

Pressure Control, Reducing/Relieving Cartridges

Powered by Sun QuickPrint, your on-demand, customized catalogue solution.

This information is subject to change without notice. Visit <u>www.sunhydraulics.com</u> for complete and up to date information.



Table of Contents

PRDF	Electro-proportional, direct-acting, pressure r transition (740 Series)	educing/relieving valve with open
PRDG	Electro-proportional, direct-acting, pressure r Series)	educing/relieving valve (740
PPBB	Pilot-operated, pressure reducing/relieving valve	
PPDB	Pilot-operated, pressure reducing/relieving valve	4
PPDF	Pilot-operated, pressure reducing/relieving va orifice	alve with drilled piston
PPFB	Pilot-operated, pressure reducing/relieving valve	6
PPFF	Pilot-operated, pressure reducing/relieving va orifice	alve with drilled piston
PPHB	Pilot-operated, pressure reducing/relieving valve	
PPHF	Pilot-operated, pressure reducing/relieving va orifice	alve with drilled piston
PPJB	Pilot-operated, pressure reducing/relieving valve	10
PPJF	Pilot-operated, pressure reducing/relieving va orifice	alve with drilled piston1
PPFC	Air-controlled, pilot-operated, pressure reduc valve	ing/relieving12
PPHC	Air-controlled, pilot-operated, pressure reduc valve	ing/relieving13
PPJC	Air-controlled, pilot-operated, pressure reduc valve	ing/relieving14
PRDB	Direct-acting, pressure reducing/relieving valve	19
PRFB	Direct-acting, pressure reducing/relieving valve	10
PRHB	Direct-acting, pressure reducing/relieving valve	17
PRJB	Direct-acting, pressure reducing/relieving valve	18
PRBC	Direct-acting, pressure reducing/relieving valtransition	ve with open19
PRDC	Direct-acting, pressure reducing/relieving valtransition	ve with open20
PVDA	Pilot-operated, pressure reducing/relieving va 4	alve with drain to port2
PVFA	Pilot-operated, pressure reducing/relieving va	alve with drain to port22
PVHA	Pilot-operated, pressure reducing/relieving va	alve with drain to port23



Table of Contents

PVJA	Pilot-operated, pressure reducing/relieving valve with drain to port4	24
PVDB	Ventable, pilot-operated, pressure reducing/relieving valve	25
PVFB	Ventable, pilot-operated, pressure reducing/relieving ualve	26
PVHB	Ventable, pilot-operated, pressure reducing/relieving valve	27
PVJB	Ventable, pilot-operated, pressure reducing/relievingvalve	28
PSDB	Direct-acting, pressure reducing/relieving valve with drain to port4	29
PSFB	Direct-acting, pressure reducing/relieving valve with drain to port4	30
PSHB	Direct-acting, pressure reducing/relieving valve with drain to port4	31
PSDT	Direct-acting, pressure reducing/relieving main stage piloted from port4	32
PSFT	Direct-acting, pressure reducing/relieving main stage piloted from port4	33
PSHT	Direct-acting, pressure reducing/relieving main stage piloted from port4	34
PSJT	Direct-acting, pressure reducing/relieving main stage piloted from port4	35
PRDP	Electro-proportional, direct-acting, pressure reducing/relieving valve	37
PRDN	Electro-proportional, direct-acting, pressure reducing/relieving valve, high pressure setting with no command	38
PRDL	Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition	40
PRDM	Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition - high pressure setting with no command	41
PPDB8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity	42
PPDF8	Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity	43
PPFB8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity	44
PPFF8	Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity	45
PPHB8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity	46
PPHF8	Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity	47
PPJB8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity	48



Table of Contents

PPJF8	Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity	49
PPDL8	Pilot-operated, pressure reducing/relieving main stage with open transition and integral T-8A control cavity	50
PVDA8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4	51
PVFA8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4	52
PVHA8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4	53
PVHL8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4	54
PVJA8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4	55
PSDP	Electro-proportional, direct-acting, pressure reducing/relieving valve with drain to port 4	56
PSDL	Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition and drain to port 4	57
PRBB	Direct-acting, pressure reducing/relieving valve	58
PVDC8	Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity, drilled piston orifice, and drain to port 4	59
PVDD	Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice	60
PVFD	Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice	61
PVHD	Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice	62
PVJD	Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice	63



Cavity Information

Series	Ports	Cavities
Series Z Cartridges	3-Port	T-382A
3/8-24 UNF Cartridge Thread		
5 mm Valve Hex Size		
1 - 14 Nm Valve Installation Torque		
Series P Cartridges	2-Port	T-8A
M16 Cartridge Thread	2-Port (Deep)	T-8DP
22.2 mm Valve Hex Size	3-Port	T-9A
27 - 33 Nm Valve Installation Torque		
Series 0 Cartridges	2-Port	T-162A
	2-Port (Deep)	T-162DP
M16 Cartridge Thread 19,1 mm Valve Hex Size	3-Port	T-150A
25,4 mm Valve Hex Size	3-Port	T-163A
27 - 33 Nm Valve Installation Torque	4-Port	T-30A
Series 1 Cartridges	2-Port	T-10A
M20 Cartridge Thread	2-Port	T-13A
vi20 Carmage Thread 22.2 mm Valve Hex Size	3-Port	T-11A
11 - 47 Nm Valve Installation Torque	4-Port	T-21A
The state of the s	4-Port	T-31A
	6-Port	T-61A
Series 2 Cartridges	2-Port	T-3A
I"-14 UNS Cartridge Thread	2-Port	T-5A
28,6 mm Valve Hex Size	3-Port	T-2A
1 - 68 Nm Valve Installation Torque	4-Port 4-Port	T-22A
	4-Port (Dual path)	T-32A T-52AD
	6-Port	T-52AD T-52A
	6-Port	T-62A
Series 3 Cartridges	2-Port	T-16A
•	3-Port	T-17A
M36 Cartridge Thread 31,8 mm Valve Hex Size	4-Port	T-23A
203 - 217 Nm Valve Installation Torque	4-Port	T-33A
2	4-Port (Dual path)	T-53AD
	6-Port	T-53A
	6-Port	T-63A
Series 4 Cartridges	2-Port	T-18A
M48 Cartridge Thread	2-Port (Undercut)	T-18AU
11,3 mm Valve Hex Size	3-Port	T-19A T-19AU
174 - 508 Nm Valve Installation Torque	3-Port (Undercut) 4-Port	T-19AU T-24A
	4-Port (Undercut)	T-24A T-24AU
	4-Port	T-34A
	4-Port (Dual path)	T-54AD
	6-Port	T-54A
	6-Port	T-64A

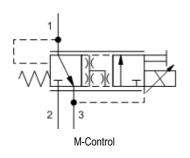


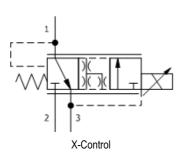


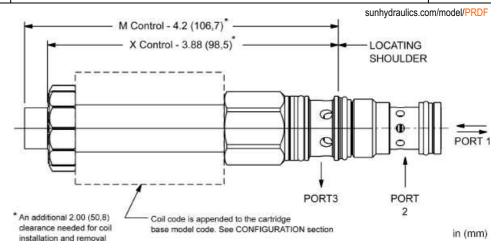
Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition (740 Series)

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A









This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is open in the transition from reducing to relieving. It provides good pressure control and dynamic response. Optional full manual control is available.

This valve is designed to be used with 740 and 747 Series coils.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	550 cc/min.
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990611006

NOTES

- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
- An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

CONFIGURATION OPTIONS

Model Code Example: PRDFMDN

CONTROL (M) OPERATING RANGE (D) SEAL MATERIAL (N) COIL *

M Manual Override (Standard)

X No Manual Override

D 50 - 485 psi (3.5 - 33.5 bar) **B** 100 - 1125 psi (7 - 77,5 bar)

N Buna-N

V Viton

E 25 - 250 psi (1,7 - 18 bar)

S 10 - 100 psi (0,7 - 7 bar)

* Additional coil options are available

© 2020 Sun Hydraulics 1 of 63

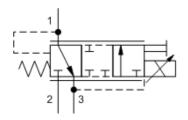


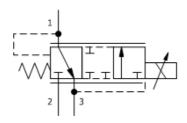


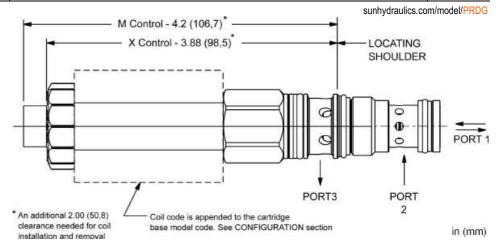
Electro-proportional, direct-acting, pressure reducing/relieving valve (740 Series)

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A









This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is closed in the transition between reducing and relieving resulting in very low consumption of oil. Optional full manual control is available.

This valve is designed to be used with 740 and 747 Series coils.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990511006

NOTES

- Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.
- An additional 2.00 inches (50,8 mm) beyond the valve extension is needed for coil installation and removal.

CONFIGURATION OPTIONS

Model Code Example: PRDGMDN

CONTROL (M) OPERATING RANGE (D) SEAL MATERIAL (N) COIL*

M Manual Override (Standard)X No Manual Override

D 50 - 485 psi (3,5 - 33,5 bar) **B** 100 - 1125 psi (7 - 77,5 bar) N Buna-N
V Viton

INO COII

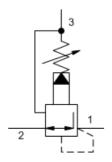
B 100 - 1125 psi (/ - //,5 bar) **V** Viton *Additional coil options are available **E** 25 - 250 psi (1,7 - 18 bar)

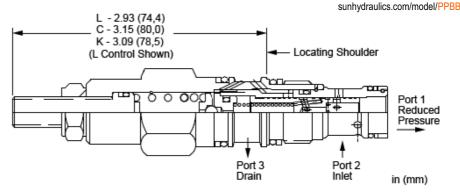
© 2020 Sun Hydraulics 2 of 63

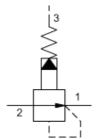
Pilot-operated, pressure reducing/relieving valve

CAPACITY: 20 L/min. / CAVITY: T-163A









Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	12,7 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	EPDM: 990163014
Seal kit - Cartridge	Polyurethane: 990163002
Seal kit - Cartridge	Viton: 990163006

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar)inlet pressure **NOTES**

CONFIGURATION OPTIONS

Model Code Example: PPBBLAN

E EPDM

V Viton

(L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING CONTROL

- C Tamper Resistant Factory Set
- K Handknob

75 - 3000 psi (5 - 210 bar), 200 psi (14 bar) Standard Setting

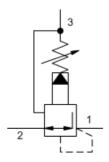
- 75 1500 psi (5 105 bar), 200 psi (14 bar) Standard Setting
- N 75 800 psi (5 55 bar), 200 psi (14 bar) Standard Setting
- Q 75 400 psi (5 28 bar), 200 psi (14 bar) Standard Setting
- **W** 100 4500 psi (7 315 bar), 200 psi (14
- bar) Standard Setting

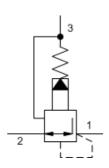
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

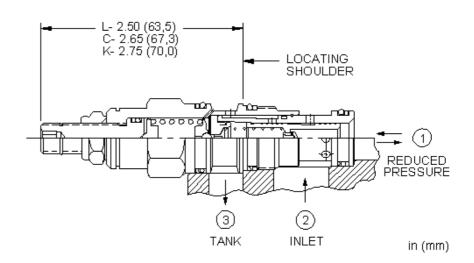
© 2020 Sun Hydraulics 3 of 63



sunhydraulics.com/model/PPDB







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

- Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar)inlet pressure
- For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PPDBLAN

	L	Standard	Screw A	Adjustmen	t
--	---	----------	---------	-----------	---

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

Y Tri-Grip Handknob

A 100 - 3000 psi (7 - 210 bar), 200 psi (14

(L) ADJUSTMENT RANGE

- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **N** 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- **Q** 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting

V Viton

(A) SEAL MATERIAL

na-N on Standard Material/Coating

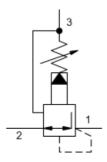
(N) MATERIAL/COATING

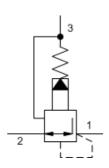
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

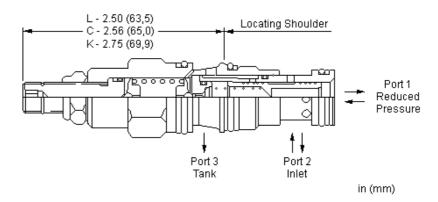
© 2020 Sun Hydraulics 4 of 63



sunhydraulics.com/model/PPDF







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PPDFLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) N Buna-N

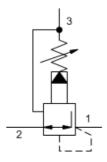
- L Standard Screw Adjustment C Tamper Resistant - Factory Set
- K Handknob
- Y Tri-Grip Handknob
- 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- N 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- **Q** 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting
- W 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

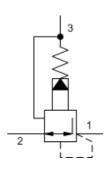
V Viton

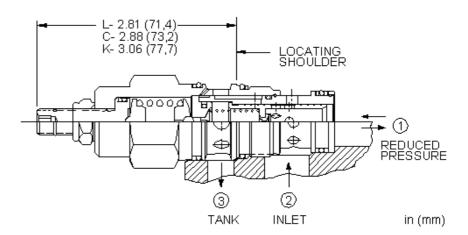
© 2020 Sun Hydraulics 5 of 63



sunhydraulics.com/model/PPFB







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES

- Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar)inlet pressure
- For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PPFBLAN

I Standa	rd Screw	Adjustment	

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

- M Capped Screw Adjustment with Lockwire Holes
- Q Capped and Lockwired
- W Hex Wrench Adjustment
- Y Tri-Grip Handknob

(L) ADJUSTMENT RANGE 100 - 3000 psi (7 - 210 bar), 200 psi (14

- bar) Standard Setting W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **N** 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- Q 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting

(A) SEAL MATERIAL N Buna-N

E EPDM

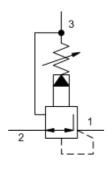
V Viton

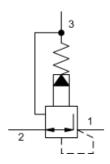
(N) MATERIAL/COATING

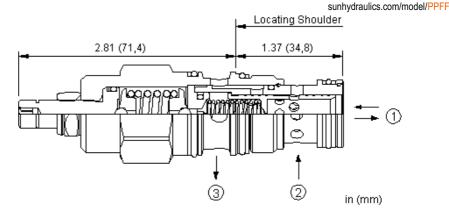
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

© 2020 Sun Hydraulics 6 of 63









Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PPFFLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL

Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

- A 100 3000 psi (7 210 bar), 200 psi (1 bar) Standard Setting
 B 50 1500 psi (3,5 105 bar), 200 psi
- (14 bar) Standard Setting **N** 60 - 800 psi (4 - 55 bar), 200 psi (14
- bar) Standard Setting **Q** 60 - 400 psi (4 - 28 bar), 200 psi (14
- bar) Standard Setting

 W 100 5000 psi (7 350 bar) 200 psi (7
- **W** 100 5000 psi (7 350 bar), 200 psi (14 bar) Standard Setting

V Viton

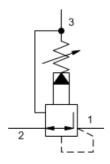
N Buna-N

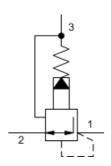
© 2020 Sun Hydraulics 7 of 63

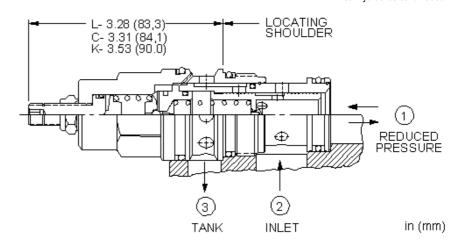
Pilot-operated, pressure reducing/relieving valve SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A



sunhydraulics.com/model/PPHB







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar)inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PPHBLAN

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

Y Tri-Grip Handknob

100 - 3000 psi (7 - 210 bar), 200 psi (1bar) Standard Setting

(L) ADJUSTMENT RANGE

- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- 150 6000 psi (10,5 420 bar), 200 psi (14 bar) Standard Setting
- N 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- bar) Standard Setting

N Buna-N **E** EPDM V Viton

(A) SEAL MATERIAL

/AP Stainless Steel, Passivated

/LH Mild Steel, Zinc-Nickel

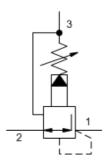
(N) MATERIAL/COATING

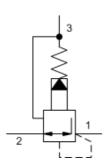
Q 60 - 400 psi (4 - 28 bar), 200 psi (14

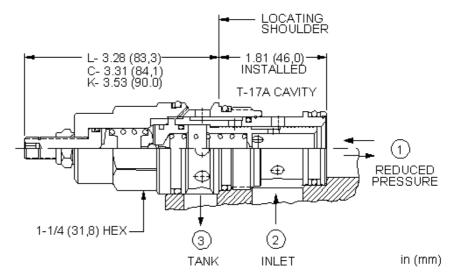
© 2020 Sun Hydraulics 8 of 63



sunhydraulics.com/model/PPHF







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

(N)

CONFIGURATION OPTIONS

Model Code Example: PPHFLAN

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

Q Capped and Lockwired

A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting

B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting

(L) ADJUSTMENT RANGE

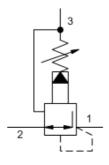
- **C** 150 6000 psi (10,5 420 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **H** 30 3000 psi (2 210 bar), 200 psi (14 bar) Standard Setting
- **N** 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- **Q** 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

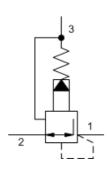
ii (14 N Buna-N V Viton

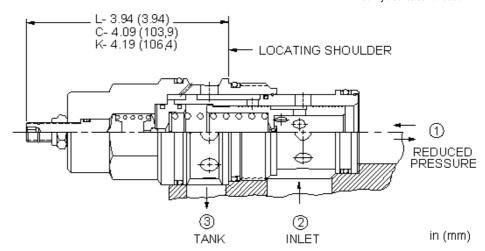
© 2020 Sun Hydraulics 9 of 63



sunhydraulics.com/model/PPJB







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) N and Q are 2000 psi (140 bar) W is 5000 psi (350 bar)inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PPJBLAN

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

- W Hex Wrench Adjustment
- Y Tri-Grip Handknob

100 - 3000 psi (7 - 210 bar), 200 psi (1 bar) Standard Setting

(L) ADJUSTMENT RANGE

- W 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting
- 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting

E EPDM V Viton

(A) SEAL MATERIAL

(N) MATERIAL/COATING

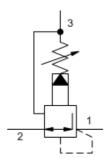
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

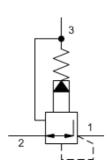
	,
Q	60 - 400 psi (4 - 28 bar), 200 psi (14
	bar) Standard Setting

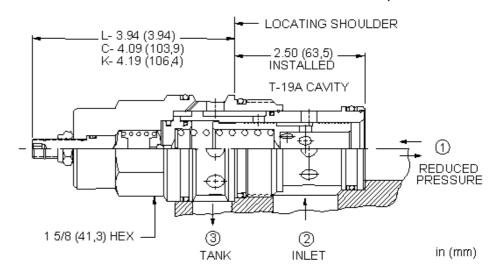
© 2020 Sun Hydraulics 10 of 63



sunhydraulics.com/model/PPJF







Pilot-operated, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

(N)

CONFIGURATION OPTIONS

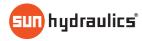
Model Code Example: PPJFLAN

(L) ADJUSTMENT RANGE CONTROL (A) SEAL MATERIAL L Standard Screw Adjustment A 100 - 3000 psi (7 - 210 bar), 200 psi (14

- C Tamper Resistant Factory Set
- K Handknob
- bar) Standard Setting 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- H 30 3000 psi (2 210 bar), 200 psi (14 bar) Standard Setting
- N 60 800 psi (4 55 bar), 200 psi (14 bar) Standard Setting
- Q 60 400 psi (4 28 bar), 200 psi (14 bar) Standard Setting
- W 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N Viton

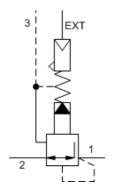
© 2020 Sun Hydraulics 11 of 63



SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-2A

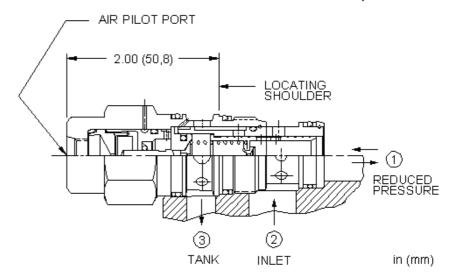


sunhydraulics.com/model/PPFC



MODEL

PPFC



Air-controlled, pilot-operated pressure reducing/relieving valves use compressed air over a diaphragm instead of an adjustable spring to control the setting. These valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The air signal is supplied through a port in the hex-end of the cartridge and the hydraulic setting is directly proportional to the air setting at a ratio of 20:1 (hydraulic:air).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	20:1
Maximum Operating Pressure	140 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Maximum Air Pressure	10,5 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: PPFCABN

CONTROL	(A)	OPERATING RANGE	(B)	SEAL MATERIAL	(N)
A External 1/4 NPTF Port		B 50 - 1500 psi (3,5 - 105 bar)		N Buna-N	
				V Viton	

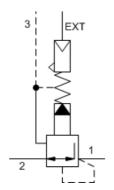
© 2020 Sun Hydraulics 12 of 63



SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A

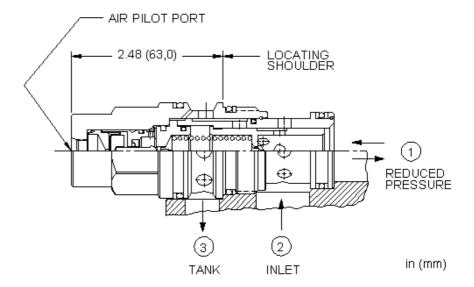


sunhydraulics.com/model/PPHC



MODEL

PPHC



Air-controlled, pilot-operated pressure reducing/relieving valves use compressed air over a diaphragm instead of an adjustable spring to control the setting. These valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The air signal is supplied through a port in the hex-end of the cartridge and the hydraulic setting is directly proportional to the air setting at a ratio of 20:1 (hydraulic:air).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	20:1
Maximum Operating Pressure	140 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Maximum Air Pressure	10,5 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

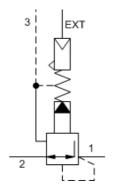
Model Code Example: PPHCBBN

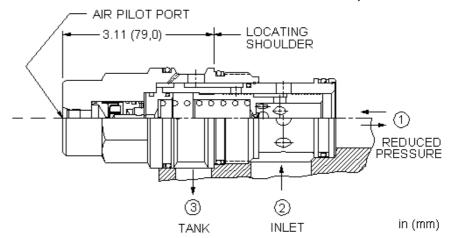
CONTROL	(B)	OPERATING RANGE	(B)	SEAL MATERIAL	(N)
B External 4-SAE Port		B 50 - 1500 psi (3,5 - 105 bar)		N Buna-N	
•				V Viton	

© 2020 Sun Hydraulics 13 of 63



sunhydraulics.com/model/PPJC





Air-controlled, pilot-operated pressure reducing/relieving valves use compressed air over a diaphragm instead of an adjustable spring to control the setting. These valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The air signal is supplied through a port in the hex-end of the cartridge and the hydraulic setting is directly proportional to the air setting at a ratio of 20:1 (hydraulic:air).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Pilot Ratio	20:1
Maximum Operating Pressure	140 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Maximum Air Pressure	10,5 bar
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: PPJCBBN

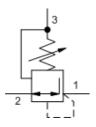
CONTROL	(B)	OPERATING RANGE (E	B)	SEAL MATERIAL	(N)
B External 4-SAE Port		B 50 - 1500 psi (3,5 - 105 bar)		N Buna-N	
				V Viton	

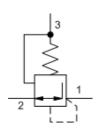
© 2020 Sun Hydraulics 14 of 63

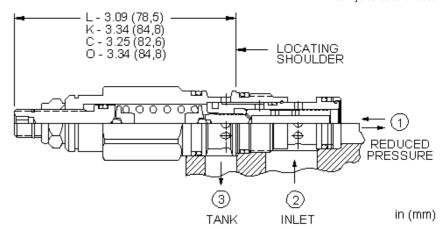
Direct-acting, pressure reducing/relieving valve SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A



sunhydraulics.com/model/PRDB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

CONTROL

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PRDBLAN

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob
- Y Tri-Grip Handknob

500 - 3000 psi (35 - 210 bar), 700 psi (50 bar) Standard Setting

(L) ADJUSTMENT RANGE

- W 750 4500 psi (50 315 bar), 1000 psi (70 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- \$ 25 200 psi (1,7 14 bar), 100 psi (7 bar) Standard Setting

(A) SEAL MATERIAL N Buna-N **E** EPDM

V Viton

Standard Material/Coating

(N) MATERIAL/COATING

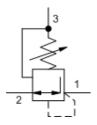
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

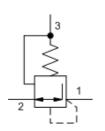
© 2020 Sun Hydraulics 15 of 63

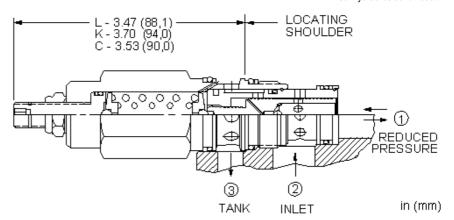
Direct-acting, pressure reducing/relieving valve SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-2A



sunhydraulics.com/model/PRFB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	50 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: PRFBLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

- 750 3000 psi (50 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 300 1500 psi (20 105 bar), 500 psi (35 bar) Standard Setting
- D 200 800 psi (14 55 bar), 400 psi (28 bar) Standard Setting
- E 100 400 psi (7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 50 200 psi (3,5 14 bar), 100 psi (7 bar) Standard Setting
- **W** 1000 4500 psi (70 315 bar), 1000 psi (70 bar) Standard Setting

N Buna-NE EPDMV Viton

/AP Stainless Steel, Passivated
/LH Mild Steel, Zinc-Nickel

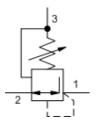
© 2020 Sun Hydraulics 16 of 63

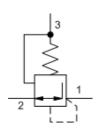
Direct-acting, pressure reducing/relieving valve

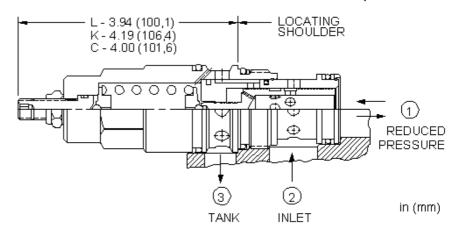
SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A



sunhydraulics.com/model/PRHB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

CONFIGURATION OPTIONS

Model Code Example: PRHBLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

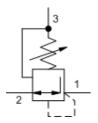
- C Tamper Resistant Factory Set
- K Handknob

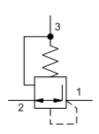
- 750 3000 psi (50 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 300 1500 psi (20 105 bar), 500 psi (35 bar) Standard Setting
- **D** 200 800 psi (14 55 bar), 400 psi (28 bar) Standard Setting
- E 100 400 psi (7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 50 200 psi (3,5 14 bar), 100 psi (7 bar) Standard Setting
- **W** 1100 4500 psi (76 315 bar), 1100 psi (76 bar) Standard Setting
- N Buna-N Standard Material/Coating
 E EPDM /AP Stainless Steel, Passivated
 V Viton /LH Mild Steel, Zinc-Nickel

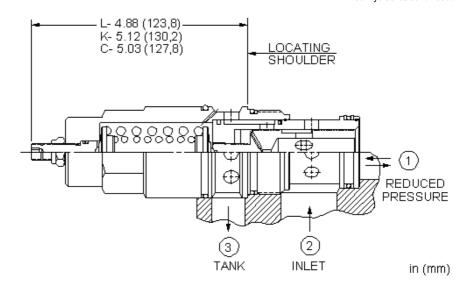
© 2020 Sun Hydraulics 17 of 63



sunhydraulics.com/model/PRJB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	80 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

CONFIGURATION OPTIONS

Model Code Example: PRJBLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- **K** Handknob

- A 750 3000 psi (50 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 300 1500 psi (20 105 bar), 500 psi (35 bar) Standard Setting
- **D** 200 800 psi (14 55 bar), 400 psi (28 bar) Standard Setting
- **E** 100 400 psi (7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 50 200 psi (3,5 14 bar), 100 psi (7 bar) Standard Setting
- **W** 1100 4500 psi (76 315 bar), 1100 psi (76 bar) Standard Setting

N Buna-NE EPDMV Viton

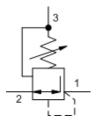
Standard Material/Coating /AP Stainless Steel, Passivated

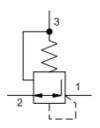
© 2020 Sun Hydraulics 18 of 63

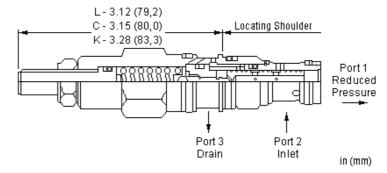
CAPACITY: 20 L/min. / CAVITY: T-163A



sunhydraulics.com/model/PRBC







Direct-acting, pressure reducing valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1. These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure. This valve is open in the transition from reducing to relieving. It provides good pressure control and dynamic response.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	7
Locknut Hex Size	12,7 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

Model Code Example: PRBCLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N)

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

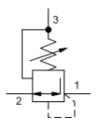
- **A** 500 3000 psi (35 210 bar), 700 psi (50 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 25 200 psi (1,7 14 bar), 100 psi (7 bar) Standard Setting
- **W** 750 4500 psi (50 315 bar), 1000 psi (70 bar) Standard Setting

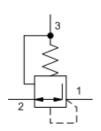
N Buna-N V Viton

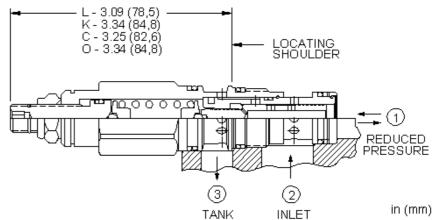
© 2020 Sun Hydraulics 19 of 63



sunhydraulics.com/model/PRDC







Direct-acting, pressure reducing valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1. These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure. This valve is open in the transition from reducing to relieving. It provides good pressure control and dynamic response.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PRDCLAN

L Standard Screw Adjustment

C Tamper Resistant - Factory Set

K Handknob

CONTROL

O Handknob with Panel Mount

A 500 - 3000 psi (35 - 210 bar), 700 psi (50 bar) Standard Setting

(L) ADJUSTMENT RANGE

B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting

D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting

E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting

S 25 - 200 psi (1,7 - 14 bar), 100 psi (7 bar) Standard Setting

W 750 - 4500 psi (50 - 315 bar), 1000 psi (70 bar) Standard Setting

N Buna-N
E EPDM
V Viton

(A) SEAL MATERIAL

Standard Material/Coating
/AP Stainless Steel, Passivated

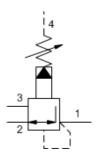
(N) MATERIAL/COATING

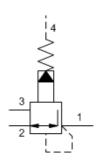
(70 bar) Standard Setting

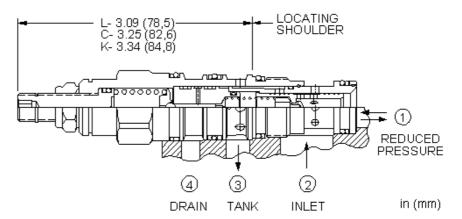
© 2020 Sun Hydraulics 20 of 63



sunhydraulics.com/model/PVDA







Externally drained, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining the pilot section at port 4 makes these valves insensitive to pressure at tank (port 3) and provides a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVDALAN

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

Y Tri-Grip Handknob

(L) ADJUSTMENT RANGE

(A) SEAL MATERIAL

(N) MATERIAL/COATING

A 100 - 3000 psi (7 - 210 bar), 200 psi (14

- bar) Standard Setting

 B 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

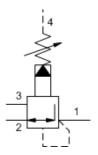
N Buna-N V Viton

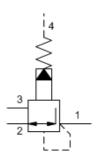
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

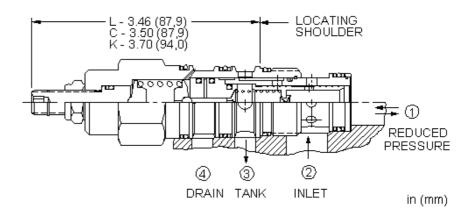
© 2020 Sun Hydraulics 21 of 63



sunhydraulics.com/model/PVFA







Externally drained, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining the pilot section at port 4 makes these valves insensitive to pressure at tank (port 3) and provides a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVFALAN

L Standard Screw Adjustment

C Tamper Resistant - Factory Set

K Handknob

CONTROL

W Hex Wrench Adjustment

Y Tri-Grip Handknob

A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting

B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting

(L) ADJUSTMENT RANGE

D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting

E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting

W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N E EPDM

V Viton

(A) SEAL MATERIAL

Standard Material/Coating /AP Stainless Steel, Passivated

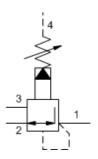
(N) MATERIAL/COATING

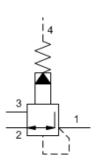
/LH Mild Steel, Zinc-Nickel

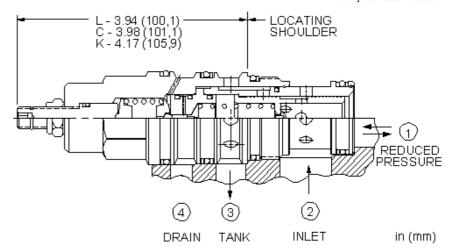
© 2020 Sun Hydraulics 22 of 63



sunhydraulics.com/model/PVHA







Externally drained, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining the pilot section at port 4 makes these valves insensitive to pressure at tank (port 3) and provides a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

NOTES Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVHALAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- **K** Handknob

- A 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-NE EPDMV Viton

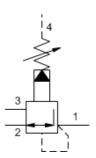
Standard Material/Coating /AP Stainless Steel, Passivated

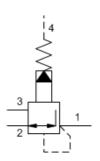
(14 bar) Standard Setting

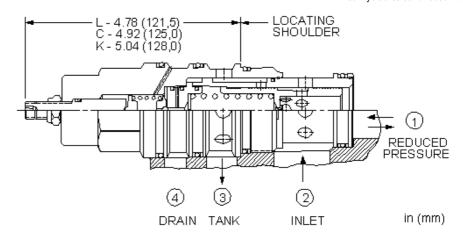
© 2020 Sun Hydraulics 23 of 63



sunhydraulics.com/model/PVJA







Externally drained, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining the pilot section at port 4 makes these valves insensitive to pressure at tank (port 3) and provides a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	EPDM: 990024014
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVJALAN

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

CONTROL

100 - 3000 psi (7 - 210 bar), 200 psi (14

(L) ADJUSTMENT RANGE

- bar) Standard Setting **B** 50 - 1500 psi (3,5 - 105 bar), 200 psi
- (14 bar) Standard Setting **D** 25 - 800 psi (1,7 - 55 bar), 200 psi (14
- bar) Standard Setting E 25 - 400 psi (1,7 - 28 bar), 200 psi (14
- bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N **E** EPDM V Viton

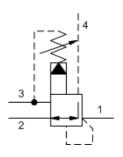
(A) SEAL MATERIAL

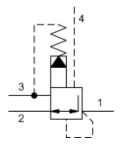
Standard Material/Coating /AP Stainless Steel, Passivated

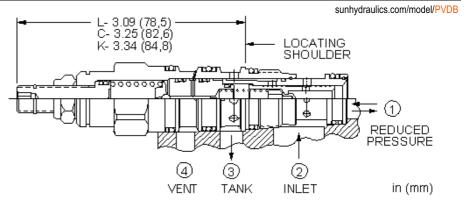
(N) MATERIAL/COATING

© 2020 Sun Hydraulics 24 of 63









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVDBLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

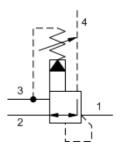
A 100 - 3000 psi (7 - 210 bar), 200 psi (14 N Buna-N bar) Standard Setting V Viton

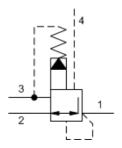
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- 150 6000 psi (10,5 420 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14
- bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

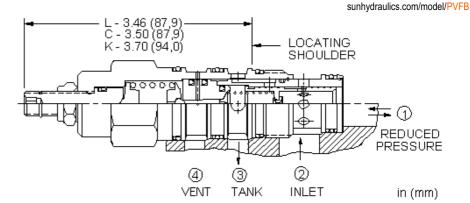
Standard Material/Coating /AP Stainless Steel, Passivated

© 2020 Sun Hydraulics 25 of 63 SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

NOTES

CONTROL

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVFBLAN

bar) Standard Setting

(L) ADJUSTMENT RANGE

A 100 - 3000 psi (7 - 210 bar), 200 psi (14

N Buna-N V Viton

(A) SEAL MATERIAL (N) MATERIAL/COATING

/AP Stainless Steel, Passivated

- C Tamper Resistant Factory Set

K Handknob

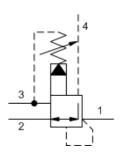
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14
- bar) Standard Setting E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting
- W 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

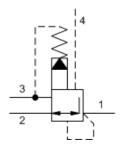
© 2020 Sun Hydraulics

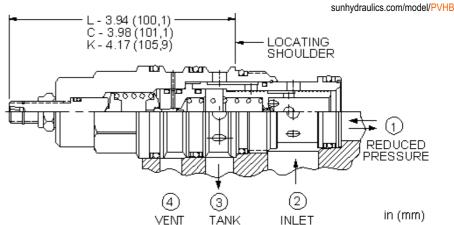
26 of 63

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

NOTES

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVHBLAN

CONTROL (L) ADJUSTMENT RANGE

(A) SEAL MATERIAL

(N) MATERIAL/COATING

L Standard Screw Adjustment

C Tamper Resistant - Factory Set

K Handknob

A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting

B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting

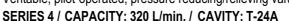
D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting

E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting

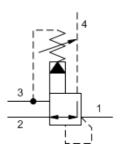
W 150 - 4500 psi (10,5 - 315 bar), 200 psi (14 bar) Standard Setting

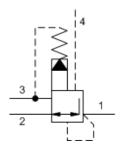
N Buna-N Standard Material/Coating
E EPDM /AP Stainless Steel, Passivated
V Viton /LH Mild Steel, Zinc-Nickel

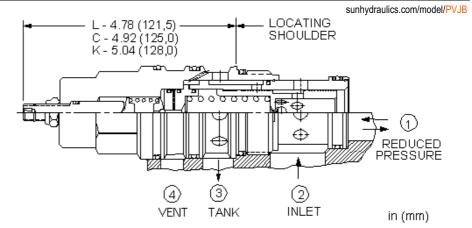
© 2020 Sun Hydraulics 27 of 63











Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

Maximum pressure differentials for spring ranges: A and B are 3000 psi (210 bar) D and E are 2000 psi (140 bar) W is 5000 psi (350 bar) inlet pressure

CONFIGURATION OPTIONS

Model Code Example: PVJBLAN

CONTROL	(L)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N	MATERIAL/COATING
CONTINUE	\ - /	ADOUGHNEHI HANGE	'	OLAL MATERIAL	1	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

NOTES

- 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- W 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N Viton

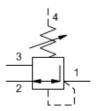
/AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

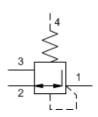
© 2020 Sun Hydraulics 28 of 63 Direct-acting, pressure reducing/relieving valve with drain to port 4

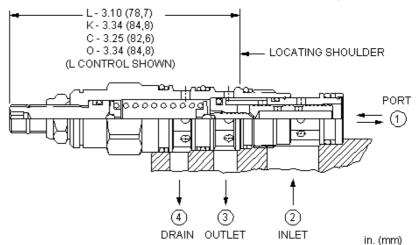
SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-21A



sunhydraulics.com/model/PSDB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining port 4 makes the valve insensitive to pressure at port 3. These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

NOTES

For Series 1 cartridges configured with an O control (panel mount handknob), a .75 in. (19 mm) diameter hole is required in the panel.

CONFIGURATION OPTIONS

Model Code Example: PSDBLAN

CONTROL (L) ADJUSTMENT RANGE (A)

(A) SEAL MATERIAL

Vitor

(N) MATERIAL/COATING

L Standard Screw Adjustment

C Tamper Resistant - Factory Set

K Handknob

O Handknob with Panel Mount

 500 - 3000 psi (35 - 210 bar), 700 psi (50 bar) Standard Setting

B 50 - 1500 psi (3,5 - 105 bar), 200 psi (14 bar) Standard Setting

D 25 - 800 psi (1,7 - 55 bar), 200 psi (14 bar) Standard Setting

E 25 - 400 psi (1,7 - 28 bar), 200 psi (14 bar) Standard Setting

S 25 - 200 psi (1,7 - 14 bar), 100 psi (7 bar) Standard Setting

W 750 - 4500 psi (50 - 315 bar), 1000 psi (70 bar) Standard Setting

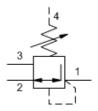
Standard Material/Coatir
/LH Mild Steel, Zinc-Nickel

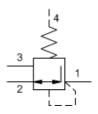
© 2020 Sun Hydraulics 29 of 63

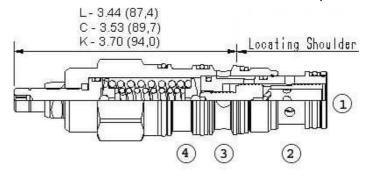
SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A



sunhydraulics.com/model/PSFB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining port 4 makes the valve insensitive to pressure at port 3. These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at 0.25 gpm	
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	50 cc/min.@70 bar
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: PSFBLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N

Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

- **A** 750 3000 psi (50 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 300 1500 psi (20 105 bar), 500 psi (35 bar) Standard Setting
- **D** 200 800 psi (14 55 bar), 400 psi (28 bar) Standard Setting
- E 100 400 psi (7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 50 200 psi (3,5 14 bar), 100 psi (7 bar) Standard Setting

N Buna-N

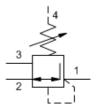
V Viton

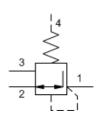
© 2020 Sun Hydraulics 30 of 63

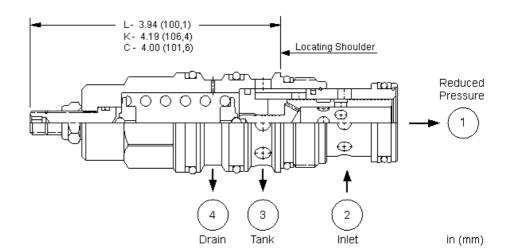
SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A



sunhydraulics.com/model/PSHB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). Draining port 4 makes the valve insensitive to pressure at port 3. These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: PSHBLAN

CONTROL	(L) ADJUSTMENT RANGE	(A) SEAL MATERIAL	(N)
---------	----------------------	-------------------	-----

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

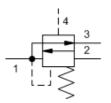
- 750 3000 psi (50 210 bar), 1000 psi (70 bar) Standard Setting
- **B** 300 1500 psi (20 105 bar), 500 psi (35 bar) Standard Setting
- **D** 200 800 psi (14 55 bar), 400 psi (28 bar) Standard Setting
- **E** 100 400 psi (7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 50 200 psi (3,5 14 bar), 100 psi (7 bar) Standard Setting
- **W** 1100 4500 psi (76 315 bar), 1100 psi (76 bar) Standard Setting
- N Buna-N
 E EPDM
- V Viton

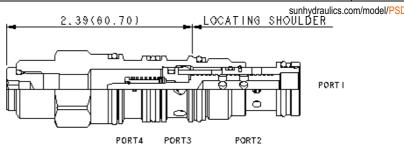
© 2020 Sun Hydraulics 31 of 63

Direct-acting, pressure reducing/relieving main stage piloted from port 4

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-21A







The direct-acting reducer/reliever main section is meant to act as an interface between a low flow pressure source at port 4 and a circuit with higher flow requirements. The valve will reduce a high primary pressure at the inlet (port 2) to a reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

The valve incorporates a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: PSDTXFN

CONTROL	(X) BIAS PRESSURE	(F) SEAL MATERIAL	(N)
X Not Adjustable	F 100 psi (7 bar)	N Buna-N	
		E EPDM	
		V Viton	

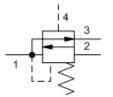
© 2020 Sun Hydraulics 32 of 63

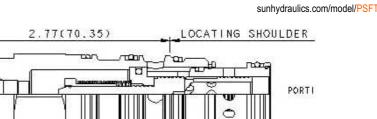
MODEL PSFT

Direct-acting, pressure reducing/relieving main stage piloted from port 4

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A







The direct-acting reducer/reliever main section is meant to act as an interface between a low flow pressure source at port 4 and a circuit with higher flow requirements. The valve will reduce a high primary pressure at the inlet (port 2) to a reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

PORT3

The valve incorporates a damped construction for stable operation allowing the use of high reduced pressure.

PORT4

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

PORT2

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	50 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	EPDM: 990022014
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: PSFTXFN

CONTROL	(X) BIAS PRESSURE	(F) SEAL MATERIAL	(N)
X Not Adjustable	F 100 psi (7 bar)	N Buna-N	
		E EPDM	
		V Viton	

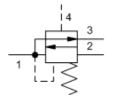
© 2020 Sun Hydraulics 33 of 63

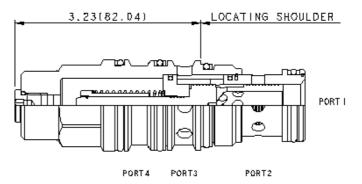
Direct-acting, pressure reducing/relieving main stage piloted from port 4

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A



sunhydraulics.com/model/PSHT





The direct-acting reducer/reliever main section is meant to act as an interface between a low flow pressure source at port 4 and a circuit with higher flow requirements. The valve will reduce a high primary pressure at the inlet (port 2) to a reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

The valve incorporates a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: PSHTXFN

CONTROL	X) BIAS PRESSURE	(F) SEAL MATERIAL	(N)
X Not Adjustable	F 100 psi (7 bar)	N Buna-N	
		E EPDM	
		V Viton	

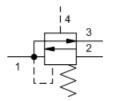
© 2020 Sun Hydraulics 34 of 63

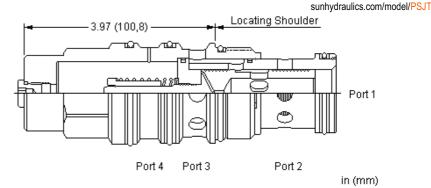


Direct-acting, pressure reducing/relieving main stage piloted from port 4

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-24A







The direct-acting reducer/reliever main section is meant to act as an interface between a low flow pressure source at port 4 and a circuit with higher flow requirements. The valve will reduce a high primary pressure at the inlet (port 2) to a reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3).

The valve incorporates a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	EPDM: 990024014
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: PSJTXFN

CONTROL	(X) BIAS PRESSURE	(F) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	F 100 psi (7 bar)	N Buna-N	Standard Material/Coating
	<u> </u>	E EPDM	/AP Stainless Steel, Passivated
		V Viton	

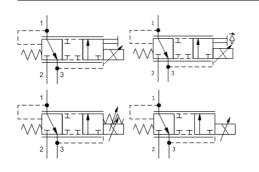
© 2020 Sun Hydraulics 35 of 63

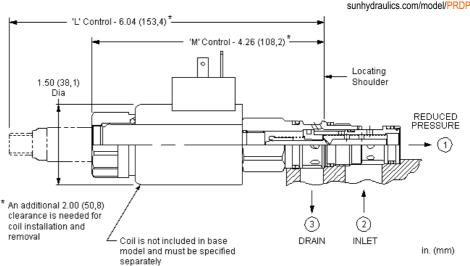


Electro-proportional, direct-acting, pressure reducing/relieving valve

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A







This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is closed in the transition between reducing and relieving resulting in very low consumption of oil. Optional full manual control is available.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990511006

NOTES

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.

CONFIGURATION OPTIONS		Model Co	de Ex	ample: PRDPMDN			
CONTROL	(M)	OPERATING RANGE	(D)	SEAL MATERIAL	(N)	COIL *	
M Manual Override (Standard)		D 50 - 485 psi (3,5 - 33,5 bar)		N Buna-N			No coil
E Twist (Extended) Manual Override		E 25 - 250 psi (1,7 - 18 bar)		E EPDM		212	DIN 43650-Form A, 12 VDC
L Standard Screw Adjustment		B 100 - 1125 psi (7 - 77,5 bar)		V Viton		224	DIN 43650-Form A, 24 VDC
X No Manual Override						224NX0	1 DIN 43650-Form A, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver
						224NX0	2 DIN 43650-Form A, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-02

912NX01 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver 912NX02 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-02 driver Deutsch DT04-2P, 24 VDC 924 924NX01 Deutsch DT04-2P, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver

Deutsch DT04-2P, 12 VDC

driver

912

924NX02 Deutsch DT04-2P, 24 VDC, no transient voltage suppression

© 2020 Sun Hydraulics 36 of 63

(TVS) diodes, with XMD-02 driver

* Additional coil options are available

© 2020 Sun Hydraulics 37 of 63

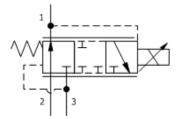


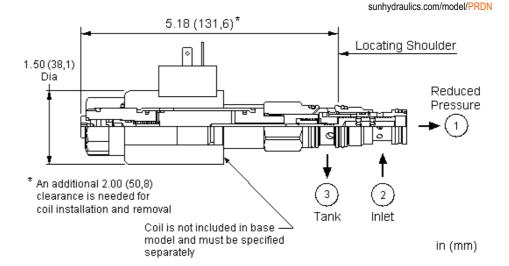


Electro-proportional, direct-acting, pressure reducing/relieving valve, high pressure setting with no command

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A







This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the reducing mode, connecting port 2 to port 1 at a customer specified pressure setting. Increasing the current to the coil will proportionally decrease the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is closed in the transition between reducing and relieving resulting in very low consumption of oil.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990511006

CONFIGURATION OPTIONS

Model Code Example: PRDNXDN

CONTROL	(X)	ADJUSTMENT RANGE	(D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		D 400 - 200 psi (14 - 28 bar)		N Runa-N		No coil

B 1000 - 400 psi (28 - 70 bar) E 200 - 100 psi (7 - 14 bar) V Viton

No coll 212 DIN 43650-Form A, 12 VDC 224 DIN 43650-Form A, 24 VDC 912 Deutsch DT04-2P, 12 VDC 924 Deutsch DT04-2P, 24 VDC

* Additional coil options are available

© 2020 Sun Hydraulics 38 of 63

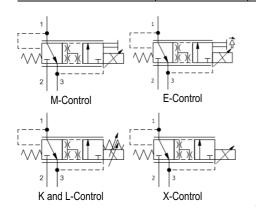


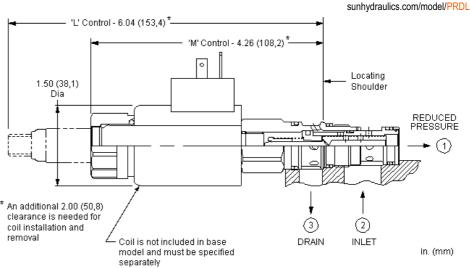
MODEL **PRDL**

Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A







This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is open in the transition from reducing to relieving. It provides good pressure control and dynamic response. Optional full manual control is available.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990511006

NOTES

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.

CONFIGURATION OPTIONS Model Code Example: PRDLMDN									
CONTROL	(M)	OPERATING RANGE	(D)	S	EAL MATERIAL		(N)	COIL *	
M Manual Override (Standard)		D 50 - 485 psi (3,5 - 33,5 bar)		Ì	N Buna-N				No coil
E Twist (Extended) Manual Override		E 25 - 250 psi (1,7 - 18 bar)		E	EPDM			212	DIN 43650-Form A, 12 VDC
L Standard Screw Adjustment		B 100 - 1125 psi (7 - 77,5 bar)		١	/ Viton			224	DIN 43650-Form A, 24 VDC
X No Manual Override		S 10 - 100 psi (0,7 - 7 bar)							1 DIN 43650-Form A, 24 VDC, no transient voltage suppression (TVS) diodes, with XMD-01 driver 2 DIN 43650-Form A, 24 VDC, no
								224NAU	transient voltage suppression (TVS) diodes, with XMD-02 driver

driver 912NX02 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-02 driver Deutsch DT04-2P, 24 VDC 924 924NX01 Deutsch DT04-2P, 24 VDC, no transient voltage suppression

Deutsch DT04-2P, 12 VDC 912NX01 Deutsch DT04-2P, 12 VDC, no transient voltage suppression (TVS) diodes, with XMD-01

912

(TVS) diodes, with XMD-01 driver 924NX02 Deutsch DT04-2P, 24 VDC, no

transient voltage suppression

© 2020 Sun Hydraulics 39 of 63

(TVS) diodes, with XMD-02 driver

* Additional coil options are available

© 2020 Sun Hydraulics 40 of 63

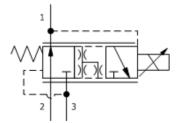


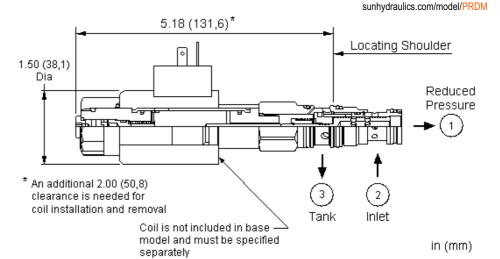


Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition - high pressure setting with no command

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A







This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the reducing mode, connecting port 2 to port 1 at a customer specified pressure setting. Increasing the current to the coil will proportionally decrease the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. This valve is open in the transition from reducing to relieving. It provides good pressure control and dynamic response.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Seal kit - Cartridge	Buna: 990511007
Seal kit - Cartridge	Viton: 990511006

CONFIGURATION OPTIONS

Model Code Example: PRDMXDN

CONTROL	(X)	ADJUSTMENT RANGE	(D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		D 400 - 200 psi (14 - 28 bar)		N Buna-N		No

D 400 - 200 psi (14 - 28 bar)

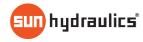
B 1000 - 400 psi (28 - 70 bar) E 200 - 100 psi (7 - 14 bar) **S** 100 - 10 psi (0,7 - 7 bar)

V Viton

212 DIN 43650-Form A, 12 VDC 224 DIN 43650-Form A, 24 VDC 912 Deutsch DT04-2P, 12 VDC 924 Deutsch DT04-2P, 24 VDC

* Additional coil options are available

© 2020 Sun Hydraulics 41 of 63

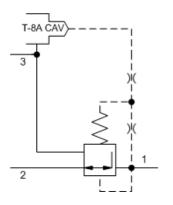


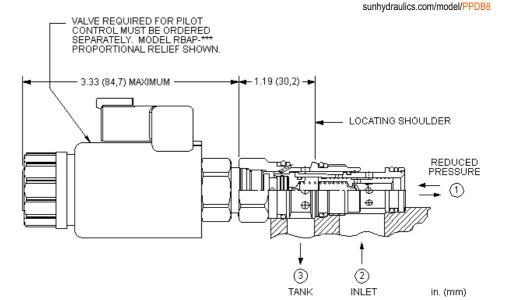
MODEL PPDB8

Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPDB8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N)

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N V Viton

© 2020 Sun Hydraulics 42 of 63

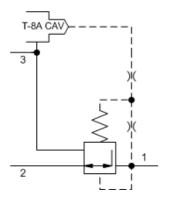


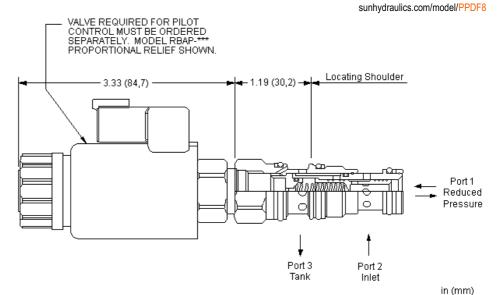


Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPDF8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N V Viton

© 2020 Sun Hydraulics 43 of 63

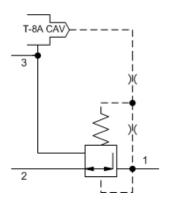


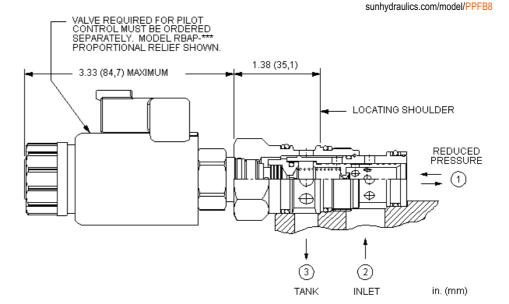


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-2A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	EPDM: 990202014
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPFB8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N) MATERIAL/COATING

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-NE EPDMV Viton

Standard Material/Coating

/AP Stainless Steel, Passivated

© 2020 Sun Hydraulics 44 of 63

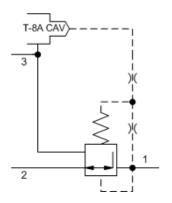


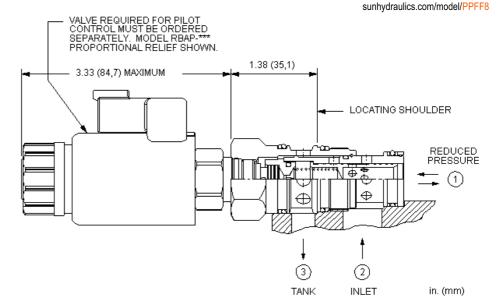


Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-2A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

CONFIGURATION OPTIONS

Model Code Example: PPFF8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N
V Viton

© 2020 Sun Hydraulics 45 of 63

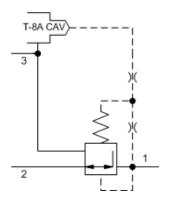


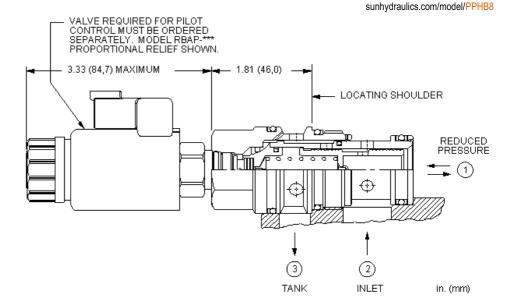


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPHB8WN

(N)

W 100 poi /7 bor)

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

E EPDM

D 25 psi (1,7 bar)

V Viton

© 2020 Sun Hydraulics 46 of 63

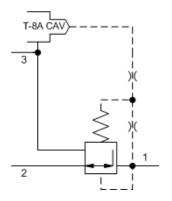


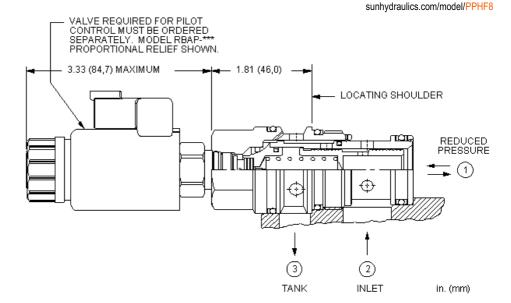


Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-17A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPHF8WN

W 100 psi (7 bar) **D** 25 psi (1,7 bar)

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

V Viton

© 2020 Sun Hydraulics 47 of 63

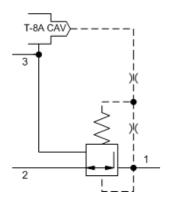


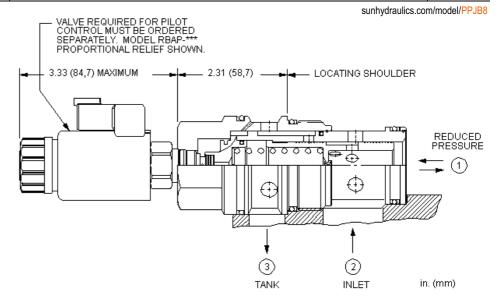


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPJB8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N)

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N
V Viton

© 2020 Sun Hydraulics 48 of 63

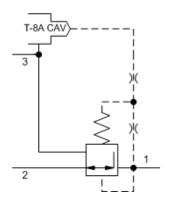


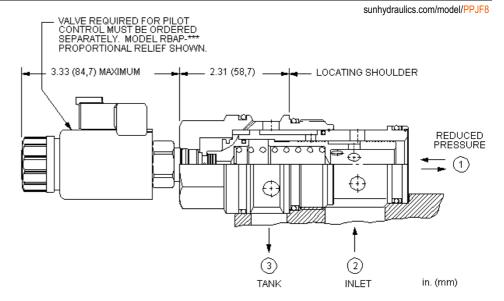


Pilot-operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPJF8WN

W 100 psi (7 bar)

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N)

D 25 psi (1,7 bar)

N Buna-N
V Viton

© 2020 Sun Hydraulics 49 of 63

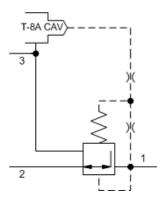


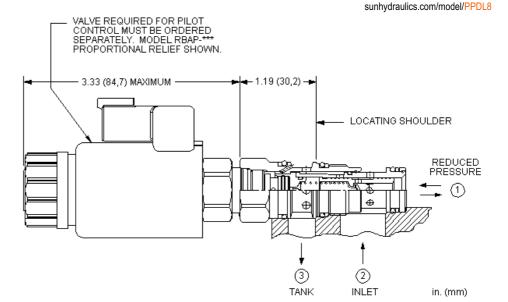


Pilot-operated, pressure reducing/relieving main stage with open transition and integral T-8A control cavity

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A







This valve is a 3-way, normally open modulating element that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the tank (port 3).

This valve is open in the transition from reducing to relieving which provides good pressure control and dynamic response at the expense of higher pilot flow in the deadheaded condition.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,40 - 0,50 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PPDL8WN

MINIMUM CONTROL PRESSURE (W)

SEAL MATERIAL

W 150 psi (10,5 bar)
D 100 psi (7 bar)

N Buna-N E EPDM

V Viton

© 2020 Sun Hydraulics 50 of 63

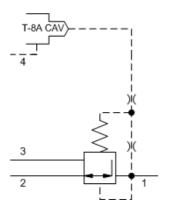


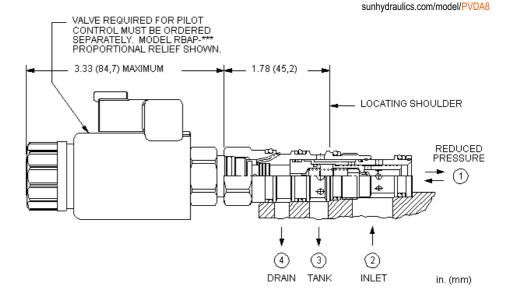
MODEL PVDA8

Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-21A







This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Control Pilot Flow	0,11 - 0,16 L/min.	
Pilot Control Cavity	T-8A	
Seal kit - Cartridge	Buna: 990021007	
Seal kit - Cartridge	Polyurethane: 990021002	
Seal kit - Cartridge	Viton: 990021006	

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PVDA8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(1

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N
V Viton

© 2020 Sun Hydraulics 51 of 63

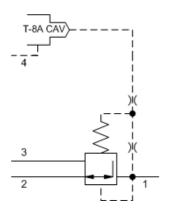


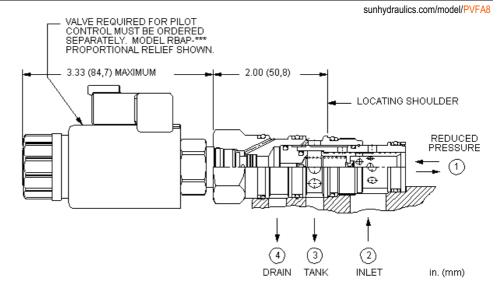


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A







This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Control Pilot Flow	0,16 - 0,25 L/min.	
Pilot Control Cavity	T-8A	
Seal kit - Cartridge	Buna: 990022007	
Seal kit - Cartridge	Polyurethane: 990022002	
Seal kit - Cartridge	Viton: 990022006	

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

Model Code Example: PVFA8WN

W 100 psi (7 bar)

N Buna-N

D 25 psi (1,7 bar)

E EPDMV Viton

© 2020 Sun Hydraulics 52 of 63

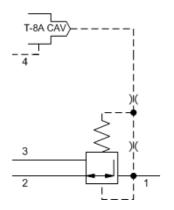


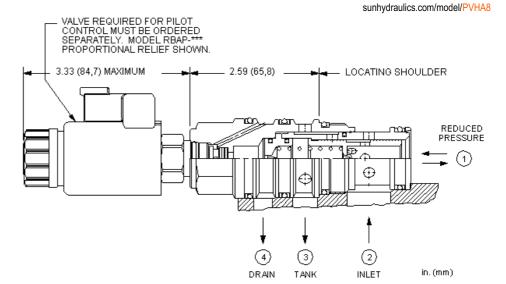


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A







This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PVHA8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N)

W 100 psi (7 bar)
D 25 psi (1,7 bar)

N Buna-N
E EPDM
V Viton

© 2020 Sun Hydraulics 53 of 63



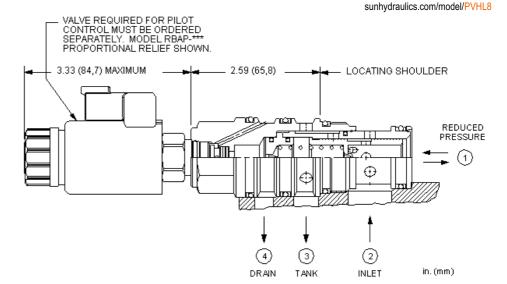


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A



T-8A CAV



This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

This valve is open in the transition from reducing to relieving which provides good pressure control and dynamic response at the expense of higher pilot flow in the deadheaded condition.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,40 - 0,50 L/min.
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PVHL8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

W 150 psi (10,5 bar)

N Buna-N **E** EPDM

D 100 psi (7 bar) V Viton

© 2020 Sun Hydraulics 54 of 63

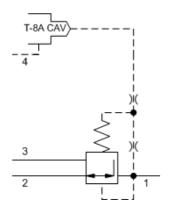


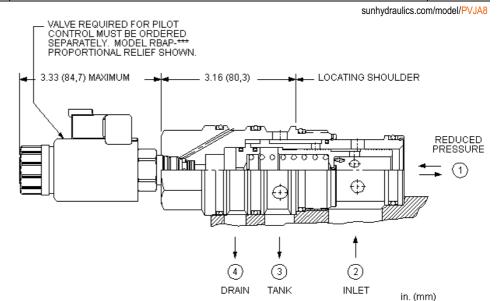


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity and drain to port 4

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-24A







This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

NOTES

Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: PVJA8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

(N)

W 100 psi (7 bar)

N Buna-N

D 25 psi (1,7 bar)

E EPDM

V Viton

© 2020 Sun Hydraulics 55 of 63

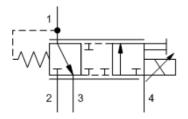


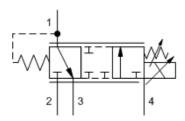


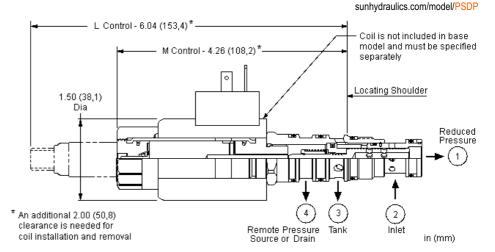
Electro-proportional, direct-acting, pressure reducing/relieving valve with drain to port 4

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-21A









This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. Draining port 4 makes the valve insensitive to pressure at port 3. This valve is closed in the transition between reducing and relieving resulting in very low consumption of oil. Optional full manual control is available.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

* Additional coil options are available

Maximum Operating Pressure 350 bar			
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.		
Optimum Inlet Pressure	210 bar		
Adjustment - No. of CW Turns from Min. to Max. setting	5		
Locknut Hex Size	15 mm		
Locknut Torque	9 - 10 Nm		
Seal kit - Cartridge	Buna: 990021007		
Seal kit - Cartridge	Polyurethane: 990021002		
Seal kit - Cartridge	Viton: 990021006		

NOTES

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.

CONFIGURATION OPTIONS

Model Code Example: PSDPMDN

CONTROL	(M)	OPERATING RANGE	(D)	SEAL MATERIAL	(N)	COIL *	
M Manual Override (Standard)		D 50 - 485 psi (3,5 - 33,5 bar)		N Buna-N		No coil	
L Standard Screw Adjustment		B 100 - 1125 psi (7 - 77,5 bar)		V Viton		212 DIN 43650-Form A, 12 VDC	
		E 25 - 250 psi (1,7 - 18 bar)				224 DIN 43650-Form A, 24 VDC	
						912 Deutsch DT04-2P, 12 VDC	
						924 Deutsch DT04-2P, 24 VDC	

© 2020 Sun Hydraulics 56 of 63

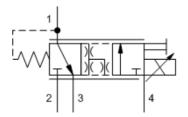


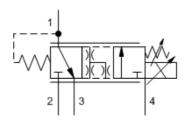


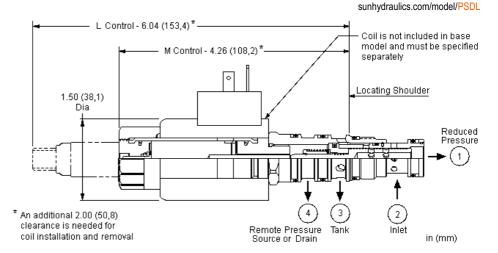
Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition and drain to port 4

SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-21A









This electro-proportional, direct-acting reducer/reliever valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The valve is biased to the relieving mode. Energizing the coil connects port 2 to port 1. Increasing the current to the coil will proportionally increase the reduced pressure at port 1. If pressure at port 1 exceeds the setting induced by the coil, pressure at port 1 is relieved to port 3. Draining port 4 makes the valve insensitive to pressure at port 3. This valve is open in the transition from reducing to relieving which provides good pressure control and dynamic response. Optional full manual control is available.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

NOTES

Please verify cartridge clearance requirements when choosing a Sun manifold. Different valve controls and coils require different clearances.

CONFIGURATION OPTIONS

Model Code Example: PSDLMDN

CONTROL (M) OPERATING RANGE (D) SEAL MATERIAL (N) COIL*

M Manual Override (Standard)

D 50 - 485 psi (3,5 - 33,5 bar) L Standard Screw Adjustment

B 100 - 1125 psi (7 - 77,5 bar) E 25 - 250 psi (1,7 - 18 bar) **S** 10 - 100 psi (0,7 - 7 bar)

V Viton

212 DIN 43650-Form A, 12 VDC 224 DIN 43650-Form A, 24 VDC 912 Deutsch DT04-2P, 12 VDC 924 Deutsch DT04-2P, 24 VDC

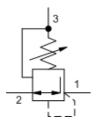
* Additional coil options are available

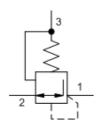
© 2020 Sun Hydraulics 57 of 63 Direct-acting, pressure reducing/relieving valve

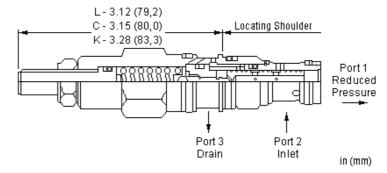
CAPACITY: 20 L/min. / CAVITY: T-163A



sunhydraulics.com/model/PRBB







Direct-acting, pressure reducing/relieving valves reduce a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). These valves incorporate a damped construction for stable operation allowing the use of high reduced pressure.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	0.25 gpm
Maximum Operating Pressure 350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.
Adjustment - No. of CW Turns from Min. to Max. setting	7
Locknut Hex Size	12,7 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990163007
Seal kit - Cartridge	EPDM: 990163014
Seal kit - Cartridge	Viton: 990163006

CONFIGURATION OPTIONS

C Tamper Resistant - Factory Set

K Handknob

Model Code Example: PRBBLAN

CONTROL (L) ADJUSTMENT RANGE L Standard Screw Adjustment A 500 - 3000 psi (35 - 210

500 - 3000 psi (35 - 210 bar), 700 psi (50 bar) Standard Setting

- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **S** 25 200 psi (1,7 14 bar), 100 psi (7 bar) Standard Setting
- **W** 750 4500 psi (50 315 bar), 1000 psi (70 bar) Standard Setting

(A) SEAL MATERIAL (N) MATERIAL/COATING si N Buna-N Standard Material/C

E EPDM V Viton Standard Material/Coating /AP Stainless Steel, Passivated /LH Mild Steel, Zinc-Nickel

/LH Mild Steel, Zinc-Nickel

© 2020 Sun Hydraulics 58 of 63

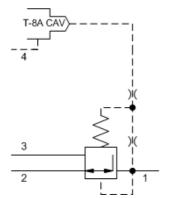


Pilot-operated, pressure reducing/relieving main stage with integral T-8A control cavity, drilled piston orifice, and drain to port 4

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-21A



sunhydraulics.com/model/



This valve is a 3-way, normally open modulating element, externally drained, that incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. The valve reduces a high primary pressure at the inlet (port 2) to a constant reduced pressure at port 1, with a full flow relief function from port 1 to tank (port 3). The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 4).

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Maximum Operating Pressure	350 bar	
Control Pilot Flow	0,11 - 0,16 L/min.	
Pilot Control Cavity	T-8A	
Seal kit - Cartridge	Buna: 990021007	
Seal kit - Cartridge	Polyurethane: 990021002	
Seal kit - Cartridge Viton: 990021006		

CONFIGURATION OPTIONS

Model Code Example: PVDC8WN

MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

W 100 psi (7 bar)

D 25 psi (1,7 bar)

V Viton

© 2020 Sun Hydraulics 59 of 63

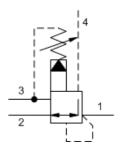


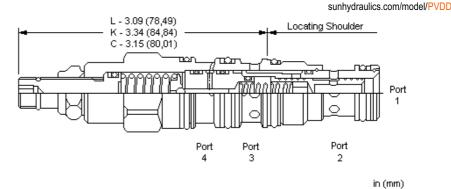


Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice

SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-21A







Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

CONFIGURATION OPTIONS

Model Code Example: PVDDLAN

(L) ADJUSTMENT RANGE CONTROL (A) SEAL MATERIAL (N)

C Tamper Resistant - Factory Set

K Handknob

- 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N **V** Viton

© 2020 Sun Hydraulics 60 of 63

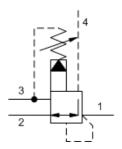


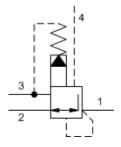
MODEL PVFD

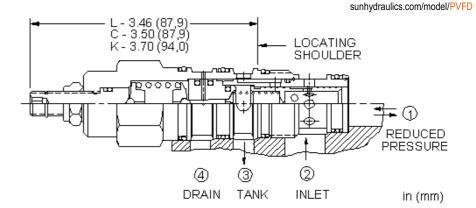
Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice

SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022007
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

CONFIGURATION OPTIONS

Model Code Example: PVFDLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- **K** Handknob

- A 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N V Viton Standard Material/Coating

on /AP Stainless Steel, Passivated

© 2020 Sun Hydraulics 61 of 63

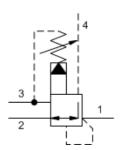


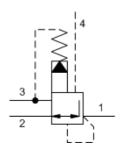
MODEL PVHD

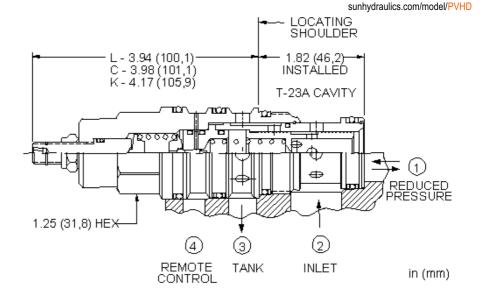
Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice

SERIES 3 / CAPACITY: 160 L/min. / CAVITY: T-23A









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

CONFIGURATION OPTIONS

Model Code Example: PVHDLAN

CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL (N) MATERIAL/COATING

Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

- A 100 3000 psi (7 210 bar), 200 psi (14 bar) Standard Setting
- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **H** 30 3000 psi (2 210 bar), 200 psi (14 bar) Standard Setting
- **J** 25 1500 psi (1,7 105 bar), 200 psi (14 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N Standard Material/Coating
V Viton /AP Stainless Steel, Passivated

© 2020 Sun Hydraulics 62 of 63

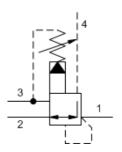


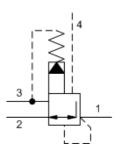
MODEL PVJD

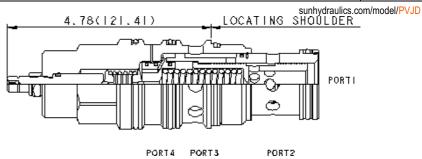
Ventable, pilot-operated, pressure reducing/relieving valve with drilled piston orifice

SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-24A









Ventable, pilot-operated pressure reducing/relieving valves reduce a high primary pressure at the inlet to a constant reduced pressure at port 1, with a full-flow relief function from port 1 to tank (port 3). The vent port (port 4) can be used as a means for remote control by pilot or 2-way valves.

TECHNICAL DATA

NOTE: DATA MAY VARY BY CONFIGURATION. SEE CONFIGURATION SECTION.

Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Adjustment - No. of CW Turns from Min. to Max. setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990024007
Seal kit - Cartridge	Polyurethane: 990024002
Seal kit - Cartridge	Viton: 990024006

CONFIGURATION OPTIONS

Model Code Example: PVJDLAN

(N) MATERIAL/COATING CONTROL (L) ADJUSTMENT RANGE (A) SEAL MATERIAL

L Standard Screw Adjustment

- C Tamper Resistant Factory Set
- K Handknob

A 100 - 3000 psi (7 - 210 bar), 200 psi (14 bar) Standard Setting

- **B** 50 1500 psi (3,5 105 bar), 200 psi (14 bar) Standard Setting
- 150 6000 psi (10,5 420 bar), 200 psi (14 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 200 psi (14 bar) Standard Setting
- E 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- **H** 30 3000 psi (2 210 bar), 200 psi (14 bar) Standard Setting
- J 25 1500 psi (1,7 105 bar), 200 psi (14 bar) Standard Setting
- W 100 4500 psi (7 315 bar), 200 psi (14 bar) Standard Setting

N Buna-N Viton

/AP Stainless Steel, Passivated

© 2020 Sun Hydraulics 63 of 63

smart SOLUTIONS for DEMANDING applications



www.sunhydraulics.com

Sun Hydraulics Headquarters Sarasota, Florida USA +1 941 362 1200 Sun Hydraulics Limited Coventry England +44 2476 217 400 sales@sunuk.com

Sun Hydraulics Korea Corp. Incheon Korea +82 3281 31350 sales@sunhydraulics.co.kr Sun Hydraulik GmbH Erkelenz Germany +49 2431 80910 sales@sunhydraulik.de

Sun Hydraulics China Co. Ltd. Shanghai P.R. China +86 2162 375885 sunchinainfo@sunhydraulics.com Sun Hydraulics Corp. (India) Bangalore India +91 8028 456325 sunindiainfo@sunhydraulics.com

Sun Hydraulics Corp. (S.America) Rosario, Argentina +54 9 341 584 3075 ventas@sunhydraulics.com