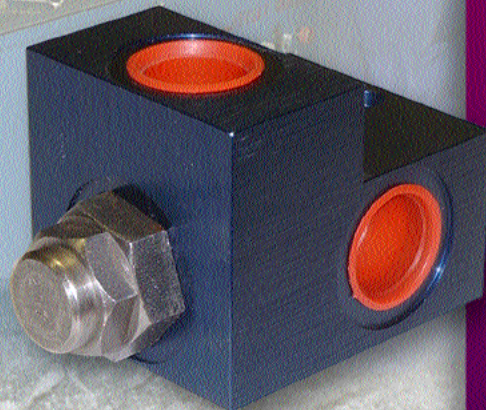


WEBTEC

WEBTEC PRODUCTS LIMITED








Hydraulic Pressure Control Valves



**Quality Hydraulic Components
from the Webtec Range**

Hydraulic Pressure Control Valves

CONTENTS

	DESCRIPTION	PAGE No.
	RV 020 Direct In-Line Relief Valve	1
	RV 025 Pressure Relief Valve	3
	RV 050 Pressure Relief Valve	5
	RV 5 Pressure Relief Valve	7
	RV 125 Pressure Relief Valve	9
	PC 75 Pressure Relief Valve	11
	CLRVP 51 Cross Line Relief Valve	13

RV 020

Direct In-line Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

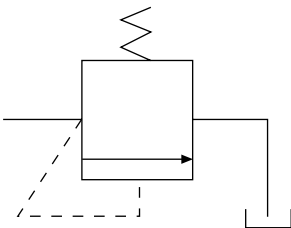
Maximum Flow:
20 lpm

Porting:
see Table 1, ordering codes

Material:
steel components in High Tensile
Aluminium body

Weight:
0.060 kg

Symbol



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

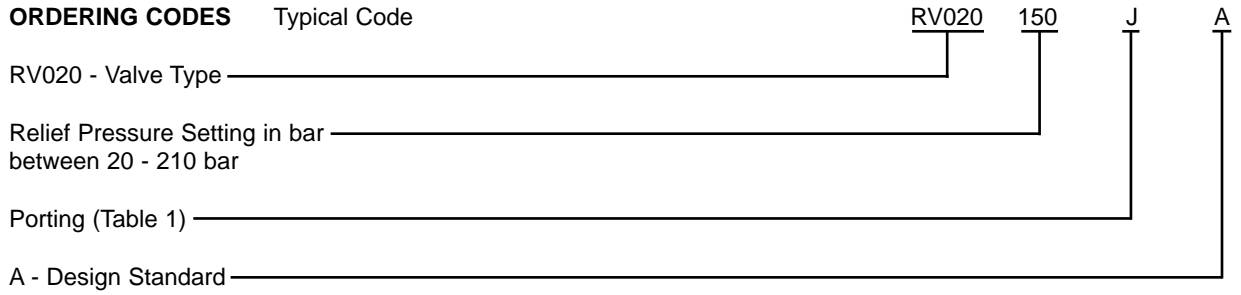
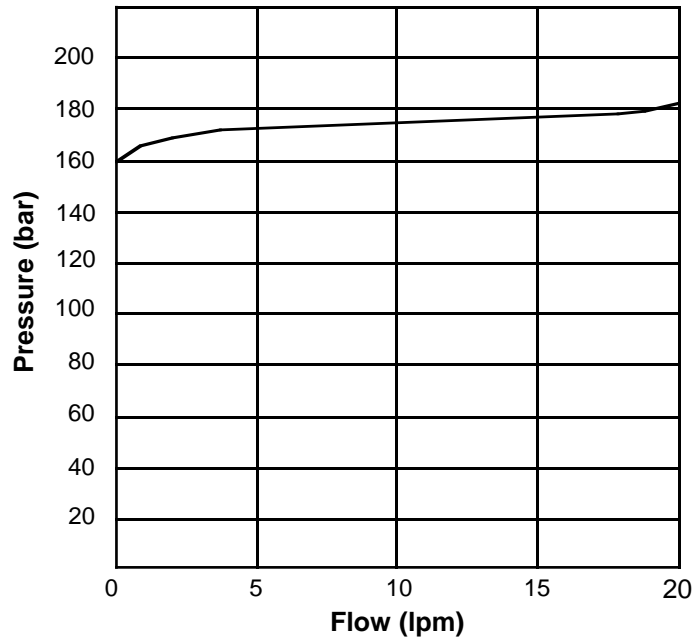


Table 1: Inlet Porting

Code	Port Threads
A	3/8" - 18 NPTF (Only applies for inlet thread)
J	3/8" BSPF (Parallel)

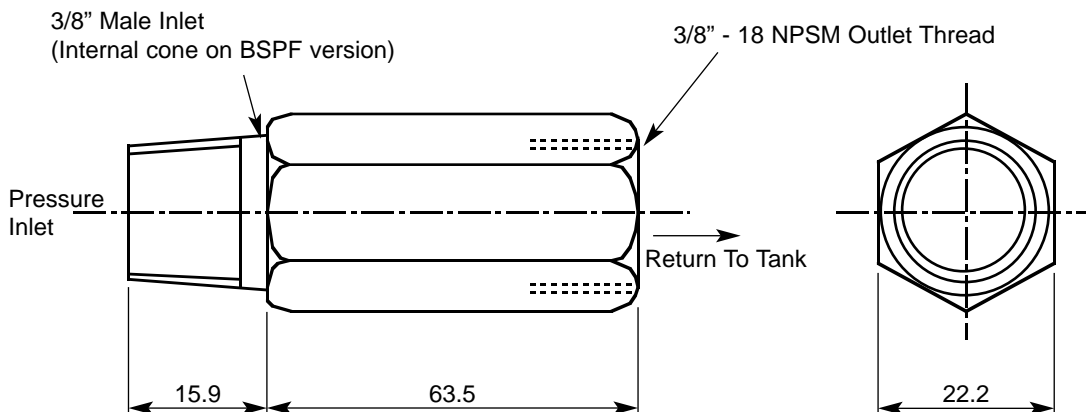
TYPICAL CHARACTERISTICS (at one pressure setting)



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

INSTALLATION DETAILS

Dimensions in millimetres



RV 025

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

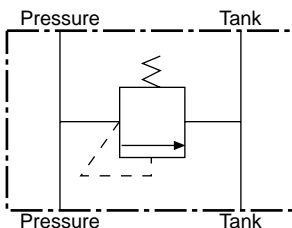
Maximum Flow:
23 lpm

Porting:
see Table 2, ordering codes

Material:
steel components in high tensile
aluminium body

Weight:
0.25 kg

Symbol



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

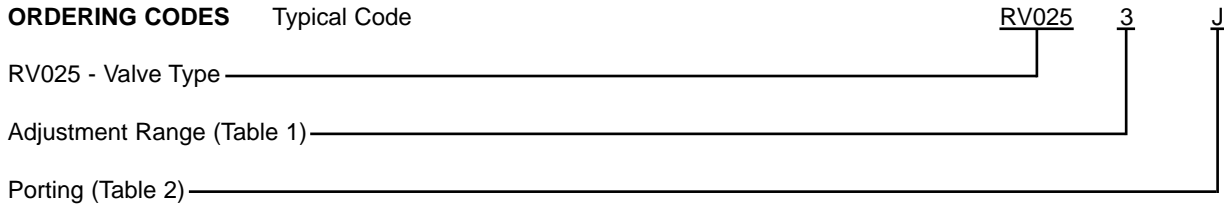


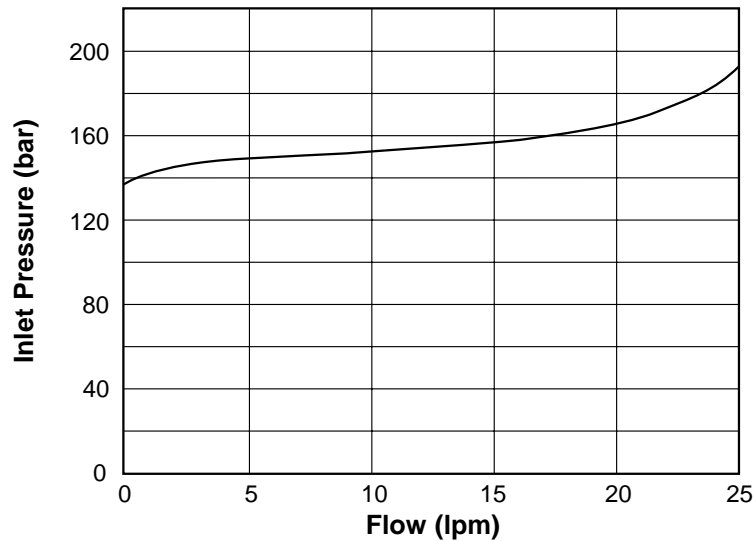
Table 1: Adjustment Range

Code	Range
1	10 - 27 bar
2	27 - 70 bar
3	70 - 103 bar
4	103 - 180 bar
5	180 - 210 bar

Table 2: Porting

Code	Port Threads
I	9/16" - 18 UNF
J	3/8" BSP

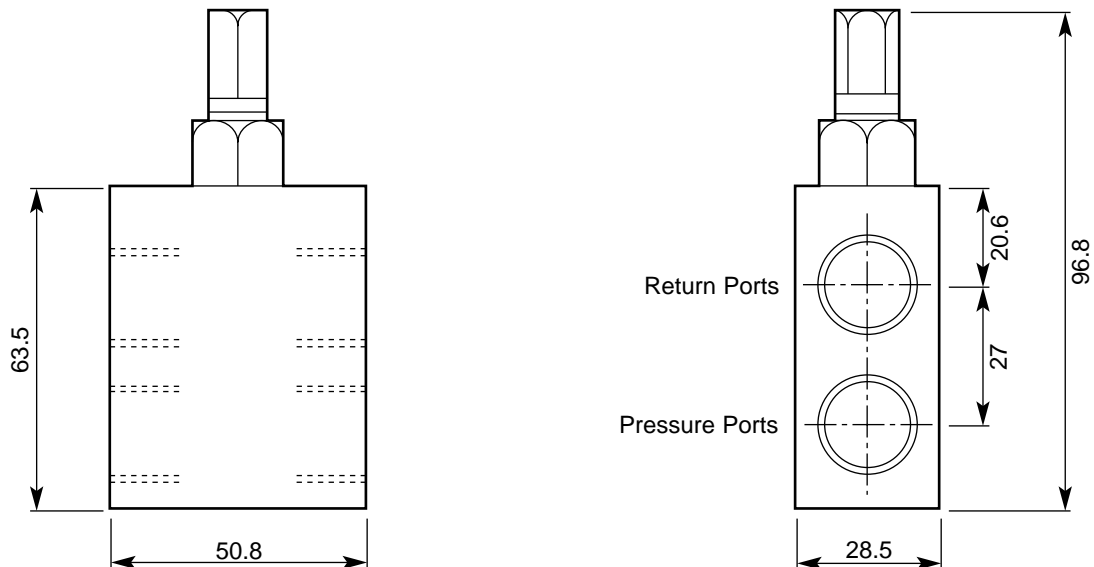
TYPICAL CHARACTERISTICS (at one Pressure settings)



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

INSTALLATION DETAILS

Dimensions in millimetres



RV 050

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

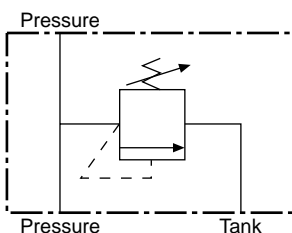
Maximum Flow:
50 lpm

Porting:
see Table 2, ordering codes

Material:
steel components in high tensile aluminium body

Weight:
0.5 kg

Symbol



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

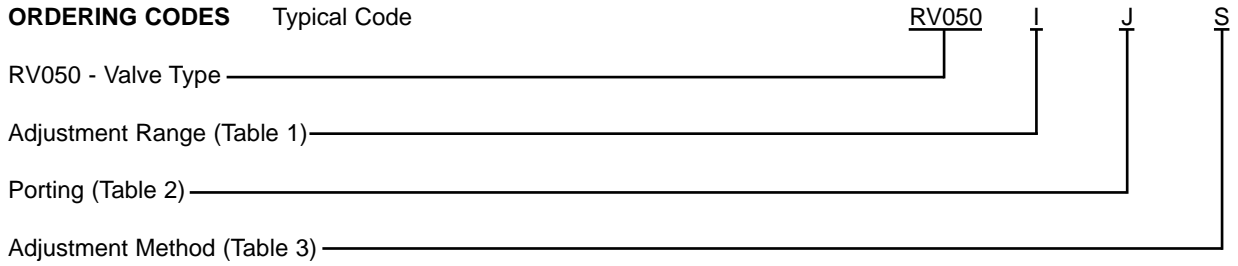


Table 1: Adjustment Range

Code	Port Threads
1	10 - 103 bar
2	14 - 210 bar

Table 2: Porting

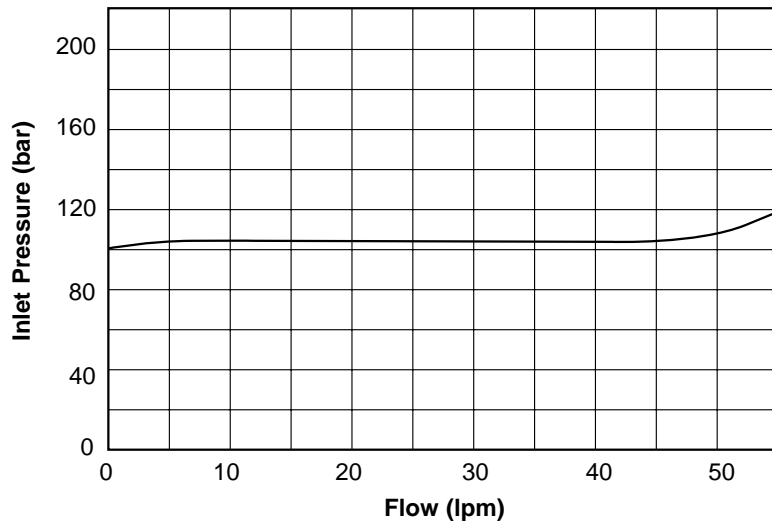
Code	Port Thread
I	3/4" - 16 UNF
J	1/2" BSP

Table 3: Adjustment Method

Code	Adjustment
S	Screwdriver
K	Knob

TYPICAL CHARACTERISTICS

(at one Pressure Setting)

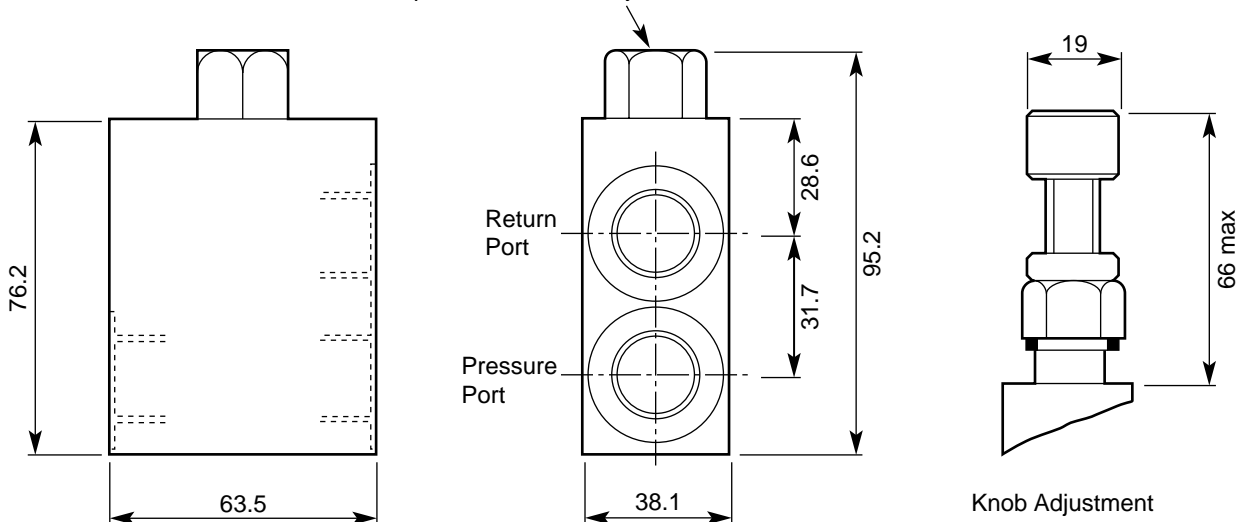


Curve established using hydraulic mineral oil with viscosity of 27.4 centistokes 49°C

INSTALLATION DETAILS

Dimensions in Millimetres

Remove cap for screwdriver adjustment



RV 5

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

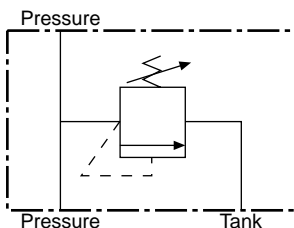
Maximum Flow:
70 lpm

Porting:
3/4" BSP

Material:
steel cartridge in high tensile
aluminium body.

Weight:
0.75 kg

Symbol



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 Typical Code

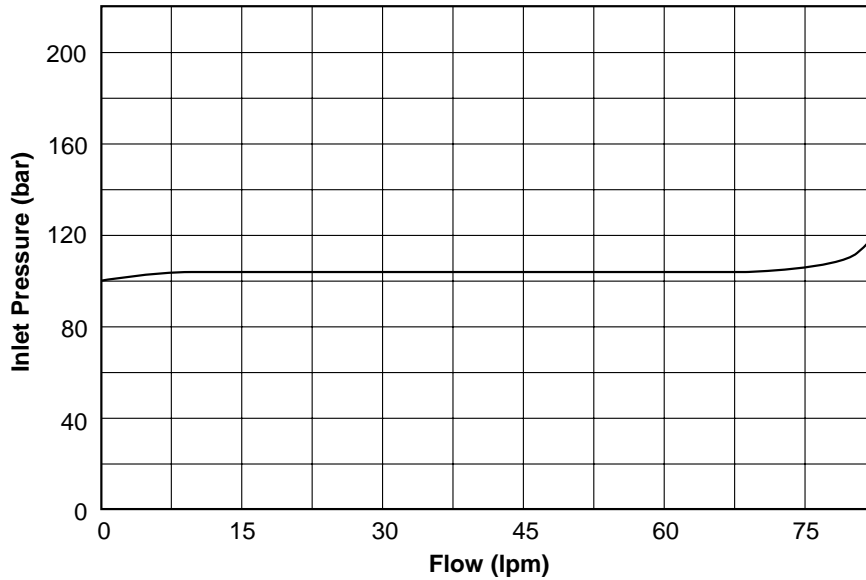
RV5 - Valve Type

Pressure Setting in bar
between 100 - 276 bar

RV5

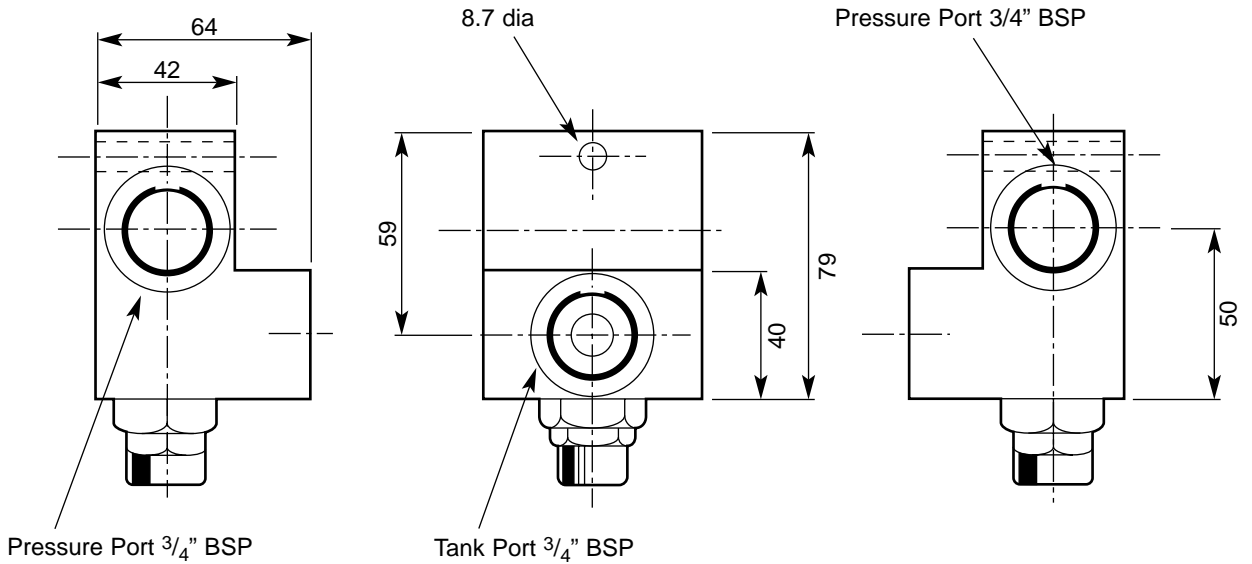
120

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



RV 125

Pressure Relief Valve

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

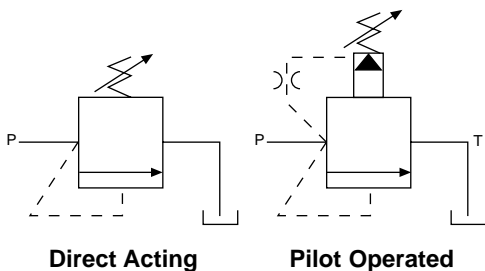
Maximum Flow:
125 lpm

Porting:
see Table 2, ordering codes

Material:
steel components in high tensile aluminium body.

Weight:
1.05 kg

Symbol



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

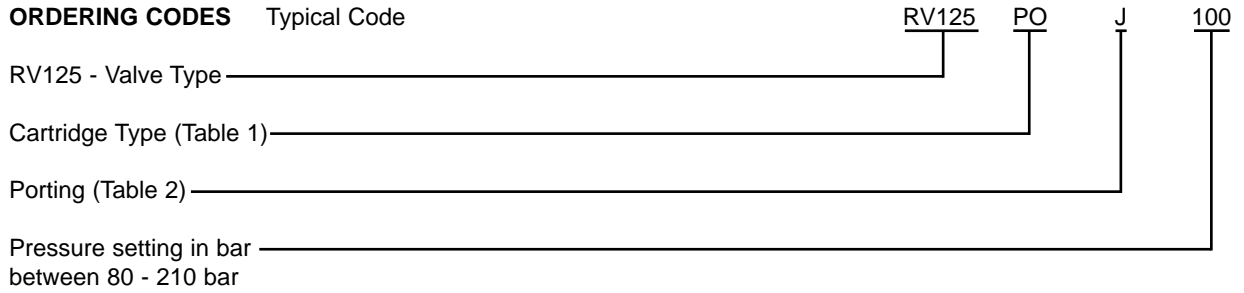


Table 1: Cartridge Type

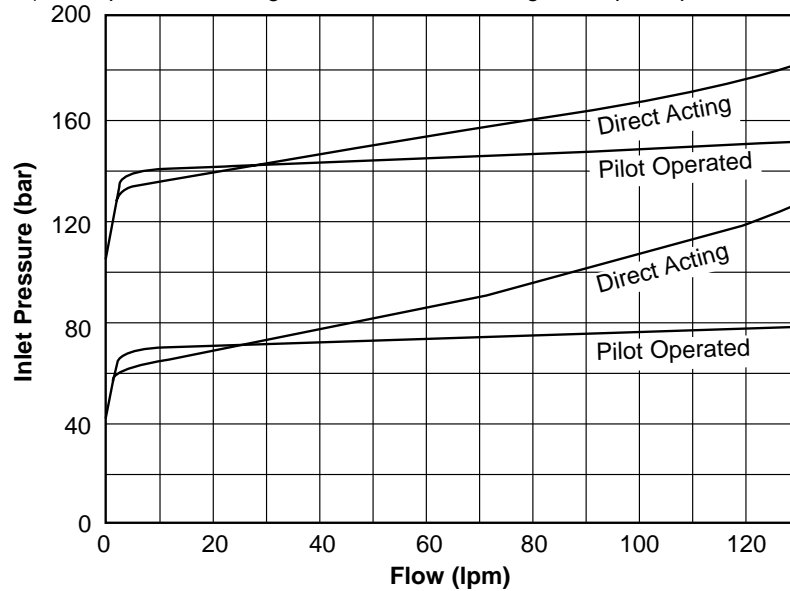
Code	Description
PO	Pilot Operated Cartridge
DA	Direct Acting Cartridge

Table 2: Porting

Code	Description
J	3/4" BSP
G	1 1/16" - 12 UNF (No 12 SAE 'O'Ring Ports)

TYPICAL CHARACTERISTICS

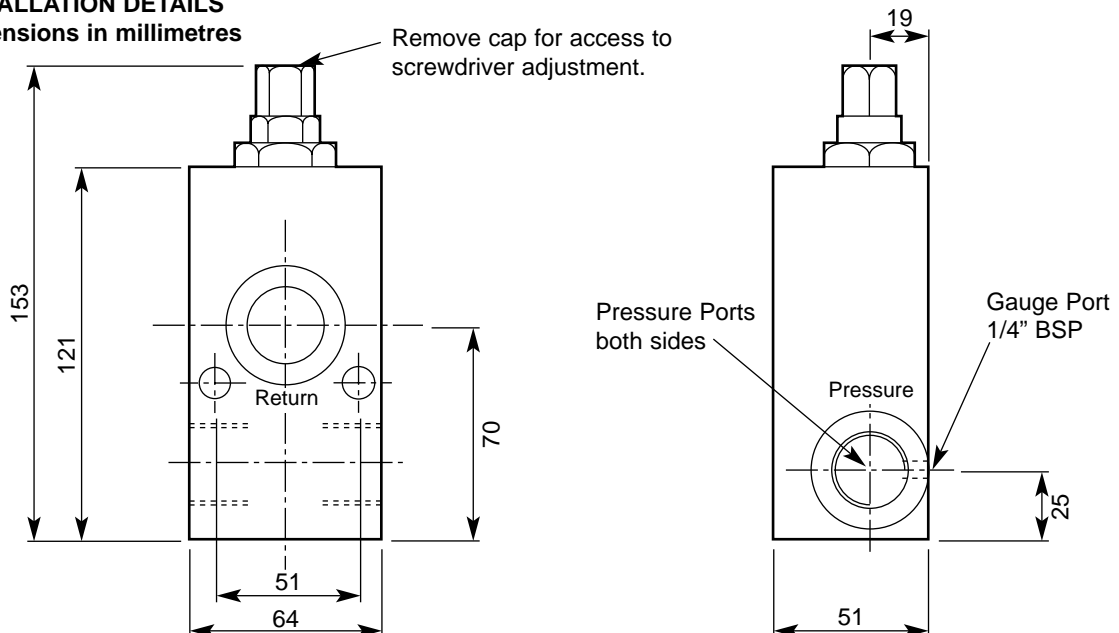
(at two pressure settings for both a direct acting and a pilot operated cartridge)



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

INSTALLATION DETAILS

Dimensions in millimetres



PC 75

Pressure Relief Valve Pilot Operated

PRESSURE RELIEF VALVES limit the maximum working pressure of a hydraulic system to a pre-determined 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

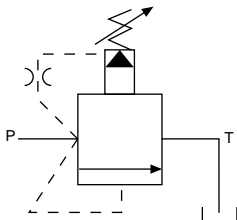
Weight:

3.5 kg

Solenoid Voltage:

see Table 3, ordering codes
(solenoid optional)

Symbol



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

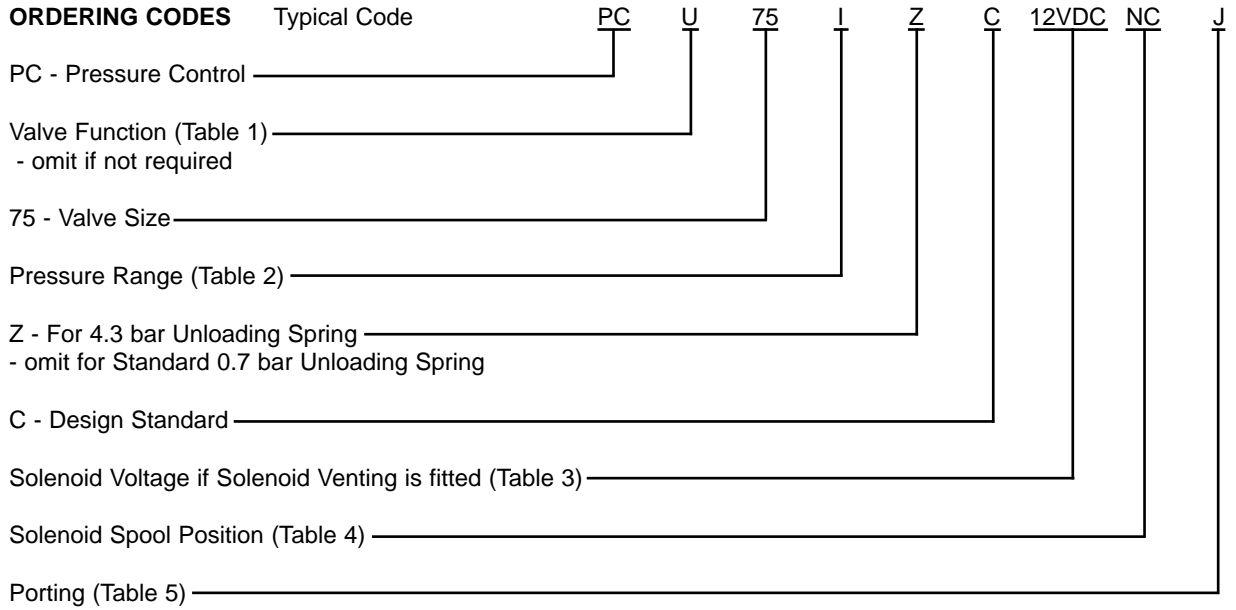


Table 1: Valve Functions

Code	Description
U	Pressure Unloading
V	Solenoid Vent

Table 3: Solenoid Voltage

Code and Voltage
12 VDC
24 VDC

Table 2: Pressure Range

Code	Description
06	5 - 40 bar
1	2 - 69 bar
2	35 - 138 bar
3	104 - 207 bar

Table 4: Solenoid Spool Position

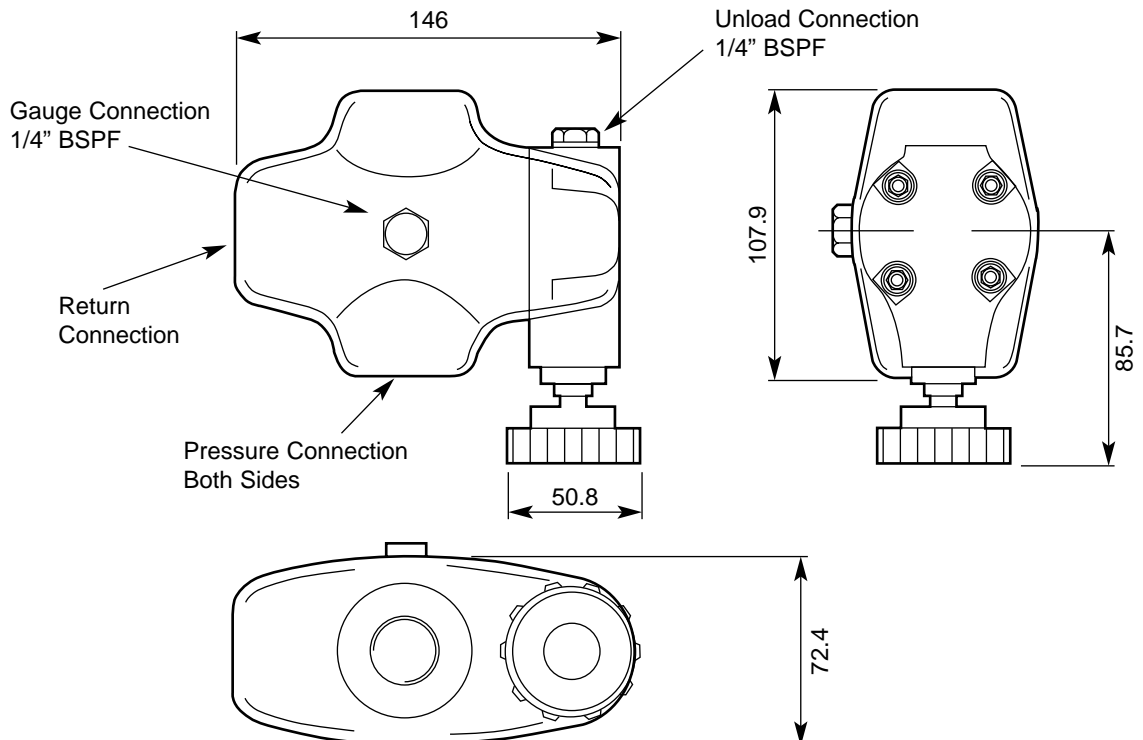
Code	Position
NC	Normally Closed
NO	Normally Open

Table 5: Porting

Code	Port Thread
J	3/4" BSP
G	1 - 1/16 - 12 SAE

INSTALLATION DETAILS

Dimensions in millimetres



CLRVP 51

Cross Line Relief Valve

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

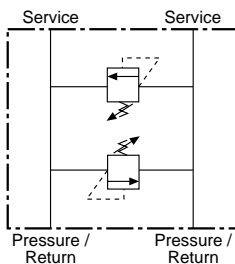
Weight:

2.8 kg

Mounting:

2 bolt

Symbol



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 Typical Code

CLRVP51 - Valve Type

Adjustment Range (Table 1)

Porting (Table 2)

CLRVP51

I

J

Table 1: Adjustment Range

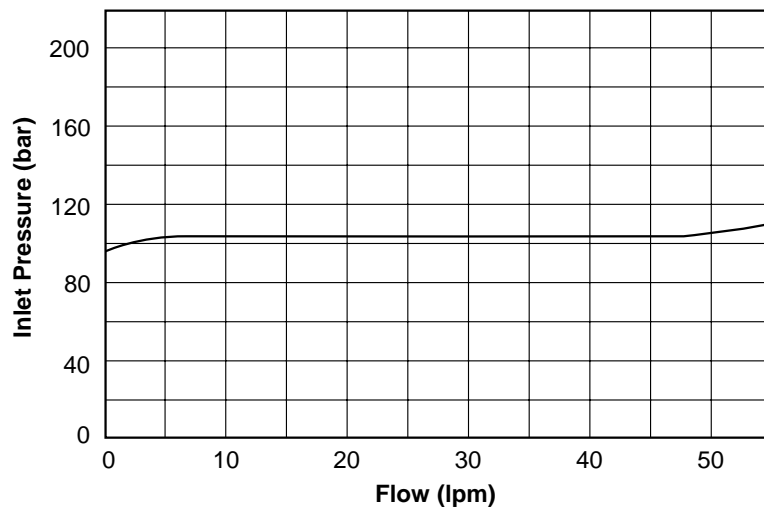
Code	Range
1	10 - 103 bar
2	14 - 210 bar

Table 2: Porting

Code	Port Threads
G	3/4" - 16 UNF 2B '0' Ring
J	1/2" BSP

TYPICAL CHARACTERISTICS

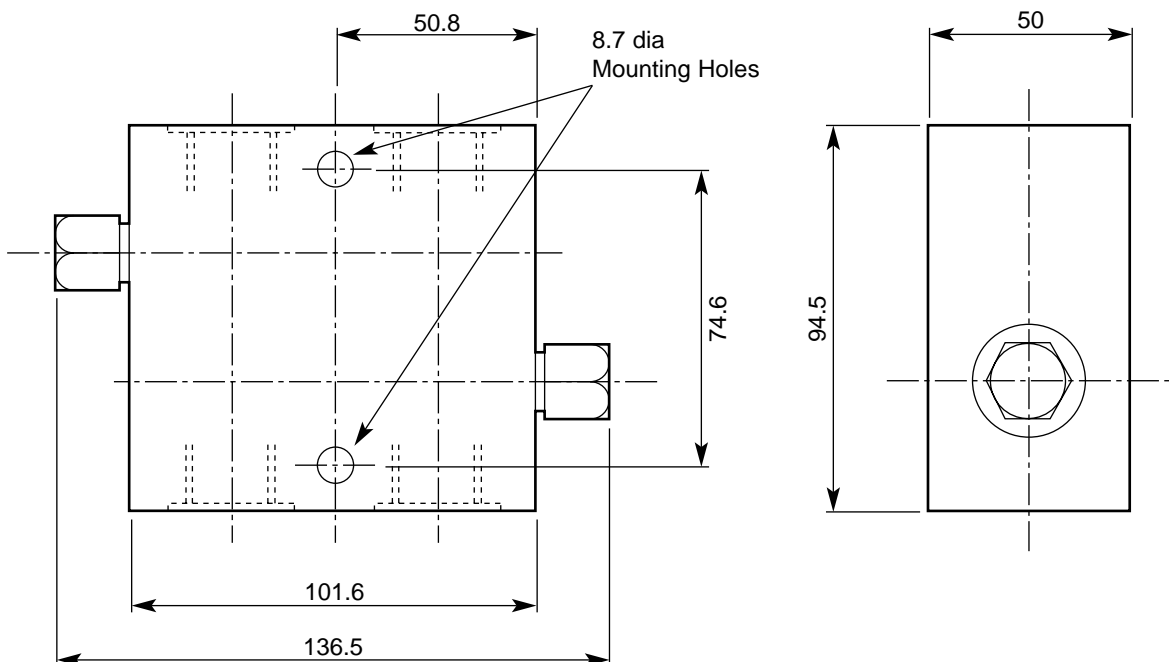
(at one pressure setting)



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



Your Webtec Products representative:



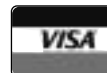
WEBTEC PRODUCTS LIMITED

Nuffield Road, St. Ives, Cambridgeshire, PE27 3LZ, UK
Tel: +44(0)1480 397400 Fax: +44(0)1480 466555

E-mail: sales@webtec.co.uk
See us at: www.webtec.co.uk



Certificate No.8242



Webtec Products Limited reserve the right to make improvements and changes to the specification without notice.