Dump Valve

Remotely operated dump valves automatically shut off upstream pressure and exhaust the downstream pressure when the pilot pressure is released.

To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version must be maintained. The valve will automatically dump when the holding signal is removed.

Options:

**P31DA**

- Body size: Dump valve (1/4") P31A, Dump valve (1/2") P32DA
- Thread type: BSPP 1, NPT 9
- Port size: Global modular mini (1/4") 2, Global modular compact (1/2") 4

**Symbol**

- Modular design with 1/4" or 1/2" integral ports (NPT & BSPP)
- The 3-way, 2-position function automatically dumps downstream pressure on the loss of pilot signal
- Solenoid or air pilot options
- High flow & exhaust capability
- Silencer included

<table>
<thead>
<tr>
<th>Port size</th>
<th>Description</th>
<th>Flow dm³/s (scfm)</th>
<th>Max. bar (psig)</th>
<th>Height mm (inches)</th>
<th>Width mm (inches)</th>
<th>Depth mm (inches)</th>
<th>Weight kg (lbs)</th>
<th>Part number†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>Solenoid operated (not included)</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31DA12SGN0000</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>24VDC Solenoid &amp; cable plug</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>166+ (6.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.41 (0.9)</td>
<td>P31DA12SGNC2CN</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>External air pilot operated</td>
<td>17 (36)</td>
<td>17 (250)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31DA12PPN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>Solenoid operated (not included)</td>
<td>51 (108)</td>
<td>10 (150)</td>
<td>162.5† (6.3)</td>
<td>75 (2.9)</td>
<td>57.2 (2.2)</td>
<td>0.69 (1.5)</td>
<td>P32DA14SCN0000</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>24VDC 30mm coil &amp; cable plug incl.</td>
<td>51 (108)</td>
<td>10 (150)</td>
<td>227+ (8.9)</td>
<td>75 (2.9)</td>
<td>57.2 (2.2)</td>
<td>0.91 (2.0)</td>
<td>P32DA14SCNA2CN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>External air pilot operated</td>
<td>51 (108)</td>
<td>17 (250)</td>
<td>162.5† (6.3)</td>
<td>75 (2.9)</td>
<td>57.2 (2.2)</td>
<td>0.87 (1.9)</td>
<td>P32DA14PPN</td>
</tr>
</tbody>
</table>

† Includes exhaust silencer

†† Standard part numbers shown in bold. For other models refer to Options chart above.
Technical Information

Fluid: Compressed air
Max. pressure solenoid operated: 10 bar (150 psig)
Max. pressure air pilot operated: 17 bar (250 psig)
Min. operating pressure: 3 bar (44 psig)
Temperature Max. solenoid operated: -10°C to 50°C (14°F to 122°F)
Temperature Max. air pilot operated: -20°C to 80°C (-4°F to 176°F)
Air pilot port: 1/8"
Exhaust port: P31D - 1/4" / P32D - 1/2"
Gauge port: P31D - 1/8" / P32D - 1/4"

Flow Charts

P31DA 1/4" Remote Dump Valve

P32DA 1/2" Remote Dump Valve

Material Specifications

Body: Aluminum
Body cover: Polyester
Seals: Nitrile NBR

Mounting Brackets

Description Part number
L-bracket mounting kit P31D
Foot bracket mounting kit P32D
P31D - 1/4" / P32D - 1/2"

Note:
For solenoid operators and cable plugs (connectors) see pages 74 to 75.

Dimensions mm (inches)

For mounting brackets see page 86.
Parker Global Series Soft Start Valves, provide for the safe introduction of pressure to machines or systems. Soft Start Valves, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up.

**Note:** Soft Start Valves must be installed downstream of a 3/2 valve with exhaust capability.

### Options:

<table>
<thead>
<tr>
<th>Port size</th>
<th>Description</th>
<th>Flow dm³/s (scfm)</th>
<th>Max. bar (psig)</th>
<th>Height mm (inches)</th>
<th>Width mm (inches)</th>
<th>Depth mm (inches)</th>
<th>Weight kg (lbs)</th>
<th>Part number†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>Solenoid operated (not included)</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31S12SGN0000</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>24VDC Solenoid &amp; cable plug</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>166.0 (6.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.41 (0.9)</td>
<td>P31S12SGNC2CN</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>Internal air pilot operated</td>
<td>17 (36)</td>
<td>17 (250)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31S12Y0N</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>External air pilot (1/8&quot; threaded)</td>
<td>17 (36)</td>
<td>17 (250)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31S12PPN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>Solenoid operated (not included)</td>
<td>48 (101)</td>
<td>10 (150)</td>
<td>162.5 (6.3)</td>
<td>88 (3.4)</td>
<td>57.2 (2.28)</td>
<td>0.87 (1.5)</td>
<td>P32S14SCN0000</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>24VDC 30mm coil &amp; cable plug</td>
<td>48 (101)</td>
<td>10 (150)</td>
<td>227.5 (8.9)</td>
<td>88 (3.4)</td>
<td>57.2 (2.28)</td>
<td>0.90 (2.0)</td>
<td>P32S14SCNA2CN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>Internal air pilot operated</td>
<td>48 (101)</td>
<td>17 (250)</td>
<td>162.5 (6.3)</td>
<td>75 (2.9)</td>
<td>57.2 (2.28)</td>
<td>0.90 (2.0)</td>
<td>P32S14Y0N</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>External air pilot (1/8 threaded)</td>
<td>48 (101)</td>
<td>17 (250)</td>
<td>162.5 (6.3)</td>
<td>75 (2.9)</td>
<td>57.2 (2.28)</td>
<td>0.87 (1.5)</td>
<td>P32S14PPN</td>
</tr>
</tbody>
</table>

† Standard part numbers shown in bold. For other models refer to Options chart above.
**Technical Information**

**Fluid:** Compressed air

**Max. pressure solenoid operated:** 10 bar (150 psig)

**Max. pressure air pilot operated:** 17 bar (250 psig)

**Min. operating pressure:** 3 bar (44 psig)

**Temperature Max.* solenoid operated:** -10°C to 50°C (14°F to 122°F)

**Temperature Max.* air pilot operated:** -20°C to 80°C (-4°F to 176°F)

**Air pilot port:** 1/8"

**Gauge port:** P31S - 1/8" / P32S - 1/4"

**Typical flow with 6.3 bar inlet pressure and 1 bar pressure drop:**
- P31S: 17 dm³/s (36 scfm)
- P32S: 48 dm³/s (101 scfm)

* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

**Snap pressure:** Full flow when downstream pressure reaches 50% of the inlet pressure

**Material Specifications**

**Body:** Aluminum

**Body cover:** Polyester

**Seals:** Nitrile NBR

**Mounting Brackets**

**Description** | **Part number**
--- | ---
L-bracket mounting kit | P3HKA00ML
Foot bracket mounting kit | P3HKA00MC

**Note:** For solenoid operators and cable plugs (connectors) see pages 74 to 75.

**Flow Charts**

**P31SA 1/4" Soft Start Valve**

**Inlet Pressure - 6.3 bar (91.3 psig)**

**Flow - dm³/s**

0 20 40 60 80 100 120

0 2 4 6 8

**Secondary Pressure - bar**

0 10 20 30 40 50 60 70 80 90 100

**Flow - (scfm)**

0 5 10 15 20 25 30 35 40 45 50 55 60 65

**P32SA 1/2" Soft Start Valve**

**Inlet Pressure - 6.3 bar (91.3 psig)**

**Flow - dm³/s**

0 20 40 60 80 100 120 140 160 180 200 220 240 260 280

0 2 4 6 8

**Secondary Pressure - bar**

0 10 20 30 40 45 50 55 60 70 80 90 100

**Flow - (scfm)**

0 5 10 15 20 25 30 35 40 45 50 55 60 65

**Dimensions mm (inches)**

<table>
<thead>
<tr>
<th>P31S</th>
<th>P32S</th>
</tr>
</thead>
<tbody>
<tr>
<td>37 (1.45)</td>
<td>88 (3.46)</td>
</tr>
<tr>
<td>166 (6.53)</td>
<td>174.5 (6.87)</td>
</tr>
<tr>
<td>136 (5.31)</td>
<td>109.5 (4.31)</td>
</tr>
<tr>
<td>1/8&quot; Gauge Port</td>
<td>1/4&quot; Gauge Port</td>
</tr>
<tr>
<td>57 (2.24)</td>
<td>57.2 (2.25)</td>
</tr>
<tr>
<td>40 (1.57)</td>
<td>75 (2.95)</td>
</tr>
</tbody>
</table>

**Soft Start Function:**

1. Start signal
2. Switching time delay
3. Gradual pressure build up
4. Operating pressure (psi)

For mounting brackets see page 86.
Parker Global Series Combined Soft Start / Dump Valves, provide for the safe introduction of pressure to machines or systems. Soft Start / Dump Valves when set, allow the pressure to gradually build to the set point before fully opening to deliver full flow at line pressure.

The controlled introduction of pressure can be an important safety factor and prevent damage to tooling when air pressure is introduced at machine or system start up. To maintain these units in the open position a pilot supply to the air pilot operated version or an electrical signal to the solenoid operated version must be maintained. The valve will automatically dump when the holding signal is removed.

**Options:**

<table>
<thead>
<tr>
<th>Port size</th>
<th>Description</th>
<th>Flow†</th>
<th>Max. bar</th>
<th>Height</th>
<th>Width</th>
<th>Depth</th>
<th>Weight</th>
<th>Part number†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/4&quot;</td>
<td>Solenoid operated (not included)</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31TA12SGN0000</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>24VDC Solenoid &amp; cable plug</td>
<td>17 (36)</td>
<td>10 (150)</td>
<td>166.1 (6.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.41 (0.9)</td>
<td>P31TA12SGNC2CN</td>
</tr>
<tr>
<td>1/4&quot;</td>
<td>External air pilot operated</td>
<td>17 (36)</td>
<td>17 (250)</td>
<td>115.6 (4.5)</td>
<td>57 (2.2)</td>
<td>40 (1.5)</td>
<td>0.37 (0.8)</td>
<td>P31TA12PPN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>Solenoid operated (not included)</td>
<td>46 (97)</td>
<td>10 (150)</td>
<td>162.5 (6.3)</td>
<td>88 (3.4)</td>
<td>57.2 (2.2)</td>
<td>0.87 (1.9)</td>
<td>P32TA14SCN0000</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>24VDC 30mm coil &amp; cable plug incl.</td>
<td>46 (97)</td>
<td>10 (150)</td>
<td>227.5 (8.9)</td>
<td>88 (3.4)</td>
<td>57.2 (2.2)</td>
<td>0.91 (2.0)</td>
<td>P32TA14SCNA2CN</td>
</tr>
<tr>
<td>1/2&quot;</td>
<td>External air pilot operated</td>
<td>46 (97)</td>
<td>17 (250)</td>
<td>162.5 (6.3)</td>
<td>75 (2.9)</td>
<td>57.2 (2.2)</td>
<td>0.87 (1.9)</td>
<td>P32TA14PPPN</td>
</tr>
</tbody>
</table>

† Includes exhaust silencer. Flow with 6.3 bar (91.3) psig inlet and 1 bar (14.5 psig) pressure drop.

† Standard part numbers shown in bold. For other models refer to Options chart above.
Technical Information

Fluid: Compressed air
Max. pressure solenoid operated: 10 bar (150 psig)
Max. pressure air pilot operated: 17 bar (250 psig)
Min. operating pressure: 3 bar (44 psig)
Temperature Max.* solenoid operated: -10°C to 50°C
(14°F to 122°F)
Temperature Max.* air pilot operated: -20°C to 80°C
(-4°F to 176°F)
Air pilot port: 1/8"
Exhaust port: P31T - 1/4" / P32T - 1/2"
Gauge port: P31T - 1/8" / P32T - 1/4"

Typical flow with 6.3 bar inlet pressure and 1 bar pressure drop:
P31T 17 dm³/s (36 scfm)
P32T 48 dm³/s (101 scfm)

* Air supply must be dry enough to avoid ice formation at temperatures below +2°C

Snap pressure: Full flow when downstream pressure reaches 50% of the inlet pressure

Material Specifications

Body: Aluminum
Body cover: Polyester
Seals: Nitrile NBR

Mounting Brackets

Description | Part number
--- | ---
L-bracket mounting kit | P3HKA00ML
Foot bracket mounting kit | P3HKA00MC

For solenoid operators and cable plugs (connectors) see pages 74 to 75.

Dimensions mm (inches)

P31T

Soft Start Function:

For mounting brackets see page 86.