2/2-way valves DN 8 to DN 50
for neutral gaseous and liquid fluids
Indirectly solenoid actuated
Diaphragm valves
Internal threads G 1/4 to G 2 or 1/4" NPT to 2" NPT
Operating pressure 0,1 to 10/16 bar

Description (standard valve)
Solenoid valve for e.g. air, water

Switching function: Normally closed
Flow direction: determined
Fluid temperature: −10 °C to max. +90 °C
Ambient temperature: −10 °C to max. +50 °C
Mounting position: optional, preferably solenoid vertical on top

Material
Body: Brass
Seat seal: NBR (Perbunan)
Internal parts: Stainless steel, PVDF resp. brass

For contaminated fluids insertion of a strainer is recommended (see accessories).

Features
• High flow rate
• Damped operation
• Clear compact design
• Solenoid interchangeable without tools (Click-on®)

Symbol

Ordering information
To order, quote model number from table overleaf, e.g. 82 400 00.9101 for a G 1/4 valve with standard solenoid.

Characteristic data
See page 2 valve and solenoid informations
### Series 82 400 / 82 410
2/2-way valves DN 8 to DN 50

#### Characteristic data

<table>
<thead>
<tr>
<th>Part Number with DC or AC solenoid</th>
<th>Nominal Diameter (mm)</th>
<th>Port size</th>
<th>Valve length (mm)</th>
<th>Operating Pressure * min/ max (bar)</th>
<th>kv-Wert ** (Base m³/h)</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>82 400 00.9101</td>
<td>8</td>
<td>G 1/4</td>
<td>60</td>
<td>0.1/16</td>
<td>1.90</td>
<td>0.47</td>
</tr>
<tr>
<td>82 410 00.9101</td>
<td>10</td>
<td>G 3/8</td>
<td>60</td>
<td>0.1/16</td>
<td>3.00</td>
<td>0.45</td>
</tr>
<tr>
<td>82 401 00.9101</td>
<td>12</td>
<td>G 1/2</td>
<td>67</td>
<td>0.1/16</td>
<td>3.80</td>
<td>0.50</td>
</tr>
<tr>
<td>82 411 00.9101</td>
<td>20</td>
<td>G 3/4</td>
<td>80</td>
<td>0.1/16</td>
<td>6.10</td>
<td>0.65</td>
</tr>
<tr>
<td>82 402 00.9101</td>
<td>25</td>
<td>G 1</td>
<td>95</td>
<td>0.1/16</td>
<td>9.50</td>
<td>0.95</td>
</tr>
<tr>
<td>82 412 00.9101</td>
<td>32</td>
<td>G 1 1/4</td>
<td>132</td>
<td>0.1/10</td>
<td>23.00</td>
<td>2.73</td>
</tr>
<tr>
<td>82 403 00.9101</td>
<td>40</td>
<td>G 1 1/2</td>
<td>132</td>
<td>0.1/10</td>
<td>25.00</td>
<td>2.53</td>
</tr>
<tr>
<td>82 413 00.9101</td>
<td>50</td>
<td>G 2</td>
<td>160</td>
<td>0.1/10</td>
<td>41.00</td>
<td>3.85</td>
</tr>
</tbody>
</table>

* with gaseous and liquid fluids up to 25 mm²/s (cSt)

** Cv-value (US) = kv-value x 1,2

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#### Options (Valves)

XX XXX **01.XXXX** Normally open (NO)
XX XXX **02.XXXX** Manual override
XX XXX **03.XXXX** Seat seal FPM, max. fluid temperature +110 °C
XX XXX **14.XXXX** Seat seal EPDM, for hot water, max. fluid temperature +110 °C; 0.3 to 16 bar up to DN 25; 0.3 to 10 bar from DN 32
XX XXX **50.XXXX** Latching coil; impulse time min. 30 ms; only for DC 6, 12 and 24 V

On request Further versions

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#### Options (Solenoids)

XX XXX **XX.9130** Solenoid with CSA approval connector excluded
XX XXX **XX.9131** Solenoid with CSA approval connector included
XX XXX **XX.9136** Solenoid in protection class EEx m II T4 with 3 m connection cable, for AC/DC

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#### Power Consumption

According to VDE 0580 at coil temperature +20 °C. In operating the solenoid coil decrease the power consumption appr. 30 %.

<table>
<thead>
<tr>
<th>DC</th>
<th>AC Inrush (VA)</th>
<th>Holding (VA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>9101</td>
<td>8 W</td>
<td>12 / 7</td>
</tr>
<tr>
<td>9151</td>
<td>18 W</td>
<td>35 / 17</td>
</tr>
</tbody>
</table>

For technical details see catalog-register "Solenoids"
101 Valve body
102 Valve cover
*103 Diaphragm
104 Socket head cap screw
*105 Pressure spring
400 Solenoid
701 Core tube
*702 O-ring
703 Screw piece
*704 Pressure spring
*705 Core
706 Spring clip
707 O-ring
1400 Socket (included)

* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat no and series no.
**EU Manufacturer’s Declaration**
as defined in EU Machinery Guideline 89/392/EEC, Appendix II B

We hereby declare that the diaphragm valves were developed and designed using the following harmonised standards:

- **EN 292** Machine Safety
- **EN 983** Pneumatic Systems
- **EN 60204-1** Electrical Equipment for Machinery

These diaphragm valves are intended for fitting in a machine. They must not be commissioned until it has been established that the machine as a whole conforms to the EU guideline.

**Note on EU guideline**
The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 50081-1 and EN 50082-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (89/336/EEC) satisfied.

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**Part Number** | Ø A | B | H | H1 | L | L1 | R | T
---|---|---|---|---|---|---|---|---
82 400 00.9101 | 44 | 19,5 | 78,5 | 67,0 | 60 | 27,5 | G 1/4 | 12,0
82 410 00.9101 | | | | | | | 1/4” NPT | 10,0
82 401 00.9101 | 44 | 19,5 | 78,5 | 67,0 | 60 | 27,5 | G 3/8 | 12,0
82 411 00.9101 | | | | | | | 3/8” NPT | 10,5
82 402 00.9101 | 44 | 19,5 | 81,0 | 67,0 | 67 | 31,0 | G 1/2 | 14,0
82 412 00.9101 | | | | | | | 1/2” NPT | 13,5
82 403 00.9101 | 50 | 24,0 | 88,0 | 71,5 | 80 | 36,5 | G 3/4 | 16,0
82 413 00.9101 | | | | | | | 3/4” NPT | 14,0
82 404 00.9101 | 62 | 29,5 | 97,5 | 77,0 | 95 | 44,0 | G 1 | 18,0
82 414 00.9101 | | | | | | | 1” NPT | 17,0
82 405 00.9101 | 92 | 44,5 | 124,5 | 95,5 | 132 | 60,0 | G 1 1/4 | 20,0
82 415 00.9101 | | | | | | | 1 1/4” NPT | 17,0
82 406 00.9101 | 92 | 44,5 | 124,5 | 95,5 | 132 | 60,0 | G 1 1/2 | 22,0
82 416 00.9101 | | | | | | | 1 1/2” NPT | 17,0
82 407 00.9101 | 109 | 54,5 | 142,5 | 108,0 | 160 | 74,0 | G 2 | 24,0
82 417 00.9101 | | | | | | | 2” NPT | 17,5

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