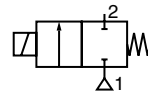




# SOLENOID VALVES

bellows seal, fluid isolation  
direct operated  
1/4 - 3/8

NC



2/2  
Series  
296

## FEATURES

- Valve for the control of aggressive liquids and gases in the pharmaceutical, biochemical, photographic, chemical and analytical industries, in chip and wafer production
- The valve is suited for all applications in which the fluids must not come into contact with the metal parts (electromagnetic control of the solenoid valve)
- Bellows system made of PTFE and FFPM seals with high functional reliability
- The solenoid valves satisfy all relevant EC directives

## GENERAL

**Differential pressure** See «SPECIFICATIONS» [1 bar = 100 kPa]  
**Maximum viscosity** 40 cSt (mm<sup>2</sup>/s)

| fluids (*)                               | temperature range (TS)         | seal materials (*)        |
|--|--------------------------------|---------------------------|
| air, inert gases, water, oil and liquids | -10°C to + 90°C <sup>(1)</sup> | FFPM (perfluoroelastomer) |

<sup>(1)</sup> Total ambient + fluid temperature must not exceed 130°C.

## MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

|                         |   |
|-------------------------|---|
| <b>Body</b>             | PEEK (polyetheretherketone),<br>or stainless steel, AISI 303 (1.4305) |
| <b>Core tube</b>        | Stainless steel   |
| <b>Core and plugnut</b> | Stainless steel   |
| <b>Springs</b>          | Stainless steel   |
| <b>Seals</b>            | FFPM  |
| <b>Bellows</b>          | PTFE  |

## ELECTRICAL CHARACTERISTICS

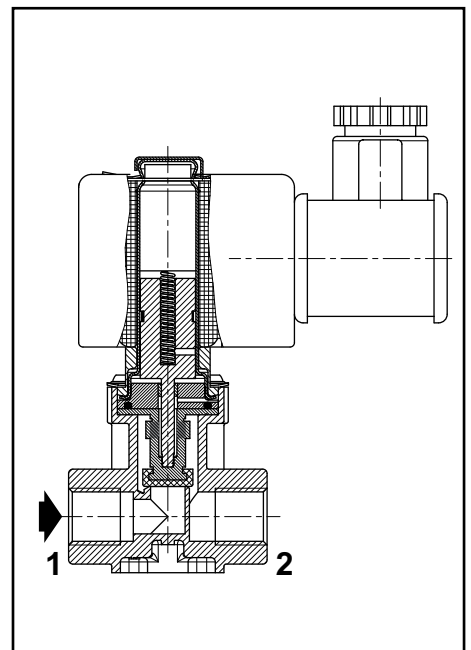
|  |  |
|--|--|
| <b>Coil insulation class</b>           | F  |
| <b>Connector</b>                       | Spade plug   |
| <b>Connector specification</b>         |  |
| for coil type 01                       | DIN 43650, 11 mm, industry standard B              |
| for coil type 02                       | ISO 4400 / EN 175301-803, form A                   |
| <b>Electrical safety</b>               | IEC 335  |
| <b>Electrical enclosure protection</b> | Moulded IP65 (EN 60529)                            |
| <b>Standard voltages</b>               | DC (=) : 24V<br>AC (-) : 24V - 115V - 230V / 50 Hz |

| prefix option | power ratings |           |            |           | operator ambient temperature range (TS) (C°) | replacement coil |            | type <sup>(1)</sup> |
|---------------|---------------|-----------|------------|-----------|--|------------------|------------|---------------------|
|               | inrush ~      | holding ~ | hot/cold = |           |  | ~                | =          |                     |
|               | (VA)          | (VA)      | (W)        | (W)       |  | 230 V/50 Hz      | 24 V DC    |                     |
| SC            | -             | -         | -          | 5 / 6,9   | -10 to + 60                                  | 43004649         | 43004647   | 01                  |
|               | 55            | 23        | 10,5       | 9 / 11,2  |  | 400425-117       | 400425-142 | 02                  |
|               | 78            | 35        | 16,7       | 14 / 19,7 |  | 400425-217       | 400425-342 | 02                  |

<sup>(1)</sup> Refer to the dimensional drawings on the following page.

## SPECIFICATIONS

| pipe size                   | orifice size | flow coefficient Kv |         | operating pressure differential (bar) |                   |             |      | power coil (W) |            | catalogue number |                 | options    |   |   |   |
|-----------------------------|--------------|---------------------|---------|---------------------------------------|-------------------|-------------|------|----------------|------------|------------------|-----------------|------------|---|---|---|
|                             |              |                     |         | min.                                  | max. (PS)         |             | FFPM |                |            |                  |                 | V          | - | - |   |
|                             |              |                     |         |                                       | air inert gas (*) | liquids (*) |      |                |            |                  |                 |            |   |   |   |
| G                           | (mm)         | (m <sup>3</sup> /h) | (l/min) |                                       |                   |             |      | ~              | =          | PEEK             | stainless steel |            |   |   |   |
| <b>NC - Normally closed</b> |              |                     |         |                                       |                   |             |      |                |            |                  |                 |            |   |   |   |
| 1/4                         | 2            | 0,11                | 1,8     | 0                                     | 3                 | 3           | -    | 6,9            |            |                  | SCG296A007      | SCG296A021 | V | - | - |
|                             |              |                     |         |                                       | 6                 | 6           | 10,5 | 11,2           | SCG296A008 | SCG296A022       | V               | -          | - |   |   |
|                             | 4            | 0,32                | 5,3     | 0                                     | 5                 | 5           | 10,5 | 11,2           |            |                  | SCG296A009      | SCG296A023 | V | - | - |
|                             |              |                     |         |                                       | 6                 | 6           | 16,7 | 19,7           | SCG296A010 | SCG296A024       | V               | -          | - |   |   |
| 3/8                         | 6            | 0,73                | 12,2    | 0                                     | 2                 | 2           | 10,5 | 11,2           |            |                  | SCG296A011      | SCG296A025 | V | - | - |
|                             |              |                     |         |                                       | 4                 | 4           | 16,7 | 19,7           | SCG296A012 | SCG296A026       | V               | -          | - |   |   |



### OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer) seals and diaphragm. Use the appropriate optional suffix letter for identification
- NPT thread
- Plug with visual indication and peak voltage suppression or with cable length of 2 m

### INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation. However, for optimum performance it is recommended that they be fitted with the solenoid operator at the top
- Solenoid valves have 2 or 4 mounting holes in body
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

### ORDERING EXAMPLES:

|    |   |     |   |     |                |
|----|---|-----|---|-----|----------------|
| SC | G | 296 | A | 007 | 24V / DC       |
| SC | G | 296 | A | 021 | 24V / 50 Hz    |
| SC | G | 296 | A | 025 | V 230V / 50 Hz |

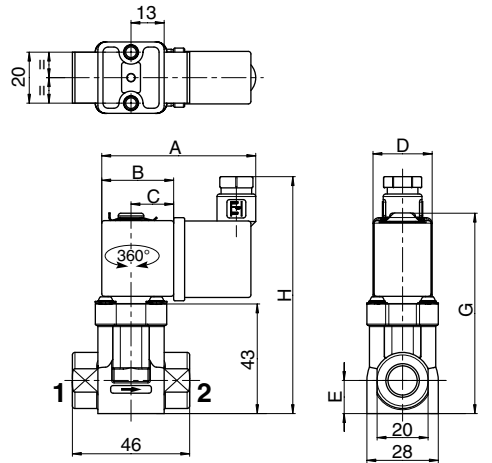
prefix: SC  
 pipe thread: G  
 basic number: 296  
 voltage: 24V / DC, 24V / 50 Hz, 230V / 50 Hz  
 suffix: V

### DIMENSIONS (mm), WEIGHT (kg)

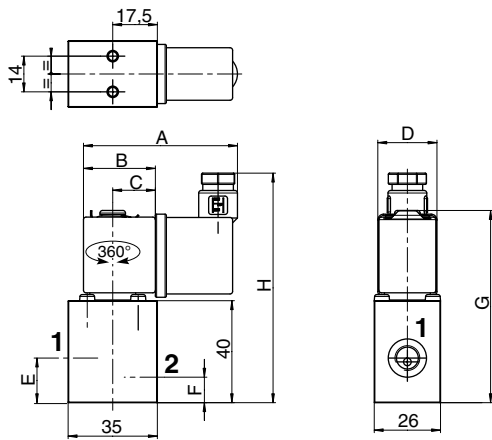


**TYPE 01**  
Prefix "SC" Solenoid  
ISO 4400

PEEK: SCG296A007

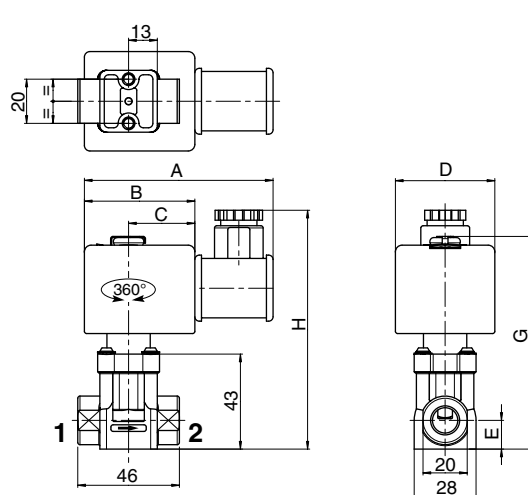


Stainless steel: SCG296A021

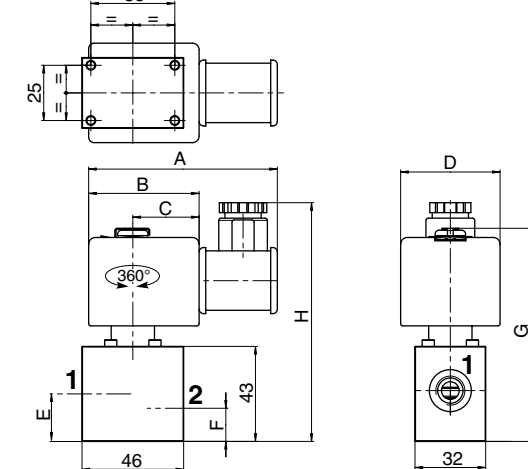


**TYPE 02**  
Prefix "SC" Solenoid  
ISO 4400

PEEK: SCG296A008/A009/A010/A011/A012



Stainless steel: SCG296A022/A023/A024/A025/A026



| type | prefix option | catalogue number               | A  | B  | C  | D  | E    | F  | G   | H   | weight <sup>(1)</sup> |
|------|---------------|--------------------------------|----|----|----|----|------|----|-----|-----|-----------------------|
| 01   | SC            | SCG296A007                     | 60 | 28 | 17 | 22 | 13   | -  | 79  | 94  | 0,145                 |
|      |               | SCG296A021                     | 60 | 28 | 17 | 22 | 17,5 | 10 | 76  | 91  | 0,310                 |
| 02   | SC            | SCG296A008/A009/A010/A011/A012 | 85 | 50 | 30 | 45 | 13   | -  | 100 | 110 | 0,420                 |
|      |               | SCG296A022/A023/A024/A025/A026 | 85 | 50 | 30 | 45 | 21,5 | 15 | 100 | 110 | 0,650                 |

<sup>(1)</sup> Incl. coil(s) and connector(s)..