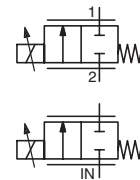




# PROPORTIONAL SOLENOID VALVE

**POSIFLOW**  
direct operated  
1/4 - 3/8

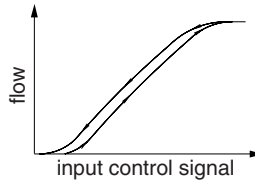
NC



**2/2**  
Series  
**202**

## FEATURES

- Variable flow, proportional to the control signal
- Valves do not require a minimum operating pressure
- Valves can be mounted in any position
- The solenoid valves satisfy all relevant EU directives



## GENERAL

**Differential pressure** See «SPECIFICATIONS» [1 bar = 100 kPa]  
**Maximum viscosity** 21 cSt (mm<sup>2</sup>/s)

| fluids (*)                 | temperature range (TS) <sup>(2)</sup> | seal materials (*)    |
|----------------------------|---------------------------------------|-----------------------|
| air, inert gas, water, oil | -10°C to +90°C                        | FPM (fluoroelastomer) |

## MATERIALS IN CONTACT WITH FLUID

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

|                  | Brass body      | Stainless steel body |
|------------------|-----------------|----------------------|
| Body             | Brass           | AISI 303 SS          |
| Core tube        | Stainless steel | Stainless steel      |
| Core and plugnut | Stainless steel | Stainless steel      |
| Springs          | Stainless steel | Stainless steel      |
| Riderring        | PTFE            | PTFE                 |
| Seat             | Brass           | Stainless steel      |
| Seal, disc       | FPM             | FPM                  |
| Breaker piece    | Stainless steel | Stainless steel      |

## ELECTRICAL CHARACTERISTICS

**Coil insulation class** F  
**Connector** Spade plug (cable Ø 6-10 mm)  
**Connector specification** ISO 4400 / EN 175301-803, form A  
**Electrical safety** IEC 335  
**Electrical enclosure protection** Moulded IP65 (EN 60529)  
**Standard voltages** DC (=) : 24V (Other voltages on request)

| prefix option | operating current (mA) | power ratings |                |                |        | operator ambient temperature range (TS) <sup>(2)</sup> (C°) | replacement coil (=)  | type <sup>(1)</sup> |
|---------------|------------------------|---------------|----------------|----------------|--------|---|-----------------------|---------------------|
|               |                        | inrush ~ (VA) | holding ~ (VA) | hot/cold = (W) |        |   |                       |                     |
| SC            | 100 - 500              | -             | -              | -              | 11 / 8 | -10 to +75  | 24 V DC<br>400429-040 | 01                  |

**Voltage regulation** 0 - 24 V DC  
24 V DC pulse width modulated (300 Hz)

**Flow regulation characteristics <sup>(3)</sup>** Hysteresis < 5% ; Repeatability < 3% ; Sensitivity < 2%

## SPECIFICATIONS

| pipe size                   | orifice size (mm) | flow coefficient Kv (m <sup>3</sup> /h) (l/min) |      | operating pressure differential (bar) |           |                     | power coil (W) | catalogue number |             |                     |             | options     |    |      |   |
|-----------------------------|-------------------|---|------|---------------------------------------|-----------|---------------------|----------------|------------------|-------------|---------------------|-------------|-------------|----|------|---|
|                             |                   |   |      | min.                                  | max. (PS) |                     |                | brass (=)        |             | stainless steel (=) |             | EPDM        | CR | PTFE |   |
|                             |                   |   |      |                                       | vacuum    | air, water, oil (*) |                | air / inert gas  | liquids     | air / inert gas     | liquids     |             |    |      |   |
| <b>NC - Normally closed</b> |                   |   |      |                                       |           |                     |                |                  |             |                     |             |             |    |      |   |
| 1/4                         | G                 | 1,2   | 0,05 | 0,8                                   | 0         | 1                   | 16             | 8                | SCG202A001V | SCG202A051V         | -           | -           | E  | J    | T |
|                             | NPT               | 1,2   | 0,05 | 0,8                                   | 0         | 1                   | 16             | 8                | -           | -                   | SCB202A011V | SCB202A061V | E  | J    | T |
|                             | G                 | 2,4   | 0,12 | 2                                     | 0         | 1                   | 8              | 8                | SCG202A002V | SCG202A052V         | -           | -           | E  | J    | T |
|                             | NPT               | 2,4   | 0,12 | 2                                     | 0         | 1                   | 8              | 8                | -           | -                   | SCB202A012V | SCB202A062V | E  | J    | T |
|                             | G                 | 3,2   | 0,24 | 4,0                                   | 0         | 1                   | 4              | 8                | SCG202A003V | SCG202A053V         | -           | -           | E  | J    | T |
|                             | NPT               | 3,2   | 0,24 | 4,0                                   | 0         | 1                   | 4              | 8                | -           | -                   | SCB202A013V | SCB202A063V | E  | J    | T |
|                             | G                 | 4,0   | 0,42 | 7,0                                   | 0         | 1                   | 2,5            | 8                | SCG202A004V | SCG202A054V         | -           | -           | E  | J    | T |
| 3/8                         | NPT               | 4,0   | 0,42 | 7,0                                   | 0         | 1                   | 2,5            | 8                | -           | -                   | SCB202A014V | SCB202A064V | E  | J    | T |
|                             | G                 | 5,6   | 0,72 | 12,0                                  | 0         | 1                   | 1,4            | 8                | SCG202A006V | SCG202A056V         | -           | -           | E  | J    | T |
|                             | NPT               | 5,6   | 0,72 | 12,0                                  | 0         | 1                   | 1,4            | 8                | -           | -                   | SCB202A016V | SCB202A066V | E  | J    | T |
|                             | G                 | 7,1   | 0,90 | 15,0                                  | 0         | 1                   | 1              | 8                | SCG202A007V | SCG202A057V         | -           | -           | E  | J    | T |
|                             | NPT               | 7,1   | 0,90 | 15,0                                  | 0         | 1                   | 1              | 8                | -           | -                   | SCB202A017V | SCB202A067V | E  | J    | T |
|                             | Rp                | 3,2   | 0,24 | 4,0                                   | 0         | 1                   | 4              | 8                | SCE202A023V | SCE202A073V         | -           | -           | E  | J    | T |
|                             | NPT               | 3,2   | 0,24 | 4,0                                   | 0         | 1                   | 4              | 8                | -           | -                   | SCB202A033V | SCB202A083V | E  | J    | T |
| Rp                          | 4,0               | 0,42  | 7,0  | 0                                     | 1         | 2,5                 | 8              | SCE202A024V      | SCE202A074V | -                   | -           | E           | J  | T    |   |
| NPT                         | 4,0               | 0,42  | 7,0  | 0                                     | 1         | 2,5                 | 8              | -                | -           | SCB202A034V         | SCB202A084V | E           | J  | T    |   |
| Rp                          | 5,6               | 0,72  | 12,0 | 0                                     | 1         | 1,4                 | 8              | SCE202A026V      | SCE202A076V | -                   | -           | E           | J  | T    |   |
| NPT                         | 5,6               | 0,72  | 12,0 | 0                                     | 1         | 1,4                 | 8              | -                | -           | SCB202A036V         | SCB202A086V | E           | J  | T    |   |
| Rp                          | 7,1               | 0,90  | 15,0 | 0                                     | 1         | 1                   | 8              | SCE202A027V      | SCE202A077V | -                   | -           | E           | J  | T    |   |
| NPT                         | 7,1               | 0,90  | 15,0 | 0                                     | 1         | 1                   | 8              | -                | -           | SCB202A037V         | SCB202A087V | E           | J  | T    |   |

(1) Refer to the dimensional drawings on the following page.  
(2) Damage may occur when liquids solidify above the specified minimum temperature.  
(3) Percentage of max. value with 24 V DC, P.W.M. 300 Hz, supply at constant differential pressure.

### OPTIONS

- Valves can also be supplied with NBR (nitrile), EPDM (ethylene-propylene), CR (chloroprene / neoprene) and PTFE seals and discs
- Waterproof enclosure with embedded screw terminal coil according to protection class IP67, CEE-10
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU, on request
- Electrical enclosures according to "NEMA" standards are available
- Mounting brackets
- Electronic proportional control unit [catalogue number: **E908A001** ([www.asco.com](http://www.asco.com)) / **X90850164500100-0200** ([www.asco.com](http://www.asco.com))]  
Features:
  - analog input control signals: 0 - 10 V DC, 0 - 20 mA or 4 - 20 mA
  - coil current (= flow rate) adjustable to required control signals
  - switch-off function at less than 2% of the maximum control function
  - adjustable ramp control
  - adjustable frequency
  - output current independent of coil resistance and supply voltage variations
  - housed in: a box with spade plug connector according to ISO 4400 / IP65
- Other pipe connections are available on request

### INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Brass and NPT 3/8 stainless steel solenoid valves have 2 mounting holes in body
- NPT 1/4 stainless steel valves are standard supplied with mounting brackets
- Threaded pipe connection is standard: E = Rp (ISO 7/1) ; G = G (ISO 228/1) ; B = NPT (ANSI 1.20.3)
- Installation/maintenance instructions are included with each valve

### ORDERING EXAMPLES:

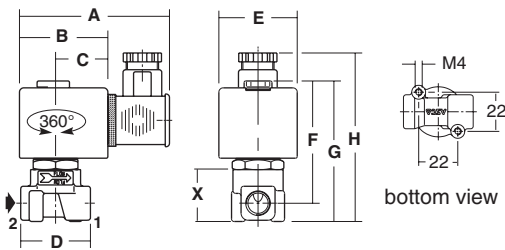
|        |             |              |   |     |   |          |
|--------|-------------|--------------|---|-----|---|----------|
| SC     | G           | 202          | A | 001 | V | 24V / DC |
| SC     | B           | 202          | A | 011 | V | 24V / DC |
| prefix | pipe thread | basic number |   |     |   | voltage  |
|        |             |              |   |     |   | suffix   |

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

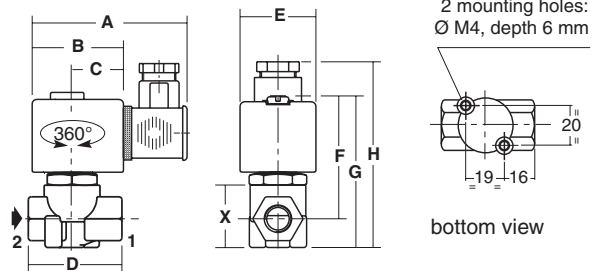


**TYPE 01**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / ISO 4400  
IP65

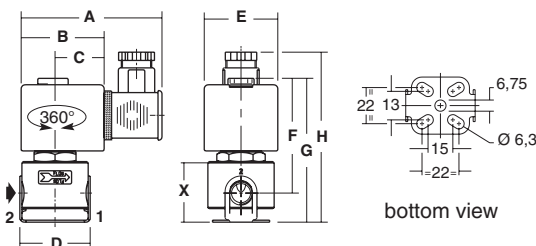
SCG202A001V/002V/003V/004V/006V/007V  
SCB202A051V/052V/053V/054V/056V/057V



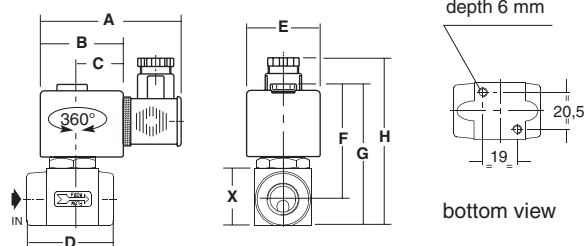
SCE202A023V/024V/026V/027V  
SCE202A073V/074V/076V/077V



SCG202A011V/012V/013V/014V/016V/017V  
SCB202A061V/062V/063V/064V/066V/067V



SCB202A033V/034V/036V/037V  
SCB202A083V/084V/086V/087V



| type | prefix option | catalogue number   | A  | B  | C  | D  | E  | F  | G  | H  | X  | weight <sup>(1)</sup> |
|------|---------------|--|----|----|----|----|----|----|----|----|----|-----------------------|
| 01   | SC            | SCG202A001V/002V/003V/004V/006V/007V/051V/052V/053V/054V/056V/057V | 85 | 50 | 30 | 40 | 45 | 68 | 79 | 95 | 30 | 0,50                  |
|      |               | SCG202A011V/012V/013V/014V/016V/017V/061V/062V/063V/064V/066V/067V | 80 | 50 | 30 | 42 | 45 | 60 | 79 | 95 | 37 | 0,60                  |
|      |               | SCE202A023V/024V/026V/027V/073V/074V/076V/077V                     | 80 | 50 | 30 | 48 | 45 | 68 | 82 | 97 | 32 | 0,50                  |
|      |               | SCB202A033V/034V/036V/037V/083V/084V/086V/087V                     | 80 | 50 | 30 | 51 | 45 | 68 | 81 | 97 | 31 | 0,65                  |

<sup>(1)</sup> including coil and connector.