Direct solenoid actuated poppet valve

**Technical features**

- **Medium:** Compressed air, filtered, non-lubricated and dry
- **Other gases and liquids on request**
- **Operation:** Direct solenoid operated poppet valves
- **Flow direction:** Optional
- **Mounting position:** Any, but preferably with solenoid vertical

- **Flow:**
  - Gaseous fluids: 340 l/min
  - Liquid fluids: Kv 0,34
- **Ambient/Media temperature:**
  - -40 ... +80°C (-40 ... +176°F) depending on solenoid system.
  - Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).
- **Temperature solenoid:** See table

- **Material:**
  - Housing: brass (standard), hard anodized aluminium (NAMUR)
  - Seal: NBR
  - Inner parts: stainless steel, brass

**Technical data**

With threaded connection, brass valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Operating pressure (bar)</th>
<th>Material Seat seal</th>
<th>Temperature °C</th>
<th>Manual override</th>
<th>Weight (kg)</th>
<th>Dimension No.</th>
<th>Solenoid group</th>
<th>Model *1</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/4</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>without</td>
<td>0,65</td>
<td>1</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-01XXP</td>
<td></td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>without</td>
<td>0,65</td>
<td>1</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-01XXP</td>
<td></td>
</tr>
<tr>
<td>G 1/4</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>push only</td>
<td>0,70</td>
<td>2</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-03XXP</td>
<td></td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>push only</td>
<td>0,70</td>
<td>2</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-03XXP</td>
<td></td>
</tr>
<tr>
<td>G 1/4</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>turn and lock</td>
<td>0,70</td>
<td>3</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-02XXP</td>
<td></td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>turn and lock</td>
<td>0,70</td>
<td>3</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24B9665-02XXP</td>
<td></td>
</tr>
</tbody>
</table>

Namur version, hard anodized aluminium valves

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Port size</th>
<th>Operating pressure (bar)</th>
<th>Material Seat seal</th>
<th>Temperature °C</th>
<th>Manual override *3</th>
<th>Weight (kg)</th>
<th>Dimension No.</th>
<th>Solenoid group</th>
<th>Model *1</th>
</tr>
</thead>
<tbody>
<tr>
<td>G 1/4</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>without</td>
<td>0,65</td>
<td>4</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24W9565-01XXP</td>
<td></td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>0 ... 10</td>
<td>NBR</td>
<td>-40 ... +80</td>
<td>without</td>
<td>0,65</td>
<td>4</td>
<td>0800, 5270 or 9318 (F&amp;S)</td>
<td>VR24W9565-01XXP</td>
<td></td>
</tr>
</tbody>
</table>

*1) xx = Insert solenoid code on 13th digit and voltage code on 14th digit, see page 2!
*2) Depending on solenoid system, see page 2!
*3) Push only and turn and lock on request

---

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VR24 series, 3/2
Direct solenoid actuated poppet valve

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Option selector

<table>
<thead>
<tr>
<th>Port size</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 1/4</td>
<td>B</td>
</tr>
<tr>
<td>1/4 NPT</td>
<td>R</td>
</tr>
<tr>
<td>0 1/4 Namur</td>
<td>U</td>
</tr>
<tr>
<td>1/4 NPT Namur</td>
<td>W</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Housing material</th>
<th>Substitute</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium anodized, Namur only</td>
<td>5</td>
</tr>
<tr>
<td>Brass, G1/4, 1/4 NPT only</td>
<td>6</td>
</tr>
<tr>
<td>Stainless steel (optional)</td>
<td>7</td>
</tr>
</tbody>
</table>

Spare coils

<table>
<thead>
<tr>
<th>Voltage</th>
<th>Power consumption</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 V d.c.</td>
<td>16,9 W</td>
<td>0000000.0800.0240R</td>
</tr>
<tr>
<td>36 V d.c.</td>
<td>16,9 W</td>
<td>0000000.0800.0360R</td>
</tr>
<tr>
<td>72 V d.c.</td>
<td>16,9 W</td>
<td>0000000.0800.0720R</td>
</tr>
<tr>
<td>110 V d.c.</td>
<td>16,9 W</td>
<td>0000000.0800.1100R</td>
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</tbody>
</table>

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<tr>
<td>110 V d.c.</td>
<td>14,0 W</td>
<td>0000000.9318.1100R</td>
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</table>

Solenoid operators

<table>
<thead>
<tr>
<th>Power consumption 24 V d.c. (W)</th>
<th>Rated current 24 V d.c. (m A)</th>
<th>Temperature range</th>
<th>Voltage tolerance (%)</th>
<th>Protection class *6)</th>
<th>Electrical connection</th>
<th>Weight (kg)</th>
<th>Dimen- sion No.</th>
<th>Circuit diagram No.</th>
<th>Model</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>16,9</td>
<td>703 (24 V d.c.) 425 (36 V d.c.)</td>
<td>-25 ... +40</td>
<td>+20/-30 (+15/-32)</td>
<td>IP 65 (with Connector)*4)</td>
<td>Connector DIN EN 175301-803 Form A *5)</td>
<td>0,26</td>
<td>1</td>
<td>1</td>
<td>0800</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>193 (72 V d.c.) 139 (110 V d.c.)</td>
<td>-25 ... +60</td>
<td>+10/-30 (+6/-32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>221 (36 V d.c.) 243 (72 V d.c.)</td>
<td>-40 ... +60</td>
<td>+/-30 (+25/-32)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120 (72 V d.c.) 221 (36 V d.c.)</td>
<td>-40 ... +80</td>
<td>+30/-20 (+25/-22)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>69 (110 V d.c.) 120 (72 V d.c.)</td>
<td>-40 ... +70</td>
<td>+/-30</td>
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<td>14,0 W</td>
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</table>

Spare coils

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<td>14,0 W</td>
<td>0000000.9318.1100R</td>
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</table>
Accessories

**Cable gland**

<table>
<thead>
<tr>
<th>Page 5</th>
<th>Thread</th>
<th>Cable ø</th>
<th>Material</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M 20x1.5</td>
<td>5.0...9.0 mm</td>
<td>PA, UL94 V0</td>
<td>0110854</td>
</tr>
<tr>
<td></td>
<td>M 20x1.5</td>
<td>6.0...12 mm</td>
<td>PA, UL94 V0</td>
<td>0110855</td>
</tr>
</tbody>
</table>

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

<table>
<thead>
<tr>
<th>Page 5</th>
<th>T40C2800 (G1/4)</th>
</tr>
</thead>
</table>

**Exhaust guard** *2)

<table>
<thead>
<tr>
<th>Page 5</th>
<th>0613422 (G1/4, 1/4 NPT)</th>
</tr>
</thead>
</table>

**Manual override (without detent)**

<table>
<thead>
<tr>
<th>Page 3</th>
<th>0600205</th>
</tr>
</thead>
</table>

**Manual override (with detent)**

<table>
<thead>
<tr>
<th>Page 3</th>
<th>0601765</th>
</tr>
</thead>
</table>

**Flange plate**

<table>
<thead>
<tr>
<th>Page 5</th>
<th>0612790 (NAMUR single connection plate)</th>
</tr>
</thead>
</table>

**Yoke**

<table>
<thead>
<tr>
<th>Page 5</th>
<th>0540593</th>
</tr>
</thead>
</table>

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854), SPC/99/1500/5 (form A)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)

**Connector**

- DIN EN 175301-803
- SPC/99/1500/5 (form A, F&S*1))
- SPC/99/1500/12 (form A, F&S*1), with anti-surge diode)

*1) Fire & Smoke tested according to EN 45545-2

**Silencer** *1)

- T40C2800 (G1/4)

**Exhaust guard** *2)

- 0613422 (G1/4, 1/4 NPT)

**Manual override (without detent)**

- 0600205

**Manual override (with detent)**

- 0601765

**Flange plate**

- 0612790 (NAMUR single connection plate)

**Yoke**

- 0540593

**Cable gland**

- M 20x1.5: 5.0...9.0 mm, PA, UL94 V0 (0110854)
- M 20x1.5: 6.0...12 mm, PA, UL94 V0 (0110855)
VR24 series, 3/2
Direct solenoid actuated poppet valve

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Drawings - Valve

Add-on manual override

Without detent
Model: 0600205

With detent
Model: 0601765
Solenoids

1

- Connector can be indexed by 4x90°
- Ø 16 or 13 (with spacer tube)
- With cable gland, Pg 13,5

Dimensions in mm
Projection/First angle

3

2
Circuit diagrams

NAMUR hole pattern, driving side

NAMUR quick exhaust module for a better kv-value by exhaust see data sheet 7502144

NAMUR interlinking plates in redundancy design for «safety exhausting» and «safety ventilating» see data sheet 5.15.300 (7503386)
### Single connection plate
**Type:** 0612790

![Diagram of Single connection plate](image)

### NAMUR slot
**Type:** 0612791

![Diagram of NAMUR slot](image)

### Yoke
**Type:** 0540593

![Diagram of Yoke](image)

### Silencer
**Model:** T40C2800

![Diagram of Silencer](image)

### Exhaust guard
**Model:** 0613422

![Diagram of Exhaust guard](image)

### Cable gland

![Diagram of Cable gland](image)

### Connector

<table>
<thead>
<tr>
<th>Type</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>EN 175301-803-A</td>
<td>0570275</td>
</tr>
<tr>
<td>EN 175301-803-A (Fire &amp; Smoke)</td>
<td>SPC991500/5</td>
</tr>
<tr>
<td>EN 175301-803-A (Fire &amp; Smoke, with anti-surge diode)</td>
<td>SPC991500/12</td>
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</table>

### Cable properties

<table>
<thead>
<tr>
<th>For cable ø</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 ... 9</td>
<td>M20 x 1.5</td>
<td>9</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>6 ... 12</td>
<td>M20 x 1.5</td>
<td>9</td>
<td>36</td>
<td>24</td>
</tr>
</tbody>
</table>

### Warning

These products are intended for use in industrial compressed air and rail transport systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications, consult IMI NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.

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