Quality Hydraulic Components from the Webtec Range
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PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Direct acting relief valves unload flow to tank when system pressure is sufficient to compress a spring which unseats a poppet. They have a high tolerance to contamination and are generally used for low flow rates where precise pressure control is not critical.

Specifications

Maximum Pressure: 210 bar

Maximum Flow: 20 lpm

Porting: see Table 1, ordering codes

Material:
- steel components in High Tensile
- Aluminium body

Weight: 0.060 kg

Features

- Direct acting in-line relief valve giving high tolerance to particle contamination.
- Quick response provides protection against shock loads.
- Relief pressure is factory set to customer requirements within a range between 20 - 210 bar.
- Straight through porting allows the valve to be connected directly in-line * thus making the best use of restricted space.
- Provides protection against thermal expansion of fluids.

* with a T piece.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

Typical Code
RV020 150 J A

RV020 - Valve Type
Relief Pressure Setting in bar
between 20 - 210 bar
Porting (Table 1)
A - Design Standard

Table 1: Inlet Porting

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>3/8&quot; - 18 NPTF (Only applies for inlet thread)</td>
</tr>
<tr>
<td>J</td>
<td>3/8&quot; BSPF (Parallel)</td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS
(at one pressure setting)

Pressure (bar)

Flow (lpm)

Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes at 49°C

INSTALLATION DETAILS
Dimensions in millimetres

3/8" Male Inlet
(Internal cone on BSPF version)
3/8" - 18 NPSM Outlet Thread

Pressure Inlet
Return To Tank

15.9 63.5 22.2
PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Direct acting relief valves unload flow to tank when system pressure is sufficient to compress a spring which unseats a poppet. They have a high tolerance to contamination and are generally used for low flow rates where precise pressure control is not critical.

Specifications
- Maximum Pressure: 210 bar
- Maximum Flow: 23 lpm
- Porting: see Table 2, ordering codes
- Material: steel components in high tensile aluminium body
- Weight: 0.25 kg

Features
- Direct acting, in-line relief valve giving high tolerance to contamination.
- Quick response provides protection against shock loads.
- Relief pressure is adjustable by means of a screw and locknut. See Table 1, ordering codes for available adjustment ranges.
- Provides protection against thermal expansion of fluid.
- Can be used as a remote control for a pilot operated relief valve by substituting for the built in direct acting relief valve of the pilot operated valve.
- Flow through pressure and tank ports enable the valve to be connected in-line with mounting versatility and convenience.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES
Typical Code
RV025 - Valve Type

Adjustment Range (Table 1)

Porting (Table 2)

Table 1: Adjustment Range

<table>
<thead>
<tr>
<th>Code</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 - 27 bar</td>
</tr>
<tr>
<td>2</td>
<td>27 - 70 bar</td>
</tr>
<tr>
<td>3</td>
<td>70 - 103 bar</td>
</tr>
<tr>
<td>4</td>
<td>103 - 180 bar</td>
</tr>
<tr>
<td>5</td>
<td>180 - 210 bar</td>
</tr>
</tbody>
</table>

Table 2: Porting

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>9/16” - 18 UNF</td>
</tr>
<tr>
<td>J</td>
<td>3/8” BSP</td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS
(at one Pressure settings)

Curve established using hydraulics mineral oil with viscosity 27.4 centistokes at 49°C

INSTALLATION DETAILS
Dimensions in millimetres

Return Ports

Pressure Ports
RV 050
Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Direct acting relief valves unload flow to tank when system pressure is sufficient to compress a spring which unseats a poppet. They provide high tolerance to contamination and are generally used for low flow rates where precise pressure control is not critical.

Specifications

Maximum Pressure: 210 bar

Maximum Flow: 50 lpm

Porting: see Table 2, ordering codes

Material: steel components in high tensile aluminium body

Weight: 0.5 kg

Features
- Direct acting, in-line relief valve giving high tolerance to contamination.
- Quick response provides protection against shock loads.
- Relief pressure is adjustable by means of a screw and locknut. See Table 1, ordering codes for available adjustment ranges.
- Provides protection against thermal expansion of fluid.
- Can be used as a remote control for a pilot operated relief valve by substituting for the built in direct acting relief valve of the pilot operated valve.
- Flow through pressure ports enable the valve to be connected in-line with mounting versatility and convenience.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

Typical Code

RV050 - Valve Type

Adjustment Range (Table 1)

Porting (Table 2)

Adjustment Method (Table 3)

Table 1: Adjustment Range

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 - 103 bar</td>
</tr>
<tr>
<td>2</td>
<td>14 - 210 bar</td>
</tr>
</tbody>
</table>

Table 2: Porting

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>3/4&quot; - 16 UNF</td>
</tr>
<tr>
<td>J</td>
<td>1/2&quot; BSP</td>
</tr>
</tbody>
</table>

Table 3: Adjustment Method

<table>
<thead>
<tr>
<th>Code</th>
<th>Adjustment</th>
</tr>
</thead>
<tbody>
<tr>
<td>S</td>
<td>Screwdriver</td>
</tr>
<tr>
<td>K</td>
<td>Knob</td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS
(at one Pressure Setting)

Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes 49°C

INSTALLATION DETAILS
Dimensions in Millimetres

Remove cap for screwdriver adjustment

Knob Adjustment

Return Port

Pressure Port

63.5

38.1

28.6

95.2

31.7

66 max

19
RV 5

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Direct acting relief valves unload flow to tank when system pressure is sufficient to compress a spring which unseats a poppet. They have a high tolerance to contamination and are generally used for low flow rates where precise pressure control is not critical.

Specifications

Maximum Pressure:
276 bar

Maximum Flow:
70 lpm

Porting:
3/4" BSP

Material:
steel cartridge in high tensile aluminium body.

Weight:
0.75 kg

Features

- Direct acting in-line relief valve giving high tolerance to contamination.
- Quick response provides protection against shock loads.
- Provides protection against thermal expansion of fluid.
- Can be used as a remote control for a pilot operated relief valve by substituting for the built in direct acting relief valve of the pilot operated valve.
- Flow through pressure ports enable the valve to be connected in-line with mounting versatility and convenience.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

<table>
<thead>
<tr>
<th>Typical Code</th>
<th>RV5</th>
<th>120</th>
</tr>
</thead>
<tbody>
<tr>
<td>RV5 - Valve Type</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure Setting in bar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>between 100 - 276 bar</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS
(at one Pressure Setting)

Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes at 49°C

INSTALLATION DETAILS
Dimensions in millimetres

Pressure Port 3/4" BSP

Tank Port 3/4" BSP

Pressure Port 3/4" BSP

8.7 dia
RV 125

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Direct acting relief valves unload flow to tank when system pressure is sufficient to compress a spring which unseats a poppet. Pilot operated valves have a built-in direct acting relief valve which, when opened by system pressure, causes a larger spool to move permitting larger flow rates to return to tank. Pilot operated relief valves provide more precise pressure control than direct acting valves.

Specifications

Maximum Pressure:
210 bar

Maximum Flow:
125 lpm

Porting:
see Table 2, ordering codes

Material:
steel components in high tensile aluminium body.

Weight:
1.05 kg

Features

- Cartridges are available providing either direct acting for high tolerance to particular contamination or pilot operation for quiet, smooth and accurate pressure control.

- Relief pressure is adjustable from 80 - 210 bar by means of a screw concealed by a cap unit.

- A gauge port is provided for the convenience of the user.

- Flow through pressure ports enable the valve to be connected in-line with mounting versatility and convenience without causing restriction.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

Typical Code
RV125 - Valve Type
Cartridge Type (Table 1)
Porting (Table 2)
Pressure setting in bar between 80 - 210 bar

Table 1: Cartridge Type

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO</td>
<td>Pilot Operated Cartridge</td>
</tr>
<tr>
<td>DA</td>
<td>Direct Acting Cartridge</td>
</tr>
</tbody>
</table>

Table 2: Porting

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>3/4&quot; BSP</td>
</tr>
<tr>
<td>G</td>
<td>1 1/16&quot; - 12 UNF</td>
</tr>
<tr>
<td></td>
<td>(No 12 SAE '0'Ring Ports)</td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS

(at two pressure settings for both a direct acting and a pilot operated cartridge)

Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes at 49°C

INSTALLATION DETAILS

Dimensions in millimetres

Remove cap for access to screwdriver adjustment.

Pressure Ports both sides

Gauge Port 1/4" BSP
PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a predetermined rating thus providing protection against the overloading of system components.

Pilot operated relief valve has built-in direct acting relief valves which unload flow to tank when system pressure is sufficient to unseat a spring loaded poppet. Flow through the direct acting valve causes a larger spool to move allowing a larger flow to return to tank. Pilot operated relief valves are generally used for higher flow rates where pressure control is required.

Specifications

Maximum Pressure:
- 210 bar

Maximum Flow:
- 135 lpm

Porting:
- see Table 5, ordering codes

Material:
- steel components in cast iron body
- Plastic handle

Weight:
- 3.5 kg

Solenoid Voltage:
- see Table 3, ordering codes
  (solenoid optional)

Features

- Relief pressure is adjustable by means of a rotating control handle. See Table 2, ordering codes for adjustment ranges. Screwdriver adjustment is also available.

- Pilot operation provides quiet, smooth and accurate pressure control.

- Remote pressure control can be obtained by placing a secondary relief valve in a line to tank connected to the vent port.

- Flow can be unloaded to tank at low pressure using a venting (ex. needle) valve in a line to tank connected to the vent port.

- Flow may be remotely unloaded to tank at low pressure by using the optional solenoid operated venting valve.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

Typical Code

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>Pressure Control</td>
</tr>
</tbody>
</table>

Valve Function (Table 1)

- omit if not required

75 - Valve Size

Pressure Range (Table 2)

- Z: For 4.3 bar Unloading Spring
- omit for Standard 0.7 bar Unloading Spring

C: Design Standard

Solenoid Voltage if Solenoid Venting is fitted (Table 3)

Solenoid Spool Position (Table 4)

Porting (Table 5)

**Table 1: Valve Functions**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>U</td>
<td>Pressure Unloading</td>
</tr>
<tr>
<td>V</td>
<td>Solenoid Vent</td>
</tr>
</tbody>
</table>

**Table 2: Pressure Range**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>06</td>
<td>5 - 40 bar</td>
</tr>
<tr>
<td>1</td>
<td>2 - 69 bar</td>
</tr>
<tr>
<td>2</td>
<td>35 - 138 bar</td>
</tr>
<tr>
<td>3</td>
<td>104 - 207 bar</td>
</tr>
</tbody>
</table>

**Table 4: Solenoid Spool Position**

<table>
<thead>
<tr>
<th>Code</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>NC</td>
<td>Normally Closed</td>
</tr>
<tr>
<td>NO</td>
<td>Normally Open</td>
</tr>
</tbody>
</table>

**Table 5: Porting**

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Thread</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>3/4” BSP</td>
</tr>
<tr>
<td>G</td>
<td>1 - 1/16 - 12 SAE</td>
</tr>
</tbody>
</table>

**Table 3: Solenoid Voltage**

<table>
<thead>
<tr>
<th>Code and Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 VDC</td>
</tr>
<tr>
<td>24 VDC</td>
</tr>
</tbody>
</table>

**INSTALLATION DETAILS**

Dimensions in millimetres

- Gauge Connection: 1/4” BSPF
- Return Connection
- Pressure Connection: Both Sides
- Unload Connection: 1/4” BSPF

Dimensions:
- 146 mm
- 107.9 mm
- 85.7 mm
- 72.4 mm

Diagram showing the physical dimensions and features of the hydraulic components.
CROSS LINE RELIEF VALVES consist of relief valves which connect between the pressure and return lines of a hydraulic actuator. This relieves shock pressures between directional control valves and actuator’s when the control valve is suddenly centred to stop flow. When two relief valves are connected in opposite directions between the pressure and return lines shock pressures are relieved when control valves are suddenly reversed or centred while fluid is flowing in either direction.

Specifications

- **Maximum Pressure:** 210 bar
- **Maximum Flow:** 50 lpm
- **Porting:** see Table 2, ordering codes
- **Material:** steel components in cast iron body
- **Weight:** 2.8 kg
- **Mounting:** 2 bolt

Features

- Direct acting cross-line relief valve giving high tolerance to particle contamination.
- Relief pressure is adjustable by means of a screw and lock nut. See Table 1, ordering codes for adjustment ranges.
- Pipe mounting enables the valve to be mounted in-line when manifold mounting is not possible or practical.
Quality Hydraulic Components from the Webtec Range

ORDERING CODES

CLRVP51 - Valve Type

Adjustment Range (Table 1)

Porting (Table 2)

Table 1: Adjustment Range

<table>
<thead>
<tr>
<th>Code</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10 - 103 bar</td>
</tr>
<tr>
<td>2</td>
<td>14 - 210 bar</td>
</tr>
</tbody>
</table>

Table 2: Porting

<table>
<thead>
<tr>
<th>Code</th>
<th>Port Threads</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>(\frac{3}{4}'') - 16 UNF 2B ‘O’ Ring</td>
</tr>
<tr>
<td>J</td>
<td>(\frac{1}{2}'') BSP</td>
</tr>
</tbody>
</table>

TYPICAL CHARACTERISTICS

(at one pressure setting)

Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes at 49°C

INSTALLATION DETAILS

Dimensions in millimetres
Manufacturers of Hydraulic Components and Test Equipment for the Mobile, Industrial and Agricultural Industries