |       |     |           |    |        |   | Max<br>Fluid Temp.<br>°F | Seal Material | Power Consumption (Watts)          |            | Model Code     |
|-----------|--------------|----------------|---------------------------------------|----|-------|-----|-----------|----|--------|---|--------------------------|---------------|------------------------------------|------------|----------------|
|           |              |                | Maximum                               |    |       |     |           |    |        |   |                          |               | ( 120V/60HZ — 110V/50HZ<br>Shown ) |            |                |
|           |              |                | Air/Gas                               |    | Water |     | Light Oil |    | Steam* |   |                          |               |                                    |            |                |
|           |              |                | AC                                    | DC | AC    | DC  | AC        | DC | AC     |   |                          |               |                                    |            |                |
| NPT       | IN           |                | Minimum                               |    |       |     |           |    |        |   |                          | AC            | DC                                 | Noryl Body |                |
| 3/4       | 3/4          | 6.7            | 0                                     | —  | —     | 100 | 90        | —  | —      | — | 295                      | Santo EPR     | 10                                 | 10         | NS201GF02FPEG5 |

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

## Part Numbering

| 1        | 2        | 3        | 4        | 5                  | 6               | 7                        | 8                                  | 9        | 10                     | 11            | 12              | 13           | 14       |
|----------|----------|----------|----------|--------------------|-----------------|--------------------------|------------------------------------|----------|------------------------|---------------|-----------------|--------------|----------|
| <b>N</b> | <b>S</b> | <b>2</b> | <b>0</b> | <b>1</b>           | <b>G</b>        | <b>F</b>                 | <b>0</b>                           | <b>2</b> | <b>F</b>               | <b>P</b>      | <b>E</b>        | <b>G</b>     | <b>5</b> |
| Series   |          |          |          | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |          | Seal Material          | Body Material | Pipe Connection | Orifice Size |          |
| NS20     |          |          |          | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |          | F: Santoprene/<br>EPDM | P: Noryl      | E: 3/4" NPT     | G5: 3/4"     |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 3/4" NPT
- 316 SS Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

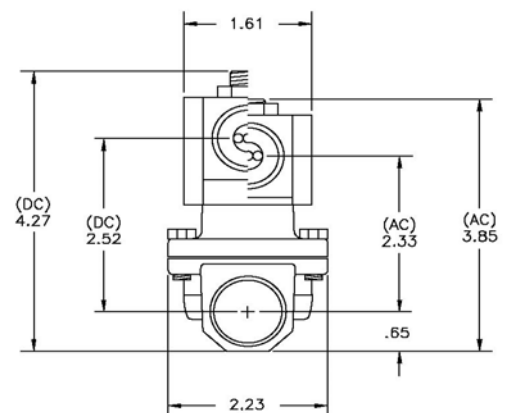
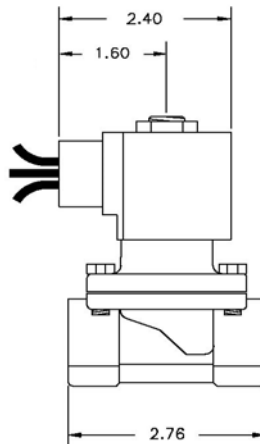


|                       |                       |                                                                                                                         |                 |
|-----------------------|-----------------------|-------------------------------------------------------------------------------------------------------------------------|-----------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                            |                 |
|                       | Orifice:              | Pilot                                                                                                                   | Stainless Steel |
|                       |                       | Main                                                                                                                    | Stainless Steel |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                   |                 |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                  |                 |
|                       | Voltage:              | 24,120,240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                 |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                             |                 |
|                       | Coil Classes:         | F, H, N                                                                                                                 |                 |
|                       | Standard Lead Length: | 24 inches                                                                                                               |                 |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                         |                 |
| Mounting              | Position:             | Any                                                                                                                     |                 |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                               |                 |

\* Not available for all variations

## Dimensions / Weight

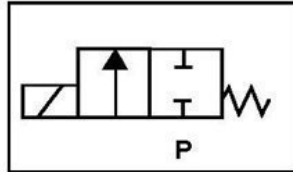
| Weight (lbs.) |
|---------------|
| 1.9           |



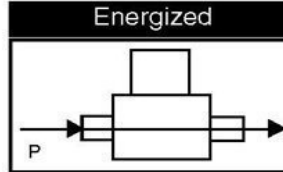
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

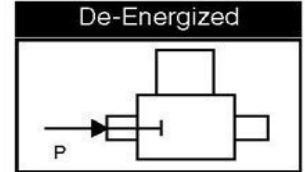
Normally Closed



Energized



De-Energized



| Pipe Size<br>NPT | Orifice Size<br>IN | C <sub>V</sub> | Operating Pressure Differential (psi) |         |    |       |     |           |    |        | Max<br>Fluid Temp.<br>°F | Seal Material | Power<br>Consumption<br>(Watts) |    | Model Code<br>( 120V/60HZ — 110V/50HZ<br>Shown ) |                                  |  |
|------------------|--------------------|----------------|---------------------------------------|---------|----|-------|-----|-----------|----|--------|--------------------------|---------------|---------------------------------|----|--------------------------------------------------|----------------------------------|--|
|                  |                    |                | Minimum                               | Maximum |    |       |     |           |    |        |                          |               | AC                              |    | DC                                               | Stainless Steel Body<br>Type 316 |  |
|                  |                    |                |                                       | Air/Gas |    | Water |     | Light Oil |    | Steam* |                          |               |                                 |    |                                                  |                                  |  |
|                  |                    |                |                                       | AC      | DC | AC    | DC  | AC        | DC | AC     |                          |               |                                 |    |                                                  |                                  |  |
| 3/4"             | 3/4"               | 6.7            | 4                                     | —       | —  | 150   | 100 | —         | —  | —      | 295                      | Santo<br>EPR  | 8                               | 10 | NS211GF02F7EG5                                   |                                  |  |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                  | 6               | 7                        | 8                                  | 9 | 10                     | 11            | 12              | 13           | 14 |
|--------|---|---|---|--------------------|-----------------|--------------------------|------------------------------------|---|------------------------|---------------|-----------------|--------------|----|
| N      | S | 2 | 1 | 1                  | G               | F                        | 0                                  | 2 | F                      | 7             | E               | G            | 5  |
| Series |   |   |   | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |   | Seal Material          | Body Material | Pipe Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | 7: S. Steel   | E: 3/4"         | G5: 3/4"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS211 Series



- 3/4" NPT
- Noryl Body
- 2-Way
- Piloted Diaphragm
- Normally Closed

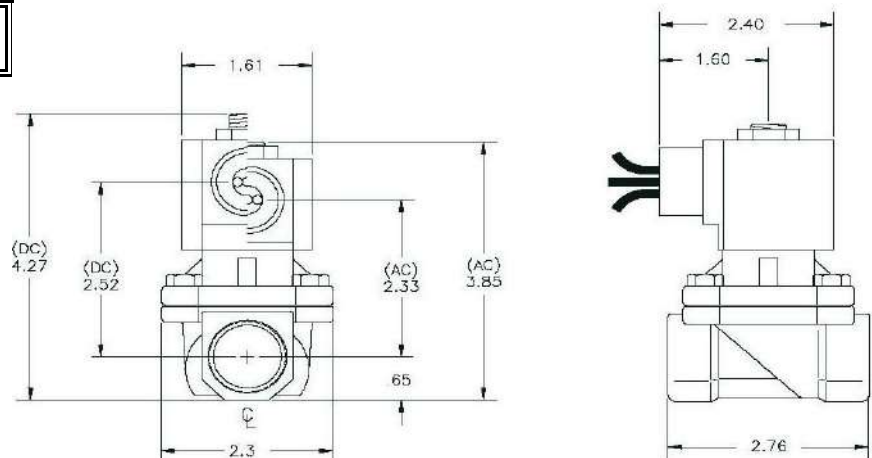


|                       |                       |                                                                                                                           |                          |
|-----------------------|-----------------------|---------------------------------------------------------------------------------------------------------------------------|--------------------------|
| Materials             | Seals:                | Santoprene/NSF Approved EPDM                                                                                              |                          |
|                       | Orifice:              | Pilot<br>Main                                                                                                             | Stainless Steel<br>Noryl |
| Electrical            | Housing:              | NEMA 4/4X Encapsulated - 1/2" Conduit                                                                                     |                          |
|                       | Optional Housings:    | Contact GC Valves Customer Svc. for available options.                                                                    |                          |
|                       | Voltage:              | 24, 120, 240, VAC, 60 and/or 50 Hz. Available.<br>6, 12, 24 VDC<br>Contact GC Valves Customer Svc. for available options. |                          |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                               |                          |
|                       | Coil Classes:         | F, H, N                                                                                                                   |                          |
|                       | Standard Lead Length: | 24 inches                                                                                                                 |                          |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                           |                          |
| Mounting              | Position:             | Any                                                                                                                       |                          |
| Approvals*            | Agency:               | NSF/ANSI - 61-G / NSF-372 / UR Recognized                                                                                 |                          |

\* Not available for all variations

## Dimensions / Weight

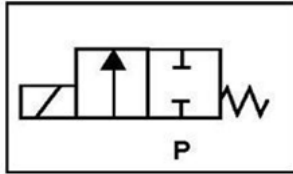
| Weight (lbs.) |
|---------------|
| 1             |



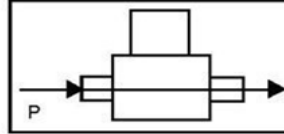
GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)

## Valve Selection List

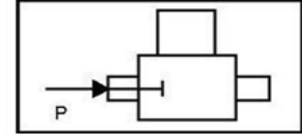
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size | C <sub>V</sub> | Operating Pressure Differential (psi) |    |       |     |           |    |        |   | Max<br>Fluid Temp.<br>°F | Seal Material | Power Consumption (Watts) |            | Model Code                         |
|-----------|--------------|----------------|---------------------------------------|----|-------|-----|-----------|----|--------|---|--------------------------|---------------|---------------------------|------------|------------------------------------|
|           |              |                | Maximum                               |    |       |     |           |    |        |   |                          |               | Power Consumption (Watts) |            | ( 120V/60HZ — 110V/50HZ )<br>Shown |
|           |              |                | Air/Gas                               |    | Water |     | Light Oil |    | Steam* |   |                          |               |                           |            |                                    |
|           |              |                | AC                                    | DC | AC    | DC  | AC        | DC | AC     |   |                          |               |                           |            |                                    |
| NPT       | IN           |                | Minimum                               |    |       |     |           |    |        |   |                          | AC            | DC                        | Noryl Body |                                    |
| 3/4"      | 3/4"         | 6.7            | 4                                     | —  | —     | 150 | 100       | —  | —      | — | 295                      | Santo<br>EPR  | 8                         | 10         | NS211GF02FPEG5                     |

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

## Part Numbering

| 1      | 2 | 3 | 4 | 5                  | 6               | 7                        | 8                                  | 9 | 10                     | 11            | 12              | 13           | 14 |
|--------|---|---|---|--------------------|-----------------|--------------------------|------------------------------------|---|------------------------|---------------|-----------------|--------------|----|
| N      | S | 2 | 1 | 1                  | G               | F                        | 0                                  | 2 | F                      | P             | E               | G            | 5  |
| Series |   |   |   | Operating Mode     | Housing*        | Coil Class*              | Voltage*                           |   | Seal Material          | Body Material | Pipe Connection | Orifice Size |    |
| NS21   |   |   |   | 1: Normally Closed | G: 1/2" Conduit | F: Class F<br>N: Class N | 02: 110/120<br>50/60 Hz<br>10 Watt |   | F: Santoprene/<br>EPDM | P: Noryl      | E: 3/4"         | G5: 3/4"     |    |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| AC          | S3   |
| DC          | S4   |

|                    |         |    |    |
|--------------------|---------|----|----|
| Frequency (Hz)     |         | 60 | 50 |
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 23 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- 1" NPT
- 316 Stainless Steel Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

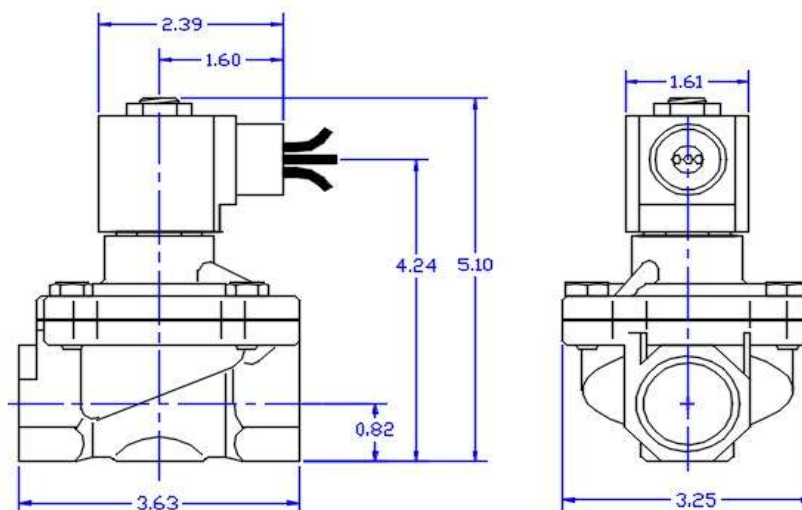


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 4.0           |

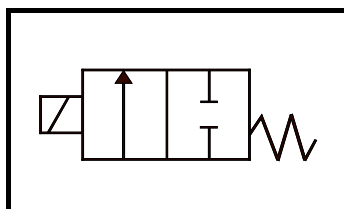




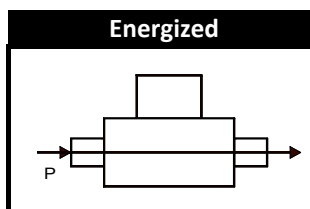
# NS201 - 1" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

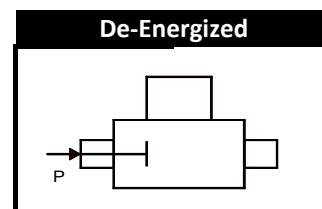
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code (120V/60HZ-110V/50HZ) Shown |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | AC                        | DC | Stainless Steel Body                   |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                        |
| NPT       | In.          | Cv | AC                                    | DC      | AC  | DC    | AC  | DC        | AC  | DC     | °F |                  | AC            | DC                        |    |                                        |
| 1         | 1            | 11 | 0                                     | 100     | 100 | 100   | 100 | ---       | --- | 50     | 50 | 295              | EPR           | 10                        | 10 | NS201GF02C7FG9                         |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>0</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>F</b>  | <b>G</b>     | <b>9</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS20      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | F: 1"     | G9: 1"       |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 19 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- **1" NPT**
- **316 Stainless Steel Body**
- **2-Way Piloted Diaphragm**
- **Normally Closed**

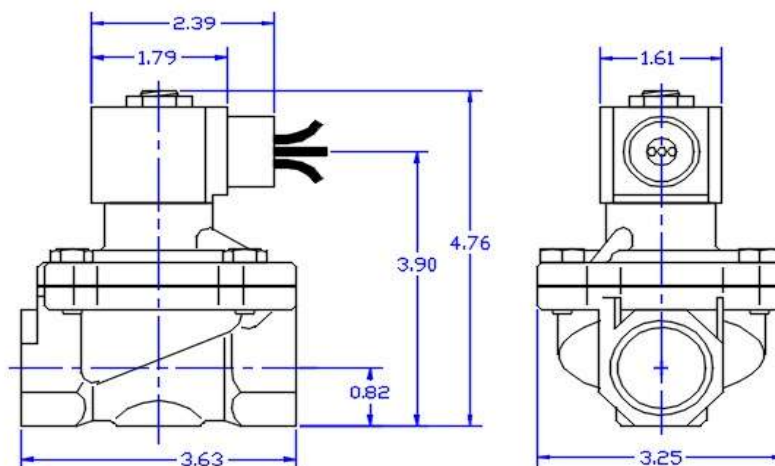


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 3.9           |

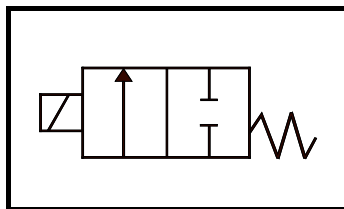




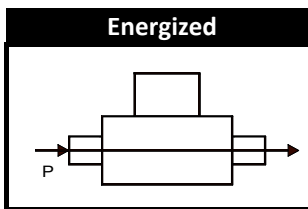
# NS211 - 1" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

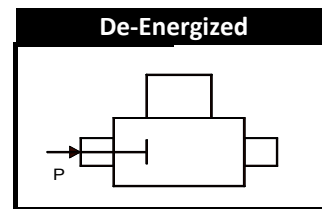
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code (120V/60HZ-110V/50HZ) Shown |  |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------|--|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | °F                        | AC | DC                                     |  |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                        |  |
| NPT       | In.          | Cv |                                       | AC      | DC  | AC    | DC  | AC        | DC  | AC     | DC |                  |               | AC                        | DC | Stainless Steel Body                   |  |
| 1         | 1            | 13 | 5                                     | 200     | 150 | 150   | 150 | ---       | --- | 50     | 50 | 295              | EPR           | 8                         | 9  | NS211GF02C7FG9                         |  |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>1</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>F</b>  | <b>G</b>     | <b>9</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS21      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | F: 1"     | G9: 1"       |          |

## Coil Data

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

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 36 | 36 |
|                    | Holding | 13 | 14 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- 1 1/4" NPT
- 316 Stainless Steel Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

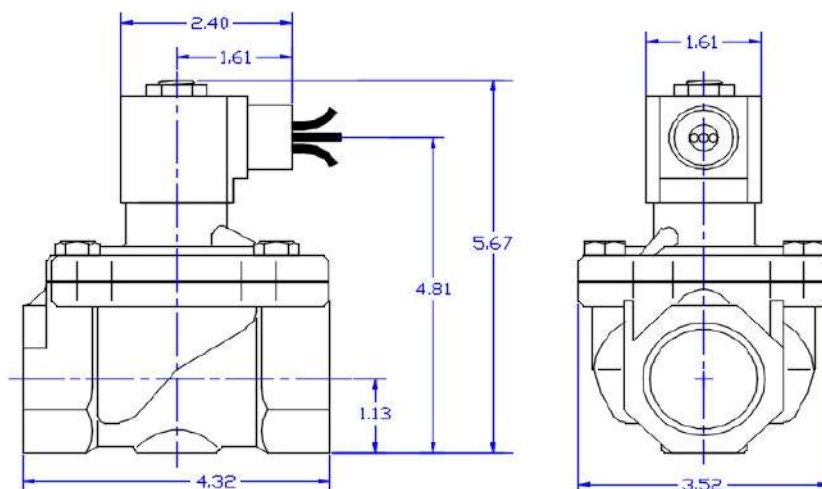


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 6.2           |

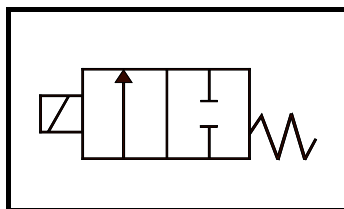




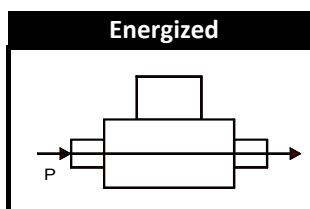
# NS201 - 1 1/4" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

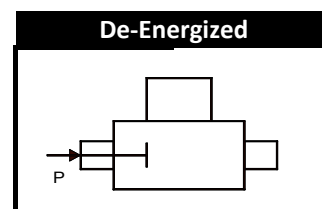
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code<br>(120V/60HZ-110V/50HZ)<br>Shown |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | AC                        | DC | Stainless Steel Body                         |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                              |
| NPT       | In.          | Cv | Minimum                               | AC      | DC  | AC    | DC  | AC        | DC  | AC     | DC | °F               |               | AC                        | DC |                                              |
| 1 1/4     | 1 1/4        | 18 | 0                                     | 100     | 100 | 100   | 100 | ---       | --- | 50     | 50 | 295              | EPR           | 10                        | 10 | NS201GF02C7GJ2                               |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9        | 10         | 11         | 12        | 13           |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|----------|------------|------------|-----------|--------------|
| <b>NS</b> | <b>2</b> | <b>0</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b> | <b>7</b>   | <b>G</b>   | <b>J</b>  | <b>2</b>     |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |
| NS20      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          |          | C: EPDM    | 7: 316 SS  | G: 1 1/4" | J2: 1 1/4"   |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 19 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- 1 1/4" NPT
- 316 Stainless Steel Body
- 2-Way Piloted Diaphragm
- Normally Closed

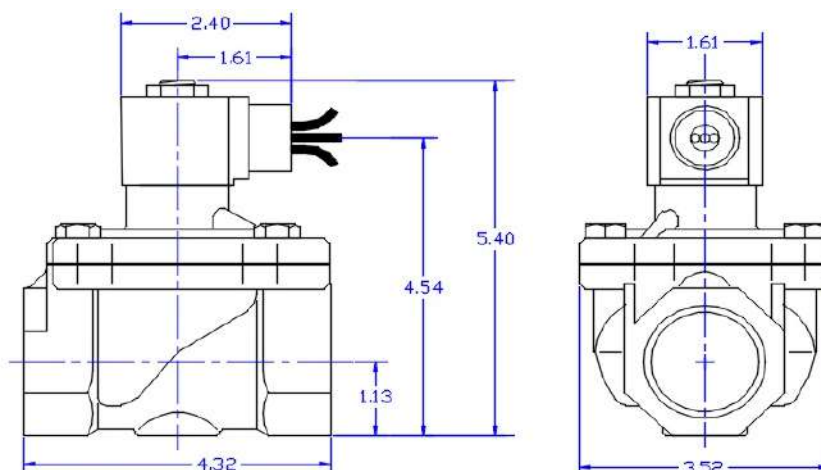


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 6.1           |

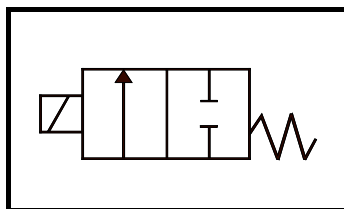




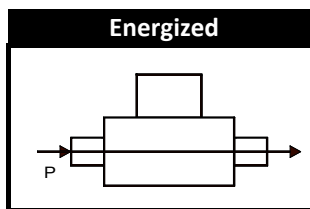
# NS211 - 1 1/4" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

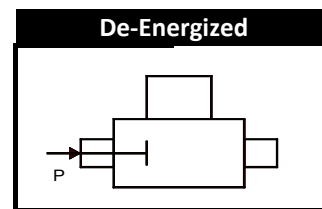
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code (120V/60HZ-110V/50HZ) Shown |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | AC                        | DC | Stainless Steel Body                   |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                        |
| NPT       | In.          | Cv | AC                                    | DC      | AC  | DC    | AC  | DC        | AC  | DC     | °F |                  | AC            | DC                        |    |                                        |
| 1 1/4     | 1 1/4        | 13 | 5                                     | 200     | 150 | 150   | 150 | ---       | --- | 50     | 50 | 295              | EPR           | 8                         | 9  | NS211GF02C7GJ2                         |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>1</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>G</b>  | <b>J</b>     | <b>2</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS21      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | G: 1 1/4" | J2: 1 1/4"   |          |

## Coil Data

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

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 36 | 36 |
|                    | Holding | 13 | 14 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- 1 1/2" NPT
- 316 Stainless Steel Body
- 2-Way Zero Differential  
Piloted Diaphragm
- Normally Closed

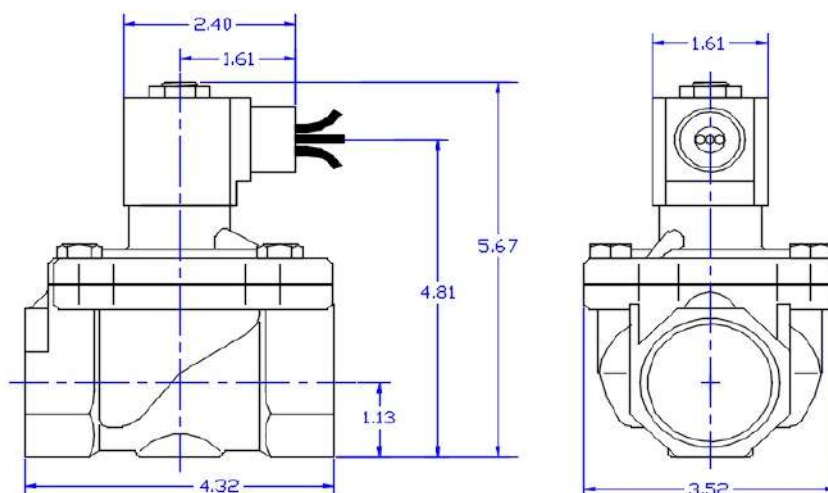


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 6.1           |

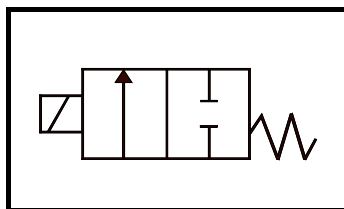




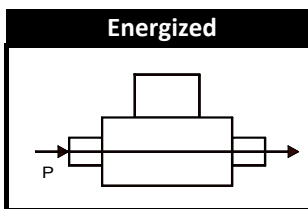
# NS201 - 1 1/2" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

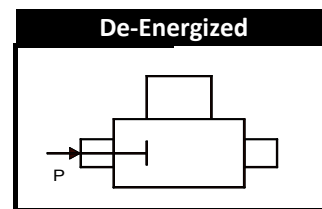
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code<br>(120V/60HZ-110V/50HZ)<br>Shown |                      |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------------|----------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | °F                        | AC | DC                                           | Stainless Steel Body |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                              |                      |
| NPT       | In.          | Cv | Minimum                               | AC      | DC  | AC    | DC  | AC        | DC  | AC     | DC | °F               | EPR           | AC                        | DC | Stainless Steel Body                         |                      |
| 1 1/2     | 1 1/4        | 18 | 0                                     | 100     | 100 | 100   | 100 | ---       | --- | 50     | 50 | 295              | EPR           | 10                        | 10 | NS201GF02C7HJ2                               |                      |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>0</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>H</b>  | <b>J</b>     | <b>2</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS20      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | H: 1 1/2" | J2: 1 1/4"   |          |

## Coil Data

| Coil Family |      |
|-------------|------|
| Type        | Size |
| All         | S4   |

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 46 | 46 |
|                    | Holding | 18 | 19 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- 1 1/2" NPT
- 316 Stainless Steel Body
- 2-Way Piloted Diaphragm
- Normally Closed

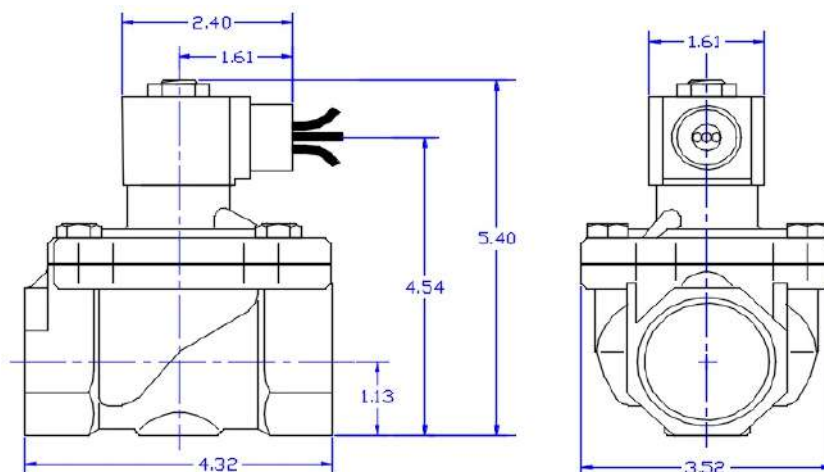


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 6.0           |

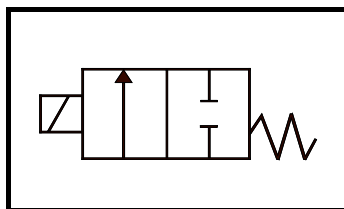




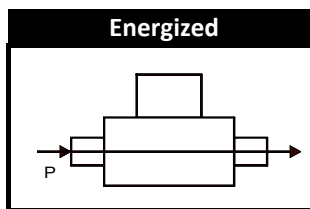
# NS211 - 1 1/2" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

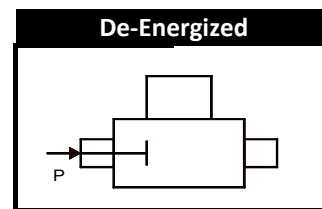
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code (120V/60HZ-110V/50HZ) Shown |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | AC                        | DC | Stainless Steel Body                   |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                        |
| NPT       | In.          | Cv | AC                                    | DC      | AC  | DC    | AC  | DC        | AC  | DC     | °F |                  | AC            | DC                        |    |                                        |
| 1 1/2     | 1 1/4        | 13 | 5                                     | 200     | 150 | 150   | 150 | ---       | --- | 50     | 50 | 295              | EPR           | 8                         | 9  | NS211GF02C7HJ2                         |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>1</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>H</b>  | <b>J</b>     | <b>2</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS21      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | H: 1 1/2" | J2: 1 1/4"   |          |

## Coil Data

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

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 36 | 36 |
|                    | Holding | 13 | 14 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



- **2" NPT**
- **316 Stainless Steel Body**
- **2-Way Piloted Diaphragm**
- **Normally Closed**

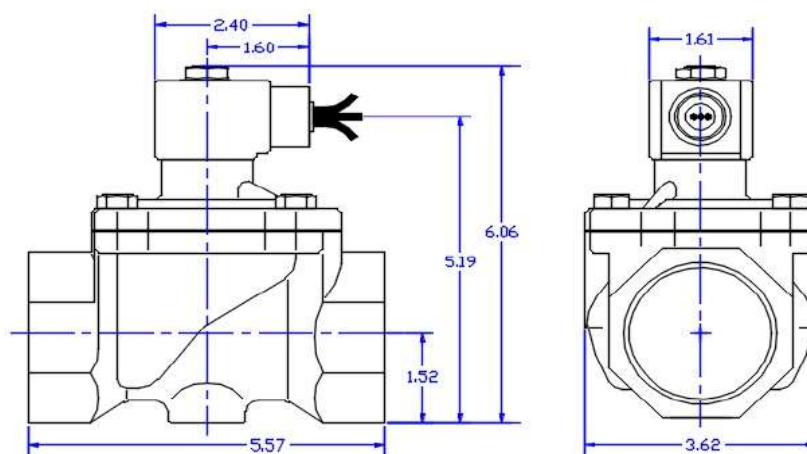


|                       |                       |                                                                                                                                                        |
|-----------------------|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Materials             | Seals:                | NSF Approved Ethylene Propylene                                                                                                                        |
|                       | Orifice:              | Stainless Steel                                                                                                                                        |
| Electrical            | Standard Housing:     | Encapsulated Waterproof Conduit (NEMA 4X)                                                                                                              |
|                       | Optional Housings:    | Metal Conduit, Explosion-Proof (NEMA 7), Grommet Open Frame, Junction Box (single or dual knockouts), DIN, Contact GC Valves Customer Svc. For others. |
|                       | Standard Voltages:    | 24, 120, 240, AC, 60 and/or 50 Hz. Available 6, 12, 24 DC<br>Contact GC Valves Customer Svc. For Additional Voltages                                   |
|                       | Voltage Tolerance:    | ± 10% of applicable voltage                                                                                                                            |
|                       | Coil Classes:         | F, H, N                                                                                                                                                |
|                       | Standard Lead Length: | 24 inches                                                                                                                                              |
| Operating Temperature | Ambient (Nominal):    | 32° F to 125° F                                                                                                                                        |
| Mounting              | Position:             | Upright and Vertical                                                                                                                                   |
| Approvals*            | Agency:               | NSF/ANSI - 61/ NSF-372/ UR -CSA Recognized                                                                                                             |

\* Not available for all variations

## Dimensions / Weight

| Weight (Lbs.) |
|---------------|
| 9.0           |

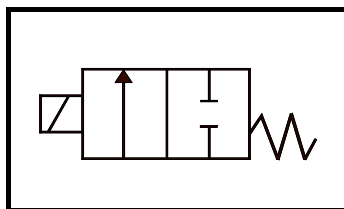




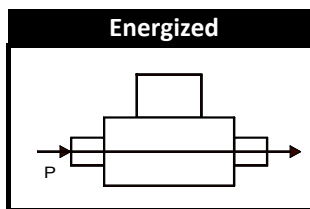
# NS211 - 2" NPT, Stainless Steel Body, Normally Closed

## Valve Selection List

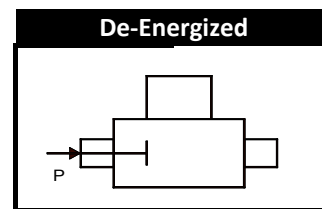
Normally Closed



Energized



De-Energized



| Pipe Size | Orifice Size |    | Operating Pressure Differential (PSI) |         |     |       |     |           |     |        |    | Max. Fluid Temp. | Seal Material | Power Consumption (Watts) |    | Model Code (120V/60HZ-110V/50HZ) Shown |
|-----------|--------------|----|---------------------------------------|---------|-----|-------|-----|-----------|-----|--------|----|------------------|---------------|---------------------------|----|----------------------------------------|
|           |              |    | Minimum                               | Maximum |     |       |     |           |     |        |    |                  |               | AC                        | DC | Stainless Steel Body                   |
|           |              |    |                                       | Air/Gas |     | Water |     | Light Oil |     | Steam* |    |                  |               |                           |    |                                        |
| NPT       | In.          | Cv | AC                                    | DC      | AC  | DC    | AC  | DC        | AC  | DC     | °F |                  | AC            | DC                        |    |                                        |
| 2         | 1 1/4        | 13 | 5                                     | 200     | 150 | 150   | 150 | ---       | --- | 50     | 50 | 295              | EPR           | 8                         | 9  | NS211GF02C7JJ2                         |

## Part Numbering

| 1         | 2        | 3        | 4              | 5                                                             | 6                        | 7                                                                                     | 8        | 9          | 10         | 11        | 12           | 13       |
|-----------|----------|----------|----------------|---------------------------------------------------------------|--------------------------|---------------------------------------------------------------------------------------|----------|------------|------------|-----------|--------------|----------|
| <b>NS</b> | <b>2</b> | <b>1</b> | <b>1</b>       | <b>G</b>                                                      | <b>F</b>                 | <b>0</b>                                                                              | <b>2</b> | <b>C</b>   | <b>7</b>   | <b>J</b>  | <b>J</b>     | <b>2</b> |
| Series    |          |          | Operating Mode | Hsg                                                           | Coil                     | Voltage                                                                               |          | Seal Mat'l | Body Mat'l | Pipe Size | Orifice Size |          |
| NS21      |          |          | 1: N.C.        | G: Conduit<br>Y: DIN<br>A: Conduit<br>U: J-Box<br>P Opn Frame | F: F Class<br>H: H Class | 02: 120/60 110/50<br>04: 240/60 220/50<br>24: 24/60 24/50<br>15: 12 VDC<br>16: 24 VDC |          | C: EPDM    | 7: 316 SS  | J: 2"     | J2: 1 1/4"   |          |

## Coil Data

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

| Frequency (Hz)     |         | 60 | 50 |
|--------------------|---------|----|----|
| Nominal Power (VA) | Inrush  | 36 | 36 |
|                    | Holding | 13 | 14 |

GC Valves Customer Service: 800-828-0484 (7:30 AM to 5:00 PM ET)



# NS201(AC) -- Service and Installation --

12/14/2016

## DESCRIPTION

The NS201 Series Solenoid Valves are 2-way, normally closed, piloted, zero differential general purpose valves specifically designed for drinking water and other food products. All stainless steel or Noryl construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils and gases. Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

## OPERATION

NS201 Valves are normally closed (N.C.) and open when electrically energized.

## SPECIFICATIONS

Use NS201 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, hz, maximum media temperature at F ambient, Cv factor, etc.).

## OPERATING TEMPERATURES

|                      |                    |
|----------------------|--------------------|
| Ambient 32° - 125° F | Fluid 32° - 295° F |
|----------------------|--------------------|

For other applications, consult the factory.

## INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multipositioned and may be mounted in any position. Flow must be in direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

## MAINTENANCE

### COIL REPLACEMENT

**Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.**

Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline. Follow Steps 1, 2 and 3 under **VALVE DISASSEMBLY**. Disassemble solenoid, taking care to note the exact order of placement and quantity parts.

Incorrect reassembly can cause coil burnout. At all times take care not to nick, dent or damage plunger tube.

## PARTS

The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS201 valves.

When ordering parts/kits, specify Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number and consult the factory.

## REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings and adapter ring.

## REPAIR KIT

The Repair Kit contains a seat disc, diaphragm assembly and O-rings.

## REBUILD & REPAIR KIT CHART

| Valve          | Rebuild Kits      | Repair Kits |
|----------------|-------------------|-------------|
| NS201YF16FPCG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16FPDG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16FPEG5 | KS201AF15G5-NSF K | 201G5-NSF   |
| NS201YF16F7CG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16F7DG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16F7EG5 | KS201AF15G5-NSF K | 201G5-NSF   |

## COIL CHART

| Valve          | Voltage | DIN Coil | Conduit Coil |
|----------------|---------|----------|--------------|
| NS201YF16FPCG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16FPDG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16FPEG5 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7CG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7DG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7EG5 | 24V DC  | HS4YN16  | HS4GN16A24   |

## Cleaning

**Cleaning fluid must be compatible with all valve components.**

It is recommended that NS201 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

## SERVICE Disassembly

### WARNING

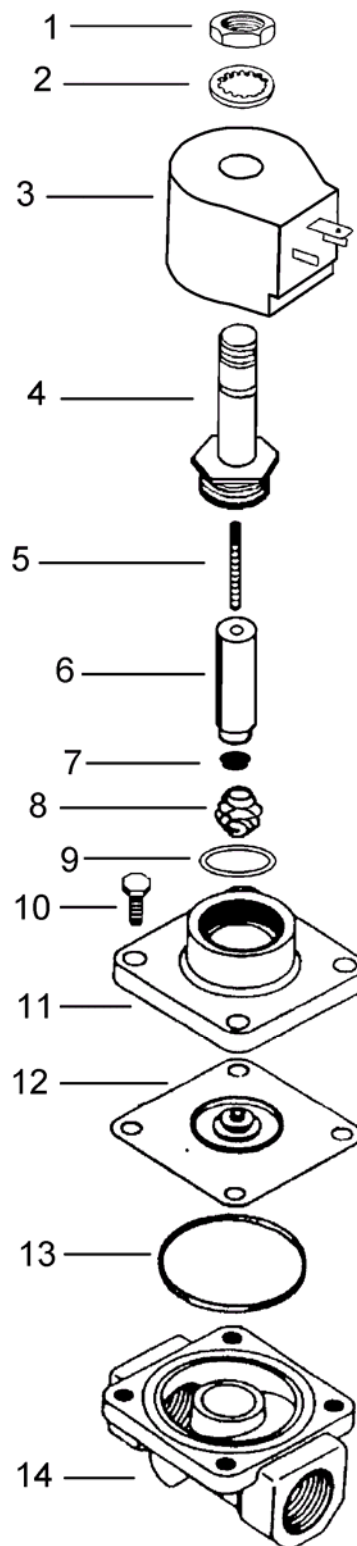
Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use a 1" spanner to remove solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
5. Carefully hold plunger tube (4) in position when removing from valve bonnet (11) to prevent loss of internal parts.
6. Remove return spring (5) from plunger assembly (6).
7. Remove four bonnet bolts (10) and separate the valve bonnet (11) from the valve body (14).
8. Carefully remove connecting spring (8) from the diaphragm (12) and plunger (6) assemblies.
9. Check seat disc (7) and diaphragm assembly (12) for damage or wear.
10. Replace O-rings (9 & 13), diaphragm assembly (12), seat disc (7) and other parts as necessary.
11. Re-assemble in reverse order from above taking care to properly re-install the seat disc (7) and connecting spring (8).
12. Tighten Tube Base Nut (4) to 18 to 24 in/lbs. and bonnet bolts (10) to 40 to 45 in/lbs.
13. Re-connect electrical and test for proper operation.

### TROUBLE-SHOOTING

If valve fails to open check voltage against rating on nameplate, check voltage at solenoid lead connections, check control circuit and solenoid coil for burnout. If valve fails to close, check condition of synthetic seat insert. Check for damaged spring. Valve must be free of dirt to insure tight shutoff. If dirt is a problem, install a fine mesh strainer to insure proper closing and trouble-free operation

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.





# NS201(DC) -- Service and Installation --

12/14/2016

## DESCRIPTION

The NS201 Series Solenoid Valves are 2-way, normally closed, piloted, zero differential general purpose valves specifically designed for drinking water and other food products. All stainless steel or Noryl construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils and gases. Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

## OPERATION

NS201 Valves are normally closed (N.C.) and open when electrically energized.

## SPECIFICATIONS

Use NS201 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, hz, maximum media temperature at F ambient, Cv factor, etc.).

### OPERATING TEMPERATURES

|                      |                    |
|----------------------|--------------------|
| Ambient 32° - 125° F | Fluid 32° - 295° F |
|----------------------|--------------------|

For other applications, consult the factory.

## INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multipositioned and may be mounted in any position. Flow must be in direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

## MAINTENANCE

### COIL REPLACEMENT

**Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.**

Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline.

Follow Steps 1, 2 and 3 under **VALVE DISASSEMBLY**.

Disassemble solenoid, taking care to note the exact order of placement and quantity parts.

Incorrect reassembly can cause coil burnout. At all times take care not to nick, dent or damage plunger tube.

## PARTS

The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS201 valves.

When ordering parts/kits, specify Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number and consult the factory.

## REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings and adapter ring.

## REPAIR KIT

The Repair Kit contains a seat disc, diaphragm assembly and O-rings.

### REBUILD & REPAIR KIT CHART

| Valve          | Rebuild Kits      | Repair Kits |
|----------------|-------------------|-------------|
| NS201YF16FPCG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16FPDG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16FPEG5 | KS201AF15G5-NSF K | 201G5-NSF   |
| NS201YF16F7CG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16F7DG4 | KS201AF15G4-NSF K | 201G4-NSF   |
| NS201YF16F7EG5 | KS201AF15G5-NSF K | 201G5-NSF   |

### COIL CHART

| Valve          | Voltage | DIN Coil | Conduit Coil |
|----------------|---------|----------|--------------|
| NS201YF16FPCG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16FPDG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16FPEG5 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7CG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7DG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS201YF16F7EG5 | 24V DC  | HS4YN16  | HS4GN16A24   |

## Cleaning

**Cleaning fluid must be compatible with all valve components.**

It is recommended that NS201 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

## SERVICE Disassembly

### WARNING

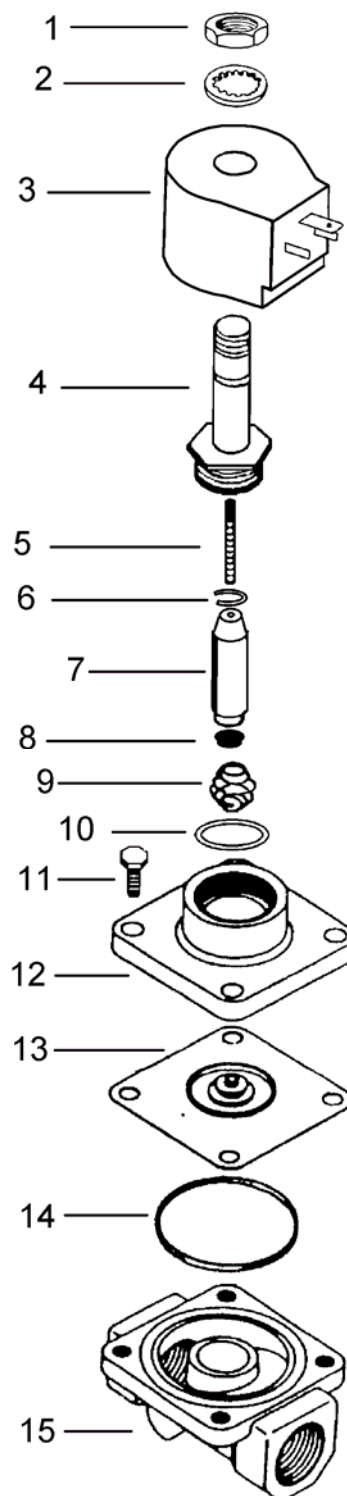
Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use a 1" spanner to remove solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
5. Carefully hold plunger tube (4) in position when removing from valve bonnet (12) to prevent loss of internal parts.
6. Remove return spring (5) plunger assembly (7),
7. Remove four bonnet bolts (11) and separate the valve bonnet (12) from the valve body (15).
8. Carefully remove connecting spring (9) from the diaphragm (13) and plunger (7) assemblies.
9. Check seat disc (8) and diaphragm assembly (13) for damage or wear.
10. Replace O-rings (10 & 14), diaphragm assembly (13), seat disc (8) and other parts as necessary.
11. Re-assemble in reverse order from above taking care to properly re-install the seat disc (8) and connecting spring (9).
12. Tighten tube base nut (4) to 18 to 24 in/lbs and bonnet bolts (11) to 40 to 45 in/lbs.
13. Re-connect electrical and test for proper operation.

### TROUBLE-SHOOTING

If valve fails to open check voltage against rating on nameplate, check voltage at solenoid lead connections, check control circuit and solenoid coil for burnout. If valve fails to close, check condition of synthetic seat insert. Check for damaged spring. Valve must be free of dirt to insure tight shutoff. If dirt is a problem, install a fine mesh strainer to insure proper closing and trouble-free operation

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.





# NS211(AC) -- Service and Installation --

12/14/2016

## DESCRIPTION

The NS211 Series Solenoid Valves are 2-way, normally closed, piloted, general purpose valves specifically designed for drinking water and other food products. All stainless steel or Noryl construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils and gases.

Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

## OPERATION

NS211 Valves are normally closed (N.C.) and open when electrically energized.

## SPECIFICATIONS

Use NS211 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, hz, maximum media temperature at F ambient, Cv factor, etc.).

### OPERATING TEMPERATURES

|                      |                    |
|----------------------|--------------------|
| Ambient 32° - 125° F | Fluid 32° - 295° F |
|----------------------|--------------------|

For other applications, consult the factory.

## INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multipositioned and may be mounted in any position. Flow must be in direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

## MAINTENANCE

### COIL REPLACEMENT

**Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.**

Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline.

Follow Steps 1, 2 and 3 under **VALVE DISASSEMBLY**.

Disassemble solenoid, taking care to note the exact order of placement and quantity parts.

Incorrect reassembly can cause coil burnout. At all times take care not to nick, dent or damage plunger tube.

## PARTS

The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS211 valves.

When ordering parts/kits, specify Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number and consult the factory.

## REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings and adapter ring.

## REPAIR KIT

The Repair Kit contains a seat disc, diaphragm assembly and O-rings.

### REBUILD & REPAIR KIT CHART

| Valve            | Rebuild Kits      | Repair Kits |
|------------------|-------------------|-------------|
| NS211YF02FPCG4 K | S211AF02G4-NSF    | K211G4-NSF  |
| NS211YF02FPDG4 K | S211AF02G4-NSF    | K211G4-NSF  |
| NS211YF02FPEG5 K | S211AF02G5-NSF    | K211G5-NSF  |
| NS211YF24FPCG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF24FPDG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF24FPEG5   | KS211AF02G5-NSF K | 211G5-NSF   |
| NS211YF02F7CG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF02F7DG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF02F7EG5   | KS211AF02G5-NSF K | 211G5-NSF   |
| NS211YF24F7CG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF24F7DG4   | KS211AF02G4-NSF K | 211G4-NSF   |
| NS211YF24F7EG5   | KS211AF02G5-NSF K | 211G5-NSF   |

### COIL CHART

| Valve          | Voltage       | DIN Coil    | Conduit Coil |
|----------------|---------------|-------------|--------------|
| NS211YF02FPCG4 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF02FPDG4 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF02FPEG5 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF24FPCG4 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |
| NS211YF24FPDG4 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |
| NS211YF24FPEG5 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |
| NS211YF02F7CG4 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF02F7DG4 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF02F7EG5 | 120V<br>50/60 | HS3YN02 HS3 | GN02A24      |
| NS211YF24F7CG4 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |
| NS211YF24F7DG4 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |
| NS211YF24F7EG5 | 24V<br>50/60  | HS3YN24 HS3 | GN24A24      |

## Cleaning

**Cleaning fluid must be compatible with all valve components.**

It is recommended that NS211 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

## SERVICE Disassembly

### WARNING

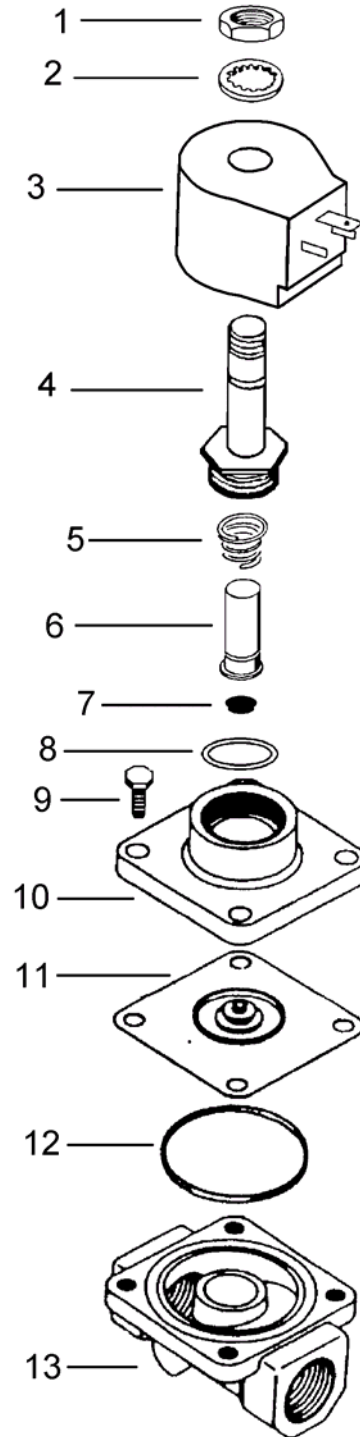
Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use a 1" spanner to remove solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
5. Carefully hold plunger tube (4) in position when removing from valve bonnet (10) to prevent loss of internal parts.
6. Remove plunger/spring assembly (5, 6, & 7),
7. Remove four bonnet bolts (9) and separate the valve bonnet (10) from the valve body (13).
8. Check seat disc (7) and diaphragm assembly (11) for damage or wear.
9. Replace O-rings (8 & 12), diaphragm assembly (11), seat disc (7) and other parts as necessary.
10. Re-assemble in reverse order from above taking care to properly re-install the seat disc (7).
11. Tighten tube base nut (4) to 18 to 24 in/lbs and bonnet bolts (9) to 40 to 45 in/lbs.
12. Re-connect electrical and test for proper operation.

### TROUBLE-SHOOTING

If valve fails to open check voltage against rating on nameplate, check voltage at solenoid lead connections, check control circuit and solenoid coil for burnout. If valve fails to close, check condition of synthetic seat insert. Check for damaged spring. Valve must be free of dirt to insure tight shutoff. If dirt is a problem, install a fine mesh strainer to insure proper closing and trouble-free operation

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.





# NS211(DC) -- Service and Installation --

12/14/2016

## DESCRIPTION

The NS211 Series Solenoid Valves are 2-way, normally closed, piloted, general purpose valves specifically designed for drinking water and other food products. All stainless steel or Noryl construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils and gases.

Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

## OPERATION

NS211 Valves are normally closed (N.C.) and open when electrically energized.

## SPECIFICATIONS

Use NS211 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, hz, maximum media temperature at F ambient, Cv factor, etc.).

### OPERATING TEMPERATURES

|             |            |       |              |
|-------------|------------|-------|--------------|
| Ambient 32° | ° - 125° F | Fluid | 32° - 295° F |
|-------------|------------|-------|--------------|

For other applications, consult the factory.

## INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multipositioned and may be mounted in any position. Flow must be in direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

## MAINTENANCE

### COIL REPLACEMENT

**Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.**

Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline.

Follow Steps 1, 2 and 3 under **VALVE DISASSEMBLY**.

Disassemble solenoid, taking care to note the exact order of placement and quantity parts.

Incorrect reassembly can cause coil burnout. At all times take care not to nick, dent or damage plunger tube.

## PARTS

The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS211 valves.

When ordering parts/kits, specify Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number and consult the factory.

## REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings and adapter ring.

## REPAIR KIT

The Repair Kit contains a seat disc, diaphragm assembly and O-rings.

### REBUILD & REPAIR KIT CHART

| Valve          | Rebuild Kits      | Repair Kits |
|----------------|-------------------|-------------|
| NS211YF16FPCG4 | KS211AF15G4-NSF K | 211G415-NSF |
| NS211YF16FPDG4 | KS211AF15G4-NSF K | 211G415-NSF |
| NS211YF16FPEG5 | KS211AF15G5-NSF K | 211G515-NSF |
| NS211YF16F7CG4 | KS211AF15G4-NSF K | 211G415-NSF |
| NS211YF16F7DG4 | KS211AF15G4-NSF K | 211G415-NSF |
| NS211YF16F7EG5 | KS211AF15G5-NSF K | 211G515-NSF |

### COIL CHART

| Valve          | Voltage | DIN Coil | Conduit Coil |
|----------------|---------|----------|--------------|
| NS211YF16FPCG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS211YF16FPDG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS211YF16FPEG5 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS211YF16F7CG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS211YF16F7DG4 | 24V DC  | HS4YN16  | HS4GN16A24   |
| NS211YF16F7EG5 | 24V DC  | HS4YN16  | HS4GN16A24   |

## Cleaning

**Cleaning fluid must be compatible with all valve components.**

It is recommended that NS211 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

## SERVICE Disassembly

### WARNING

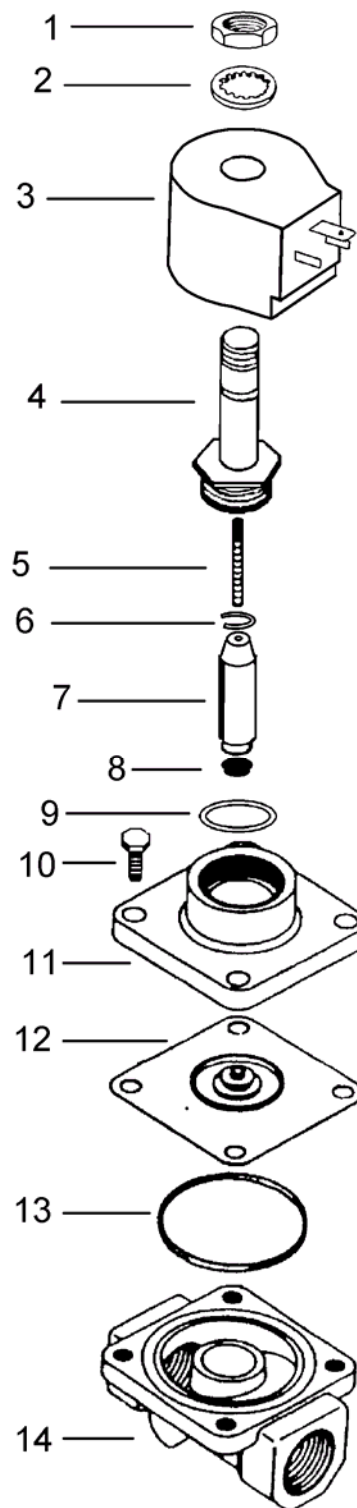
Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use a 1" spanner to remove solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
5. Carefully hold plunger tube (4) in position when removing from valve bonnet (11) to prevent loss of internal parts.
6. Remove return spring (5) plunger assembly (7),
7. Remove four bonnet bolts (10) and separate the valve bonnet (11) from the valve body (14).
8. Check seat disc (8) snap ring (6) and diaphragm assembly (12) for damage or wear.
9. Replace O-rings (9 & 13), diaphragm assembly (12), seat disc (8) and other parts as necessary.
10. Re-assemble in reverse order from above taking care to properly re-install the seat disc (8).
11. Tighten tube base nut (4) to 18 to 24 in/lbs and bonnet bolts (10) to 40 to 45 in/lbs.
12. Re-connect electrical and test for proper operation.

### TROUBLE-SHOOTING

If valve fails to open check voltage against rating on nameplate, check voltage at solenoid lead connections, check control circuit and solenoid coil for burnout. If valve fails to close, check condition of synthetic seat insert. Check for damaged spring. Valve must be free of dirt to insure tight shutoff. If dirt is a problem, install a fine mesh strainer to insure proper closing and trouble-free operation

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.





# NS301

## - Service and Installation -

12/14/2016

### DESCRIPTION

The NS301 Series Solenoid Valves are 2-way, normally closed, direct acting, general purpose valves specifically designed for drinking water and other food products. All stainless steel construction with synthetic seating and sealing materials make them suitable for use with a variety of liquids, oils and gases. Valves may be mounted in any positions. A spring loaded plunger assures positive shutoff. The S4 solenoid coil is rated at 10 watts.

### OPERATION

NS301 Valves are normally closed (N.C.) and open when electrically energized.

### SPECIFICATIONS

Use NS301 Valves within the specified operating ranges as indicated on the nameplate and in the complete Catalog Number. (min./max. psi, voltage, cycle, maximum media temperature at F ambient, Cv factor, etc.).

#### OPERATING TEMPERATURES

|                      |                    |
|----------------------|--------------------|
| Ambient 32° - 125° F | Fluid 32° - 295° F |
|----------------------|--------------------|

For other applications, consult the factory.

### INSTALLATION

Check valve specifications to make sure of proper application.

1. Clear all lines of foreign matter.
2. Valves are multipositioned and may be mounted in any position. Flow must be in direction indicated on the valve body. If sediment is a problem, install a fine mesh strainer having adequate capacity ahead of the valve.
3. Do not use the solenoid housing as a handle. Apply thread seal to the male threads only.
4. Provide a clearance for solenoid removal.
5. Wire in accordance with applicable local and national electrical codes.

### MAINTENANCE

#### Cleaning

**Cleaning fluid must be compatible with all valve components.**

It is recommended that NS301 Series Valves be cleaned on a routine basis by qualified personnel. Valves should be cleaned where flow media or service conditions may determine life of valve. Apply correct voltage. If excessive leakage occurs or if the operation is sluggish, the unit must be cleaned.

### PARTS

The charts which follow cover replaceable coil part numbers, Repair and Rebuild kits for most NS301 valves.

When ordering parts/kits, specify Catalog Number, Serial Number, and Part Name. If your valve's Catalog Number is not listed, obtain the complete Serial Number and consult the factory.

### COIL REPLACEMENT

**Turn off the electrical power supply to the solenoid before disconnecting the coil lead wires.**

Incorrect coil reassembly can cause coil burnout. At all times, take care not to nick, dent, or damage the plunger tube.

It is not necessary to remove the valve from the pipeline. Follow Steps 1, 2 and 3 under **VALVE DISASSEMBLY**. Disassemble solenoid, taking care to note the exact order of placement and quantity parts.

Incorrect reassembly can cause coil burnout. At all times take care not to nick, dent or damage plunger tube.

### REBUILD KIT

The Rebuild Kit contains a plunger/spring/seat disc assembly, plunger tube assembly, O-rings and adapter ring.

### REPAIR KIT

The Repair Kit contains a seat disc, and O-rings.

#### REBUILD & REPAIR KIT CHART

| Valve            | Rebuild Kits    | Repair Kits |
|------------------|-----------------|-------------|
| NS301YF02C3BE7 K | S301AF02E7-NSF  | K301E7-NSF  |
| NS301YF02C3BD5 K | S301AF02C3-NSF  | K301C3-NSF  |
| NS301YF02C3BC9 K | S301AF02C3-NSF  | K301C3-NSF  |
| NS301YF24C3BE7   | KS301AF02E7-NSF | K301E7-NSF  |
| NS301YF24C3BD5   | KS301AF02C3-NSF | K301C3-NSF  |
| NS301YF24C3BC9   | KS301AF02C3-NSF | K301C3-NSF  |
| NS301YF16C3BE7   | KS301AF02E7-NSF | K301E7-NSF  |
| NS301YF16C3BD5   | KS301AF02C3-NSF | K301C3-NSF  |
| NS301YF16C3BC9   | KS301AF02C3-NSF | K301C3-NSF  |

#### COIL CHART

| Valve                 | Voltage | DIN Coil | Conduit Coil |
|-----------------------|---------|----------|--------------|
| NS301YF02C3BE7 120V   | 50/60   | HS4YN02  | HS4GN02A24   |
| NS301YF02C3BD5 120V   | 50/60   | HS4YN02  | HS4GN02A24   |
| NS301YF02C3BC9 120V   | 50/60   | HS4YN02  | HS4GN02A24   |
| NS301YF24C3BE7 24V    | 50/60   | HS4YN24  | HS4GN24A24   |
| NS301YF24C3BD5 24V    | 50/60   | HS4YN24  | HS4GN24A24   |
| NS301YF24C3BC9 24V    | 50/60   | HS4YN24  | HS4GN24A24   |
| NS301YF16C3BE7 24 VDC |         | HS4YN16  | HS4GN16A24   |
| NS301YF16C3BD5 24 VDC |         | HS4YN16  | HS4GN16A24   |
| NS301YF16C3BC9 24 VDC |         | HS4YN16  | HS4GN16A24   |

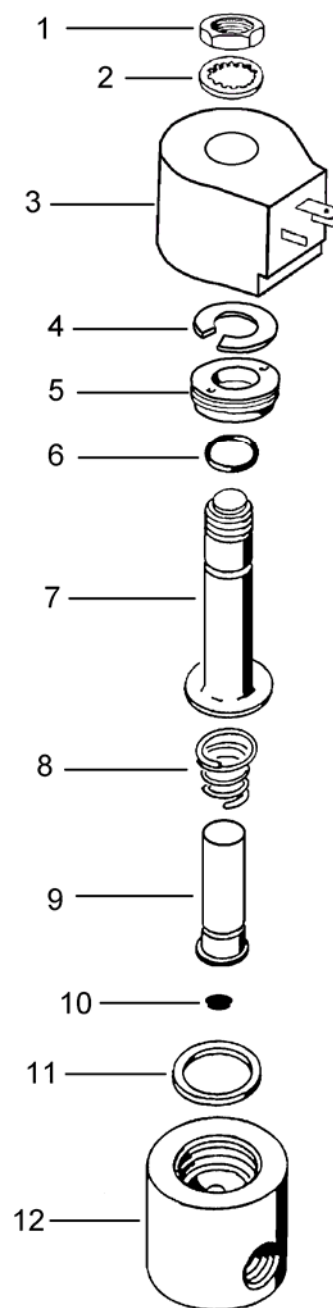
## SERVICE

### DISASSEMBLY AND REPAIR KIT INSTALLATION

#### WARNING

Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Unscrew the hex nut (1). Remove with lockwasher (2).
2. Lift off the coil (3) from the plunger tube.
3. Do not damage the solenoid assembly.
4. Use GC Valves spanner nut (106198E) or similar tool to remove solenoid base nut (5) and plunger tube (7). Do not nick dent or damage plunger tube (7) or valve seating surfaces.
5. Hold plunger tube (7) in position when removing from valve body (12) to prevent loss of internal parts.
6. Carefully remove the plunger/spring/seat disc assembly (8, 9 & 10),
7. Check seating surfaces on the seat disc (10) and valve body (12) for damage or wear.
8. Replace seat disc (10) body O-ring (11) and other parts as necessary.
9. Re-assemble in reverse order from above taking care to properly install the seat disc (10), plunger (9) and plunger tube (7).
10. Tighten solenoid base nut (5) to 25 In/Lbs.
11. Re-connect electrical and test for proper operation.



## REBUILD KIT INSTALLATION AND ASSEMBLY

### WARNING

Disassembly, reassembly or internal adjustment without factory test may result in hazardous condition. If valve does not operate properly after following the INSTALLATION and MAINTENANCE instructions, complete valve must be replaced by a trained and experienced service-person.

1. Carefully install seat disc (9) and spring (7) on the plunger (8).
2. Place body O-ring (10) in valve body (11) operator cavity..
3. Place tube O-ring (5) on plunger tube (4) base.
4. Thread adapter ring (6) on plunger tube (4) base.
5. Place plunger assembly (7, 8 & 9) in valve body (11) cavity.
6. Carefully thread plunger tube assembly (4, 5 & 6) into valve body (11).
7. Use a 1" spanner to tighten solenoid base nut and plunger tube (4). Do not nick, dent, or damage plunger tube (4) or valve seating surfaces.
8. Tighten plunger tube base nut (4) to 24 In/Lbs.
9. Replace coil (3), lockwasher (2) and top nut (1). Tighten to approximately 25 In/Lbs.
11. Re-connect electrical and test for proper operation.

### TROUBLE-SHOOTING

If valve fails to open check voltage against rating on nameplate, check voltage at solenoid lead connections, check control circuit and solenoid coil for burnout. If valve fails to close, check condition of synthetic seat insert. Check for damaged spring. Valve must be free of dirt to insure tight shutoff. If dirt is a problem, install a fine mesh strainer to insure proper closing and trouble-free operation

Buzzing or chattering can be caused by low voltage or dirt or chips between top of plunger and tube head. Check voltage--clean plunger and interior of tube and base assembly.

