Valve systems  ➤ Standardized valve systems

Series HV30

Brochure
### Valve systems ➤ Standardized valve systems

#### Series HV30

5/2-directional valve, Series HV30
- Flow = 4.8 Cv
- Pilot valve width: 30x22 mm CNOMO
- plate connection
- Electr. connection: Plug, ISO 4400, form A

### Accessories

<table>
<thead>
<tr>
<th>Accessory Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single subbase, thread connections on the bottom</td>
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<tr>
<td>- standard: ISO 5599-1</td>
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<tr>
<td>- Frame size: ISO 3</td>
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<tr>
<td>- Compressed air connection output: G 1/2</td>
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<tr>
<td>- Reversed pressure supply permissible</td>
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<td>Single subbase, thread connections on the side</td>
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<td>Base plate</td>
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<td>- Compressed air connection output: G 3/4</td>
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<td>- 3/4-14 PTF</td>
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<tr>
<td>Pilot valve, Series HV30</td>
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</table>
Valve systems ➤ Standardized valve systems

5/2-directional valve, Series HV30
➤ Flow = 4.8 Cv ➤ Pilot valve width: 30x22 mm CNOMO ➤ plate connection ➤ Electr. connection: Plug, ISO 4400, form A

Standards
- ISO 5599-1
- ISO 3

Version
Poppet valve

Sealing principle
Soft sealing

Blocking principle
Single base plate principle

Working pressure min./max.
51 psi / 130 psi

Control pressure
51 psi / 130 psi

Ambient temperature min./max.
+50°F / +248°F

Medium temperature min./max.
+50°F / +248°F

Medium
Compressed air

Max. particle size
50 µm

Oil content of compressed air
0 mg/m³ - 5 mg/m³

Degree of protection with electrical connector/plug
IP65

Duty cycle
100%

Switch-on time
50 ms

Switch-off time
80 ms

Mounting screw tightening torque
11 Nm

Weight
3.81 lbs

Materials:
- Housing: Aluminum
- Seals: Acrylonitrile Butadiene Rubber

Technical Remarks
- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Max. ambient temperature: +180°C for 1 hour of continuous operation - +200°C for 15 hours of standby operation.
- At an ambient temperature of over 120°C, the duty cycle is reduced by 50%.
- Delivery contents: incl. electrical connector and pilot valve

Operational voltage

<table>
<thead>
<tr>
<th>Voltage tolerance</th>
<th>DC 24 V</th>
<th>AC 50 Hz</th>
<th>AC 60 Hz</th>
<th>DC 110 V</th>
<th>AC 50 Hz</th>
<th>AC 60 Hz</th>
<th>DC 230 V</th>
<th>AC 50 Hz</th>
<th>AC 60 Hz</th>
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<tbody>
<tr>
<td>DC 24 V</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
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<tr>
<td>DC 110 V</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
</tr>
<tr>
<td>DC 230 V</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
<td>-</td>
<td>-10% / +10%</td>
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Power consumption

<table>
<thead>
<tr>
<th>Power consumption</th>
<th>Switch-on power</th>
<th>Holding power</th>
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</thead>
<tbody>
<tr>
<td>DC 24 V</td>
<td>6.7 W</td>
<td>- VA</td>
</tr>
<tr>
<td>DC 110 V</td>
<td>-</td>
<td>5 VA</td>
</tr>
<tr>
<td>DC 230 V</td>
<td>-</td>
<td>5 VA</td>
</tr>
</tbody>
</table>

Pilot: internal
Nominal flow Qn at 87 PSI and Δp = 14.5 PSI

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information.
### 5/2-directional valve, Series HV30

- Flow = 4.8 Cv
- Pilot valve width: 30x22 mm CNOMO
- plate connection
- Electr. connection: Plug, ISO 4400, form A

<table>
<thead>
<tr>
<th>MO</th>
<th>Operational voltage</th>
<th>Holding power DC</th>
<th>Holding power AC 50 Hz</th>
<th>Holding power AC 60 Hz</th>
<th>Switch-on power AC 50 Hz</th>
<th>Switch-on power AC 60 Hz</th>
<th>Flow rate [Cv]</th>
<th>Part No.</th>
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<tbody>
<tr>
<td></td>
<td>DC AC 50 Hz AC 60 Hz</td>
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<td>4.8</td>
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<td>24 V</td>
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<td>4.2</td>
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<td>110 V</td>
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<td>4.2</td>
<td>5</td>
<td>R424B12988</td>
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<tr>
<td></td>
<td>-</td>
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<td>230 V</td>
<td>230 V</td>
<td>4.2</td>
<td>4.2</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

Pilot: internal
Nominal flow Qn at 87 PSI and Δp = 14.5 PSI
Pilot control exhaust

### Dimensions

![Dimensions Diagram](image-url)
Single subbase, thread connections on the bottom
- standard: ISO 5599-1
- Frame size: ISO 3
- compressed air connection output: G 1/2
- Reversed pressure supply permissible

| Ambient temperature min./max. | -13°F / +158°F |
| Medium temperature min./max. | -13°F / +158°F |
| Medium                     | Compressed air |
| Working pressure min./max. | -13 psi / -- |
| Number of valve positions  | 1               |
| Direction of pneumatic port (1) | Down |
| Direction of pneumatic port (3,5) | Down |
| Direction of pneumatic port (2,4) | Down |
| Direction of pneumatic port (12) | Down |
| Direction of pneumatic port (14) | Down |
| Exhaust (3,5)               | With directional exhaust (3/5) |
| Ports separated             |                 |

Materials:
- Base plate: Die-cast aluminum

Technical Remarks
- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- For use with HV series valves, the ambient temperature is -25°C to +200°C and the medium temperature is -25°C to +120°C.
- Reversed pressure supply is not permitted for HV series valves.

<table>
<thead>
<tr>
<th>Frame size</th>
<th>Input</th>
<th>Output</th>
<th>Exhaust</th>
<th>Pilot control exhaust</th>
<th>Pilot connection</th>
<th>Weight</th>
<th>Part No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISO 3</td>
<td>G 1/2</td>
<td>G 1/2</td>
<td>G 1/2</td>
<td>G 1/8</td>
<td>G 1/8</td>
<td>0.9171</td>
<td>1825503203</td>
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</tbody>
</table>

All dimensions in mm, unless specified otherwise.
Part numbers marked in bold are available from the central warehouse in Germany, see the shopping basket for more detailed information.
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Valve systems ➞ Standardized valve systems

Series HV30
Accessories

Dimensions

<table>
<thead>
<tr>
<th>Part No.</th>
<th>B1</th>
<th>B2</th>
<th>B3</th>
<th>D1</th>
<th>D2 *)</th>
<th>D3 **)</th>
<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>L1</th>
<th>L2</th>
<th>L3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1825503203</td>
<td>77</td>
<td>10</td>
<td>17</td>
<td>6.6</td>
<td>G 1/2</td>
<td>G 1/8</td>
<td>32</td>
<td>18</td>
<td>9</td>
<td>149</td>
<td>74.5</td>
<td>68</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part No.</th>
<th>L4</th>
<th>L5</th>
<th>L6</th>
<th>L7</th>
<th>L8</th>
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</thead>
<tbody>
<tr>
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<td>68</td>
<td>8.5</td>
<td>34</td>
<td>17</td>
<td>45</td>
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</tbody>
</table>

*) Ports

Single subbase, thread connections on the side

→ standard: ISO 5599-1  ➞ Frame size: ISO 3  ➞ compressed air connection output: G 1/2  ➞ Reversed pressure supply permissible

- Ambient temperature min./max.: -13°F / +158°F
- Medium temperature min./max.: -13°F / +158°F
- Medium: Compressed air
- Working pressure min./max.: -13 psi / 232 psi
- Number of valve positions: 1
- Direction of pneumatic port (1): On the side
- Direction of pneumatic port (3,5): On the side
- Direction of pneumatic port (2,4): On the side
- Direction of pneumatic port (12): On the side
- Direction of pneumatic port (14): On the side
- Exhaust (3,5): With directional exhaust (3/5)
- Ports separated

Materials:
- Base plate: Die-cast aluminum
Valve systems ► Standardized valve systems

Series HV30
Accessories

Technical Remarks

- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- For use with HV series valves, the ambient temperature is -25°C to +200°C and the medium temperature is -25°C to +120°C.
- Reversed pressure supply is not permitted for HV series valves.

<table>
<thead>
<tr>
<th>Frame size</th>
<th>Compressed air connection</th>
<th>Grid dimension</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Input</td>
<td>Output</td>
<td>Exhaust</td>
</tr>
<tr>
<td>ISO 3</td>
<td>1</td>
<td>2 / 4</td>
<td>3 / 5</td>
</tr>
<tr>
<td></td>
<td>G 1/2</td>
<td>G 1/2</td>
<td>G 1/2</td>
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<table>
<thead>
<tr>
<th>Part No.</th>
<th>Weight [lbs]</th>
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<tbody>
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Dimensions

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<th>Part No.</th>
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<th>H1</th>
<th>H2</th>
<th>H3</th>
<th>H4</th>
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<th>D1</th>
<th>D2</th>
<th>D3</th>
<th>L1</th>
<th>L2</th>
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<tr>
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<td>71</td>
<td>32</td>
<td>18</td>
<td>17</td>
<td>17</td>
<td>22</td>
<td>6.6</td>
<td>G 1/2</td>
<td>G 1/8</td>
<td>119</td>
<td>68</td>
<td>149</td>
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<tr>
<td>1825503149</td>
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<td>32</td>
<td>90</td>
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Valve systems ► Standardized valve systems

Series HV30
Accessories

Base plate
► standard: ISO 5599-1 ► Frame size: ISO 3 ► compressed air connection output: G 1/2

- Ambient temperature min./max.: +50°F / +392°F
- Medium temperature min./max.: +50°F / +392°F
- Medium: Compressed air
- Working pressure min./max.: 51 psi / 145 psi
- Mounting screw: hexagon head
- Direction of pneumatic port (1): On the side
- Direction of pneumatic port (3,5): On the side
- Exhaust (3,5): With directional exhaust (3/5)
- Ports separated

Materials:
- Base plate: Aluminum
- Seals: Acrylonitrile Butadiene Rubber

Technical Remarks
- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Can be mounted directly to a crust breaking cylinder (Ø 160 and Ø 200) with integrated ISO 5599-1, size 3 valve. Optimized for the metalworking industry.

<table>
<thead>
<tr>
<th>Frame size</th>
<th>Compressed air connection</th>
<th>Weight</th>
<th>Part No.</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Input</td>
<td>Output</td>
<td>Exhaust</td>
</tr>
</tbody>
</table>

Delivery incl. seal and mounting screw

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Base plate
► standard: ISO 5599-1 ► Frame size: ISO 3 ► compressed air connection output: G 3/4 - 3/4-14 PTF

Ambient temperature min./max. +50 °F / +392 °F
Medium temperature min./max. +50 °F / +392 °F
Medium Compressed air
Working pressure min./max. 51 psi / 145 psi
Mounting screw hexagon head
Direction of pneumatic port (1) On the side
Direction of pneumatic port (3,5) On the side
Exhaust (3,5) With directional exhaust (3/5)

Materials:
Base plate Die-cast aluminum

Technical Remarks
- The min. control pressure must be adhered to, since otherwise faulty switching and valve failure may result!
- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
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<th>Weight</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Input</td>
<td>Output</td>
<td>Exhaust</td>
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<td>[1]</td>
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<td>1/2-14 NPTF</td>
<td>1/2-14 NPTF</td>
<td>1/2-14 NPTF</td>
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<td>3/4-14 PTF</td>
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<td>3/4-14 PTF</td>
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<tr>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Dimensions in inches

Pilot valve, Series HV30

- Working pressure min./max.: 29 psi / 145 psi
- Ambient temperature min./max.: +50°F / +248°F
- Medium temperature min./max.: +50°F / +248°F
- Medium: Compressed air
- Max. particle size: 5 µm
- Oil content of compressed air: 0 mg/m³ - 5 mg/m³
- Connector standard: CNOMO / NFE 49-003-1
- Degree of protection with electrical connector/plug: IP65
- Duty cycle: 100%
- Weight: 0.3968 lbs
- Materials:
  - Housing: polyphenylene sulfide
  - Seals: Fluorocaoutchouc

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- The pressure dew point must be at least 59 °F under ambient and medium temperature and may not exceed 37 °F.
- The oil content of compressed air must remain constant during the life cycle.
- Use only the approved oils from AVENTICS, see chapter „Technical information“.
- Max. ambient temperature: +180°C for 1 hour of continuous operation - +200°C for 15 hours of standby operation
- At an ambient temperature of over 120°C, the duty cycle is reduced by 50%.

<table>
<thead>
<tr>
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<th>Holding power</th>
<th>Holding power</th>
<th>Part No.</th>
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<tbody>
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<td></td>
<td>DC</td>
<td>AC 50 Hz</td>
<td>AC 60 Hz</td>
<td>AC 50 Hz</td>
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<td></td>
<td></td>
<td>24 V</td>
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<td>24 V</td>
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</tr>
<tr>
<td></td>
<td>220 V</td>
<td>-</td>
<td>220 V</td>
<td>5</td>
</tr>
</tbody>
</table>

Dimensions

1) Tightening torque: 0.8 Nm ±0.01
2) Tightening torque: 0.4 Nm ±0.01
Scope of delivery: Pressure connection, fluoropolymer tubing Ø6x1

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The data specified only serve to describe the product.
No statements concerning a certain condition or suitability for a certain application can be derived from our information.
The information given does not release the user from the obligation of own judgment and verification.
It must be remembered that the products are subject to a natural process of wear and aging.

02-04-2015