Valves for Analytical and Medical Technology
In analytical and medical technology, the demands customers place on the performance of the products are increasing year by year. As a worldwide leading manufacturer of solenoid valves, ASCO Numatics offers a wide range of fluid isolation, non-isolation and proportional valves designed to meet these demands.

Our dedicated catalogue “Valves for Analytical and Medical Technology” describes this family of products.

For more information on our portfolio of valves and pneumatic components, please visit our website at www.asconumatics.eu.
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ASCO Numatics

... Your Partner in Analytical and Medical Technology

The Emerson Group based in St. Louis, U.S.A., has a workforce of 140,000 employees worldwide, with production facilities and sales offices in over 150 countries.

ASCO Numatics, a division of the EMERSON Group of companies, is a global leader in the field of fluid control and fluid power. The company employs over 4,000 people and is represented in 43 countries. Its product portfolio includes more than 50,000 valves, a broad line of air service and air regulation equipment and a full range of actuators.

Analytical and Medical Technology

With its technological innovations, ASCO Numatics has been setting the standards in analytical and medical technology for over 20 years. The valves and assemblies developed for this purpose are especially adapted to gas and fluid handling applications in the fields of medicine, biomedicine and industrial analytics. Special departments at ASCO Numatics possess the necessary knowledge of the sectors to fulfil the high requirements on accuracy, reliability and purity demanded in these sensitive fields. In addition, extensive international safety accreditations and certifications ensure the quality and safety of the products and their suitability for the applications in the various regions of the world.

Available approvals: ATEX, TÜV, UL, FM, CSA, NEPSI, JE, DNV, CE etc.

Certificates of our production facilities
Competence centres …

… for the development and manufacture of valves and customer-specific multi-function modules for analytical and medical technology.

Europe:
- Germany, Ölbronn-Dürrn
- France, Lucé
- Italy, Milan

America:
- USA, Novi / Michigan
- Mexico, Mexicali

Asia:
- China, Shanghai
- Japan, Hyogo
Introduction to analytical and medical technology

Analytical technology includes apparatus that is used for analytical purposes in laboratories or the industry. The valves used in this equipment or with these processes do not come into direct contact with the patient and are designed to handle aggressive gases and liquids. Analytical applications require resistance to aggressive fluids, a low internal volume and an easy-to-flush design. The use of valves with low power consumption will reduce heat transfer into the fluid.

Highest precision and functionality – especially suitable for aggressive fluids

Our range of valves is ideal for use in applications in the following areas of analytical technology:

- Chromatography (GC, IC and HPLC)
- Haematology
- Immunology
- Cytology
- Biotechnology (DNA synthesis)
- Emission analysis
- Water analysis
- Leak measurement
- etc.
Medical technology includes apparatus and processes in which valves come partly into direct contact with fluids introduced into, or taken from patients, be it in handling medical gases in respirators or liquids in dialysis. This field of application requires the use of inert materials, a low internal volume, low power consumption as well as easy-to-flush internal valve or system cavities.

Our range of valves is ideal for use in applications in the following areas of medical technology:

- Artificial respiration
- Anaesthesia
- Oxygen concentration
- Dialysis
- Dentistry
- Clinical sterilisation
- Minimally invasive surgery
- Cryosurgery
- Cellulitis treatment
- etc.
Application examples

Analytical technology

**DNA synthesis**

The valves are used as pilot valves to control, via diaphragms, the handling of fluids in a DNA synthesizer.

**HPLC analysis**

The valves are used for supplying and dosing samples in the process.

**Gas chromatography**

The valves adjust and control the upstream pressure of the carrier gas.

**Emission analysis**

The battery-operated valves open and close the channel feeding the gases to the analyzers.

**Mass Flow Controllers**

The valve is used for the precise proportional control of flow in response to a signal from a sensor.

**Haematology**

The valves control the supply and dosing of blood in the analytical process.

**Pipette dispensing**

The valves are used for supplying and dispensing volumes to and from pipettes. The aim is to supply/dispense equal volumes at regular intervals over a number of individual pipettes.

**Cytometry**

The valves are used for the delivery of sample solution, marker and fluid sheath in the analytical process.
### Application examples

#### Medical technology

<table>
<thead>
<tr>
<th><strong>Dialysis</strong></th>
<th><strong>Dental technology</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Dialysate Fluid" /></td>
<td>The unit regulates and controls the supply of water and air to the instruments of a dental treatment chair.</td>
</tr>
<tr>
<td>The pinch valve controls the supply of dialysate fluid from the reservoir to the patient.</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Clinical sterilisers</strong></th>
<th><strong>Endoscopy</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Steam / Disinfectant fluid" /></td>
<td>The valve module controls the CO₂ supply to enlarge the operating area in minimally-invasive surgery.</td>
</tr>
<tr>
<td>The valve module regulates and controls the supply of steam and/or disinfectant fluid for the sterilisation process.</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th><strong>Respirators</strong></th>
<th><strong>Blood pressure instruments</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Air / O₂" /></td>
<td>Micro valves allow control of the inflation and deflation of the cuff for blood pressure measurement.</td>
</tr>
<tr>
<td>The valve module regulates the volume and/or mixture of oxygen and air supplied to the patient.</td>
<td></td>
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</tbody>
</table>

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<thead>
<tr>
<th><strong>Injector pumps</strong></th>
<th><strong>Artificial heart</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Reservoir" /></td>
<td>Blood is pumped through an artificial heart by alternately applying pressure or vacuum.</td>
</tr>
<tr>
<td>A 3/2 valve delivers the drug to the injector pump and from the injector pump to the patient. It operates in the vacuum range (suction phase) and overpressure range (dosing phase).</td>
<td></td>
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</table>
Special Solutions
Analytical and medical technology

Solenoid valve module: fluid isolation - diaphragm mechanism
6 solenoid-operated diaphragm valves assembled in a star-like configuration on a manifold to be used in chemical analysis.
Application: chemical analysis

Multi-function module: fluid isolation valve – bellows seal system
Customer special assembly consisting of an injection moulded manifold with a fluid isolation valve, series 296, for the handling of ultrapure water.
Application: lab water system

Solenoid valve module: fluid isolation - rocker mechanism
Fluid isolation solenoid valves, series 067, including power save circuit board, on a PMMA manifold (acrylic).
Application: cell analyzer

Modular-manifold: fluid isolation – proportional – miniature solenoid valves
Injection moulded modular valve manifold with proportional and miniature fluid isolation valves. Suitable to shut off or proportionally control liquids and gaseous fluids.
Application: dental
**Multi-function module: micro valves**

Customized solution consisting of an injection moulded manifold with Micro 10 general service valves, series 188, printed circuit board, and tubing connection.

**Application:** dialysis system

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**Multi-function module: micro valves**

Ventilator assembly consisting of an injection moulded valve manifold, pressure sensors, and Micro 10 valves, series 188.

**Application:** ventilator

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**Solenoid valve module:**

**fluid isolation - diaphragm mechanism**

Fluid isolation solenoid valves, series 282, with low internal volume on PMMA manifold (acrylic).

**Application:** bioanalytical system

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**Multi-function module:**

**fluid isolation valve – flapper mechanism**

Valve module with several fluid isolation valves, series 068, including a pressure sensor mounted on a customized acrylic manifold.

**Application:** blood analyzer
# Selection of valves

Selection according to specifications

<table>
<thead>
<tr>
<th>Page</th>
<th>Series</th>
<th>Function</th>
<th>Fluid</th>
<th>Pressure range</th>
<th>Nominal diameter</th>
<th>Power consumption</th>
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## Selection of valves

Selection according to type of connection and material

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<th>Page</th>
<th>Series</th>
<th>Connection type</th>
<th>Body materials</th>
<th>Seal materials</th>
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</table>
### Fluid isolation 2/2 solenoid valves with DIAPHRAGM MECHANISM

Series 282 solenoid valves with diaphragm mechanism are characterised by their compact size, long service life and very low internal volume. They are ideal for controlling aggressive fluids. The valve bodies are made of stainless steel or synthetic material (PEEK/PVDF/PP). Fluid isolation is ensured by the incorporated diaphragm made of VMQ (silicone), FPM (fluoroelastomer), FFPM (perfluoroelastomer) or EPDM (ethylene-propylene).

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Fluid:</th>
<th>Gases and liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range:</td>
<td>0 – 2,5 bar</td>
</tr>
<tr>
<td>Function:</td>
<td>NC</td>
</tr>
<tr>
<td>Connection:</td>
<td>M5, G1/8, cartridge or flange</td>
</tr>
<tr>
<td>Construction:</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Valve body:</td>
<td>PEEK, PVDF, PP or stainless steel</td>
</tr>
<tr>
<td>Seals:</td>
<td>FFPM, FPM, VMQ and EPDM</td>
</tr>
<tr>
<td>Overall width:</td>
<td>8 mm, 17 mm, 27 mm and 32 mm</td>
</tr>
</tbody>
</table>

**FEATURES**

- Compact design
- Low power consumption (1,0 Watt)
- Low internal volume (<10 μl)
- Good self-draining capability
- Good flushability
- High-quality materials
Fluid isolation 2/2 and 3/2 solenoid valves with ROCKER MECHANISM

Series 067 fluid isolation solenoid valves with rocker mechanism are characterised by their compact size and hermetic separation between the control mechanism and the fluid. The solenoid valves are ideal for controlling aggressive fluids or applications requiring high fluid purity.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Gases and liquids</th>
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<tbody>
<tr>
<td>Pressure range</td>
<td>-0.9 to 3 bar</td>
</tr>
<tr>
<td>Function</td>
<td>NC, NO and U</td>
</tr>
<tr>
<td>Connection</td>
<td>Flange, hose connection, 1/4 - 28 UNF, 5/16 - 24 UNF</td>
</tr>
<tr>
<td>Construction</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Valve body</td>
<td>PEEK, polyamide</td>
</tr>
<tr>
<td>Seals</td>
<td>FFPM, FPM and EPDM</td>
</tr>
<tr>
<td>Overall width</td>
<td>Series 067: 10 mm</td>
</tr>
<tr>
<td></td>
<td>Series 110/ 385: 16 mm</td>
</tr>
</tbody>
</table>

**FEATURES**

- Compact design
- Low power consumption (1.0 Watt)
- Low heat transfer into the fluid
- Low internal volume (< 13 μl)
- Good self-draining capability
- Good flushability
- High-quality materials
- Various electrical connection options

More information on Series 067 → p. 31
More information on Series 385 → p. 35
More information on Series 110 → p. 37
Fluid isolation valves with FLAPPER MECHANISM

Series 068 fluid isolation valves are suitable for use with neutral or aggressive liquids and gases. The isolation design and use of high-quality materials (PEEK and FFPM/FPM/EPDM) prevents fluid contamination. The special flapper mechanism and large orifice sizes (0.8 to 4 mm) allow high pressures (up to 10 bar). A power-save connector lowers the holding power down to 1.5 watts, thus minimising the heat transfer into the fluid.

<table>
<thead>
<tr>
<th>TECHNICAL CHARACTERISTICS</th>
<th>FEATURES</th>
</tr>
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<tbody>
<tr>
<td>Fluid: Gases and liquids</td>
<td>Low power consumption (up to 1.5 watt)</td>
</tr>
<tr>
<td>Pressure range: 0.9 to 10 bar</td>
<td>Low heat transfer into the fluid</td>
</tr>
<tr>
<td>Function: NC, NO and U</td>
<td>Wide pressure range</td>
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<tr>
<td>Connection: G1/8, flange, 1/4 - 28 UNF, hose connection</td>
<td>Low internal volume</td>
</tr>
<tr>
<td>Construction: Poppet valve</td>
<td>Good self-draining capability</td>
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<tr>
<td>PEEK valve body</td>
<td>Good flushability</td>
</tr>
<tr>
<td>FFPM/FPM/EPDM diaphragm</td>
<td>High-quality materials</td>
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<tr>
<td>Overall width: 16 mm and 22 mm</td>
<td>Various electrical connection options</td>
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</tbody>
</table>
Fluid isolation 2/2 and 3/2 solenoid valves with LEVER MECHANISM

Series 283 and 383 fluid isolation valves with lever mechanism can be used at high differential pressures and large flow volumes. Since the offset control mechanism provides optimal heat dissipation in the electromagnetic component, the valves are suitable for use at high ambient temperatures.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Fluid:</th>
<th>Gases and liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range:</td>
<td>0 to 10 bar</td>
</tr>
<tr>
<td>Function:</td>
<td>NC, NO and U</td>
</tr>
<tr>
<td>Connection:</td>
<td>G1/4 - G1/2, smooth spigots 8 - 11 mm O.D.</td>
</tr>
<tr>
<td>Construction:</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Valve body:</td>
<td>PEI (Polyetherimide)</td>
</tr>
<tr>
<td>Seals:</td>
<td>VMQ / FPM / EPDM</td>
</tr>
<tr>
<td>Overall width:</td>
<td>25 mm and 32 mm</td>
</tr>
</tbody>
</table>

**FEATURES**

- Large flow
- Wide pressure range
- Low internal volume
- Good self-draining capability
- Good flushability
- Various types of seal materials
- Various electrical connection options
Fluid isolation 2/2 and 3/2 solenoid valves with

BELLOWS SEAL SYSTEM

Series 296 and 396 fluid isolation solenoid valves with bellows seals are characterised by their high functional reliability under harsh conditions and their long service life. PEEK and stainless steel bodies, PTFE bellows and FFPM seals allow the valves to be used with extremely corrosive fluids. The valves are designed for high pressure and flow rates.

More information on Series 296 p. 67
More information on Series 396 p. 69

<table>
<thead>
<tr>
<th>TECHNICAL CHARACTERISTICS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid: Gases and liquids</td>
<td>Large nominal diameter (2 - 6 mm)</td>
</tr>
<tr>
<td>Pressure range: 0 to 6 bar</td>
<td>Wide pressure range</td>
</tr>
<tr>
<td>Function: NC</td>
<td>High-quality materials</td>
</tr>
<tr>
<td>Connection: G1/4 and G3/8</td>
<td>Good self-draining capability</td>
</tr>
<tr>
<td>Construction: Poppet valve</td>
<td>Good flushability</td>
</tr>
<tr>
<td>Valve body: PEEK and stainless steel</td>
<td>Low weight (with plastic body)</td>
</tr>
<tr>
<td>Seals: PTFE (bellows), FFPM / FPM (disc)</td>
<td>Optional operation with power-save connector</td>
</tr>
<tr>
<td>Overall width: 22 mm and 45 mm</td>
<td></td>
</tr>
</tbody>
</table>
Fluid isolation 2/2 and 3/2 solenoid valves with PINCH MECHANISM

Series 284 and 384 fluid isolation pinch valves are characterised by their uninterrupted flow path and the long service life of their tubes. This is achieved using the pinch mechanism which provides a smooth, constant pressure on the soft tubing. Any risk of contamination is reliably avoided by changing the tubes.

### TECHNICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Fluid:</th>
<th>Gases and liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range:</td>
<td>0 to 0.8 bar</td>
</tr>
<tr>
<td>Function:</td>
<td>NC, NO and U</td>
</tr>
<tr>
<td>Connection:</td>
<td>Tubes 1.65 mm to 9.5 mm O.D.</td>
</tr>
<tr>
<td>Construction:</td>
<td>Tube clamp</td>
</tr>
<tr>
<td>Valve body:</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Tube:</td>
<td>VMQ (Silicone)</td>
</tr>
<tr>
<td>Overall width:</td>
<td>17 mm, 32 mm and 42 mm</td>
</tr>
</tbody>
</table>

### FEATURES

- Compact design
- Low to very high flow
- Flow in both directions
- Straight, uninterrupted flow path
- Good flushability
- Various tube material options
- Various electrical connection options
2/2 and 3/2 micro solenoid valves

MICRO SOLENOID VALVES

Series 188, 302, S, RB and Piezotronic micro solenoid valves are used mainly as pilot valves or for the handling of inert gases. These series are suitable for applications in almost all areas of analytical and medical technology. Their compact size and easy installation allows several valves to be mounted on a subbase or custom valve module.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Fluid:</th>
<th>Inert gases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range:</td>
<td>0 to 10 bar</td>
</tr>
<tr>
<td>Function:</td>
<td>NC and NO</td>
</tr>
<tr>
<td>Connection:</td>
<td>Flange, threaded connection, 1/4 - 28 UNF, hose connection, screw-in type M5</td>
</tr>
<tr>
<td>Construction:</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Valve body:</td>
<td>Polyamide, stainless steel, brass, PBT</td>
</tr>
<tr>
<td>Seals:</td>
<td>NBR, FPM, TPE</td>
</tr>
<tr>
<td>Overall width:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Series 188: 10 mm</td>
</tr>
<tr>
<td></td>
<td>Series 302: 15 mm</td>
</tr>
<tr>
<td></td>
<td>Series S: 19 mm</td>
</tr>
<tr>
<td></td>
<td>Series RB: 15 and 19 mm</td>
</tr>
<tr>
<td></td>
<td>Piezotronic: 15 mm</td>
</tr>
</tbody>
</table>

**FEATURES**

- Compact design
- Low power consumption (1 Watt)
- Wide range of nominal diameters (0.6 - 2 mm)
- Other bodies and seals on request
- Suitable for vacuum applications
- Suitable for mounting on multiple subbase
- Various electrical contact options
2/2 and 3/2 solenoid valves with

**FLAT SPRING TECHNOLOGY**

Series 065 flat spring valves are used mainly in medical and analytical apparatus, gas analysers and leak detectors. The valves are characterised by their long service life and extremely short response times. High-quality stainless steels and sealing materials make the valves suitable for use with a wide range of gases.

<table>
<thead>
<tr>
<th>TECHNICAL CHARACTERISTICS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid: Gases</td>
<td>Long service life (&gt; 1 billion cycles)</td>
</tr>
<tr>
<td>Pressure range: 0 to 9 bar</td>
<td>Short response times (&lt; 10 ms)</td>
</tr>
<tr>
<td>Function: NC and NO</td>
<td>Low power consumption (2 Watt)</td>
</tr>
<tr>
<td>Connection: M5 or flange</td>
<td>Wide range of nominal diameters (0.6 - 2 mm)</td>
</tr>
<tr>
<td>Construction: Poppet valve</td>
<td>Compact design</td>
</tr>
<tr>
<td>Valve body: Stainless steel and PPS</td>
<td>High-quality materials (Stainless steel / FPM)</td>
</tr>
<tr>
<td>Seals: FPM</td>
<td>Other seals on request</td>
</tr>
<tr>
<td>Overall width: 15 mm, 22 mm</td>
<td>Easy integration into systems</td>
</tr>
</tbody>
</table>

Flat spring valve, 15 mm
Series 065 ➤ p.109

SERIES 065

SERIES 065, 15 mm
Proportional valves

2-way proportional valve for flow control

PIEZOTRONIC

Series 630 2/2 piezo valves for flow control are a high-tech solution designed in particular for applications requiring extremely low power consumption. They are suitable for use in battery-operated equipment or in potentially explosive areas.

Piezo element

Valve seat

PPS body

Piezoelectric effect

A mechanical deformation occurs under an electrical charge (this can also occur vice-versa). The multi-layer piezoelectric element is the essential part of a piezoelectric valve. It consists of elementary dipoles which are polarised during manufacture. The length of the material changes as soon as the piezo ceramics are exposed to an electrical field.

<table>
<thead>
<tr>
<th>TECHNICAL CHARACTERISTICS</th>
<th>FEATURES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid: Air and gases</td>
<td>Extremely low power consumption (0.007 Watt)</td>
</tr>
<tr>
<td>Pressure range: 0 to 8 bar</td>
<td>Large electrical control range</td>
</tr>
<tr>
<td>Function: NC and NO</td>
<td>Long service life (&gt; 1 billion cycles)</td>
</tr>
<tr>
<td>Flow: max. 0.007 m³/h</td>
<td>Pad mounting to industrial standard</td>
</tr>
<tr>
<td>Connection: Flange (CNOMO), M5, G1/8</td>
<td>No overheating</td>
</tr>
<tr>
<td>Construction: Poppet valve</td>
<td>EExia option</td>
</tr>
<tr>
<td>Valve body: PPS</td>
<td></td>
</tr>
<tr>
<td>Seals: NBR</td>
<td></td>
</tr>
<tr>
<td>Piloting voltage: 0 – 40 V</td>
<td></td>
</tr>
<tr>
<td>Overall width: 15 mm</td>
<td></td>
</tr>
</tbody>
</table>
2-way proportional valve for flow control

**POSIFLOW**

Series 202 and 203 Posiflow proportional valves can be used in practically all applications in which the flow of a liquid or gas needs to be controlled. Since a single proportional valve can replace two or three conventional valves connected in parallel (NC or NO) to obtain low, medium or high flow rates, it provides a cost-effective and space-saving solution.

### TECHNICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th><strong>Fluid:</strong></th>
<th>Air, gases, liquids</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pressure range:</strong></td>
<td>Vacuum to 16 bar</td>
</tr>
<tr>
<td><strong>Function:</strong></td>
<td>NC</td>
</tr>
<tr>
<td><strong>Flow:</strong></td>
<td>0 to 35 NL/min</td>
</tr>
<tr>
<td><strong>Connection:</strong></td>
<td>M 5 to G 1/2</td>
</tr>
<tr>
<td><strong>Construction:</strong></td>
<td>Poppet valve</td>
</tr>
<tr>
<td><strong>Valve body:</strong></td>
<td>Stainless steel, brass</td>
</tr>
<tr>
<td><strong>Seals:</strong></td>
<td>NBR, FPM, CR, EPDM and PTFE</td>
</tr>
</tbody>
</table>

### FEATURES

- Compact design
- Large flow
- Wide pressure range
- Low hysteresis (< 5 % of span)
- Low power consumption
- Direct operated
- Variable flow proportional to solenoid current

---

The electronic control unit converts a standard signal (e.g. 0 to 10 V) into an output current (0 to 1,0 A). The output current, which is pulse-width modulated, provides low-hysteresis control, irrespective of temperature influences. The current values are set with a potentiometer.

The stand-alone control device CONTROL® is used for open-loop, closed-loop or double-loop (cascaded) process control. It is designed to control proportional valves by regulating the current in the valve’s solenoid coil. The control parameters can be set by PC software.
2-way proportional valve for flow control

PRECIFLOW

Series 202 2/2 proportional valves are ideal for use in applications in many areas of analytical and medical technology. Frictionless suspension of the core reduces hysteresis and provides stepless control in the lower and upper ranges. Typical applications include respirators or mass flow controllers.

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air, gases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure range</td>
<td>Vacuum to 10 bar</td>
</tr>
<tr>
<td>Function</td>
<td>NC</td>
</tr>
<tr>
<td>Flow</td>
<td>max. 0.096 m³/h</td>
</tr>
<tr>
<td>Connection</td>
<td>Flange (CNOMO), cartridge, M5, G1/8</td>
</tr>
<tr>
<td>Construction</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Valve body</td>
<td>PVDF, brass or stainless steel</td>
</tr>
<tr>
<td>Seals</td>
<td>FPM, FFPM</td>
</tr>
<tr>
<td>Actuation</td>
<td>Electronic control unit or Control®</td>
</tr>
</tbody>
</table>

**FEATURES**

- Compact design
- Low to high flow
- Wide pressure range
- Minimum hysteresis
- Direct operated
- Variable flow proportional to solenoid current
- Stepless flow characteristic

---

**Frictionless suspension of the core between 2 flat springs**

**FPM disc**

**Stainless steel valve seat**

**Electronic control unit or Control®**

The electronic control unit converts a standard signal (e.g. 0 to 10 V) into an output current (0 to 1,0 A). The output current, which is pulse-width modulated, provides low-hysteresis control, irrespective of temperature influences. The current values are set with a potentiometer.

The stand-alone control device CONTROL® is used for open-loop, closed-loop or double-loop (cascaded) process control. It is designed to control proportional valves by regulating the current in the valve’s solenoid coil. The control parameters can be set by PC software.
2-way proportional valve for flow control

**PRECIFLOW IPC**

Series 202 Preciflow IPC valves are inlet pressure compensated flow control valves. Inlet pressure compensation allows high pressures and flows at low solenoid coil power consumption. Typical applications for these valves are in medical (e.g. respirators) and analytical apparatus (e.g. mass flow controllers).

**TECHNICAL CHARACTERISTICS**

<table>
<thead>
<tr>
<th><strong>Fluid:</strong></th>
<th>Air, gases</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pressure range:</strong></td>
<td>0 to 7 bar</td>
</tr>
<tr>
<td><strong>Function:</strong></td>
<td>NC</td>
</tr>
<tr>
<td><strong>Flow:</strong></td>
<td>0.17m³/h</td>
</tr>
<tr>
<td><strong>Connection:</strong></td>
<td>Flange, cartridge, G1/8</td>
</tr>
<tr>
<td><strong>Construction:</strong></td>
<td>Poppet valve</td>
</tr>
<tr>
<td><strong>Valve body:</strong></td>
<td>Stainless steel</td>
</tr>
<tr>
<td><strong>Seals:</strong></td>
<td>FPM</td>
</tr>
<tr>
<td><strong>Actuation:</strong></td>
<td>Control®</td>
</tr>
</tbody>
</table>

**FEATURES**

- Compact design
- High flow
- Wide pressure range
- Low hysteresis (< 5% of span)
- Low power consumption (2.5 W)
- Direct operated
- Variable flow proportional to solenoid current

---

**CONTROL®**

The stand-alone control device CONTROL® is used for open-loop, closed-loop or double-loop (cascaded) process control. It is designed to control proportional valves by regulating the current in the valve's solenoid coil. The control parameters can be set by PC software.
3-way proportional valve for pressure control

**SENTRONIC**\textsuperscript{PLUS} / **SENTRONIC**\textsuperscript{LP}

**SENTRONIC**\textsuperscript{PLUS} and **SENTRONIC**\textsuperscript{LP} are digital pressure regulator valves. With the Data Acquisition Software (DaS) and the USB interface, it’s now possible to adapt the pressure regulators to the control loop in an optimal way. The scope function allows you to log and read out the system’s transient response in real time.

**TECHNICAL CHARACTERISTICS**

- **Fluid:** Air or inert gases
- **Pressure range:** Vacuum to 50 bar
- **Function:** NC, pressure held
- **Connection:** G1/8 to G1, flange
- **Construction:** Poppet valve
- **Body:** Aluminium, brass, stainless steel
- **Seals:** NBR and FPM
- **Setpoint input:** 0 – 10 V, 0 – 20 mA, 4 – 20 mA, 2 bit
- **Feedback output:** 0 – 10 V, 0 – 20 mA, 4 – 20 mA

**FEATURES**

- Very short response times
- Extremely low sensitivity
- Wide pressure range
- Low hysteresis (< 1 % of span)
- 50 μm filtration
- Direct operated, pilot operated
- No constant air consumption
- Digital control
- PC communication

More information on **SENTRONIC**\textsuperscript{PLUS} on p. 135

More information on **SENTRONIC**\textsuperscript{LP} on p. 131
2-way proportional valve for flow control

**FLOWTRONIC**

**FLOWTRONIC** is a digitally operated flow regulator valve for gases up to 1000 Nl/min. It is especially designed for applications placing extreme dynamic demands on flow control. The **FLOWTRONIC** consists of a fast, direct-operated 2-port proportional valve that operates independently of the inlet pressure (max. 8 bar), and a control unit which contains all the control electronics and sensors. The **FLOWTRONIC** offers precise flow adjustment and responds to outside influences within no time at all.

### TECHNICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>Fluid</th>
<th>Air or inert gases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet pressure</td>
<td>max. 8 bar</td>
</tr>
<tr>
<td>Control range</td>
<td>5-2000 Nl/min</td>
</tr>
<tr>
<td>Nominal diameter</td>
<td>2 mm, 3 mm, 5 mm, 6 mm, 8 mm</td>
</tr>
<tr>
<td>Connection</td>
<td>G1/4, G3/8, G1/2</td>
</tr>
<tr>
<td>Construction</td>
<td>Poppet valve</td>
</tr>
<tr>
<td>Body</td>
<td>Aluminium</td>
</tr>
<tr>
<td>Seals</td>
<td>NBR</td>
</tr>
<tr>
<td>Setpoint input</td>
<td>0 – 10 V, 0 – 20 mA, 4 – 20 mA</td>
</tr>
<tr>
<td>Feedback output</td>
<td>0 – 10 V, 0 – 20 mA, 4 – 20 mA</td>
</tr>
</tbody>
</table>

### FEATURES

- Very short response times
- Extremely low sensitivity
- Wide pressure range
- High flow accuracy (< 3 % of span)
- 50 μm filtration
- Easy change of control parameters
- Digital control
- Integrated display (optionally without)
- PC communication

More information on Flowtronic [p.141]
Annex

TECHNICAL SPECIFICATIONS
FEATURES

- Miniature solenoid valves for medical and gas analysers and biotechnology equipment
- Designed to control acids, bases and analytical reagents
- Hermetic separation of control mechanism and fluid:
  - Particulate contamination caused by friction of moving parts is excluded
  - Reliable operation in applications with highly aggressive fluids is ensured
- Easy-to-flush internal cavity and good self-draining capability
- Low internal volume
- Low power consumption
- Easy installation

GENERAL

Differential pressure 0 to +0,5 bar [1 bar =100 kPa]
Maximum viscosity 20 cSt (mm²/s)
Response time < 20 ms
Internal volume < 10 µl

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquids or gases (filtered 50 µm)</td>
<td>+10°C to +40°C</td>
<td>FFPM (perfluorocelastomer)</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified
Body PEEK
Diaphragm FFPM

OTHERS MATERIALS

Internal parts Stainless steel

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Coil connection Pin header with 2 contacts
Electrical safety IEC 335
Standard voltages DC (=) : 12V - 24V

<table>
<thead>
<tr>
<th>prefix option</th>
<th>power ratings</th>
<th>operator ambient temperature range (TS)</th>
<th>replacement coil</th>
<th>type (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ (<del>) ~ (</del>) (VA)</td>
<td>(VA) (W) (C°)</td>
<td>+10 to +40</td>
<td>-</td>
<td>01</td>
</tr>
</tbody>
</table>

(1) Refer to the dimensional drawings on the following page.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC - Normally closed</td>
<td>pad mounting</td>
<td>0,5</td>
<td>0,0066</td>
<td>0,11</td>
<td>0</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) seals and diaphragm. Contact us

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>L</th>
<th>S</th>
<th>282</th>
<th>A010</th>
<th>24V/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>prefix</td>
<td>pipe thread</td>
<td>basic number</td>
<td>voltage</td>
<td>suffix</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

TYPE 01
Prefix “L” solenoid
IEC 335 / with pin header with 2 contacts
Weight: 0.006

LS282A010

Pad-mounting pattern

All leaflets are available on: www.asconumatics.eu
MICRO SOLENOID VALVES
rocker mechanism, fluid isolation
pad mounting body
MICRO 10

FEATURES
- Solenoid valve for use with neutral or aggressive liquids and gases in analytical and medical systems
- Hermetic separation of control mechanism and fluid:
  - Prevents particulate contamination caused by friction of moving parts, assuring maximum purity of fluid
  - Ensures reliable operation in applications with highly aggressive fluids
- Special rocker mechanism combined with a separating diaphragm prevents heat transfer to the fluid and eliminates the sticking effect of the valve seat
- Good self-draining capability and easy-to-flush internal cavity
- Low internal volume
- Reduced heat exchange due to integrated power-save switch
- Various electrical connection options

GENERAL
Differential pressure -0,9 to +3 bar (usable in 0,1 bar abs. vacuum)
Maximum viscosity 20 cSt (mm²/s), filtered at 50 µm
Response time < 10 ms
Internal volume < 13 µl (connections not included)

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquids or gases</td>
<td>10 to 40 °C</td>
<td>FFPM, FPM</td>
</tr>
<tr>
<td></td>
<td>5 to 40 °C</td>
<td>EPDM</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Body PEEK
Diaphragm FFPM (EPDM, FPM)
Seals FFPM (EPDM, FPM)

OTHER MATERIALS
Internal parts Stainless steel

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Coil connection Pin header with 2 contacts
Electrical safety EN 60335
Standard voltages DC (=): 12V (+10% / -5%)
(Other voltages on request) 24V (+10% / -5%)

FUNCTIONAL PRINCIPLE

All leaflets are available on: www.asconumatics.eu
## Micro Solenoid Valves Series 067

### Specifications

<table>
<thead>
<tr>
<th>Pipe Size (mm)</th>
<th>Orifice Size (mm)</th>
<th>Flow Coefficient (Kv)</th>
<th>Min. Operating Pressure Differential (bar)</th>
<th>Max. Operating Pressure Differential (bar)</th>
<th>Electrical Connection Type</th>
<th>Catalogue No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2 NC - normally closed</td>
<td>0.6</td>
<td>0.006</td>
<td>0.10</td>
<td>-0.9</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.010</td>
<td>0.22</td>
<td>-0.9</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>0.017</td>
<td>0.34</td>
<td>-0.9</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1.35</td>
<td>0.026</td>
<td>0.46</td>
<td>-0.9</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>2/2 NO - normally open</td>
<td>0.6</td>
<td>0.006</td>
<td>0.10</td>
<td>-0.9</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.010</td>
<td>0.22</td>
<td>-0.9</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>0.017</td>
<td>0.34</td>
<td>-0.9</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1.35</td>
<td>0.026</td>
<td>0.46</td>
<td>-0.9</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td>3/2 U - universal</td>
<td>0.6</td>
<td>0.006</td>
<td>0.10</td>
<td>-0.9</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0.8</td>
<td>0.010</td>
<td>0.22</td>
<td>-0.9</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1.0</td>
<td>0.017</td>
<td>0.34</td>
<td>-0.9</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td></td>
<td>1.35</td>
<td>0.026</td>
<td>0.46</td>
<td>-0.9</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

### Options
- Subbase (consult us)
- Manual operator (impulse-type)

### Installation
- The solenoid valves can be mounted in any position without affecting operation.
- Installation/maintenance instructions are included with each valve.

---

*All leaflets are available on: [www.asconumatics.eu](http://www.asconumatics.eu)*
DIMENSIONS (mm), WEIGHT (g)
Weight: 11.7 g

LONG FLANGE VERSION

Type 1

Type 2

Type 3

Type 4

Type 5

Mounting pad

(1) The coil used for orifice size 1.35 mm is longer by 12.5 mm than that used for the other orifice sizes.

* Connectors must be ordered separately, please specify the quantity and catalogue numbers as required:

- 2-wire connector
- Pin spacing 5.08 mm - catalogue number: 88118801
- 0.5 m long - catalogue number: 88118802
- 1.5 m long - catalogue number: 88118803
- 3 m long - catalogue number: 88118804

- Pin spacing 2.54 mm - catalogue number: 88118805
- 0.5 m long - catalogue number: 88118806
- 1.5 m long - catalogue number: 88118807
- 3 m long - catalogue number: 88118808

All leaflets are available on: www.asconumatics.eu
SINGLE SUBBASES

PEEK

UNF thread - catalogue number 36100038

Bottom push-in hose connection - catalogue number 36100042

UNF thread - catalogue number 36100040

Side push-in hose connection - catalogue number 36100044

All leaflets are available on: www.asconumatics.eu
FEATURES

- Valves for invitro diagnostics in biochemistry, hematology and immunology
- Can be used to control acids and bases, as well as analytical reagents
- The valves have easy-to-flush internal cavities and are ideal for controlling aggressive fluids or when high purity is demanded
- Very low internal volume
- Hermetic separation of control mechanism and fluid
- Reduced heat exchange between coil and fluid
- The use of first class materials and thorough valve testing ensure high reliability and a lifetime of at least 1 million cycles
- Suitable for vacuum applications

GENERAL

Differential pressure
See «SPECIFICATIONS» [1 bar = 100 kPa]
0.7 bar abs. (vacuum on polyamide body only)

Maximum viscosity
37 cSt (mm²/s)

Response time
20 ms

Internal volume
< 67 μl

<table>
<thead>
<tr>
<th>Fluids (+)</th>
<th>Temperature range (TS)</th>
<th>Seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquids or gases</td>
<td>-10°C to +80°C (1)</td>
<td>FFKM (perfluoroelastomer)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPDM (ethylene-propylene)</td>
</tr>
</tbody>
</table>

CONSTRUCTION

Body
PEEK body
PA body

MATERIALS IN CONTACT WITH FLUID

Ensure that the compatibility of the fluids in contact with the materials is verified

Mounting pad
PEEK
PA

Diaphragm and discs
FFPM
EPDM

Mounting pad seal
FFPM
EPDM

ELECTRICAL CHARACTERISTICS

Coil insulation class
F

Detachable and rotatable
Two spade terminals 2.8 x 0.5 mm (DIN 46340)
(or detachable size 15 connector)

Electrical enclosure protection
IP40 (EN60529)

Standard voltages
DC (=) : 12V - 24V
(Other voltages on request)

<table>
<thead>
<tr>
<th>Prefix option</th>
<th>Power ratings</th>
<th>Operating pressure differential (bar)</th>
<th>Power coil (W)</th>
<th>Catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inrush (VA)</td>
<td>Holding (VA)</td>
<td>Hot/Cold (W)</td>
<td>Operator ambient temperature range (TS)</td>
</tr>
<tr>
<td>SC</td>
<td>-1/4</td>
<td>-10 to +60</td>
<td>43005268</td>
<td>43005269</td>
</tr>
</tbody>
</table>

(1) Refer to the dimensional drawings on the following page.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Pipe size (mm)</th>
<th>Orifice size (m²/h)</th>
<th>Flow coefficient (l/min)</th>
<th>Operating pressure differential (bar)</th>
<th>Power coil (W)</th>
<th>Catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>U - Universal, PEEK body, FFKM seals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pad mount</td>
<td>1.5</td>
<td>0.03</td>
<td>0</td>
<td>2.4</td>
<td>2.4</td>
</tr>
<tr>
<td>U - Universal, PA body, EPDM seals</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pad mount</td>
<td>1.5</td>
<td>0.03</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) seals and diaphragm. Use the appropriate optional suffix letter for identification.
- 2/2 NC function, catalogue number SC285A002
- Led coil
- Power-save version (low holding power)
- Other types of connections are available (hose couplings etc.)
- Connector size 15, catalogue number 88143581

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation.
- Can be used for the following functions, depending on how the ports are connected:

<table>
<thead>
<tr>
<th>3/2 NC</th>
<th>3/2 NO</th>
<th>mixer</th>
<th>selector</th>
</tr>
</thead>
<tbody>
<tr>
<td>P(2)</td>
<td>A(1)</td>
<td>R(3)</td>
<td>R(2)</td>
</tr>
<tr>
<td>A(1)</td>
<td>P(3)</td>
<td>P(2)</td>
<td>A(1)</td>
</tr>
</tbody>
</table>

- Installation/maintenance instructions are included with each valve.

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Basic Number</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC S385 A001</td>
<td>12V/DC</td>
<td></td>
</tr>
<tr>
<td>SC S385 A001 E</td>
<td>24V/DC</td>
<td></td>
</tr>
<tr>
<td>SC S385 A002 E</td>
<td>24V/DC</td>
<td></td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Option</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>O1</td>
<td>0.04</td>
</tr>
</tbody>
</table>

- 1 mounting pad seal.
- 2 Coil with 2 Faston-type terminals 2.8 x 0.5 (DIN 46340).
- Mounting: 2 screws M2.5 x 18.
MINIATURE SOLENOID VALVES
rockers mechanism, fluid isolation
hose connections

FEATURES
• Valves for medical analysers, biotechnology, gas analysers
• Can be used to control acids and bases, as well as analytical reagents
• Any application where the fluid may not come into contact with metal parts and with the electromagnetic control section of the solenoid valves
• The valves are ideal for controlling aggressive fluids or when high purity is demanded and have easy to flush internal cavities
• They can also be used as a very small internal volume flow-through sampling valve due to rocker technology
• Hermetic separation of control mechanism and fluid
• Reduced heat exchange between coil and fluid
• Protected manual operator
• The use of first class materials and thorough valve testing ensure high reliability and a lifetime of at least 1 million cycles
• The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure -0.7 to +2 bar (usable in 0.3 bar abs. vacuum) [1 bar = 100 kPa]
Maximum viscosity 20 cSt (mm²/s)
Response time < 20 ms
Internal volume < 75 µl (connections not included)

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Cover PA12 (transparent), enabling flow of fluid to be seen
Diaphragm-poppets EPDM

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Duty cycle 100 %
Coil Two spade terminals 2.8 x 0.5 mm (DIN 46340)
Electrical safety IEC 335
Electrical enclosure protection IP40 (EN60529)
Standard voltages DC (=) : 12V - 24V
(Other voltages on request)

CONSTRUCTION
Body PA12
Internal parts Stainless steel

SPECIFICATIONS
pipe size orifice size flow coefficient Kv operating pressure differential (bar) power coil (W)

<table>
<thead>
<tr>
<th>catalogue number</th>
<th>rear mounting</th>
<th>central support plate mounting</th>
</tr>
</thead>
<tbody>
<tr>
<td>11000006</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11000005--P2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11000009</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11000007--P2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11000011--P2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hose connection to ID 1.5 mm flexible tubing.

All leaflets are available on: www.asconumatics.eu
PRINCIPLE OF OPERATION

2/2 NC function

2/2 NO function

3/2 U function

3/2 U (energized)

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>TYPE 01</th>
<th>Prefix “SC” Solenoid DIN 43340</th>
</tr>
</thead>
</table>

1100005..12

2/2 NC

2/2 NO

(3 connections)

(4 connections)

Scale: 1

Hose bibs for connection of ID 1.5 mm flexible tubing

Protected impulse type manual operator

Coil with two spade terminals 2.8 x 0.5 (DIN 46340)

Details of hose bib

<table>
<thead>
<tr>
<th>type</th>
<th>prefix option</th>
<th>weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>0.46</td>
</tr>
</tbody>
</table>

(1) Ind. coil.

All leaflets are available on: www.asconumatics.eu

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OPTIONS

- Stainless steel support plate for mounting between body and coil for:
  - 1 solenoid valve, catalogue number 88211001
  - 2 solenoid valves, catalogue number 88211002
  - 3 solenoid valves, catalogue number 88211003
  - 4 solenoid valves, catalogue number 88211004
  - 5 solenoid valves, catalogue number 88211005
- FPM (fluoroelastomer) diaphragm

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Rear or control support plate mounting possible (see below)
- Hose connection of flexible tubing Ø 1.5 mm ID
- Compact size and simple tubing (see following page)
- Replacement coils are available
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Catalogue Number</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>11000006</td>
<td>12V/DC</td>
</tr>
<tr>
<td>11000010–P2</td>
<td>24V/DC</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

REAR MOUNTING

SUPPORT PLATE MOUNTING (For solenoid valve of corresponding type)

- The panel must be of non-magnetic material.
- To fit to panel, remove the clip and the solenoid valve coil and install as indicated below.

SUPPORT PLATE
FOR 1 SOLENOID VALVE

SUPPORT PLATE
FOR 2 TO 5 SOLENOID VALVES

All leaflets are available on: www.asconumatics.eu
SIMPLE TUBING
When valves mounted side by side on a support plate, an area is left open so that tubes pass between valve bodies.

<table>
<thead>
<tr>
<th>plate for «n» solenoid valves</th>
<th>plate catalogue number</th>
<th>A</th>
<th>B</th>
<th>weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>88211001</td>
<td>31</td>
<td>40</td>
<td>0.1</td>
</tr>
<tr>
<td>2</td>
<td>88211002</td>
<td>51</td>
<td>60</td>
<td>0.15</td>
</tr>
<tr>
<td>3</td>
<td>88211003</td>
<td>72</td>
<td>80</td>
<td>0.2</td>
</tr>
<tr>
<td>4</td>
<td>88211004</td>
<td>92</td>
<td>100</td>
<td>0.25</td>
</tr>
<tr>
<td>5</td>
<td>88211005</td>
<td>113</td>
<td>121</td>
<td>0.3</td>
</tr>
</tbody>
</table>

(1) Plate only.

All leaflets are available on: www.asconumatics.eu
FEATURES
• Valves for medical analysers, biotechnology, gas analysers
• Can be used to control acids and bases, as well as analytical reagents
• Any application where the fluid may not come into contact with metal parts and with the electromagnetic control section of the solenoid valves
• The valves are ideal for controlling aggressive fluids or where high purity is demanded and have easy to flush internal cavities
• They can also be used as a very small internal volume flow-through sampling valve due to rocker technology
• Hermetic separation of control mechanism and fluid
• Reduced heat exchange between coil and fluid
• Protected manual operator
• The use of first class materials and thorough valve testing ensure high reliability and a lifetime of at least 1 million cycles
• The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure -0.7 to +2 bar (usable in 0.3 bar abs. vacuum) [1 bar =100 kPa]
Maximum viscosity 20 cSt (mm²/s)
Response time < 20 ms
Internal volume < 75 µl (connections not included)

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquids or gases</td>
<td>0°C to + 40°C</td>
<td>EPDM (ethylene-propylene)</td>
</tr>
</tbody>
</table>

CONSTRUCTION
Body PA12
Internal parts Stainless steel

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Cover PEEK
Diaphragm-poppets EPDM

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Coil Two spade terminals 2.8 x 0.5 mm (DIN 46340)
Electrical safety IEC 335
Electrical enclosure protection IP40 (EN60529)
Standard voltages DC (=) : 12V - 24V
(Other voltages on request)

prefix option | power ratings | operator ambient temperature range (TS) | replacement coil | type (1)
---|---|---|---|---
SC | - | - | - | 24 V DC |

(1) Refer to the dimensional drawings on the following page.

SPECIFICATIONS
<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4-28 UNF</td>
<td>1.5</td>
<td>0.05</td>
<td>0.75</td>
<td>2</td>
<td>- 5</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Other diaphragm materials are available

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Standard mounting holes provided at the rear end of the body
- Port connection thread (1/4-28 UNF). Max. torque, see below
- Replacement coils are available
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Option</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>00</td>
<td>0,55</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

**TYPE 01**
Prefix “SC” Solenoid DIN 43340

SCE360A404

Threaded connection: 3 x 1/4-28 UNF.
Max. torque 3 N.m

Protected impulse type manual operator

Coil with two spade terminals 2.8 x 0.5 (DIN 46340)

2 self thread cutting «Torx» screws K 22 x 6 - A2 stainless steel (screws delivered)
- use these screws only
- use plate with correct thickness
- max. torque: 0.3 N.m

Two mounting holes 2.5 mm dia.
Solenoid valve body has four holes for mounting purpose
MINIATURE SOLENOID VALVES
rocker mechanism, fluid isolation
pad mounting body

FEATURES
• Valves for medical analysers, biotechnology, gas analysers
• Can be used to control acids and bases, as well as analytical reagents
• Any application where the fluid may not come into contact with metal parts and with the electromagnetic control section of the solenoid valves
• The valves are ideal for controlling aggressive fluids or when high purity is demanded and have easy to flush internal cavities
• They can also be used as a very small internal volume flow-through sampling valve due to rocker technology
• Hermetic separation of control mechanism and fluid
• Reduced heat exchange between coil and fluid
• Protected manual operator
• The use of first class materials and thorough valve testing ensure high reliability and a lifetime of at least 1 million cycles
• The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure -0.7 to +2 bar (usable in 0.3 bar abs. vacuum) [1 bar = 100 kPa]
Maximum viscosity 20 cSt (mm²/s)
Response time < 20 ms
Internal volume < 75 µl (connections not included)
Fluids (+) temperature range (TS) seal materials (+)
liquids or gases 0°C to +40°C EPDM (ethylene-propylene)

CONSTRUCTION
Body PA12
Internal parts Stainless steel

MATERIALS IN CONTACT WITH FLUID
 (+) Ensure that the compatibility of the fluids in contact with the materials is verified
Cover PEEK
Diaphragm-poppets EPDM
Base PEEK
Seal of base FPM

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Coil Two spade terminals 2.8 x 0.5 mm (DIN 46340)
Electrical safety IEC 335
Electrical enclosure protection IP40 (EN60529)
Standard voltages DC (=) : 12V - 24V
(Other voltages on request)

SPECIFICATIONS
<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
<th>options</th>
</tr>
</thead>
<tbody>
<tr>
<td>pad mount</td>
<td>1.5</td>
<td>0.02</td>
<td>0.30</td>
<td>-0.7</td>
<td>2</td>
<td>2/2 NC - Normally closed</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>SCE260A420 V</td>
</tr>
<tr>
<td>pad mount</td>
<td>1.5</td>
<td>0.02</td>
<td>0.30</td>
<td>-0.7</td>
<td>2</td>
<td>2/2 NO - Normally open</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>-5</td>
<td>SCE260A430 V</td>
</tr>
<tr>
<td>pad mount</td>
<td>1.5</td>
<td>0.05</td>
<td>0.75</td>
<td>-0.7</td>
<td>2</td>
<td>3/2 U - Universal</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>-5</td>
<td>SCE360A420 V</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Other diaphragm materials are available
- Other subbase, contact us

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Standard mounting holes provided at the rear end of the body
- Replacement coils are available
- Installation/maintenance instructions are included with each valve

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Option</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>01</td>
<td>0.49</td>
</tr>
</tbody>
</table>

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Voltage</th>
<th>Basic Number</th>
<th>Pipe Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>24V/DC</td>
<td>260 A 430</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>24V/DC</td>
<td>360 A 420</td>
<td></td>
</tr>
</tbody>
</table>

- Seal (FPM)
- Coil with two spade terminals 2.8 x 0.5 (DIN 46340)
- Protected impulse type manual operator
- Polarizing slot, ports marking off
- Mounting: 2 M2.5 x 8 screws, supplied

ORDERING EXAMPLES:

- SC260A430
- SC360A420

Pad mounting according to function:

- 2/2 NC function
- 2/2 NO function
- 3/2 U function

Mounting: 2 M2.5, depth 5

Holes for blocking pin of port:
- 1: Ø3 (tolerance D10), depth 2
- 2: Ø4 (tolerance D10), depth 2

pad mounting dimension

All leaflets are available on: www.asconumatics.eu
**SOLENOID VALVES**
flapper mechanism, fluid isolation
pad mounting body, 1/4-28UNF, push-in hose connection
size 16 mm

**FEATURES**
- Solenoid valves for use with neutral or aggressive liquids and gases in analytical and medical systems
- Hermetic separation of control mechanism and fluid:
  - Prevents particulate contamination caused by friction of moving parts, assuring maximum purity of fluid
  - Ensures reliable operation in applications with highly aggressive fluids
- Reduced heat transfer between control mechanism and fluid
- Good self-draining capability and easy-to-flush internal cavity
- Low internal volume
- Specific flapper mechanism: no pump effect, no stick effect
- Electrical spade-plug or cable-end connection

**GENERAL**
- Differential pressure: -0,9 to + 8 bar (usable in 0,1 bar abs. vacuum) [1 bar = 100 kPa]
- Maximum viscosity: 20 cSt (mm²/s)
- Response time: < 20 ms
- Internal volume: < 75 µl (connections not included)

<table>
<thead>
<tr>
<th>Fluids (+)</th>
<th>Temperature range (TS)</th>
<th>Seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquids or gases</td>
<td>+5°C to +50°C</td>
<td>FFPM (perfluoroelastomer)</td>
</tr>
<tr>
<td>(filtered 50 µm)</td>
<td></td>
<td>FPM (fluoroelastomer)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPDM (ethylene-propylene)</td>
</tr>
</tbody>
</table>

**MATERIALS IN CONTACT WITH FLUID**
- Ensure that the compatibility of the fluids in contact with the materials is verified
- Body: PEEK
- Diaphragm: FFPM (FPM and EPDM option)
- Seals: FFPM (FPM and EPDM option)

**OTHER MATERIALS**
- Internal parts: Stainless steel

**ELECTRICAL CHARACTERISTICS**
- Coil insulation class: F
- Connector: Spade terminals or cable ends (a)
- Connector specification: Spade terminals: DIN 46340, cable ends: AWG 24
- Electrical safety: IEC 335
- Electrical enclosure protection: Moulded IP40 spade terminals (EN 60529)
- Standard voltages: DC (=): 12V - 24V -5% / +10%
- (Other voltages on request)

<table>
<thead>
<tr>
<th>Electrical connection</th>
<th>Power ratings</th>
<th>Operator ambient temperature range (TS)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inrush (VA)</td>
<td>Holding (VA)</td>
</tr>
<tr>
<td>2/2 NC</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2/2 NO</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3/2 U</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(a) Refer to the dimensional drawings on page 47.
(b) 0,5 m lead wires.
SPECIFICATIONS

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(mm)</td>
<td>(m³/h)</td>
<td>(l/min)</td>
<td>min.</td>
<td>max. (PS)</td>
</tr>
<tr>
<td>2/2 NC - Normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pad mounting (1)</td>
<td>0.8</td>
<td>0.021</td>
<td>0.35</td>
<td>-0.9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>0.036</td>
<td>0.60</td>
<td>-0.9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>0.042</td>
<td>0.70</td>
<td>-0.9</td>
<td>2</td>
</tr>
<tr>
<td>2/2 NO - Normally open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pad mounting (1)</td>
<td>0.8</td>
<td>0.021</td>
<td>0.35</td>
<td>-0.9</td>
<td>8</td>
</tr>
<tr>
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<td>1.2</td>
<td>0.036</td>
<td>0.60</td>
<td>-0.9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>0.042</td>
<td>0.70</td>
<td>-0.9</td>
<td>2</td>
</tr>
<tr>
<td>3/2 U - Universal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>pad mounting (1)</td>
<td>0.8</td>
<td>0.021</td>
<td>0.35</td>
<td>-0.9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>0.036</td>
<td>0.60</td>
<td>-0.9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>0.051</td>
<td>0.80</td>
<td>-0.9</td>
<td>2</td>
</tr>
<tr>
<td>1/4-28UNF</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>pad connection</td>
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<td>0.021</td>
<td>0.35</td>
<td>-0.9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>1.2</td>
<td>0.036</td>
<td>0.60</td>
<td>-0.9</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>1.6</td>
<td>0.051</td>
<td>0.80</td>
<td>-0.9</td>
<td>2</td>
</tr>
</tbody>
</table>

(1) 2 hexagon socket head cap mounting screws M2.5 mm, 1.5 mm across flats, stainless steel, supplied.

HOW TO ORDER

15-DIGIT PRODUCT CODE

R068A212 xx x 00 xx

- catalogue no.
- voltages
  - F1 = 24 V DC
  - F3 = 12 V DC

- electrical connection
  - S0 = spade terminals without connector
  - L0 = with cable ends 500 mm

- seal materials
  - 1 = FFPM
  - V = FPM
  - E = EPDM

Ordering example: R068A216S0E00F1 = 2-way NC (normally closed), orifice size 1.6 mm, pad-mounting body width 16 mm, with spade terminals without connector, EPDM seals, 24 V DC

OPTIONS

- Other subbases, contact us

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Pad-mounting solenoid valve supplied with seal

All leaflets are available on: www.asconumatics.eu
DIMENSIONS (mm), WEIGHT (kg)

TYPE 01
Solenoid with spade terminals (S0)
DIN 46340
IP40

R068...S0...F...

TYPE 02
Solenoid with cable ends (L0)
AWG 24, cable ends 500 mm long
IP66

R068...L0...F...
SOLENOID VALVES SERIES 068

DIMENSIONS (mm), WEIGHT (kg)

SUBBASE MOUNTING PATTERN

1/4 - 28 UNF VERSION

VERSION WITH PUSH-IN HOSE CONNECTION

Surface flat to within 0.05
Surface roughness Ra3.2 or less

COM max. Ø2.2
NC max. Ø2.2

Availability, design and specifications are subject to change without notice. All rights reserved.
FEATURES

- Solenoid valves for use with neutral or aggressive liquids and gases in analytical and medical systems
- Hermetic separation of control mechanism and fluid:
  - Prevents particulate contamination caused by friction of moving parts, assuring maximum purity of fluid
  - Ensures reliable operation in applications with highly aggressive fluids
- Reduced heat transfer between control mechanism and fluid
- Good self-draining capability and easy-to-flush internal cavity
- Low internal volume
- Specific flapper mechanism: no pump effect, no stick effect
- Possibility to adapt a power-save connector
- Electrical spade-plug or cable-end connection

GENERAL

Differential pressure: -0.9 to +10 bar (usable in 0.1 bar abs. vacuum) [1 bar = 100 kPa]
Maximum viscosity: 20 cSt (mm²/s)
Response time: < 10 ms
Internal volume: < 0.48 ml (connections not included)

MATERIALS IN CONTACT WITH FLUID

Ensure that the compatibility of the fluids in contact with the materials is verified

Body: PEEK
Diaphragm: FFP M (FPM and EPDM option)
Seals: FFP M (FPM and EPDM option)

OTHER MATERIALS

Internal parts: Stainless steel

ELECTRICAL CHARACTERISTICS

Coil insulation class: F
Connector: Spade plug (cable Ø 6-8 mm) or cable ends (2)
Connector specification: DIN 43650, 11 mm, industry standard B
Electrical safety: IEC 335 (cable ends: EN 60730)
Electrical enclosure protection: Moulded IP65 (EN 60529)
Standard voltages: DC (=): 12V - 24V -5% / +10% (Other voltages on request)

RECOMMENDATION FOR MAXIMUM DUTY CYCLE

De-energising time: \( t_{\text{de}} = t_{\text{on}} \times (100\% / \text{ED} - 1) \)
Example:
1) Determine energising time in minutes (\( t_{\text{on}} \)):
   \( t_{\text{on}} = 15 \text{ min} \)
2) Find maximum duty cycle value in diagram:
   \( \text{ED} = 60\% \)
3) Calculate de-energising time:
   \( t_{\text{de}} = 15 \text{ min} \times (100\% / 60\% - 1) = 10 \text{ min} \)
4) Complete cycle time:
   \( t_{\text{cycle}} = t_{\text{on}} + t_{\text{de}} = 15 \text{ min} + 10 \text{ min} = 25 \text{ min} \)

Note: 100% duty cycle possible when using the power-save connector (catalogue number [24 V DC]: 88100934, catalogue number [12 V DC]: 833-150063)

All leaflets are available on: www.asconumatics.eu
SOLENOID VALVES SERIES 068

SPECIFICATIONS

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
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<tbody>
<tr>
<td></td>
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<td></td>
<td><strong>max. (PS)</strong></td>
<td><strong>gases</strong></td>
<td><strong>liquids (L)</strong></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td><strong>min.</strong></td>
<td><strong>min.</strong></td>
<td><strong>min.</strong></td>
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<tr>
<td>2/2 NC - Normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G 1/8</td>
<td>2,10,66</td>
<td>-0,9</td>
<td>0,10</td>
<td>2,66</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>3,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1,5</td>
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<td>pad</td>
<td>2,10,66</td>
<td>-0,9</td>
<td>0,10</td>
<td>2,66</td>
<td>3</td>
</tr>
<tr>
<td>mounting (1)</td>
<td>3,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1,5</td>
</tr>
<tr>
<td></td>
<td>4,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1,5</td>
</tr>
<tr>
<td>2/2 NO - Normally open</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G 1/8</td>
<td>2,10,66</td>
<td>-0,9</td>
<td>0,10</td>
<td>2,66</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>3,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1</td>
</tr>
<tr>
<td>pad</td>
<td>2,10,66</td>
<td>-0,9</td>
<td>0,10</td>
<td>2,66</td>
<td>2</td>
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<tr>
<td>mounting (1)</td>
<td>3,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1</td>
</tr>
<tr>
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<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
<td>1</td>
</tr>
<tr>
<td>3/2 U - Universal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G 1/8</td>
<td>2,10,66</td>
<td>-0,9</td>
<td>0,10</td>
<td>2,66</td>
<td>1</td>
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<td>3,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
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<tr>
<td>pad</td>
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<td>0,10</td>
<td>2,66</td>
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<tr>
<td>mounting (1)</td>
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<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
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<td>4,16,66</td>
<td>-0,9</td>
<td>0,3</td>
<td>4,99</td>
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</tr>
</tbody>
</table>

(1) 4 hexagon socket head cap mounting screws M3 x 8 mm, stainless steel, ISO 4762 supplied.

HOW TO ORDER

15-DIGIT PRODUCT CODE

<table>
<thead>
<tr>
<th>catalogue no.</th>
<th>xx</th>
<th>x</th>
<th>00</th>
<th>xx</th>
</tr>
</thead>
<tbody>
<tr>
<td>voltages</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1 = 24 V DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F3 = 12 V DC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>electrical connection</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1 = spade terminals with connector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>L0 = with cable ends 457 mm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>seal materials</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 = FFPN</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V = FPM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B = EPDM</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ordering example: R068A317S1E00F1 = 2-way NC (normally closed), orifice size 2 mm, pad-mounting body width 22 mm, with spade terminals with connector, EPDM seals, 24 V DC

OPTIONS

- Other subbases, contact us
- Power-save connector (2,5 W after 140 ms of operation), catalogue number of 24 V DC version: 88100934, catalogue number of 12 V DC version: 833-150063
- Impulse manual operator

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Pad-mounting solenoid valve supplied with seal
- Pipe connections 1/8 have standard thread according to ISO 228/1

All leaflets are available on: www.asconumatics.eu
**DIMENSIONS (mm), WEIGHT (kg)**

**TYPE 01**
Solenoid with spade plug connector (S1)
Epoxy moulded
IEC 335 / DIN 43650
IP65

R068A200..214

**TYPE 02**
Solenoid with cable ends (L0)
IEC 335 / cable ends, length 0.45 m
IP40

G068A200..214

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Catalogue Option</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>X</th>
<th>Weight (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>S1</td>
<td>G068A..S1</td>
<td>60</td>
<td>28.5</td>
<td>17.5</td>
<td>46.2</td>
<td>62.5</td>
<td>22.3</td>
<td>60.8</td>
<td>67.8</td>
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<td>-</td>
<td>33</td>
<td>0.130</td>
</tr>
<tr>
<td>02</td>
<td>L0</td>
<td>G068A..L0</td>
<td>35</td>
<td>28.5</td>
<td>17.5</td>
<td>46.2</td>
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<td>50</td>
<td>65</td>
<td>22.3</td>
<td>61.8</td>
<td>76</td>
<td>-</td>
<td>27</td>
<td>0.124</td>
<td></td>
</tr>
</tbody>
</table>

1) 2 wires, length 0.45 m
2) 4 mounting holes, max. depth 7 mm, for self-tapping screw (type EJOT PT, K30)
3) Manual operator location
4) 4 mounting holes Ø 3.2 mm (4 hexagon socket head cap mounting screws M3 x 8 mm, stainless steel, ISO 4762 supplied.)

**All leaflets are available on:** [www.asconumatics.eu](http://www.asconumatics.eu)
**DIMENSIONS (mm), WEIGHT (kg)**

### SUBBASE MOUNTING PATTERN

1. 4 mounting holes Ø 3.2 mm
2. Max. diameter 4.5 mm (3 x)

2/2 NC  
2/2 NO  
3/2 U
FEATURES

• Proportional valve for use with neutral or aggressive liquids and gases in industrial processes and in analytical and medical systems.
• RoHS compliant.
• Variable flow, proportional to the coil current.
• Valves do not require a minimum operating pressure.
• Hermetic separation of control mechanism and fluid:
  - Prevents particulate contamination caused by friction of moving parts, assuring maximum purity of fluid.
  - Ensures reliable operation in applications with highly aggressive fluids.
• Reduced heat transfer between control mechanism and fluid.
• Good self-draining capability and easy-to-flush internal cavity.
• Low internal volume.
• Specific flapper mechanism: no pump effect, no stick effect.
• Electrical spade-plug connection (cable-ends: contact us).

GENERAL

Differential pressure 0 to 4.5 bar (suitable for vacuum applications)
Maximum viscosity 20 cSt (mm²/s)
Response time < 20 ms
Internal volume < 0.48 ml (couplings not included)

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>liquids or gases (filtered 50 µm)</td>
<td>+5°C to + 50°C</td>
<td>FPFM (perfluoroelastomer)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>FPM (fluoroelastomer)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EPDM (ethylene-propylene)</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID

(+) Ensure that the compatibility of the fluids in contact with the materials is verified.
Body PEEK
Diaphragm FPFM or FPM or EPDM
Seals FPFM or FPM or EPDM

OTHER MATERIALS

Internal parts Stainless steel

ELECTRICAL CHARACTERISTICS

Coil insulation class F
Connector Spade plug (cable Ø 6-10 mm) ISO 4400 / EN175301-803
Form A (Type 02), distance between contacts 18 mm, cable ends: contact us.
Electrical safety IEC 335
Electrical enclosure protection IP65 (EN 60529)

Standard voltages DC (=) : 12V, 24V -5% / +10% (other voltages: contact us)
Power 9W at 20°C
Duty cycle 100% at ambient temperature +5°C to +55°C
Regelbereich 0 - 375mA with 24V coil
  0 - 750mA with 12V coil
  pulse-width modulation (1000 Hz)
Flow regulation characteristic Hysteresis typ. 20%; Repeatability typ. 5%; Sensitivity typ. 1%

SPECIFICATIONS

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2/2 NC - Normally closed</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G 1/8</td>
<td>2</td>
<td>0.069</td>
<td>1.15</td>
<td>0</td>
<td>4.5</td>
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<td>3</td>
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<td>pad mounting (1)</td>
<td>2</td>
<td>0.069</td>
<td>1.15</td>
<td>0</td>
<td>4.5</td>
</tr>
<tr>
<td>3</td>
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<td>2.05</td>
<td>0</td>
<td>2.0</td>
<td>9</td>
</tr>
</tbody>
</table>

(1) 4 hexagon socket screws M3 x 8 mm, stainless steel, ISO 4762 (supplied).

All leaflets are available on: www.asconumatics.eu
ORDERING

15-DIGIT PRODUCT CODE

<table>
<thead>
<tr>
<th>catalogue no. (See table &quot;SPECIFICATIONS&quot;)</th>
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<th>x</th>
<th>10</th>
<th>xx</th>
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</thead>
<tbody>
<tr>
<td>voltages</td>
<td>F1 = 24 VDC</td>
<td>F3 = 12 VDC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>electrical connection</td>
<td>S1 = spade terminals with connector</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>seal materials</td>
<td>1 = FFPM</td>
<td>V = FPM</td>
<td>E = EPDM</td>
<td></td>
</tr>
</tbody>
</table>

Ordering example: R068A317S1E10F1 = orifice size 2 mm, pad-mounting body, spade terminals with connector, EPDM seals, 24 VDC

OPTIONS

- Other subbases, contact us
- Digital control module CONTROL² for DIN EN 50022 rail mounting (see page 143)
  - Used as a current regulator in open loop applications
  - Used with an external sensor for closed-loop applications
- Electronic proportional control unit (see page 145)
catalogue number: X90850164500100 (setpoint 0 - 10V) / X90850164500200 (setpoint 4 - 20mA)
- Other voltages and coils with flying leads on request.
- Plug with visual indication and peak voltage suppression or with cable (see “Soloids, Coils & Accessories” section in the catalogue “Fluid Automation, Soloids and Pressure Operated Valves”).

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation.
- Pad-mounting solenoid valve supplied with seal.
- Pipe connections 1/8 have standard thread according to ISO 228/1.
DIMENSIONS (mm), WEIGHT (kg)

G 1/8
Weight: 0.189 kg

Pad mounting body
Weight: 0.186 kg

SUBBASE MOUNTING PATTERN
FEATURES
• Solenoid valves for medical analysers, biotechnology and chemical industry
• Any application where the fluid may not come into contact with the electromagnetic control section of the solenoid valves
• The solenoid valves are ideal for controlling aggressive fluids and have easy to flush internal cavities
• The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum viscosity 37 cSt (mm²/s)
Response time 10 ms (SCE282B001); 20 ms (SCG282C003)
Internal volume < 70 μl (coupling not included)

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Body Stainless steel AISI 316 or PVDF (polyvinylidene fluoride)
Diaphragm VMQ, FPM or EPDM

OTHERS MATERIALS
Internal parts Stainless steel

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Connector Spade plug (cable Ø 4-6 mm or Ø 6-10 mm)
Connector specification 2.5 W (DMX); 8 W / 9 W (ANX)
ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335
Electrical enclosure protection Type 01: Moulded IP40 (EN 60529),
Type 02: PPS (Polyphenylene sulfide) glass-fibre reinforced, IP 67 (EN 60529) with plug connector
Standard voltages
AC (~): 12V - 24V
DC (=): 12V - 24V - 230V / 50 Hz

prefix operator ambient temperature range (TS)
(VA) (W) (°C) (-) (-)
SC 23 14 8 2,5 -10 to + 60 500701-006 01
8 9 2,5 -10 to + 60 511239-009 511239-002 02

SPECIFICATIONS
pipe size orifice size flow coefficient Kv operating pressure differential (bar) power coil (W) catalogue number options
[mm] [m³/h] [l/min] min. max. (PS) stainless steel PVDF FPM EPDM
NC - Normally closed
M5 1,6 0,04 0,66 0 - 2 (a) - - 2 (a) - 2,5 SCE282B001 - V E
G 1/8 4 0,32 5,33 0 2,5 (a) 2,5 (a) 2,5 (a) 2,5 (a) 8 9 - SCG282C003 V E

(a) See graphs (a) and (b) variation of inlet pressure (P2) for outlet pressure (P1) maintained.

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Valves can also be supplied with FPM (fluorocelastomer) and EPDM (ethylene-propylene) seals. Use the appropriate optional suffix letter for identification
- Other pipe connections are available on request
- 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. For optimum performance mount solenoid vertical and upright
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve
- Replacement coils are available:
  2.5 W (DMX): DC, 12 V, catalogue number 500701-005; AC, 24 V, catalogue number 500701-006
  8 W/9 W (ANX): DC, 12 V, catalogue number 511239-001; AC, 24 V, catalogue number 511239-002;
  115 V, catalogue number 511239-007

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Voltage</th>
<th>Type</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC E</td>
<td>24V/DC</td>
<td>01</td>
<td>282 B 001</td>
</tr>
<tr>
<td>SC G</td>
<td>115V/50 Hz</td>
<td>02</td>
<td>282 C 003</td>
</tr>
<tr>
<td>SC G</td>
<td>230V/50 Hz</td>
<td></td>
<td>282 C 003</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

TYPE 01
Prefix "SC" Solenoid
IEC 335 / DIN 46340
IP40

SCE282B001

TYPE 02
Prefix "SC" Solenoid
IEC 335 / DIN 46340
IP 67 (EN 60529) with plug connector

SCG282C003

All leaflets are available on: www.asconumatics.eu
**BEFORE ORDERING CHECK THAT:**
- The compatibility of the fluids in contact with the materials is verified
- All necessary steps are taken to prevent damage or distortion of the seal material from exposure to the operating conditions
- The fluid in use is not to cause damage or corrosion of the metal parts of the valve

**OPERATING RANGE:**
- Pressure: 0 - 6 bar (0 - 600 kPa)
- Temperature: -10°C to +100°C

**FLOW COEFFICIENTS:**
- air, inert gases, filtered, water, oil and liquid fluids: 2.7 to 11
- Temperature range (TS): -10°C to +100°C

**FLUIDS (+):**
- air, inert gases, filtered, water, oil and liquid fluids
- Temperature range (TS): -10°C to +100°C

**FPM and EPDM seals:**
- Available in FPM and EPDM seals
- Contact asconumatics.eu for availability and specifications

**SPECIFICATIONS:**

### OPERATING PRESSURE DIFFERENTIAL

<table>
<thead>
<tr>
<th>Spigot O.D.</th>
<th>Spigot I.D.</th>
<th>Flow Coefficient Kv</th>
<th>Operating Pressure Differential (bar)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>air, inert gases, liquids (+)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>max. (PS)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>min.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POWER RATING:**
- Power coil (W)
- Type (1)
- Options

**AVAILABILITY:**
- Available on request
- Contact asconumatics.eu for availability and specifications

**All leaflets are available on:** www.asconumatics.eu
OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) poppet seal. Use the appropriate optional suffix letter for identification
- 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. For optimum performance mount solenoid vertical and upright
- Replacement coils are available:
  BMX: DC: 12 V, cat. no.: 43005158 / AC: 24 V, cat. no.: 43005161 ; 115 V, cat. no.: 43005162
  AMX: DC: 12 V, cat. no.: 43005143 / AC: 24 V, cat. no.: 43005146 ; 115 V, cat. no.: 43005147
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>SC H 283 A 003</th>
<th>12V/DC</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC H 283 A 004 V</td>
<td>24V/DC</td>
</tr>
<tr>
<td>SC H 283 A 010</td>
<td>230V/50Hz</td>
</tr>
</tbody>
</table>

prefix
pipe thread
basic number
voltage
suffix

DIMENSIONS (mm), WEIGHT (kg)

TYPE 01
Prefix “SC” Solenoid
DIN 43650

SCH283A003 / A004 / A016

Pressure inlet:
NC function: orifice 1 (type 01) or arrow on body (type 02)
NO function: orifice 2 (type 01) or arrow on body (type 02)

TABLE

<table>
<thead>
<tr>
<th>type</th>
<th>prefix option</th>
<th>catalogue number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>weight (g)</th>
<th>Ø 4.3 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCH283A003 / A004</td>
<td>94</td>
<td>64.5</td>
<td>33.5</td>
<td>21</td>
<td>58</td>
<td>-</td>
<td>-</td>
<td>97</td>
<td>26</td>
<td>16</td>
<td>25</td>
<td>-</td>
<td>10</td>
<td>33</td>
<td>0.170</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SCH283A016</td>
<td>121.5</td>
<td>78</td>
<td>43</td>
<td>27</td>
<td>16.5</td>
<td>40.5</td>
<td>1.2</td>
<td>105</td>
<td>35</td>
<td>25</td>
<td>4.5</td>
<td>23</td>
<td>31</td>
<td>0.285</td>
<td></td>
<td></td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCH283A010 / A008E / 018V</td>
<td>121.5</td>
<td>78</td>
<td>43</td>
<td>27</td>
<td>16.5</td>
<td>40.5</td>
<td>1.2</td>
<td>105</td>
<td>35</td>
<td>25</td>
<td>4.5</td>
<td>23</td>
<td>31</td>
<td>0.285</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Incl. coil(s) and connector(s).

All leaflets are available on: www.asconumatics.eu
**FEATURES**

- Solenoid valves for medical analysers, biotechnology and chemical industry
- Ideal solenoid valves to control corrosive fluids
- The solenoid valves satisfy all relevant EC directives

**GENERAL**

**Differential pressure**
See «SPECIFICATIONS» [1 bar = 100 kPa]

**Maximum viscosity**
37 cSt (mm$^2$/s)

**Response time**
25 to 30 ms (opening/closing)

**MATERIALS IN CONTACT WITH FLUID**

(-+) Ensure that the compatibility of the fluids in contact with the materials is verified

<table>
<thead>
<tr>
<th>Body</th>
<th>1/4: PEI (polyetherimide)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/2: PPS (polyphenylene sulphide)</td>
<td></td>
</tr>
</tbody>
</table>

| Poppet seal | VMQ, EPDM or FPM |

**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 (=) : 12V - 24V
(Other voltages and 60 Hz on request) AC (~) : 24V - 115V - 230V / 50 Hz

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient $K_v$</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
<th>options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>3,2</td>
<td>0.32</td>
<td>5.33</td>
<td>0</td>
<td>1.5</td>
<td>8</td>
</tr>
<tr>
<td>1/2</td>
<td>10</td>
<td>1.6</td>
<td>26.66</td>
<td>0</td>
<td>1.6</td>
<td>13</td>
</tr>
</tbody>
</table>
OPTIONS

• Valves can also be supplied with FPM (fluoroelastomer) poppet seal. Use the appropriate optional suffix letter for identification
• Other pipe connections are available on request
• 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. For optimum performance mount solenoid vertical and upright
• Pipe connection identifier is G = G (ISO 228/1)
• Replacement coils are available:
  Type 01(AMX): DC: 12 V, cat. no.: 43005143 / AC: 24 V, cat. no.: 43005146 ; 115 V, cat. no.: 43005147
  Type 02 (FNX): DC: 12 V, cat. no.: 43005316 / AC: 24 V, cat. no.: 43005318 ; 115 V, cat. no.: 43005319
• Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Voltage</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>12 V/DC</td>
<td>SCG283A011E/012E</td>
</tr>
<tr>
<td></td>
<td>24 V/DC</td>
<td>SCG283A011V</td>
</tr>
<tr>
<td></td>
<td>230 V/50Hz</td>
<td>SCG283C006</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>TYPE 01</th>
<th>Prefix “SC” Solenoid ISO 4400</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCG283A011/012/013/014/019V</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TYPE 02</th>
<th>Prefix “SC” Solenoid ISO 4400</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCG283C006</td>
<td></td>
</tr>
</tbody>
</table>

Pressure inlet:
NC function: arrow on body (type 01) or orifice 3 (type 02)
NO function: arrow on body (type 01)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Catalogue Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCG283A011E/012E</td>
<td>121,5</td>
<td>78</td>
<td>43</td>
<td>27</td>
<td>16,5</td>
<td>40,5</td>
<td>1,2</td>
<td>105</td>
<td>35</td>
<td>25</td>
<td>4,5</td>
<td>32</td>
<td>23</td>
<td>31</td>
<td>0,285</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCG283C006E</td>
<td>142,5</td>
<td>84</td>
<td>49</td>
<td>28</td>
<td>23,5</td>
<td>81,5</td>
<td>1,2</td>
<td>128</td>
<td>-</td>
<td>30</td>
<td>42</td>
<td>5,5</td>
<td>35</td>
<td>46</td>
<td>0,57</td>
</tr>
</tbody>
</table>

(1) Incl. coil(s) and connector(s).
FEATURES
• Solenoid valves for medical analysers, biotechnology and chemical industry
• Ideal solenoid valves to control corrosive fluids
• The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure
Maximum viscosity
Response time

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>air, inert gases, filtered, water, oil and liquid fluids</td>
<td>-10°C to + 100°C</td>
<td>VMQ (silicone)</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Body PEI (polyetherimide)
Poppet seal VMQ, FPM or EPDM

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Connector Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification with coil 6W/6W (BMX) DIN 43650, 11 mm, industry standard B
with coil 8W/9W (AMX) ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Connector Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification with coil 6W/6W (BMX) DIN 43650, 11 mm, industry standard B
with coil 8W/9W (AMX) ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335

SPECIFICATIONS

<table>
<thead>
<tr>
<th>spigot O.D.</th>
<th>spigot I.D.</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC - Normally closed, VMQ seals</td>
<td>8</td>
<td>3.4</td>
<td>0.3</td>
<td>5.00</td>
<td>0</td>
</tr>
<tr>
<td>NO - Normally open, FPM seals</td>
<td>8</td>
<td>3.4</td>
<td>0.3</td>
<td>5.00</td>
<td>0</td>
</tr>
<tr>
<td>NO - Normally open, EPDM seals</td>
<td>8</td>
<td>3.4</td>
<td>0.3</td>
<td>5.00</td>
<td>0</td>
</tr>
<tr>
<td>U - Universal, VMQ seals</td>
<td>11</td>
<td>3.2</td>
<td>0.3</td>
<td>4.66</td>
<td>0</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) poppet seal. Use the appropriate optional suffix letter for identification.
- 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. For optimum performance mount solenoid vertical and upright.
- Replacement coils are available:
  - BMX: DC: 12 V, cat. no.: 43005158 / AC: 24 V, cat. no.: 43005161 ; 115 V, cat. no.: 43005162
  - AMX: DC: 12 V, cat. no.: 43005143 / AC: 24 V, cat. no.: 43005146 ; 115 V, cat. no.: 43005147
- Installation/maintenance instructions are included with each valve.

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Voltage</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>H</td>
<td>383 A 003</td>
<td>12V / DC</td>
</tr>
<tr>
<td>SC</td>
<td>H</td>
<td>383 A 004 V</td>
<td>24V / DC</td>
</tr>
<tr>
<td>SC</td>
<td>H</td>
<td>383 A 007</td>
<td>230V / 50Hz</td>
</tr>
</tbody>
</table>

prefix:
- pipe thread
- basic number
- voltage
- suffix:

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Options</th>
<th>Catalogue Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>orifice 2 (type 01)</td>
<td>SCH383A003/A004V/A004E</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>orifice 3 (type 01)</td>
<td>SCH383A007</td>
</tr>
</tbody>
</table>

Pressure inlet:
- NC function: orifice 2 (type 01)
- NO function: orifice 3 (type 01)
- U function: all orifices (type 02)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Option</th>
<th>Catalogue Number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>J</th>
<th>K</th>
<th>L</th>
<th>M</th>
<th>N</th>
<th>P</th>
<th>Q</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>orifice 2</td>
<td>SCH383A003/A004V/A004E</td>
<td>131</td>
<td>97</td>
<td>21</td>
<td>16,5</td>
<td>84,5</td>
<td>33,5</td>
<td>22</td>
<td>26</td>
<td>16</td>
<td>25</td>
<td>-</td>
<td>97</td>
<td>26</td>
<td>16</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>orifice 3</td>
<td>SCH383A007</td>
<td>127</td>
<td>35</td>
<td>23</td>
<td>12,5</td>
<td>105</td>
<td>35</td>
<td>23</td>
<td>4,5</td>
<td>32</td>
<td>25</td>
<td>-</td>
<td>16</td>
<td>35</td>
<td>23</td>
<td>4,5</td>
<td>23</td>
</tr>
</tbody>
</table>

Incl. coil(s) and connector(s).

All leaflets are available on: www.asconumatics.eu
FEATURES

- Solenoid valves for medical analysers, biotechnology and chemical industry
- Ideal solenoid valves to control corrosive fluids
- The solenoid valves satisfy all relevant EC directives

GENERAL

Differential pressure: See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum viscosity: 37 cSt (mm²/s)
Response time: 25 to 30 ms (opening/closing)

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>air, inert gases, water, oil and liquid fluids</td>
<td>-10°C to + 100°C (1/2: + 90°C)</td>
<td>VMQ (silicone) FPM (fluoroelastomer)</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID

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

Body
- 1/4: PEI (polyetherimide)
- 1/2: PPS (polyphenylene sulphide)

Poppet seal
- VMQ or FPM

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 (=) : 12V - 24V
- AC (~) : 24V - 115V - 230V / 50 Hz

<table>
<thead>
<tr>
<th>prefix option</th>
<th>power ratings</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>inrush (VA)</td>
<td>holding (VA)</td>
<td>hot/cold (W)</td>
</tr>
<tr>
<td>SC</td>
<td>23</td>
<td>14</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>24</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(1) Refer to the dimensional drawings on the following page.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>pipe size (mm)</th>
<th>orifice size (m³/h)</th>
<th>flow coefficient Kᵥ</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>SC</td>
<td>1/4</td>
<td>3.2</td>
<td>0.28</td>
<td>4.66</td>
</tr>
</tbody>
</table>
| NC - Normally closed, FPM seals
| 1/2           | 9                   | 1.6                 | 26.66                                  | 0             | 0.4             | 0 | 13              | -              | - | SCG383C006 |

All leaflets are available on: www.asconumatics.eu
OPTIONS

• Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) poppet seal. Use the appropriate optional suffix letter for identification
• Other pipe connections are available on request
• 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. For optimum performance mount solenoid vertical and upright
• Pipe connection identifier is G = G (ISO 228/1)
• Replacement coils are available:
  Type 01(AMX): DC: 12 V, cat. no.: 43005143 / AC: 24 V, cat. no.: 43005146 ; 115 V, cat. no.: 43005147
  Type 02 (FNX): AC: 24 V, cat. no.: 43005318 ; 115 V, cat. no.: 43005319
• Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>prefix</th>
<th>pipe thread</th>
<th>voltage</th>
<th>suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>G</td>
<td>12V/DC</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>G</td>
<td>24V/DC</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>G 383 A 008</td>
<td>230V/50Hz</td>
<td></td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

| type | prefix | option | catalogue number | A | B | C | D | E | F | G | H | J | K | L | M | N | P | Q | weight (2)
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td></td>
<td>SCG383A008</td>
<td>127</td>
<td>78</td>
<td>43</td>
<td>27</td>
<td>16,5</td>
<td>44,5</td>
<td>1,2</td>
<td>109</td>
<td>35</td>
<td>23</td>
<td>128</td>
<td>-</td>
<td>30</td>
<td>42</td>
<td>5,5</td>
<td>35</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td></td>
<td>SCG383C006</td>
<td>159</td>
<td>84</td>
<td>49</td>
<td>28</td>
<td>23,5</td>
<td>61,5</td>
<td>1,2</td>
<td>128</td>
<td>-</td>
<td>30</td>
<td>42</td>
<td>5,5</td>
<td>35</td>
<td>46</td>
<td>26,5</td>
<td>0,51</td>
</tr>
</tbody>
</table>

(2) Incl. coil(s) and connector(s).
**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

**MATERIALS IN CONTACT WITH FLUID**

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

- **Body**: PEEK (polyetheretherketone), or stainless steel, AISI 303 (1.4305)
- **Core tube**: Stainless steel
- **Core and plugnut**: Stainless steel
- **Springs**: Stainless steel
- **Seals**: FFPM
- **Bellows**: PTFE

**ELECTRICAL CHARACTERISTICS**

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

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>pipe size</th>
<th>orifice size</th>
<th>flow coefficient Kv</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
<th>options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>2</td>
<td>0,11</td>
<td>3</td>
<td>3</td>
<td>6,9</td>
<td>SCG296A007</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>0,32</td>
<td>5</td>
<td>5</td>
<td>10,5</td>
<td>SCG296A008</td>
</tr>
<tr>
<td>3/8</td>
<td>6</td>
<td>0,73</td>
<td>2</td>
<td>2</td>
<td>10,5</td>
<td>SCG296A010</td>
</tr>
</tbody>
</table>

**GENERAL**

- **Differential pressure**: See «SPECIFICATIONS» [1 bar = 100 kPa]
- **Maximum viscosity**: 40 cSt (mm²/s)

**MATERIALS IN CONTACT WITH FLUID**

<table>
<thead>
<tr>
<th>fluids (+)</th>
<th>temperature range (TS)</th>
<th>seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>air, inert gases, water, oil and liquids</td>
<td>-10°C to + 90°C (1)</td>
<td>FFPM (perfluoroelastomer)</td>
</tr>
</tbody>
</table>

(1) Total ambient + fluid temperature must not exceed 130°C.

---

All leaflets are available on: [www.asconumatics.eu](http://www.asconumatics.eu)
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:

<table>
<thead>
<tr>
<th>SC</th>
<th>G</th>
<th>prefix</th>
<th>pipe thread</th>
<th>voltage</th>
<th>suffix</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>296</td>
<td>A 007</td>
<td>24V / DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>296</td>
<td>A 021</td>
<td>24V / 50 Hz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>296</td>
<td>A 025</td>
<td>230V / 50 Hz</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

PEEK: SCG296A007

Stainless steel: SCG296A021

<table>
<thead>
<tr>
<th>type</th>
<th>prefix</th>
<th>catalogue number</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCG296A007</td>
<td>60</td>
<td>28</td>
<td>17</td>
<td>22</td>
<td>13</td>
<td>-</td>
<td>79</td>
<td>94</td>
<td>0.145</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SCG296A021</td>
<td>60</td>
<td>28</td>
<td>17</td>
<td>22</td>
<td>17.5</td>
<td>10</td>
<td>76</td>
<td>91</td>
<td>0.310</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCG296A008/A009/A010/A011/A012</td>
<td>85</td>
<td>50</td>
<td>30</td>
<td>45</td>
<td>13</td>
<td>-</td>
<td>100</td>
<td>110</td>
<td>0.420</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SCG296A022/A023/A024/A025/A026</td>
<td>85</td>
<td>50</td>
<td>30</td>
<td>45</td>
<td>21.5</td>
<td>15</td>
<td>100</td>
<td>110</td>
<td>0.850</td>
</tr>
</tbody>
</table>

(1) Incl. coil(s) and connector(s).

All leaflets are available on: www.asconumatics.eu
FEATURES

• Valve for the control of aggressive liquids and gases in the pharmaceutical, biochemical, photographic, chemical and analytical industries, in chip and wafer production, environmental technology as well as colour chemistry
• 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
Maximum viscosity

<table>
<thead>
<tr>
<th>Fluids (+)</th>
<th>Temperature range (°C)</th>
<th>Seal materials (+)</th>
</tr>
</thead>
<tbody>
<tr>
<td>air, inert gases, water, oil and liquids</td>
<td>-10°C to + 90°C (1)</td>
<td>FFPM (perfluoroelastomer)</td>
</tr>
</tbody>
</table>

MATERIALS IN CONTACT WITH FLUID

(+ ) Ensure that the compatibility of the fluids in contact with the materials is verified
Body PEEK (polyetheretherketone) or stainless steel, AISI 303 (1.4305)
Core tube Stainless steel
Core and plugnut Stainless steel
Springs Stainless steel
Seals FFPM
Bellows PTFE

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

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Pipe size</th>
<th>Orifice size</th>
<th>Flow coefficient Kv</th>
<th>Operating pressure differential (bar)</th>
<th>Power coil (W)</th>
<th>Catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4</td>
<td>4</td>
<td>0.26</td>
<td>0</td>
<td>3</td>
<td>SCG396A006</td>
</tr>
</tbody>
</table>

All leaflets are available on: www.asconumatics.eu
Solenoid Valves Series 396

Options
- Valves can also be supplied with FPM (fluoroelastomer) and EPDM (ethylene-propylene) seals. Use the appropriate optional suffix letter for identification
- 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 4 mounting holes in body
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

Ordering Examples:

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Basic Number</th>
<th>Voltage</th>
<th>Type 01</th>
</tr>
</thead>
<tbody>
<tr>
<td>SC</td>
<td>G 396 A 006</td>
<td>24V / DC</td>
<td>SCG396A006</td>
</tr>
<tr>
<td>SC</td>
<td>G 396 A 003</td>
<td>24V / 50 Hz</td>
<td>SCG396A003</td>
</tr>
<tr>
<td>SC</td>
<td>G 396 V 006</td>
<td>230V / 50 Hz</td>
<td>SCG396V006</td>
</tr>
</tbody>
</table>

Dimensions (mm), Weight (kg)

| Type | Prefix | Option | Catalogue Number | A | B | C | D | E1 | E2 | F1 | F2 | F3 | G | H | J | Weight |
|------|--------|--------|-----------------|---|---|---|---|----|----|----|----|----|----|---|---|---|--------|
| 01   | SC     |        | SCG396A006      | 80| 50| 30| 46| 32 | 45 | 43 | 32 | 21 | 110| 127| 60| 0.49   |
| 01   | SC     |        | SCG396A003      | 80| 50| 30| 46| 32 | 45 | 43 | 32 | 21 | 110| 127| 60| 0.90   |

(1) Incl. coil(s) and connector(s).
FEATURES
- Solenoid valve suitable for cutting off the flow of a fluid by pinch
- For sterile, aseptic, physiological and food applications
- No turbulence when cutting off flow by pinch
- Silent operation
- Full bore output flow compared with a traditional solenoid valve
- Manual pulse control for fitting tube
- A single component in contact with the fluid, i.e. the tube
- Bi-directional flow
- The solenoid valves satisfy all relevant EC directives

GENERAL
Differential pressure
See «SPECIFICATIONS» [1 bar = 100 kPa]

MATERIALS IN CONTACT WITH FLUID
(+) Ensure that the compatibility of the fluids in contact with the materials is verified
Recommended flexible tube VMQ (silicone)
(max. hardness: 50 Shore A)
The silicone tube is not included in our supply

OTHER MATERIALS
Body Aluminium, anodised
Pinch mechanism POM (Graphite-reinforced polyacetal)
Internal parts Stainless steel
Guide tube Nickel-plated brass

ELECTRICAL CHARACTERISTICS
Coil insulation class F
Connector Spade plug (cable Ø 4-6 mm or Ø 6-10 mm)
Connector specification
4 W (DNX-4)
6 W /13 W (AMX/FNX)
Electrical safety IEC 335
Electrical enclosure protection
Coil type 01 = IP40 / Coil type 02-03 = IP65
Standard voltages DC (+): 12 V - 24 V
(Other voltages on request)

SPECIFICATIONS
<table>
<thead>
<tr>
<th>tube I.D.</th>
<th>tube O.D.</th>
<th>pinch force</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td>(mm)</td>
<td>(mm)</td>
<td>(daN)</td>
<td>air, inert gas (+) / liquids (+)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0,76</td>
<td>1,65</td>
<td>0,18</td>
<td>0,8 / 0,8</td>
<td>- 4</td>
<td>SCH284B001</td>
</tr>
<tr>
<td>1,02</td>
<td>2,16</td>
<td>0,22</td>
<td>0,8 / 0,8</td>
<td>- 4</td>
<td>SCH284B002</td>
</tr>
<tr>
<td>1,57</td>
<td>3,18</td>
<td>0,26</td>
<td>0,8 / 0,8</td>
<td>- 4</td>
<td>SCH284B003</td>
</tr>
<tr>
<td>1,98</td>
<td>3,18</td>
<td>0,25</td>
<td>0,8 / 0,8</td>
<td>- 4</td>
<td>SCH284B004</td>
</tr>
<tr>
<td>2,7</td>
<td>4,9</td>
<td>0,65</td>
<td>0,8 / 0,8</td>
<td>- 9</td>
<td>SCH284A005</td>
</tr>
<tr>
<td>4,8</td>
<td>7,9</td>
<td>1,1</td>
<td>0,8 / 0,8</td>
<td>- 13</td>
<td>SCH284B006</td>
</tr>
<tr>
<td>6,4</td>
<td>9,5</td>
<td>1,4</td>
<td>0,8 / 0,8</td>
<td>- 13</td>
<td>SCH284B007</td>
</tr>
</tbody>
</table>
OPTIONS AND ACCESSORIES

- Flexible tubes having to use an external guiding device for optimum support (see dimensions):
  - with an outside diameter lower than 2.2 mm (catalogue numbers SCH284B001 to ..B004)
  - with an outside diameter lower than 3.5 mm (catalogue number SCH284A005)
  - with an outside diameter lower than 6 mm (catalogue numbers SCH284B006 and ..007)
- For use on tubes other than those recommended, contact us
- 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
- Fixing plate built in between the body and the coil for assembly in a bank on a base plate
- Flexible tubes are not included in our supply
- Do not connect the solenoid valve to the power supply without fitting a flexible tube beforehand
- Installation/maintenance instructions are included with each valve

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Catalogue number</th>
<th>Voltage</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCH284B001/002/003/004</td>
<td>12V/DC</td>
<td>23,5</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCH284A005</td>
<td>24V/DC</td>
<td>25</td>
</tr>
<tr>
<td>03</td>
<td>SC</td>
<td>SCH284B006/B007</td>
<td>12V/DC</td>
<td>25</td>
</tr>
</tbody>
</table>

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Catalogue number</th>
<th>Voltage</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCH284B001/002/003/004</td>
<td>12V/DC</td>
<td>23,5</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCH284A005</td>
<td>24V/DC</td>
<td>25</td>
</tr>
<tr>
<td>03</td>
<td>SC</td>
<td>SCH284B006/B007</td>
<td>12V/DC</td>
<td>25</td>
</tr>
</tbody>
</table>

ORDERING EXAMPLES:

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Catalogue number</th>
<th>Voltage</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>01</td>
<td>SC</td>
<td>SCH284B001/002/003/004</td>
<td>12V/DC</td>
<td>23,5</td>
</tr>
<tr>
<td>02</td>
<td>SC</td>
<td>SCH284A005</td>
<td>24V/DC</td>
<td>25</td>
</tr>
<tr>
<td>03</td>
<td>SC</td>
<td>SCH284B006/B007</td>
<td>12V/DC</td>
<td>25</td>
</tr>
</tbody>
</table>

EXAMPLE OF ORDERING:

- Type 01: SCH284B001/002/003/004
- Type 02: SCH284A005
- Type 03: SCH284B006/B007

All leaflets are available on: www.asconumatics.eu
**FEATURES**
- Solenoid valve suitable for cutting off the flow of a fluid by pinch
- For sterile, aseptic, physiological and food applications
- No turbulence when cutting off flow by pinch
- Silent operation
- Full bore output flow compared with a traditional solenoid valve
- Manual pulse control for fitting tube
- A single component in contact with the fluid, i.e. the tube
- Bi-directional flow
- The solenoid valves satisfy all relevant EC directives

**GENERAL**

Differential pressure
See «SPECIFICATIONS» [1 bar = 100 kPa]

**MATERIALS IN CONTACT WITH FLUID**

Ensure that the compatibility of the fluids in contact with the materials is verified

Recommended flexible tube
VMQ (silicone)
(max. hardness: 50 Shore A)
The silicone tube is not included in our supply

**OTHER MATERIALS**

- **Body**: Aluminium, anodised
- **Pinch mechanism**: POM (Graphite-reinforced polyacetal)
- **Internal parts**: Stainless steel
- **Guide tube**: Nickel-plated brass

**ELECTRICAL CHARACTERISTICS**

- **Coil insulation class**: F
- **Connector**
  - Spade plug (cable Ø 4-6 mm or Ø 6-10 mm)
- **Connector specification**
  - 4 W (DMX)
  - 6 W / 13 W (AMX/FNX)
- **Electrical safety**: IEC 335
- **Electrical enclosure protection**: Coil type 01 = IP40 / Coil type 02-03 = IP65
- **Standard voltages**: DC (+): 12 V - 24 V

**SPECIFICATIONS**

<table>
<thead>
<tr>
<th>tube I.D. (mm)</th>
<th>tube O.D. (mm)</th>
<th>pinch force (daN)</th>
<th>operating pressure differential (bar)</th>
<th>power coil (W)</th>
<th>catalogue number</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>min.</td>
<td>max. (PS)</td>
<td>air</td>
</tr>
<tr>
<td>0.76</td>
<td>1.65</td>
<td>1.2</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>1.02</td>
<td>2.16</td>
<td>1.3</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>1.57</td>
<td>3.18</td>
<td>0.9</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
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<td>1.98</td>
<td>3.18</td>
<td>0.9</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
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<tr>
<td>2.7</td>
<td>4.9</td>
<td>0.5</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>4.8</td>
<td>7.9</td>
<td>2.3</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
<tr>
<td>6.4</td>
<td>9.5</td>
<td>2.4</td>
<td>0</td>
<td>0.8</td>
<td>0.8</td>
</tr>
</tbody>
</table>

**NO - Normally open**

All leaflets are available on: www.asconumatics.eu
OPTIONS AND ACCESSORIES

- Flexible tubes having to use an external guiding device for optimum support (see dimensions):
  - with an outside diameter lower than 2.2 mm (catalogue numbers SCH284B009 to ..B012)
  - with an outside diameter lower than 3.5 mm (catalogue number SCH284A013)
  - with an outside diameter lower than 6 mm (catalogue numbers SCH284B014 and ..015)
- For use on tubes other than those recommended, contact us
- 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.
- Fixing plate built in between the body and the coil for assembly in a bank on a base plate.
- Flexible tubes are not included in our supply.
- Do not connect the solenoid valve to the power supply without fitting a flexible tube beforehand.
- Installation/maintenance instructions are included with each valve.

ORDERING EXAMPLES:

- Type 01: SCH284B009/010/011/012
- Type 02: SCH284A013
- Type 03: SCH284B014/B015

DIMENSIONS (mm), WEIGHT (kg)

<table>
<thead>
<tr>
<th>Type</th>
<th>Prefix</th>
<th>Solenoid</th>
<th>Series</th>
<th>Dimensions</th>
<th>Diameter</th>
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</thead>
<tbody>
<tr>
<td>02</td>
<td>SC</td>
<td>IEC 335 / ISO 4400</td>
<td>284</td>
<td>L = 25, A = 32, B = 38, C = 48, D = 49.5, E = 55, F = 61, G = 67, H = 73, K = 80, L = 86, P = 92, Q = 98, R = 104, S = 110, T = 116, U = 122</td>
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</tr>
<tr>
<td>03</td>
<td>SC</td>
<td>IEC 335 / ISO 4400</td>
<td>284</td>
<td>L = 30, A = 34, B = 41, C = 48, D = 50.5, E = 55, F = 61, G = 67, H = 73, K = 80, L = 86, P = 92, Q = 98, R = 104, S = 110, T = 116, U = 122</td>
<td></td>
</tr>
</tbody>
</table>

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