

Electro-Proportional 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.

© 2016 Sun Hydraulics



HVCA8	Ventable, pilot operated, balanced piston relief main stage with integral T-8A control
RPEC8	Pilot operated, balanced piston relief main stage with integral T-8A control2 cavity
RPGC8	Pilot operated, balanced piston relief main stage with integral T-8A control
RPIC8	Pilot operated, balanced piston relief main stage with integral T-8A control4 cavity
RPKC8	Pilot operated, balanced piston relief main stage with integral T-8A control5 cavity
RPES8	Pilot operated, balanced poppet relief main stage with integral T-8A control
RPGS8	Pilot operated, balanced poppet relief main stage with integral T-8A control
RPIS8	Pilot operated, balanced poppet relief main stage with integral T-8A control
RPKS8	Pilot operated, balanced poppet relief main stage with integral T-8A control
RVCD8	Ventable, pilot operated, balanced piston relief main stage with integral T-8A control
RVED8	Ventable, pilot operated, balanced piston relief main stage with integral T-8A control
RVGD8	Ventable, pilot operated, balanced piston relief main stage with integral T-8A control
RVID8	Ventable, pilot operated, balanced piston relief main stage with integral T-8A control
RBAP	Electro-proportional relief valve - pilot
RBAN	Electro-proportional relief valve - pilot capacity, high pressure setting with no
PBDB8	Pilot operated, pressure reducing main stage with integral T-8A control
PBFB8	Pilot operated, pressure reducing main stage with integral T-8A control
PBHB8	Pilot operated, pressure reducing main stage with integral T-8A control
PBJB8	Pilot operated, pressure reducing main stage with integral T-8A control
PRDP	Electro-proportional, direct-acting, pressure reducing/relieving



PRDN	Electro-proportional, direct-acting, pressure reducing/relieving valve, high pressure
	setting with no command
PRDL	Electro-proportional, direct-acting, pressure reducing/relieving valve with open
PRDM	Electro-proportional, direct-acting, pressure reducing/relieving valve with open
PPDB8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control24 cavity
PPDF8	Pilot operated, pressure reducing/relieving main stage with drilled piston orifice and
PPFB8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PPFF8	Pilot operated, pressure reducing/relieving main stage with drilled piston orifice and
PPHB8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PPHF8	Pilot operated, pressure reducing/relieving main stage with drilled piston orifice and
PPJB8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PPJF8	Pilot operated, pressure reducing/relieving main stage with drilled piston orifice and
PPDL8	Pilot operated, pressure reducing/relieving main stage with open transition and
PVDA8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PVFA8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PVHA8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PVHL8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PVJA8	Pilot operated, pressure reducing/relieving main stage with integral T-8A control
PSDP	Electro-proportional, direct-acting, pressure reducing/relieving valve with drain to port
PSDL	Electro-proportional, direct-acting, pressure reducing/relieving valve with open
RSDC8	Pilot operated, balanced piston sequence main stage with integral T-8A control



RSFC8	Pilot operated, balanced piston sequence main stage with integral T-8A control
	cavity
RSHC8	Pilot operated, balanced piston sequence main stage with integral T-8A control42 cavity
RSJC8	Pilot operated, balanced piston sequence main stage with integral T-8A control
RSDS8	Pilot operated, balanced poppet sequence main stage with integral T-8A control
RSFS8	Pilot operated, balanced poppet sequence main stage with integral T-8A control
RSHS8	Pilot operated, balanced poppet sequence main stage with integral T-8A control
RSJS8	Pilot operated, balanced poppet sequence main stage with integral T-8A control
FPCC	Electro-proportional flow control valve - normally
FPCH	Electro-proportional flow control valve - normally
FPFK	Pilot operated, normally closed, electro-proportional throttle with reverse flow
FPHK	Pilot operated, normally closed, electro-proportional throttle with reverse flow
FMDA	Electro-proportional 3-way flow control valve, meter
FMDB	Electro-proportional 3-way flow control valve, meter53
FTCA	2-way, pilot shifted, dual path, proportional
FTDA	2-way, pilot shifted, dual path, proportional
FTEA	2-way, pilot shifted, dual path, proportional
FTFA	2-way, pilot shifted, dual path, proportional
FTCAZ	2-way, pilot shifted, dual path, proportional throttle with position
FTDAZ	2-way, pilot shifted, dual path, proportional throttle with position
FTEAZ	2-way, pilot shifted, dual path, proportional throttle with position



FTFAZ	2-way, pilot shifted, dual path, proportional throttle with position	61
FKBA	2-way, pilot shifted, proportional throttle	62
FKCA	2-way, pilot shifted, proportional throttle, high	63
FKDA	2-way, pilot shifted, proportional	64
FKEA	2-way, pilot shifted, proportional throttle, high	65
FKFA	2-way, pilot shifted, proportional	66
FKGA	2-way, pilot shifted, proportional throttle, high	67
FKHA	2-way, pilot shifted, proportional	68
FKIA	2-way, pilot shifted, proportional throttle, high	69
FKBB	2-way, pilot shifted, proportional throttle with bleed	70
FKCB	2-way, pilot shifted, proportional throttle with bleed down, high	71
FKDB	2-way, pilot shifted, proportional throttle with bleed	72
FKEB	2-way, pilot shifted, proportional throttle with bleed down, high	73
FKFB	2-way, pilot shifted, proportional throttle with bleed	74
FKGB	2-way, pilot shifted, proportional throttle with bleed down, high	75
FKHB	2-way, pilot shifted, proportional throttle with bleed	76
FKIB	2-way, pilot shifted, proportional throttle with bleed down, high	77
PBDF8	Pilot operated, pressure reducing main stage with drilled piston orifice and integral T	78
PBFF8	Pilot operated, pressure reducing main stage with drilled piston orifice and integral T	79
PBHF8	Pilot operated, pressure reducing main stage with drilled piston orifice and integral T	80





Cavity Information

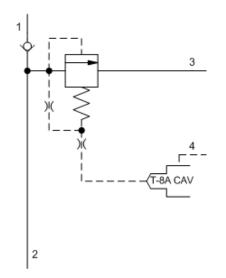
Series	Ports	Cavities
Series Z Cartridges	2-Port	T-382A
3/8-24 UNF Cartridge Thread		
5 mm Valve Hex Size		
11 - 14 Nm Valve Installation Torque		
Series P Cartridges	2-Port	T-8A
M16 Cartridge Thread	2-Port (Deep)	T-8DP
22.2 mm Valve Hex Size	3-Port	T-9A
7 - 33 Nm Valve Installation Torque		
Series 0 Cartridges	2-Port	T-162A
M16 Cartridge Thread	2-Port (Deep)	T-162DP
L9.1 mm Valve Hex Size	3-Port	T-163A
25,4 mm Valve Hex Size		
7 - 33 Nm Valve Installation Torque		
Series 1 Cartridges	2-Port	T-10A
M20 Cartridge Thread	2-Port	T-13A
22.2 mm Valve Hex Size	3-Port	T-11A
41 - 47 Nm Valve Installation Torque	4-Port	T-21A
	4-Port	T-31A
	6-Port	T-61A
Series 2 Cartridges	2-Port	T-3A
L"-14 UNS Cartridge Thread	2-Port	T-5A
8,6 mm Valve Hex Size	3-Port 4-Port	T-2A T-22A
51 - 68 Nm Valve Installation Torque	4-Port	T-32A
	4-Port (Dual path)	T-52AD
	6-Port	T-52A
	6-Port	T-62A
Series 3 Cartridges	2-Port	T-16A
V36 Cartridge Thread	3-Port	T-17A
31,8 mm Valve Hex Size	4-Port	T-23A
203 - 217 Nm Valve Installation Torque	4-Port	T-33A
·	4-Port (Dual path) 6-Port	T-53AD T-53A
	6-Port	T-53A T-63A
	UPP OIL	1-00A
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
74 - 508 Nm Valve Installation Torque	3-Port (Undercut) 4-Port	T-19AU
	4-Port 4-Port (Undercut)	T-24A T-24AU
	4-Port (Ondercut)	T-34A
	4-Port (Dual path)	T-54AD
	6-Port	T-54A
	6-Port	T-64A

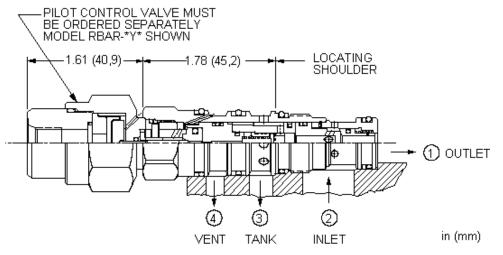


MODEL HVCA8



snhy.com/HVCA8





The relief-before-check cartridge is a CavitySaver[™] (multi-function) valve incorporating a normally closed, balanced piston modulating element tee'd in before a check function. The valve incorporates an integral pilot control cavity. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 2) reaches the pilot control valve setting, the modulating element starts to open to tank (port 3), throttling flow to regulate the pressure. The T-8A pilot section is drained to port 4. The check valve flow is from the inlet (port 2) to the system port (port1).

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Response Time - Typical	10 ms
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Check Cracking Pressure	1,7 bar
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
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.

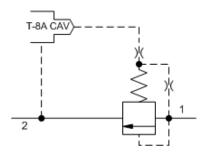
CONFIGURATION OPTIONS

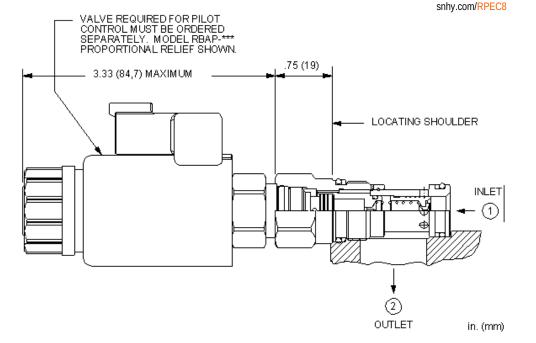
Model Code Example: HVCA8DN

BIAS PRESSURE	(D) SEAL MATERIAL	(N)
D 75 psi (5 bar)	N Buna-N	
	E EPDM	
	V Viton	



MODEL RPEC8





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

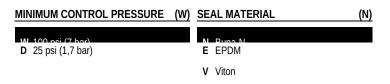
TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Pilot Control Cavity	Т-8А
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990010007
Seal kit - Cartridge	EPDM: 990010014
Seal kit - Cartridge	Polyurethane: 990010002
Seal kit - Cartridge	Viton: 990010006

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: RPEC8WN

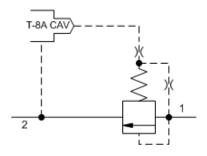


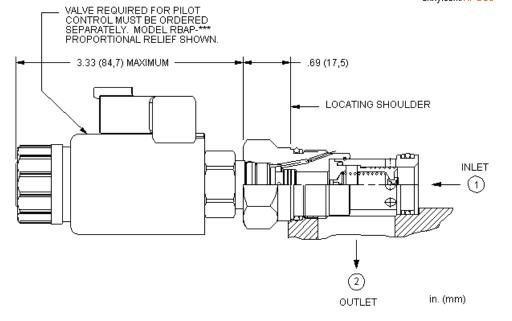


MODEL RPGC8



snhy.com/RPGC8





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	50 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	EPDM: 990203014
Seal kit - Cartridge	Polyurethane: 990003002
Seal kit - Cartridge	Viton: 990203006

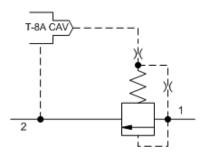
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

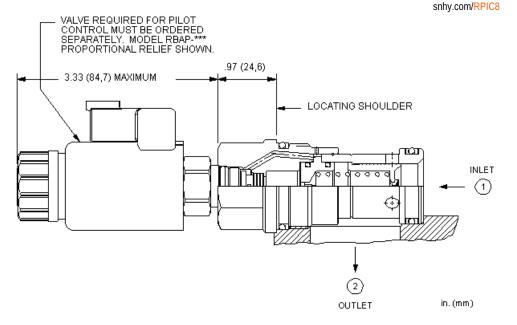
CONFIGURATION OPTIONS

Model Code Example: RPGC8WN

MINIMUM CONTROL PRESSURE (V	V) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	E EPDM	
	V Viton	

MODEL RPIC8





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	Т-8А
Main stage leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	EPDM: 990016014
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

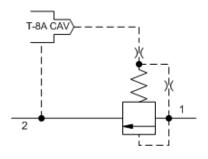
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

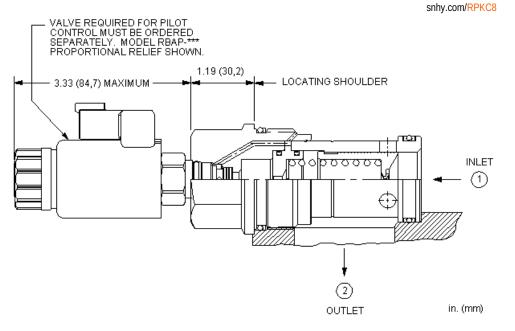
CONFIGURATION OPTIONS

Model Code Example: RPIC8WN

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







This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	80 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990018007
Seal kit - Cartridge	EPDM: 990018014
Seal kit - Cartridge	Polyurethane: 990018002
Seal kit - Cartridge	Viton: 990018006

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

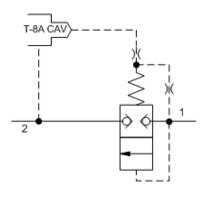
Model Code Example: RPKC8WN

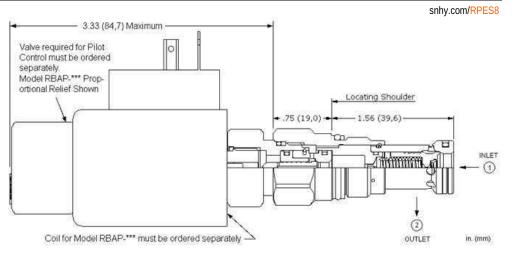
MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	E EPDM	
	V Viton	



MODEL

Pilot operated, balanced poppet relief main stage with integral T-8A control cavity SERIES 1 / CAPACITY: 95 L/min. / CAVITY: T-10A





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,41 L/min.
Response Time - Typical	7 ms
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990310007
Seal kit - Cartridge	EPDM: 990310014
Seal kit - Cartridge	Viton: 990310006

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

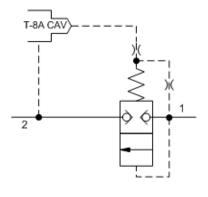
Model Code Example: RPES8WN

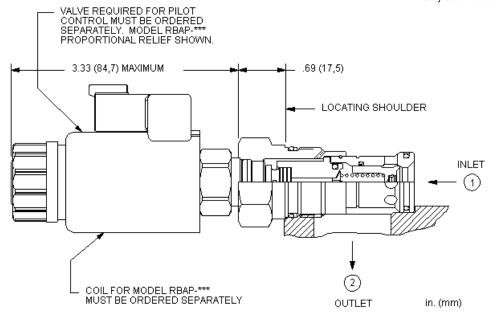
MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 50 psi (3,5 bar)	E EPDM	
	V Viton	

MODEL RPGS8 Pilot operated, balanced poppet relief main stage with integral T-8A control cavity SERIES 2 / CAPACITY: 200 L/min. / CAVITY: T-3A



snhy.com/RPGS8





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

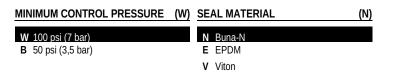
TECHNICAL DATA

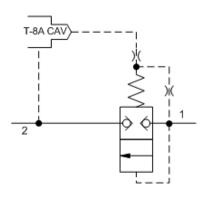
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Response Time - Typical	2 ms
Pilot Control Cavity	Т-8А
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990303007
Seal kit - Cartridge	EPDM: 990303014
Seal kit - Cartridge	Polyurethane: 990303002
Seal kit - Cartridge	Viton: 990303006

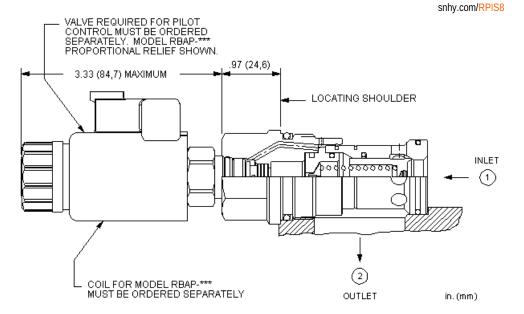
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: RPGS8WN







This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	2 ms
Pilot Control Cavity	Т-8А
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990316007
Seal kit - Cartridge	EPDM: 990316014
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990316006

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.

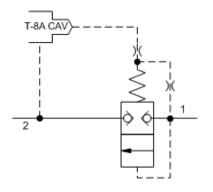
CONFIGURATION OPTIONS

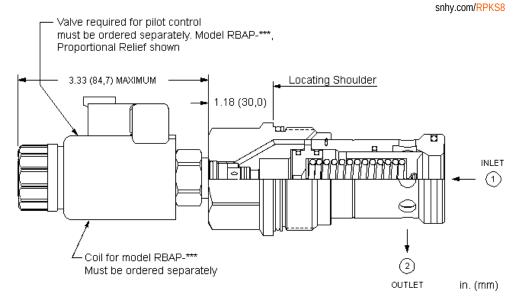
Model Code Example: RPIS8WN

MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
B 50 psi (3,5 bar)	E EPDM	
	V Viton	

MODEL RPKS8 Pilot operated, balanced poppet relief main stage with integral T-8A control cavity SERIES 4 / CAPACITY: 760 L/min. / CAVITY: T-18A







This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between port 1 and port 2.

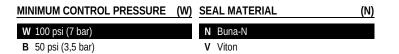
TECHNICAL DATA

Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	2 ms
Pilot Control Cavity	T-8A
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990318007
Seal kit - Cartridge	Polyurethane: 990018002
Seal kit - Cartridge	Viton: 990318006

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: RPKS8WN

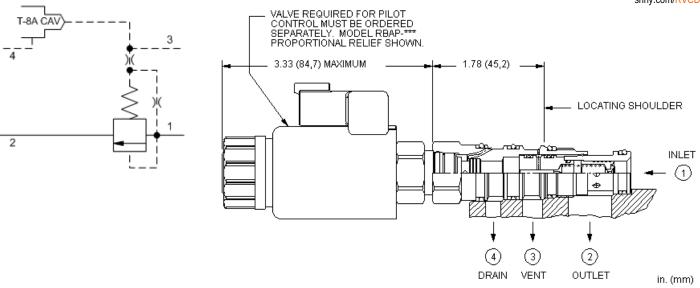




MODEL RVCD8



snhy.com/RVCD8



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is ventable, externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 4). The vent port (port 3) that tees in between the main piston and pilot control cartridge, allows the modulating element to also be controlled by remote pilot or 2-way valves.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
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: RVCD8WN

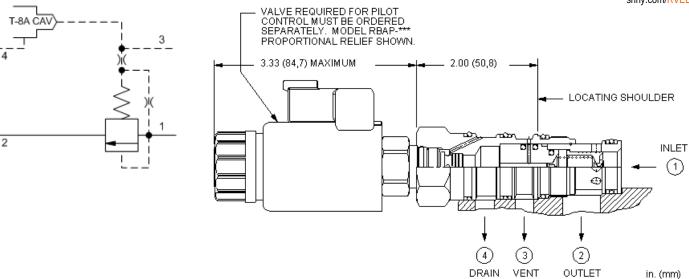
MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	E EPDM	
	V Viton	



MODEL RVED8



snhy.com/RVED8



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is ventable, externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 4). The vent port (port 3) that tees in between the main piston and pilot control cartridge, allows the modulating element to also be controlled by remote pilot or 2-way valves.

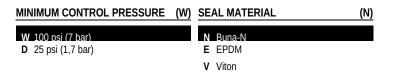
TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	Т-8А
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage 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

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.

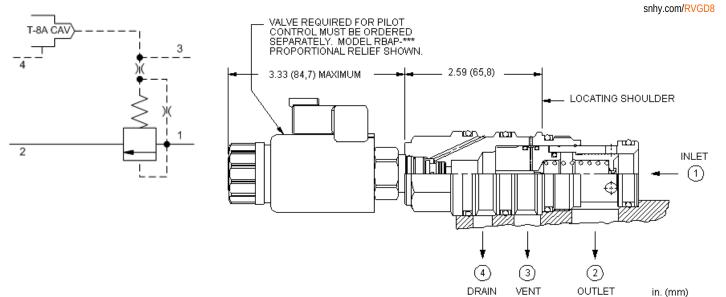
CONFIGURATION OPTIONS

Model Code Example: RVED8WN



Ventable, pilot operated, balanced piston relief main stage with integral T-8A control cavity and drain to port 4 SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-23A





This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is ventable, externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 4). The vent port (port 3) that tees in between the main piston and pilot control cartridge, allows the modulating element to also be controlled by remote pilot or 2-way valves.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	Т-8А
Main stage 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

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: RVGD8WN

(N)

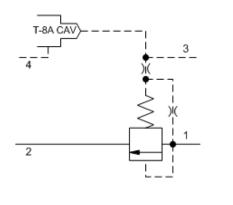
MINIMUM CONTROL PRESSURE (W) SEAL MATERIAL

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

- E EPDM V Viton

N Buna-N

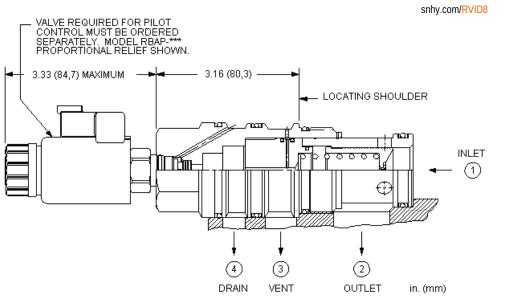




un hydraulics

MODEL

RVID8



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is ventable, externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge setting, the modulating element starts to open to tank (port 2), throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 4). The vent port (port 3) that tees in between the main piston and pilot control cartridge, allows the modulating element to also be controlled by remote pilot or 2-way valves.

TECHNICAL DATA

Maximum Operating Pressure	350 bar		
Response Time - Typical	10 ms		
Pilot Control Cavity	T-8A		
Pilot Control Valve Installation Torque	27 - 33 Nm		
Pilot Control Valve Hex Size	22,2 mm		
Main stage leakage at 110 SUS (24 cSt)	80 cc/min.@70 bar		
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

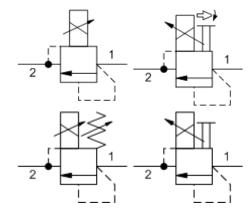
Model Code Example: RVID8WN

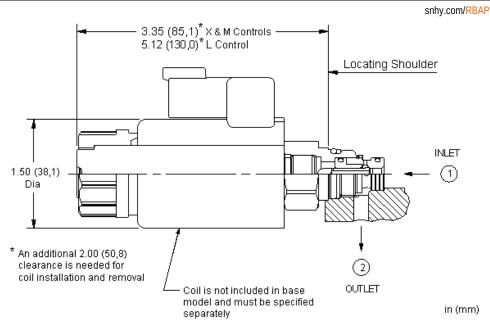
MINIMUM CONTROL PRESSURE	(W)	SEAL MATERIAL	(N)
W 100 psi (7 bar)		N Buna-N	
D 25 psi (1,7 bar)		V Viton	

sun hydraulics

MODEL RBAP







This 2-port, pilot-stage, direct-acting relief cartridge is an electro-proportionally controlled, pressure regulating valve. The proportional control allows for infinite, step-less adjustability within the selected pressure range. When the pressure at port 1 (inlet) is sufficient to overcome the solenoid forces, as determined by the analog input signal, the poppet lifts and allows flow from port 1 to port 2 (outlet). This pilot control cartridge utilizes the T-8A cavity so it can be used in conjunction with Sun's main stage, pressure control elements.

TECHNICAL DATA

Maximum Operating Pressure	350 bar		
Maximum Valve Leakage at Reseat	25 cc/min.		
Manual Override Force Requirement	66 N/100 bar @ Port 1		
Reseat	>85% of setting		
Seal kit - Cartridge	Buna: 990208007		
Seal kit - Cartridge	Viton: 990208006		

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

CONFIGURATION OPTIONS

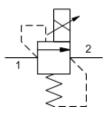
Model Code Example: RBAPXAN

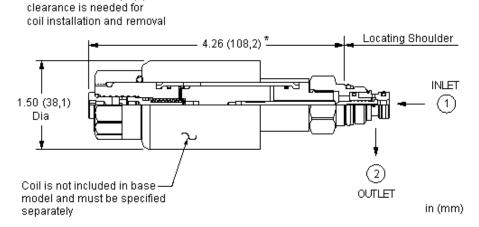
CONTROL	(X)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		A 300 - 3000 psi (20 - 210 bar)		N Buna-N		No coil
E Twist (Extended) Manual Override		B 150 - 1500 psi (10,5 - 105 bar)		E EPDM		212 DIN 43650-Form A, 12 VDC
L Manual Override - Adjustable		D 50 - 750 psi (3,5 - 50 bar)		V Viton		224 DIN 43650-Form A, 24 VDC
T Tuning Adjustment		W 500 - 5000 psi (35 - 350 bar)				712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available





snhy.com/RBAN





This 2-port, pilot-stage, direct-acting relief cartridge is an electro-proportionally controlled, normally-closed pressure regulating valve. The valve is spring biased closed to its highest setting (customer specified). Increasing current to the coil will proportionally decrease the pressure setting. When the pressure at port 1 (inlet) is sufficient to overcome the spring force minus the solenoid force, as determined by the analog input signal, the poppet lifts and allows flow from port 1 to port 2 (outlet). This pilot control cartridge utilizes the T-8A cavity so it can be used in conjunction with Sun's main stage, pressure control elements.

TECHNICAL DATA

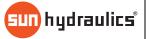
* An additional 2.00 (50,8)

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at Reseat	25 cc/min.
Reseat	>85% of setting
Seal kit - Cartridge	Buna: 990208007
Seal kit - Cartridge	Viton: 990208006

CONFIGURATION OPTIONS

Model Code Example: RBANXAN

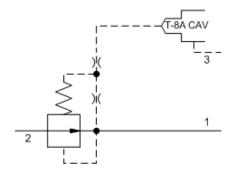
CONTROL	(X)	ADJUSTMENT RANGE	(A)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		A 3000 - 1500 psi (105 - 210 bar)		N Buna-N		No coil
		B 1500 - 800 psi (55 - 105 bar)		V Viton		212 DIN 43650-Form A, 12 VDC
		D 800 - 300 psi (20 - 55 bar)				224 DIN 43650-Form A, 24 VDC
		W 5000 - 3000 psi (210 - 350 bar)				712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

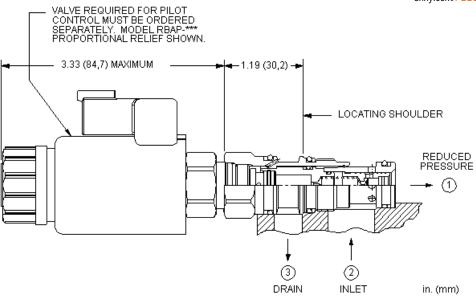


MODEL PBDB8 Pilot operated, pressure reducing main stage with integral T-8A control cavity SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A



snhy.com/PBDB8





This valve is a 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. The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 3).

TECHNICAL DATA

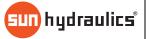
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Pilot Control Cavity	Т-8А
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	EPDM: 990011014
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

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: PBDB8WN

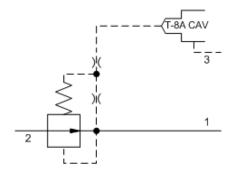
BIAS PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	E EPDM	
	V Viton	

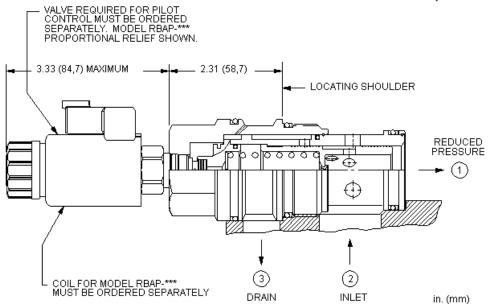


MODEL PBJB8 Pilot operated, pressure reducing main stage with integral T-8A control cavity SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A



snhy.com/PBJB8





This valve is a 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. The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 3).

TECHNICAL DATA

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	EPDM: 990019014			
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

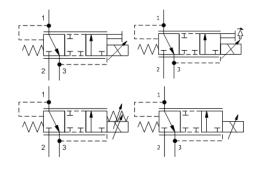
Model Code Example: PBJB8WN

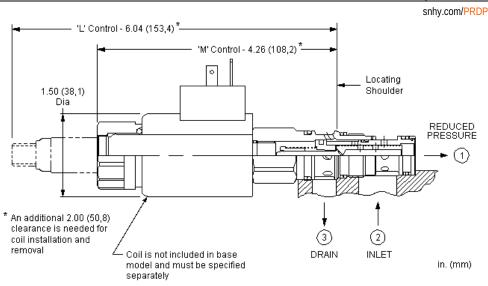
MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	E EPDM	

sun hydraulics

MODEL PRDP







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

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Adjustment - Number of Clockwise Turns to Increase 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

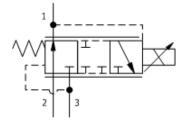
Model Code Example: PRDPMDN

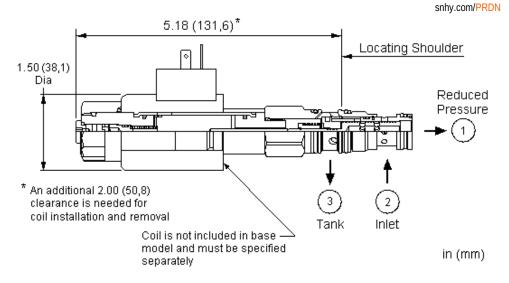
CONTROL	(M)	OPERATING RANGE	(D)	SEAL MATERIAL	(N)	COIL *
M Manual Override (Standard)		D 50 - 485 psi (3,5 - 33,5 bar)		N Buna-N		No coil
E Twist (Extended) Manual Override		E 25 - 250 psi (1,7 - 18 bar)		E EPDM		212 DIN 43650-Form A, 12 VDC
L Standard Screw Adjustment		B 100 - 1125 psi (7 - 77,5 bar)		V Viton		224 DIN 43650-Form A, 24 VDC
X No Manual Override						712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available



MODEL PRDN







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

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

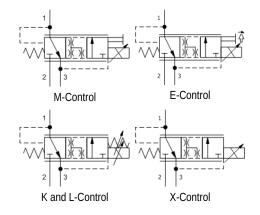
CONTROL	(X)	ADJUSTMENT RANGE	(D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		D 400 - 200 psi (14 - 28 bar)		N Buna-N		No coil
		B 1000 - 400 psi (28 - 70 bar)		V Viton		212 DIN 43650-Form A, 12 VDC
		E 200 - 100 psi (7 - 14 bar)				224 DIN 43650-Form A, 24 VDC
						712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

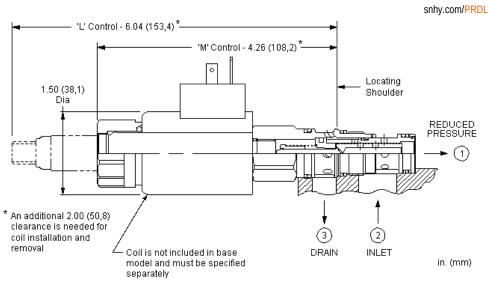
Created on 11/05/2016 © 2016 Sun Hydraulics Corporation See www.sunhydraulics.com for detailed product information



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.

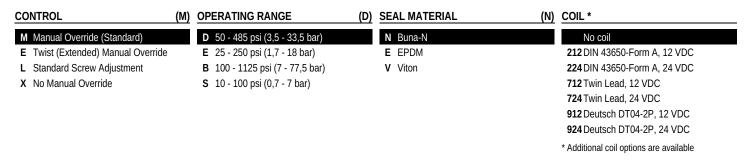
TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - Number of Clockwise Turns to Increase 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

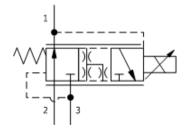
Model Code Example: PRDLMDN

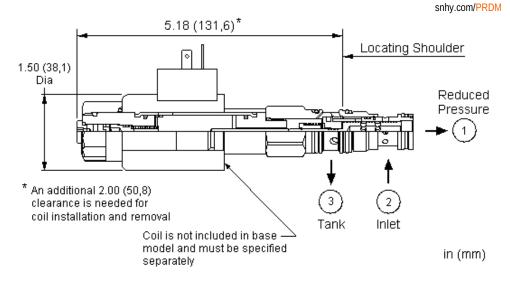




MODEL PRDM Electro-proportional, direct-acting, pressure reducing/relieving valve with open transition - high pressure setting with no command SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-11A







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

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

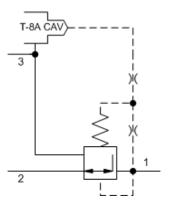
Model Code Example: PRDMXDN

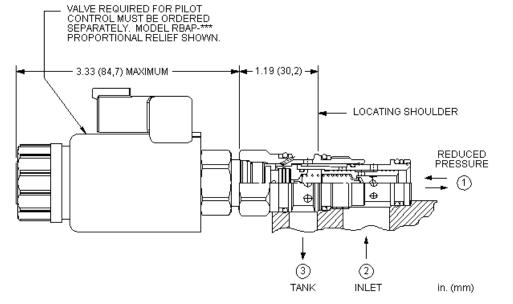
CONTROL	(X)	ADJUSTMENT RANGE	(D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		D 400 - 200 psi (14 - 28 bar)		N Buna-N		No coil
		B 1000 - 400 psi (28 - 70 bar)		V Viton		212 DIN 43650-Form A, 12 VDC
		E 200 - 100 psi (7 - 14 bar)				224 DIN 43650-Form A, 24 VDC
		S 100 - 10 psi (0,7 - 7 bar)				712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

MODEL PPDB8

Pilot operated, pressure reducing/relieving main stage with integral T-8A control cavity
SERIES 1 / CAPACITY: 40 L/min. / CAVITY: T-11A

snhy.com/PPDB8





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

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

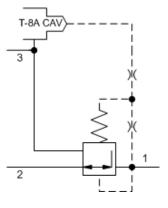
MINIMUM CONTROL PRESSURE (W) <u>SEAL MATERIAL</u> (N)
W 100 psi (7 bar)	N Buna-N
D 25 psi (1,7 bar)	E EPDM
	V Viton

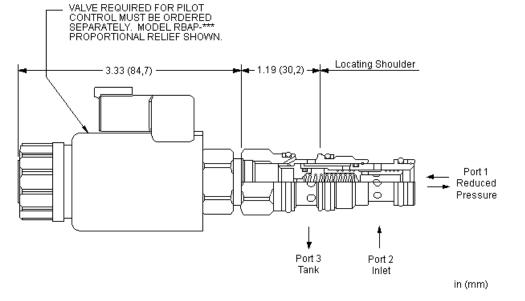


MODEL PPDF8



snhy.com/PPDF8





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

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

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

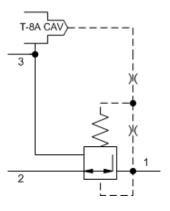
CONFIGURATION OPTIONS

Model Code Example: PPDF8WN

MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	

D 25 psi (1,7 bar)

V Buna-N



snhy.com/PPFB8 VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 1.38 (35,1) 3.33 (84,7) MAXIMUM LOCATING SHOULDER REDUCED пü PRESSURE (1)Ð Æ 3 (2)TANK INLET in. (mm)

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

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

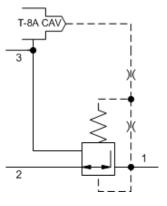
MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N) MATERIAL/COATING
W 100 psi (7 bar)	N Buna-N	Standard Material/Coating
D 25 psi (1,7 bar)	E EPDM	IAP Stainless Steel, Passivated
	V Viton	



MODEL PPFF8



snhy.com/PPFF8



VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 1.38 (35,1) 3.33 (84,7) MAXIMUM LOCATING SHOULDER REDUCED тOл PRESSURE æ (1)Ð Æ 3 (2)TANK INLET in. (mm)

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

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Pilot Control Cavity	Т-8А
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

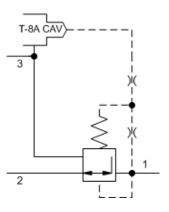
Model Code Example: PPFF8WN

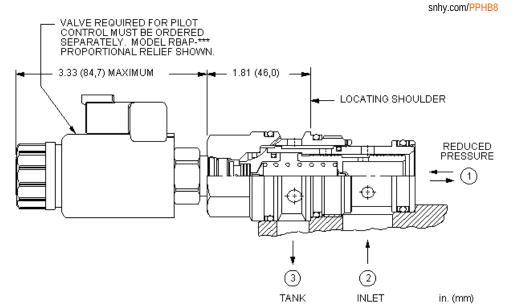
MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	
D 25 psi (1,7 bar)	V Viton	

Created on 11/05/2016

MODEL

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

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

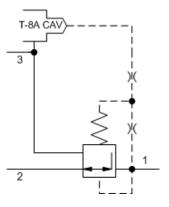
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

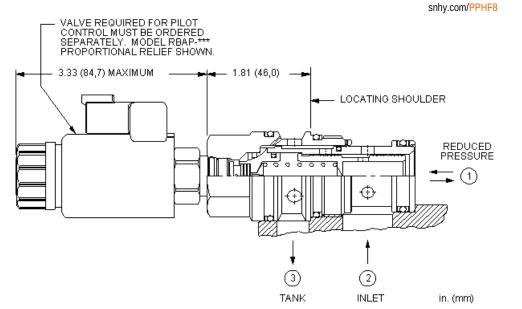
CONFIGURATION OPTIONS

Model Code Example: PPHB8WN

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	







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

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

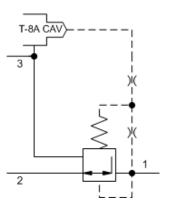
Model Code Example: PPHF8WN



MODEL PPJB8

Pilot operated, pressure reducing/relieving main stage with integral T-8A control cavity
SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A

snhy.com/PPJB8



VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 3.33 (84,7) MAXIMUM 2.31 (58,7) – LOCATING SHOULDER D REDUCED PRESSURE 0 ÷ Шm (1) \oplus (3) (2)TANK INLET in. (mm)

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

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	Т-8А
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)		N Buna-N	
D 25 psi (1,7 bar)		V Viton	



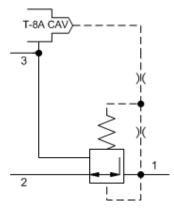
MODEL PPJF8 Pilot operated, pressure reducing/relieving main stage with drilled piston orifice and integral T-8A control cavity SERIES 4 / CAPACITY: 320 L/min. / CAVITY: T-19A



snhy.com/PPJF8

in. (mm)

INLET



VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 3.33 (84,7) MAXIMUM CONTROL MAXIMUM CONTROL RELIEF SHOWN. CONTROL RELIEF

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).

TANK

TECHNICAL DATA

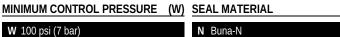
Factory Pressure Settings Established at	blocked control port (dead headed)
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Pilot Control Cavity	Т-8А
Seal kit - Cartridge	Buna: 990019007
Seal kit - Cartridge	Polyurethane: 990019002
Seal kit - Cartridge	Viton: 990019006

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

(N)

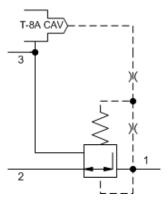


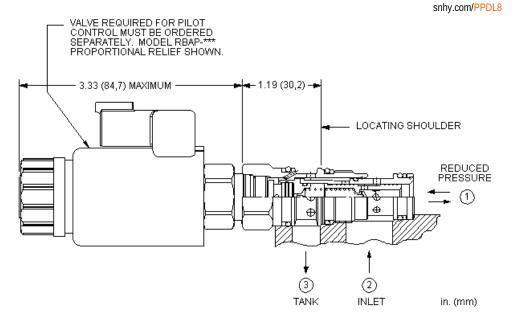
D 25 psi (1,7 bar)

V Viton

MODEL
PPDL8







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.

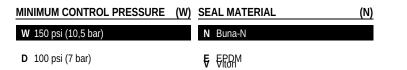
TECHNICAL DATA

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

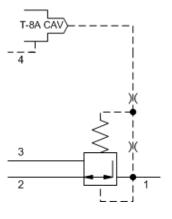
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

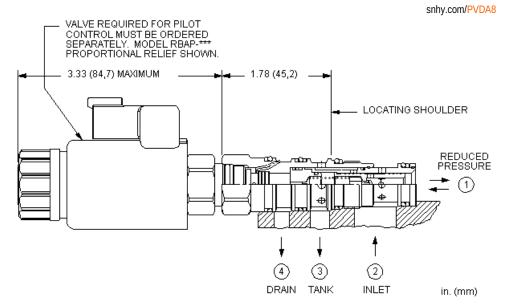
CONFIGURATION OPTIONS

Model Code Example: PPDL8WN









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

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Pilot Control Cavity	Т-8А
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	(N)
W 100 psi (7 bar)		N Buna-N	

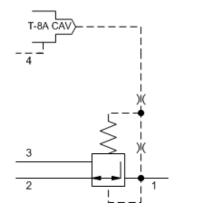
D 25 psi (1,7 bar)

V Viton

MODEL PVFA8 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



snhy.com/PVFA8



VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY, MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 3.33 (84,7) MAXIMUM 2.00 (50,8) LOCATING SHOULDER REDUCED PRESSURE Ъ 11 (1) Ð (4)(3) (2)DRAIN TANK INLET in. (mm)

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

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Pilot Control Cavity	Т-8А
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.

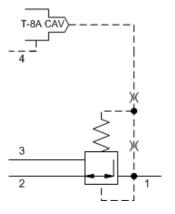
CONFIGURATION OPTIONS

Model Code Example: PVFA8WN

MINIMUM CONTROL PRESSURE	(W)	SEAL MATERIAL	(N)
W 100 psi (7 bar)		N Buna-N	
D 25 psi (1,7 bar)		V Viton	



snhy.com/PVHA8



VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 3.33 (84,7) MAXIMUM 2.59 (65,8) – LOCATING SHOULDER C REDUCED PRESSURE Em (1)Ð 2 (4) 3 in. (mm) DRAIN TANK INLET

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

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

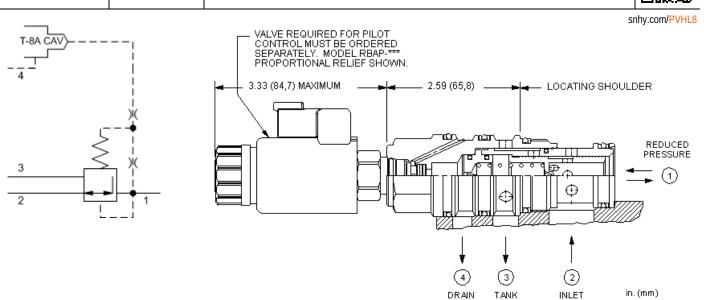
Model Code Example: PVHA8WN

(N)



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

N Buna-N V Viton



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

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.

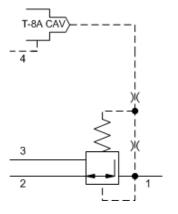
CONFIGURATION OPTIONS

Model Code Example: PVHL8WN

MINIMUM CONTROL PRESSURE (W	V) SEAL MATERIAL	(N)
W 150 psi (10,5 bar)	N Buna-N	
D 100 psi (7 bar)	E EPDM	
	V Viton	



in. (mm)



iun hydraulics"

snhy.com/PVJA8 VALVE REQUIRED FOR PILOT CONTROL MUST BE ORDERED SEPARATELY. MODEL RBAP-*** PROPORTIONAL RELIEF SHOWN. 3.33 (84,7) MAXIMUM 3.16 (80,3) LOCATING SHOULDER REDUCED RESSURE Ο 1Cm Ð (1)⊕ 4 (2)(4)3 DRAIN TANK INLET

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

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

(N)

MINIMUM CONTROL PRESSURE	(W)	SEAL N
--------------------------	-----	--------

SEAL MATERIAL

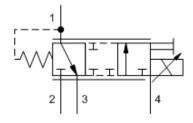
W 100 psi (7 bar)D 25 psi (1,7 bar)

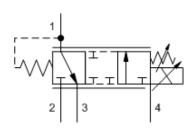
V Viton

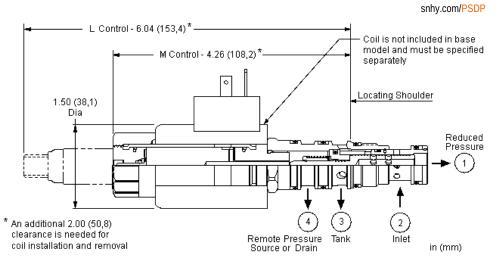
hydraulics MODEL

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.

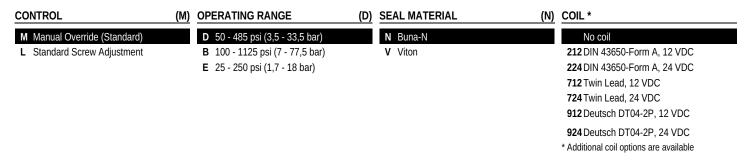
TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	41 cc/min.
Optimum Inlet Pressure	210 bar
Adjustment - Number of Clockwise Turns to Increase 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

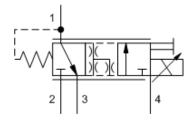
Model Code Example: PSDPMDN

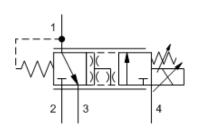


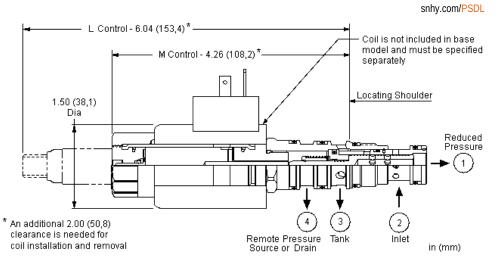
hydraulics MODEL

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

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	330 cc/min.
Adjustment - Number of Clockwise Turns to Increase 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.

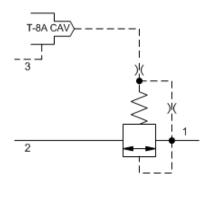
CONFIGURATION OPTIONS

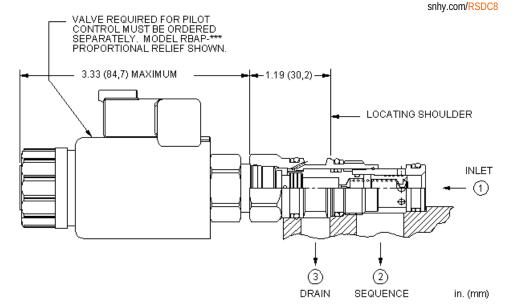
Model Code Example: PSDLMDN

CONTROL	(M)	OPERATING RANGE	(D)	SEAL MATERIAL	(N)	COIL *
M Manual Override (Standard)		D 50 - 485 psi (3,5 - 33,5 bar)		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
		S 10 - 100 psi (0,7 - 7 bar)				712 Twin Lead, 12 VDC
						724 Twin Lead, 24 VDC
						912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

SERIES 1 / CAPACITY: 60 L/min. / CAVITY: T-11A







This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
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.

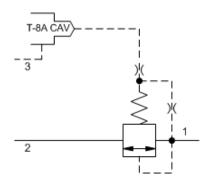
CONFIGURATION OPTIONS

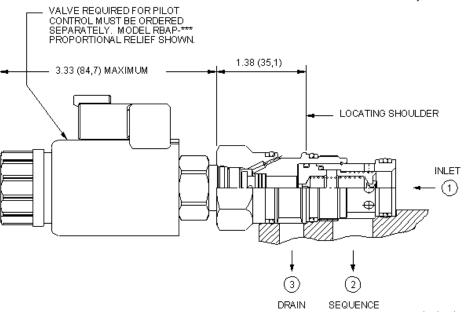
Model Code Example: RSDC8WN

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	

MODEL RSFC8 Pilot operated, balanced piston sequence main stage with integral T-8A control cavity SERIES 2 / CAPACITY: 120 L/min. / CAVITY: T-2A

snhy.com/RSFC8





in. (mm)

This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

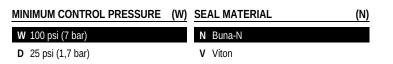
TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,16 - 0,25 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	50 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990202007
Seal kit - Cartridge	Polyurethane: 990002002
Seal kit - Cartridge	Viton: 990202006

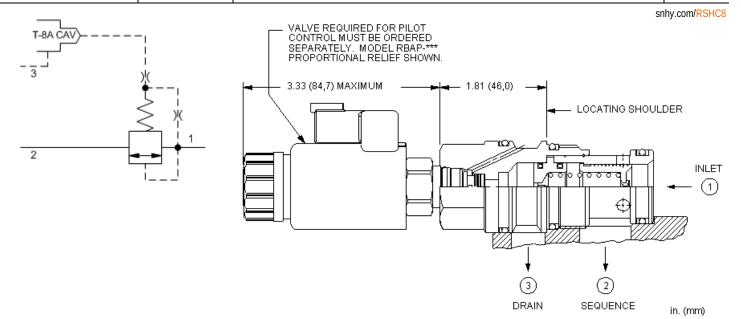
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: RSFC8WN



MODEL RSHC8 Pilot operated, balanced piston sequence main stage with integral T-8A control cavity
SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-17A



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	Polyurethane: 990017002
Seal kit - Cartridge	Viton: 990017006

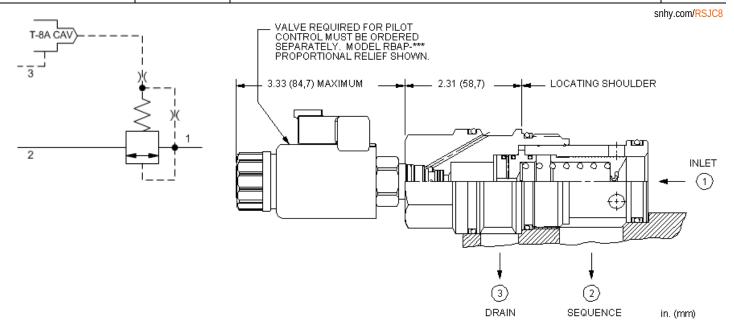
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: RSHC8WN

MINIMUM CONTROL PRESSURE	(W)	SEAL MATERIAL	(N)
W 100 psi (7 bar)		N Buna-N	
D 25 psi (1,7 bar)		V Viton	

iun hydraulics



This valve is a normally closed modulating element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced piston design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the modulating element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	T-8A
Main stage leakage at 110 SUS (24 cSt)	80 cc/min.@70 bar
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: RSJC8WN

MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	

D 25 psi (1,7 bar)

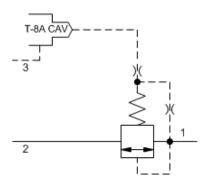
V Viton

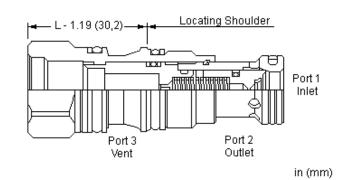


MODEL RSDS8



snhy.com/RSDS8





This valve is a normally closed poppet element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

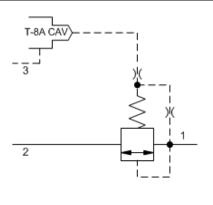
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Response Time - Typical	10 ms
Pilot Control Cavity	Т-8А
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990011007
Seal kit - Cartridge	Polyurethane: 990011002
Seal kit - Cartridge	Viton: 990011006

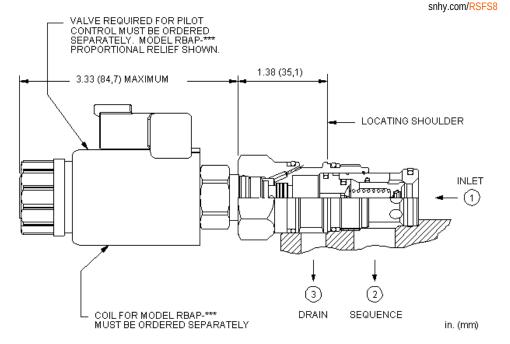
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

CONFIGURATION OPTIONS

Model Code Example: RSDS8WN

BIAS PRESSURE (W)	SEAL MATERIAL (N)
W 100 psi (7 bar)	N Buna-N	
D 50 psi (3,5 bar)	V Viton	-





This valve is a normally closed poppet element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar		
Control Pilot Flow	0,16 - 0,25 L/min.		
Response Time - Typical 10 ms			
Pilot Control Cavity	T-8A		
Pilot Control Valve Installation Torque	27 - 33 Nm		
Pilot Control Valve Hex Size	22,2 mm		
Main stage leakage at reseat	0,7 cc/min.		
Seal kit - Cartridge	Buna: 990402007		
Seal kit - Cartridge Polyurethane: 990002002			
Seal kit - Cartridge	Viton: 990402006		

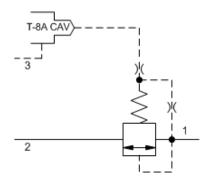
NOTES Compound cartridge (pilot and main stage) assembly information is provided for reference only. Cartridges must be ordered separately and assembled at point of use.

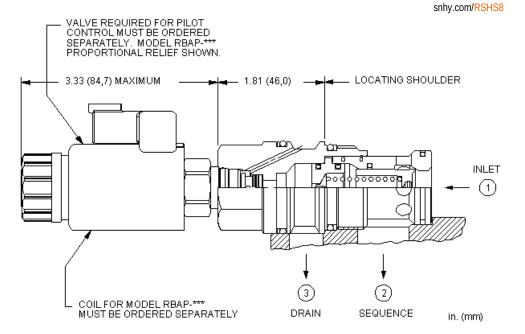
CONFIGURATION OPTIONS

Model Code Example: RSFS8WN

MINIMUM CONTROL PRESSURE	(W)	SEAL MATERIAL	(N)
W 100 psi (7 bar)		N Buna-N	
B 50 psi (3,5 bar)		V Viton	

MODEL RSHS8 Pilot operated, balanced poppet sequence main stage with integral T-8A control cavity
SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-17A





This valve is a normally closed poppet element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Control Pilot Flow	0,25 - 0,33 L/min.
Response Time - Typical	2 ms
Pilot Control Cavity	Т-8А
Pilot Control Valve Installation Torque	27 - 33 Nm
Pilot Control Valve Hex Size	22,2 mm
Main stage leakage at reseat	0,7 cc/min.
Seal kit - Cartridge	Buna: 990217007
Seal kit - Cartridge Polyurethane: 990217002	
Seal kit - Cartridge	Viton: 990217006

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.

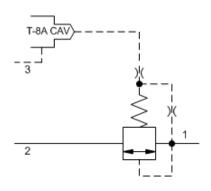
CONFIGURATION OPTIONS

Model Code Example: RSHS8WN

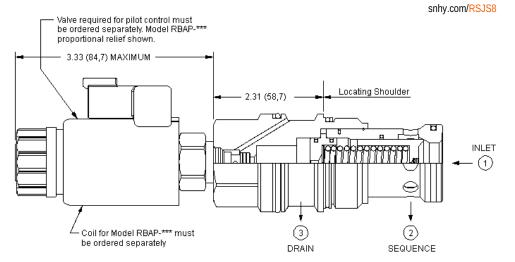
MINIMUM CONTROL PRESSURE (W)	SEAL MATERIAL (N)
W 100 psi (7 bar)	N Buna-N
B 50 psi (3,5 bar)	V Viton

Pilot operated, balanced poppet sequence main stage with integral T-8A control cavity
SERIES 4 / CAPACITY: 480 L/min. / CAVITY: T-19A





iun hydraulics"



This valve is a normally closed poppet element that incorporates an integral pilot control cavity. It is externally drained, and is a balanced poppet design. The pilot control cavity will accept any T-8A pressure control cartridge. When the pressure at the inlet (port 1) reaches the pilot control cartridge's setting, the poppet element starts to open to port 2, throttling flow to regulate the pressure. The pilot cartridge's setting determines the difference in pressure between the inlet (port 1) and the drain (port 3). These valves are insensitive to back pressure at port 2, up to the valve setting. They may be used to regulate pressure in place of 2-port relief valves if there is pressure in the return line.

TECHNICAL DATA

Maximum Operating Pressure	350 bar		
Control Pilot Flow 0,25 - 0,33 L/min.			
Response Time - Typical	2 ms		
Pilot Control Cavity	T-8A		
Pilot Control Valve Installation Torque	27 - 33 Nm		
Pilot Control Valve Hex Size	22,2 mm		
Main stage leakage at reseat	0,7 cc/min.		
Seal kit - Cartridge	Buna: 990219007		
Seal kit - Cartridge	Viton: 990219006		

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: RSJS8WN

MINIMUM CONTROL PRESSURE	(W) SEAL MATERIAL	(N)
W 100 psi (7 bar)	N Buna-N	

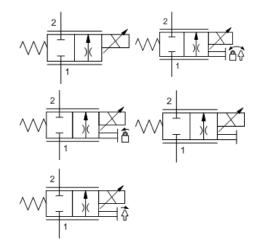
B 50 psi (3,5 bar)

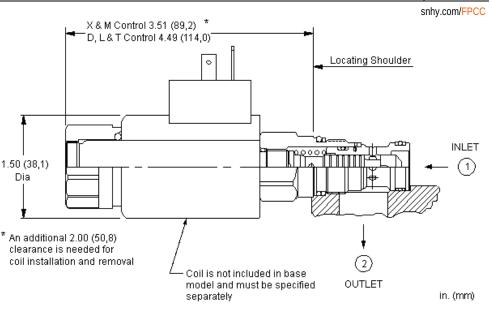
V Viton



MODEL FPCC







This valve is a normally closed, electro-proportional throttle that is spring-biased closed. Energizing the coil generates an opening force on the spool proportional to the command current, and this force is countered by the spring and flow forces. This force balance creates a metering orifice whose effective size is proportional to the current. The valve exhibits a large degree of self-compensation in the 1-to-2 direction and will provide proportional flow control in the 2-to-1 direction with the addition of an external compensator. Full reverse flow (2-to-1) with 100% command in the 2-to-1 direction is possible without a compensator under all conditions.

TECHNICAL DATA

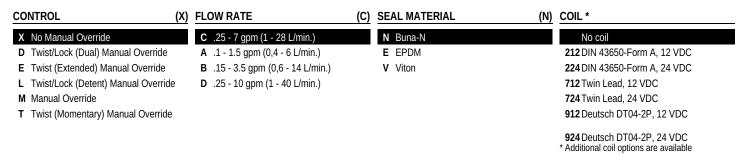
Maximum Valve Leakage at 110 SUS (24 cSt)	100 cc/min.@210 bar		
Manual Override Force Requirement	33 N/100 bar @ Port 1		
Manual Override Stroke	2,5 mm		
Seal kit - Cartridge	Buna: 990413007		
Seal kit - Cartridge	EPDM: 990010014		
Seal kit - Cartridge	Polyurethane: 990413002		
Seal kit - Cartridge	Viton: 990413006		

NOTES

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

CONFIGURATION OPTIONS

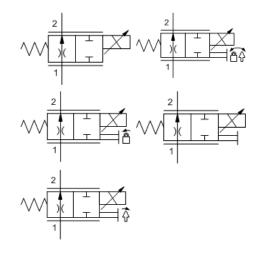
Model Code Example: FPCCXCN

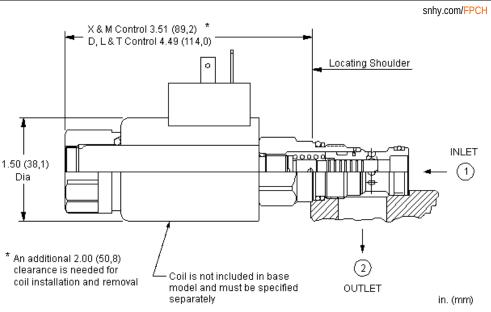




MODEL FPCH







This valve is a normally open electro-proportional throttle that is spring-biased open. Energizing the coil generates an closing force on the spool proportional to the command current, and this force is countered by the spring and flow forces. This force balance creates a metering orifice whose effective size is proportional to the current. The valve exhibits a large degree of self-compensation in the 1-to-2 direction and will provide proportional flow control in the 2-to-1 direction with the addition of an external compensator. Full reverse flow (2-to-1) with no command in the 2-to-1 direction is possible without a compensator under all conditions.

TECHNICAL DATA

Maximum Valve Leakage at 110 SUS (24 cSt)	100 cc/min.@210 bar		
Manual Override Force Requirement	33 N/100 bar @ Port 1		
Manual Override Stroke	2,5 mm		
Seal kit - Cartridge	Buna: 990413007		
Seal kit - Cartridge	Polyurethane: 990413002		
Seal kit - Cartridge	Viton: 990413006		

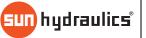
NOTES

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

CONFIGURATION OPTIONS

Model Code Example: FPCHXCN

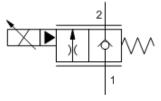
CONTROL	(X)	FLOW RATE	(C)	SEAL MATERIAL	(N)	COIL *
X No Manual Override		C .25 - 7 gpm (1 - 28 L/min.)		N Buna-N		No coil
D Twist/Lock (Dual) Manual Override		A .1 - 1.5 gpm (0,4 - 6 L/min.)		E EPDM		212 DIN 43650-Form A, 12 VDC
E Twist (Extended) Manual Override		B .15 - 3.5 gpm (0,6 - 14 L/min.)		V Viton		224 DIN 43650-Form A, 24 VDC
L Twist/Lock (Detent) Manual Override	е					712 Twin Lead, 12 VDC
M Manual Override						724 Twin Lead, 24 VDC
T Twist (Momentary) Manual Override	9					912 Deutsch DT04-2P, 12 VDC
						924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available



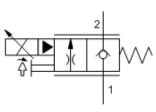
MODEL FPFK Pilot operated, normally closed, electro-proportional throttle with reverse flow check SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-5A



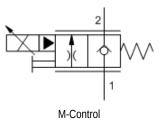
snhy.com/FPFK

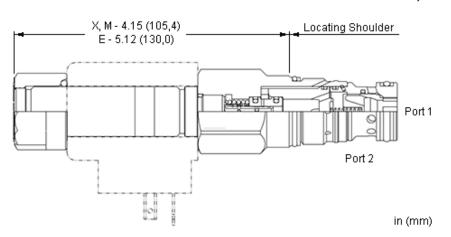


X-Control



E-Control





This valve is a pilot-operated, normally closed, electro-proportional throttle with reverse free-flow check. Energizing the coil generates an opening force on the pilot stage which vents the main stage poppet to open proportionally. Metered flow is from port 1 to port 2 with reverse free flow from port 2 to port 1.

TECHNICAL DATA

Recommended dither frequency	100 Hz
Maximum Valve Leakage at 110 SUS (24 cSt)	20 drops/min.@5000 psi
Manual Override Force Requirement	33 N/100 bar @ Port 1
Deadband, nominal (as a percentage of input)	25%
Manual Override Stroke	1,50 mm
Seal kit - Cartridge	Buna: 990203007
Seal kit - Cartridge	EPDM: 990203014
Seal kit - Cartridge	Viton: 990203006

CONFIGURATION OPTIONS

Model Code Example: FPFKXDN

CONTROL	(X) FLOW RATE (D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override	D Nominal 20 gpm @ 200 psi (14 bar)	N Buna-N		No coil
E Twist (Extended) Manual Override	differential (80 L/min.)	E EPDM		212 DIN 43650-Form A, 12 VDC
M Manual Override	B Nominal 10 gpm @ 200 psi (14 bar)	V Viton		224 DIN 43650-Form A, 24 VDC
	differential (40 L/min.)			712 Twin Lead, 12 VDC
				724 Twin Lead, 24 VDC
				912 Deutsch DT04-2P, 12 VDC
				924 Deutsch DT04-2P, 24 VDC

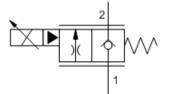
* Additional coil options are available

Created on 11/05/2016

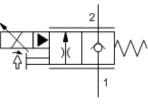
Pilot operated, normally closed, electro-proportional throttle with reverse flow check

SERIES 3 / CAPACITY: 240 L/min. / CAVITY: T-16A

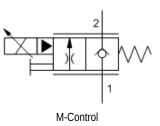


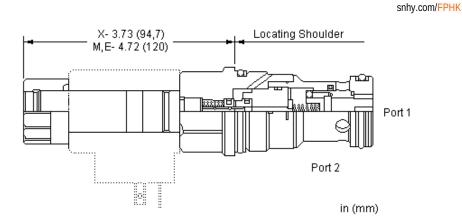


X-Control



E-Control





This valve is a pilot-operated, normally closed, electro-proportional throttle with reverse free-flow check. Energizing the coil generates an opening force on the pilot stage which vents the main stage poppet to open proportionally. Metered flow is from port 1 to port 2 with reverse free flow from port 2 to port 1.

TECHNICAL DATA

Recommended dither frequency	100 Hz
Maximum Valve Leakage at 110 SUS (24 cSt)	0,7 cc/min.@350 bar
Manual Override Force Requirement	33 N/100 bar @ Port 1
Deadband, nominal (as a percentage of input)	25%
Manual Override Stroke	1,50 mm
Seal kit - Cartridge	Buna: 990016007
Seal kit - Cartridge	Polyurethane: 990016002
Seal kit - Cartridge	Viton: 990016006

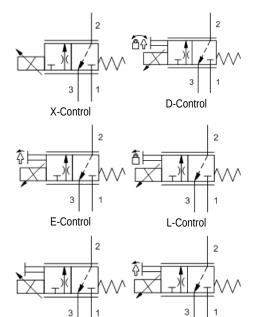
CONFIGURATION OPTIONS

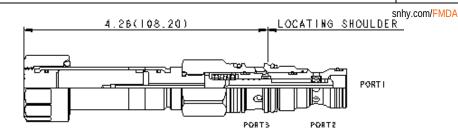
Model Code Example: FPHKXCN

CONTROL	(X)	FLOW RATE	(C)	SEAL MATERIAL	(N)	COIL *
 X No Manual Override E Twist (Extended) Manual Override M Manual Override 		 C Nominal 40 gpm @ 200 psi (14 bar differential (160 L/min.) A Nominal 20 gpm @ 200 psi (14 bar differential (80 L/min.) E Nominal 60 gpm @ 200 psi (14 bar differential (240 L/min.) 	r) r)	N Buna-N E EPDM V Viton		No coil 212 DIN 43650-Form A, 12 VDC 224 DIN 43650-Form A, 24 VDC 712 Twin Lead, 12 VDC 724 Twin Lead, 24 VDC 912 Deutsch DT04-2P, 12 VDC 924 Deutsch DT04-2P, 24 VDC
						* Additional coil options are available

T-Control







This valve is a 3-way, meter-in, electro-proportional throttle. The flow path, unenergized, has the supply blocked at port 1 and port 2 is drained to tank at port 3. Energizing the coil generates a closing force on the spool, creating a metering orifice in the 1 to 2 direction that is proportional to the coil command current. The valve self-compensates in the 1-to-2 direction and with the addition of an external compensator will provide pressure compensated flow control.

Flow in the 2-to-3 direction is not proportional and is limited in the interest of increased resolution and capacity. Flow capacity in the 2-to-3 direction is about 1.5 gpm (6 L/min). This valve is meant to be used in a circuit that has a separate passage to tank such as a cushion lock circuit. Two FMDAs in conjunction with a cushion lock circuit create a meter-in/meter-out 3-position 4-way.

TECHNICAL DATA

Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Manual Override Force Requirement	33 N/100 bar @ Port 1
Manual Override Stroke	2,5 mm
Seal kit - Cartridge	Buna: 990411007
Seal kit - Cartridge	Viton: 990411006

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

CONFIGURATION OPTIONS

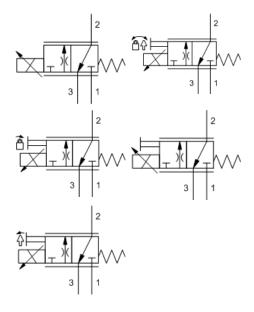
M-Control

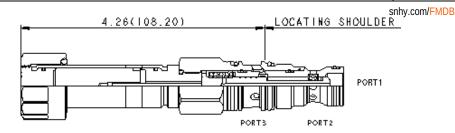
Model Code Example: FMDAXDN

CONTROL (X) FLOW RATE	(D)	SEAL MATERIAL	(N)	COIL *
X No Manual Override	D .1 - 9 gpm (0,4 - 34 L/min.)		N Buna-N		No coil
D Twist/Lock (Dual) Manual Override	A .1 - 1.6 gpm (0,4 - 6.1 L/min.)		V Viton		212 DIN 43650-Form A, 12 VDC
E Twist (Extended) Manual Override	B .1 - 4 gpm (0,4 - 15 L/min.)				224 DIN 43650-Form A, 24 VDC
L Twist/Lock (Detent) Manual Override	C .1 - 6 gpm (0,4 - 23 L/min.)				712 Twin Lead, 12 VDC
M Manual Override					724 Twin Lead, 24 VDC
T Twist (Momentary) Manual Override					912 Deutsch DT04-2P, 12 VDC
					924 Deutsch DT04-2P, 24 VDC
					* Additional coil options are available

Created on 11/05/2016 © 2016 Sun Hydraulics Corporation See www.sunhydraulics.com for detailed product information







This valve is a 3-way, meter-in, electro-proportional throttle. The flow path, unenergized, has the supply blocked at port 1 and port 2 connected to tank at port 3. Energizing the coil generates a closing force on the spool, creating a metering orifice in the 1 to 2 direction that is proportional to the coil command current. The valve self-compensates in the 1 to 2 direction and with the addition of an external compensator will provide pressure compensated flow control. Flow in the 2 to 3 direction is not proportional.

TECHNICAL DATA

Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Manual Override Force Requirement	33 N/100 bar @ Port 1
Manual Override Stroke	2,5 mm
Seal kit - Cartridge	Buna: 990411007
Seal kit - Cartridge	Viton: 990411006

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

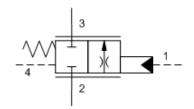
CONFIGURATION OPTIONS

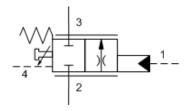
Model Code Example: FMDBXCN

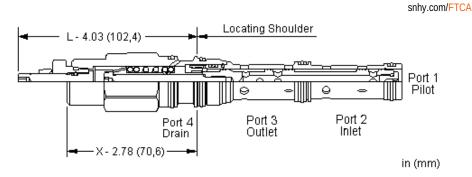
CONTROL	(X) FLOW RATE	(C) SEAL MATERIAL	(N) COIL *
X No Manual Override	C .1 - 6 gpm (0,4 - 23 L/mi	n.) N Buna-N	No coil
D Twist/Lock (Dual) Manual Override	A .1 - 1.6 gpm (0,4 - 6.1 L/	min.) V Viton	212 DIN 43650-Form A, 12 VDC
E Twist (Extended) Manual Override	B .1 - 4 gpm (0,4 - 15 L/mi	n.)	224 DIN 43650-Form A, 24 VDC
L Twist/Lock (Detent) Manual Override	le		712 Twin Lead, 12 VDC
M Manual Override			724 Twin Lead, 24 VDC
T Twist (Momentary) Manual Override	e		912 Deutsch DT04-2P, 12 VDC
			924 Deutsch DT04-2P, 24 VDC
			* Additional coil options are available

* Additional coil options are available









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 opposes the spring and creates a variable metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

The valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	5,5 bar
Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,82 cc
Adjustment - Number of Counterclockwise Turns - Fully Closed to Fully Open	5
Hysteresis	±2%
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

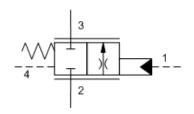
NOTES When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops.

CONFIGURATION OPTIONS

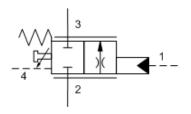
Model Code Example: FTCAXCN

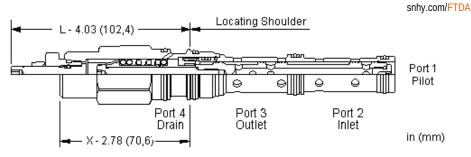
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
X Not Adjustable	C Normally Closed	N Buna-N	
L Stroke Adjustment		V Viton	





un hydraulics





This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 opposes the spring and creates a variable metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

The valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	5,5 bar
Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,82 cc
Hysteresis	±2%
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

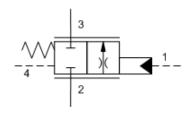
NOTES When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops.

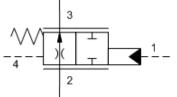
CONFIGURATION OPTIONS

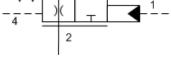
Model Code Example: FTDAXCN

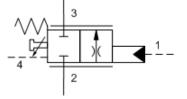
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
X Not Adjustable	C Normally Closed	N Buna-N	
L Stroke Adjustment		V Viton	

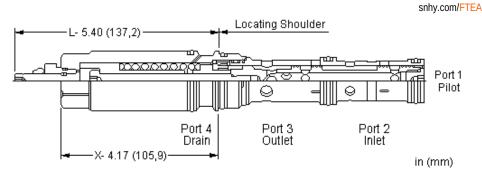












This valve is a 2-way, 2-position proportional throttle. Pilot pressure at port 1 opposes the spring and creates a variable metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

The valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	5,5 bar
Pilot Pressure Required for Full Shift at Rated Flow	24 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Adjustment - Number of Counterclockwise Turns - Fully Closed to Fully Open	5
Hysteresis	± 2 %
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

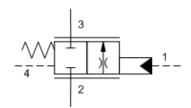
When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops. NOTES

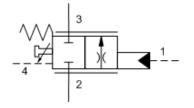
CONFIGURATION OPTIONS

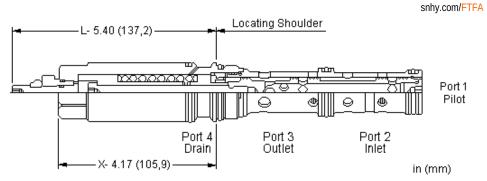
Model Code Example: FTEAXCN

CONTROL (X) SPOOL CONFIGURATION (C) <u>SEAL MATERIAL</u> (N)
X Not Adjustable	C Normally Closed	N Buna-N
L Stroke Adjustment	H Normally Open	V Viton









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 opposes the spring and creates a variable metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

The valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	4 bar
Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Adjustment - Number of Counterclockwise Turns - Fully Closed to Fully Open	5
Hysteresis	± 2 %
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

NOTES When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops.

CONFIGURATION OPTIONS

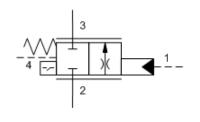
Model Code Example: FTFAXCN

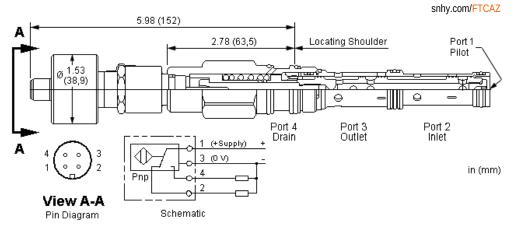
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N) MATERIAL/COATING
X Not Adjustable	C Normally Closed	N Buna-N	Standard Material/Coating
L Stroke Adjustment		V Viton	IAP Stainless Steel, Passivated



MODEL FTCAZ







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	3,5 bar
Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

NOTES When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops.

CONFIGURATION OPTIONS

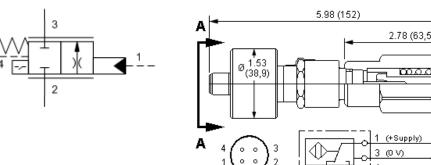
Model Code Example: FTCAZCN

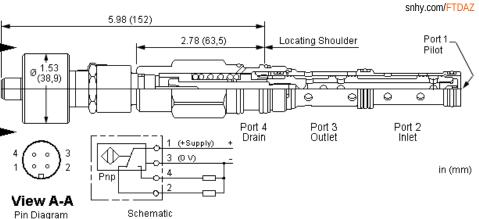
SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
C Normally Closed	N Buna-N	
	V Viton	



MODEL **FTDAZ**







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,82 cc
Seal kit - Cartridge	Buna: 990152007
Seal kit - Cartridge	Viton: 990152006

When installed in Sun's standard T-52A line mount manifold, plug unused ports and expect higher pressure drops. NOTES

CONFIGURATION OPTIONS

Model Code Example: FTDAZCN

(N)

SPOOL CONFIGURATION (C) SEAL MATERIAL

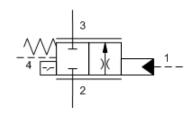
C Normally Closed

N Buna-N

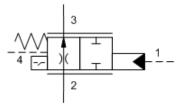
V Viton

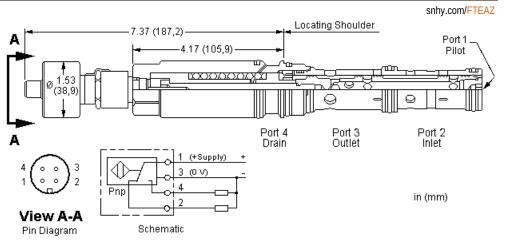
MODEL FTEAZ 2-way, pilot shifted, dual path, proportional throttle with position switch SERIES 3 / CAPACITY: 95 L/min. / CAVITY: T-53AD





un hydraulics





This valve is a 2-way, 2-position proportional throttle. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design, Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide position confirmation.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	5,5 bar
Pilot Pressure Required for Full Shift at Rated Flow	24 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

NOTES When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops.

CONFIGURATION OPTIONS

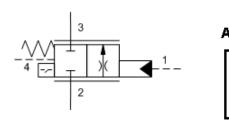
Model Code Example: FTEAZCN

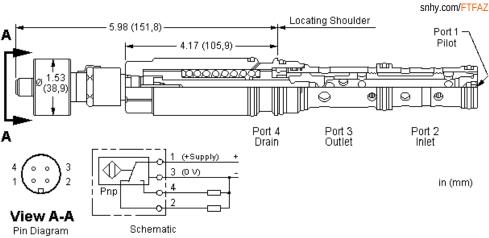
SPOOL CONFIGURATION	(C)	SEAL MATERIAL	(N)
C Normally Closed		N Buna-N	
H Normally Open		V Viton	



MODEL FTFAZ







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The metering passage is self-compensating.

This valve uses a dual-path design. Ports 2 and 3 incorporate a double-port area.

This valve incorporates a position switch to provide confirmation that the valve is closed.

TECHNICAL DATA

Minimum Pilot Pressure Required to Shift Valve	4 bar
Pilot Pressure Required for Full Shift at Rated Flow	20 bar
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	160 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Seal kit - Cartridge	Buna: 990053007
Seal kit - Cartridge	Viton: 990053006

NOTES When installed in Sun's standard T-53A line mount manifold, plug unused ports and expect higher pressure drops.

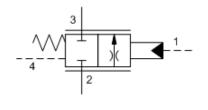
CONFIGURATION OPTIONS

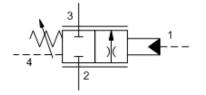
Model Code Example: FTFAZCN

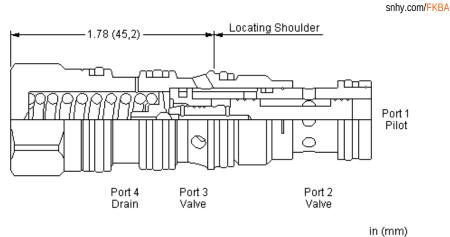
SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
C Normally Closed	N Buna-N	
	V Viton	

2-way, pilot shifted, proportional throttle SERIES 1 / CAPACITY: 20 L/min. / CAVITY: T-21A









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

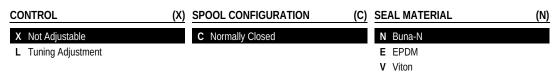
Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

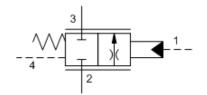
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,33 cc
Minimum Pilot Pressure to Operate	7 bar
Hysteresis	± 2 %
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	EPDM: 990021014
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

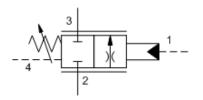
CONFIGURATION OPTIONS

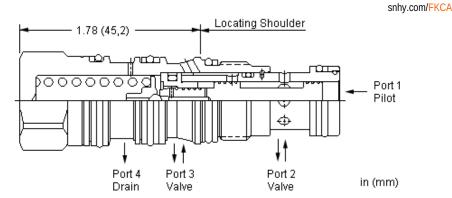
Model Code Example: FKBAXCN











This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

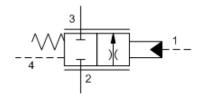
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	0,33 cc
Minimum Pilot Pressure to Operate	7 bar
Hysteresis	± 2 %
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006

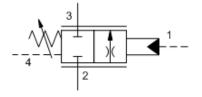
CONFIGURATION OPTIONS

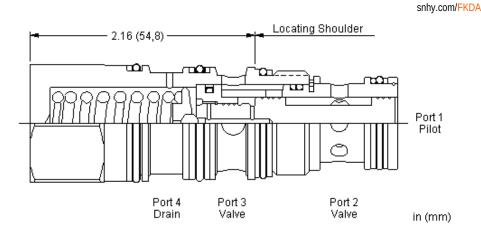
Model Code Example: FKCAXCN

CONTROL	(X)	SPOOL CONFIGURATION	(C)	SEAL MATERIAL	(N)
X Not Adjustable		C Normally Closed		N Buna-N	
L Tuning Adjustment				V Viton	









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar	
Pilot Volume Displacement	.03 in ³	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis	± 2 %	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Locknut Hex Size	15 mm	
Locknut Torque	9 - 10 Nm	
Seal kit - Cartridge	Buna: 990022002	
Seal kit - Cartridge	Polyurethane: 990022002	
Seal kit - Cartridge	Viton: 990022006	

(N)

CONFIGURATION OPTIONS

Model Code Example: FKDAXCN

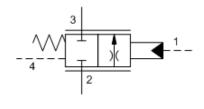
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL
X Not Adjustable	C Normally Closed	N Buna-N
L Tuning Adjustment		V Viton

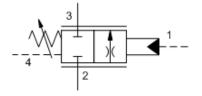
Created on 11/05/2016 © 2016 Sun Hydraulics Corporation See www.sunhydraulics.com for detailed product information

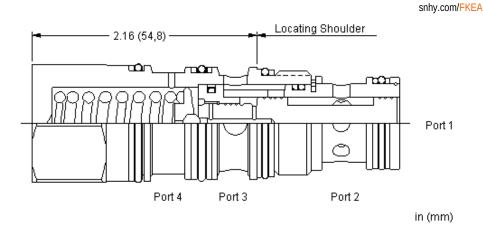


2-way, pilot shifted, proportional throttle, high capacity SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar	
Pilot Volume Displacement	4,9 cc	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis	± 2 %	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Locknut Hex Size	15 mm	
Locknut Torque	9 - 10 Nm	
Seal kit - Cartridge	Buna: 990022002	
Seal kit - Cartridge	Polyurethane: 990022002	
Seal kit - Cartridge	Viton: 990022006	

(N)

CONFIGURATION OPTIONS

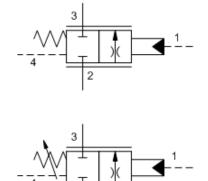
Model Code Example: FKEAXCN

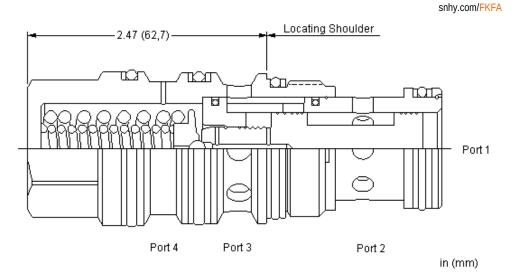
CONTROL	(X) SPOOL CONFIGURATION	(C)	SEAL MATERIAL	
X Not Adjustable	C Normally Closed		N Buna-N	
L Tuning Adjustment			V Viton	



MODEL FKFA







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

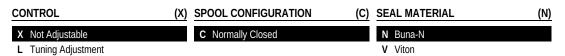
Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar	
Pilot Volume Displacement	1,6 cc	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis	± 2 %	
Adjustment - Number of Clockwise Turns to Increase 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

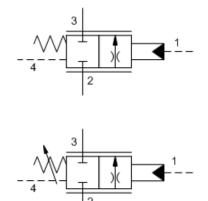
Model Code Example: FKFAXCN

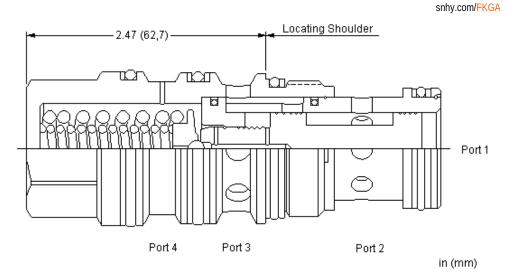




MODEL FKGA







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

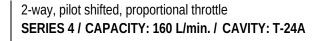
TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar	
Pilot Volume Displacement	1,6 cc	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis ± 2 %		
Adjustment - Number of Clockwise Turns to Increase 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: 99002300		
Seal kit - Cartridge	Viton: 990023006	

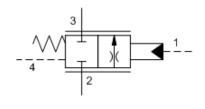
CONFIGURATION OPTIONS

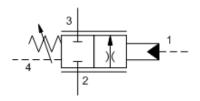
Model Code Example: FKGAXCN

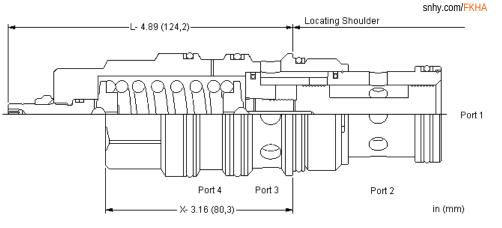
CONTROL	(X) SF	POOL CONFIGURATION	(C)	SEAL MATERIAL	(N)
X Not Adjustable	C	Normally Closed		N Buna-N	
L Tuning Adjustment				E EPDM	
				V Viton	











This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	98 cc/min.@70 bar	
Pilot Volume Displacement	3,3 cc	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis	±2%	
Adjustment - Number of Clockwise Turns to Increase 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	

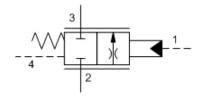
CONFIGURATION OPTIONS

Model Code Example: FKHAXCN

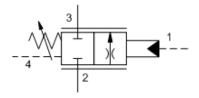
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
X Not Adjustable	C Normally Closed	N Buna-N	
L Tuning Adjustment		V Viton	

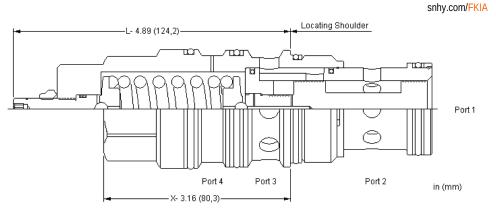
MODEL FKIA 2-way, pilot shifted, proportional throttle, high capacity SERIES 4 / CAPACITY: 240 L/min. / CAVITY: T-24A





<mark>un</mark> hydraulics"





This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	98 cc/min.@70 bar	
Pilot Volume Displacement	3,3 сс	
Minimum Pilot Pressure to Operate	7 bar	
Hysteresis	± 2 %	
Adjustment - Number of Clockwise Turns to Increase 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	

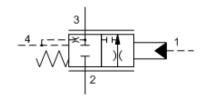
CONFIGURATION OPTIONS

Model Code Example: FKIAXCN

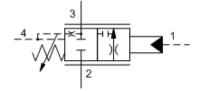
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)	MATERIAL/COATING
X Not Adjustable	C Normally Closed	N Buna-N		Standard Material/Coating
L Tuning Adjustment		V Viton		IAP Stainless Steel, Passivated

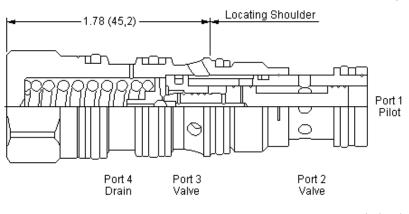


snhy.com/FKBB



un hydraulics





in (mm)

This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

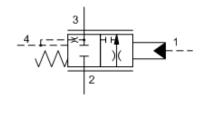
Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar	
Pilot Volume Displacement	0,33 cc	
Minimum Pilot Pressure to Operate	7 bar	
Bypass orifice	0,8 mm	
Hysteresis ± 2 %		
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Locknut Hex Size	15 mm	
Locknut Torque 9 - 10 Nm		
Seal kit - Cartridge Buna: 990021007		
Seal kit - Cartridge Polyurethane: 990021002		
Seal kit - Cartridge Viton: 990021006		

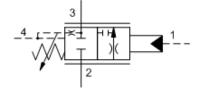
CONFIGURATION OPTIONS

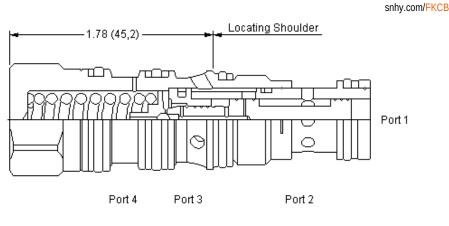
Model Code Example: FKBBXCN

CONTROL	(X)	SPOOL CONFIGURATION	(C)	SEAL MATERIAL	(N)
X Not Adjustable		C Normally Closed		N Buna-N	
L Tuning Adjustment				V Viton	









in (mm)

This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar	
Pilot Volume Displacement	0,33 cc	
Minimum Pilot Pressure to Operate	7 bar	
Bypass orifice	0,8 mm	
Hysteresis ± 2 %		
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Locknut Hex Size	15 mm	
Locknut Torque	9 - 10 Nm	
Seal kit - Cartridge Buna: 990021007		
Seal kit - Cartridge Polyurethane: 9900210		
Seal kit - Cartridge Viton: 990021006		

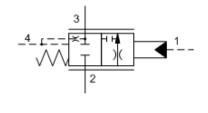
CONFIGURATION OPTIONS

Model Code Example: FKCBXCN

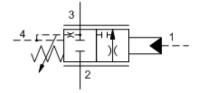
CONTROL	(X) SPOOL	CONFIGURATION	(C)	SEAL MATERIAL	(N)
X Not Adjustable	C Norm	nally Closed		N Buna-N	
L Standard Screw Adjustment				V Viton	

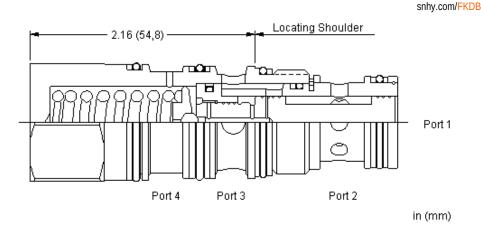
Created on 11/05/2016 © 2016 Sun Hydraulics Corporation See www.sunhydraulics.com for detailed product information





un hydraulics





This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

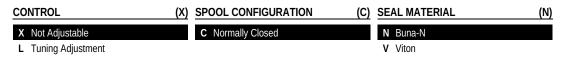
Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar	
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar	
Pilot Volume Displacement	4,9 cc	
Minimum Pilot Pressure to Operate	7 bar	
Bypass orifice	0,8 mm	
Hysteresis	± 2 %	
Adjustment - Number of Clockwise Turns to Increase Setting	5	
Locknut Hex Size 15 mm		
Locknut Torque 9 - 10 Nm		
Seal kit - Cartridge Buna: 990022002		
Seal kit - Cartridge Polyurethane: 990022002		
Seal kit - Cartridge Viton: 990022006		

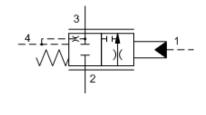
CONFIGURATION OPTIONS

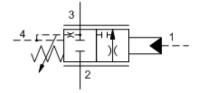
Model Code Example: FKDBXCN

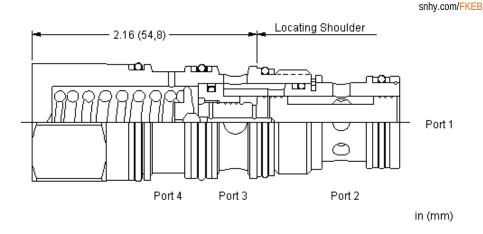


2-way, pilot shifted, proportional throttle with bleed down, high capacity SERIES 2 / CAPACITY: 80 L/min. / CAVITY: T-22A









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

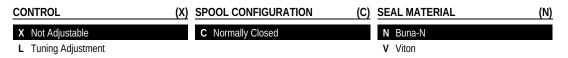
Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

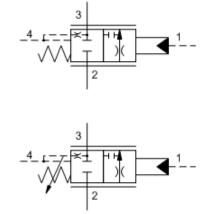
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	30 cc/min.@70 bar
Pilot Volume Displacement	4,9 cc
Minimum Pilot Pressure to Operate	7 bar
Bypass orifice	0,8 mm
Hysteresis	±2%
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990022002
Seal kit - Cartridge	Polyurethane: 990022002
Seal kit - Cartridge	Viton: 990022006

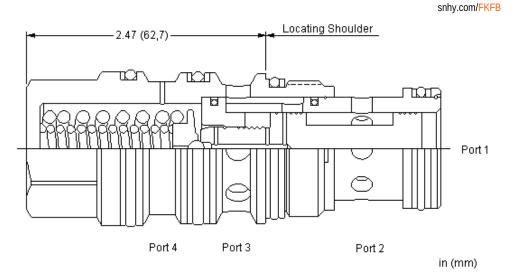
CONFIGURATION OPTIONS

Model Code Example: FKEBXCN









This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

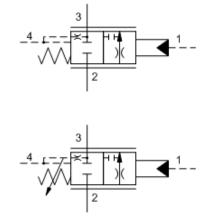
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Minimum Pilot Pressure to Operate	7 bar
Bypass orifice	0,8 mm
Hysteresis	± 2 %
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
Seal kit - Cartridge	EPDM: 990023014
Seal kit - Cartridge	Polyurethane: 990023002
Seal kit - Cartridge	Viton: 990023006

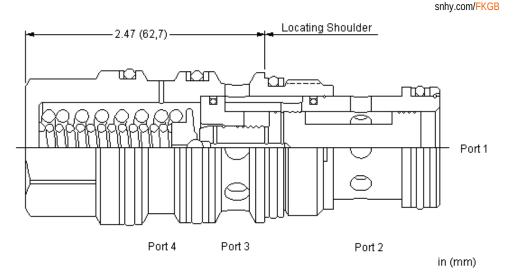
CONFIGURATION OPTIONS

Model Code Example: FKFBXCN

CONTROL	(X) SPOOL CO	ONFIGURATION (C)	SEAL MATERIAL	. (N)
X Not Adjustable	C Norma	lly Closed	N Buna-N	
L Tuning Adjustment			E EPDM	
			V Viton	







This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

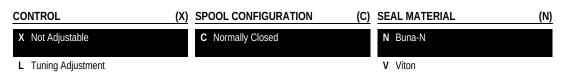
Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

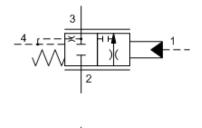
Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	65 cc/min.@70 bar
Pilot Volume Displacement	1,6 cc
Minimum Pilot Pressure to Operate	7 bar
Bypass orifice	0,8 mm
Hysteresis	± 2 %
Adjustment - Number of Clockwise Turns to Increase Setting	5
Locknut Hex Size	15 mm
Leelaut Terrine	0.10 Mm
Locknut Torque	9 - 10 Nm
Seal kit - Cartridge	Buna: 990023007
-	

CONFIGURATION OPTIONS

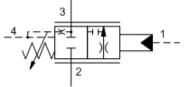
Model Code Example: FKGBXCN

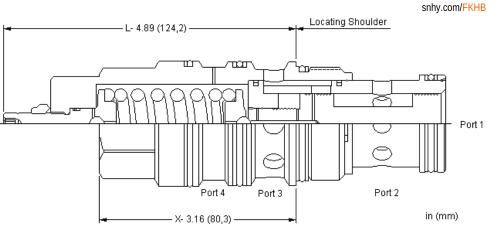






<mark>UN</mark> hydraulics





This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	98 cc/min.@70 bar
Pilot Volume Displacement	3,3 cc
Minimum Pilot Pressure to Operate	7 bar
Bypass orifice	0,8 mm
Hysteresis	±2%
Adjustment - Number of Clockwise Turns to Increase 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

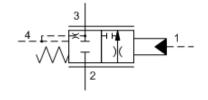
CONFIGURATION OPTIONS

Model Code Example: FKHBXCN

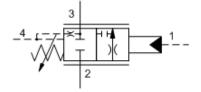
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
X Not Adjustable	C Normally Closed	N Buna-N	
L Tuning Adjustment		E EPDM	
		V Viton	

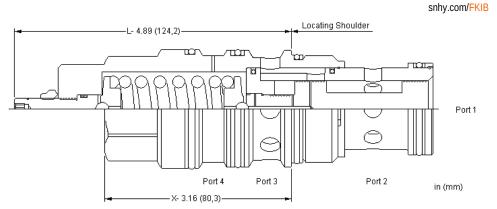
MODEL FKIB 2-way, pilot shifted, proportional throttle with bleed down, high capacity SERIES 4 / CAPACITY: 240 L/min. / CAVITY: T-24A





<mark>un</mark> hydraulics"





This valve is a 2-way, 2-position proportional throttle. Ports 2 and 3 are normally closed. Pilot pressure at port 1 creates a metering orifice between port 2 and 3 that is proportional to the pressure at 1. The force balance of the flow forces, spring and pilot pressure results in a degree of partial self-compensation as the load pressure changes.

This valve includes a bleed-down feature which connects ports 3 to 4 in the spring-biased position. The bleed-down feature is useful when the valve is used as a meter-in flow control in circuits which include counterbalance valves downstream of port 3. The bleed-down connection is closed as the valve is piloted with increasing pressure at port 1.

Pressure at port 4 directly opposes pressure at port 1.

TECHNICAL DATA

Maximum Operating Pressure	350 bar
Maximum Valve Leakage at 110 SUS (24 cSt)	98 cc/min.@70 bar
Pilot Volume Displacement	3,3 cc
Minimum Pilot Pressure to Operate	7 bar
Bypass orifice	0,8 mm
Hysteresis	± 2 %
Adjustment - Number of Clockwise Turns to Increase 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: FKIBXCN

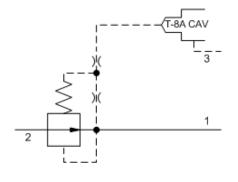
CONTROL	(X) SPOOL CONFIGURATION	(C) SEAL MATERIAL	(N)
X Not Adjustable	C Normally Closed	N Buna-N	
L Tuning Adjustment		V Viton	

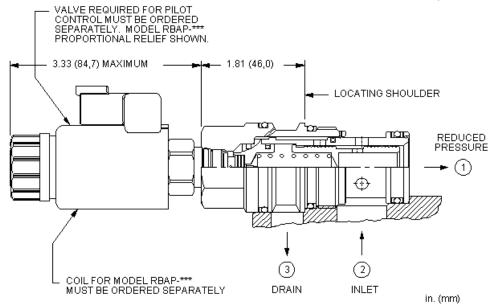


MODEL PBHF8



snhy.com/PBHF8





This valve is a 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. The pilot cartridge's setting determines the difference in pressure between reduced pressure (port 1) and the drain (port 3).

TECHNICAL DATA

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	Т-8А
Seal kit - Cartridge	Buna: 990017007
Seal kit - Cartridge	EPDM: 990017014
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: PBHF8WN

(N)

MINIMUM CONTROL PRESSURE	(W)	SEAL MATERIAL	
W 100 psi (7 bar)		N Buna-N	
		E EDDM	

D 25 psi (1,7 bar)

E EPDM V Viton



Corporate Headquarters 1500 West University Parkway Sarasota, FL 34243 U.S.A. Phone: 941.362.1200 suninfo@sunhydraulics.com

ONE RELIABLE SOURCE ENDLESS SOLUTIONS



Sun Hydraulics Limited Wheler Road Coventry CV3 4LA England Ph: +44-2476-217-400 sales@sunuk.com

Sun Hydraulics Korea Corp.

92 Hogupo-ro Namdong-gu Incheon 405-818 Korea Ph: +82-32-813-1350 sales@sunhydraulics.co.kr Sun Hydraulik GmbH Brüsseler Allee 2 D-41812 Erkelenz Germany Ph: +49-2431-8091-0 sales@sunhydraulik.de

Sun Hydraulics China Co. Ltd

Hong Kong New World Tower 47th Floor 300, Huaihai Zhong Road Shanghai 200021 P.R.China Ph: +86-21-5116-2862 <u>sunchinainfo@sunhydraulics.com</u> Sun Hydraulics Corporation 55 rue Fragonard Résidence Rambouillet - Appt A-42 33520 Bruges France Ph: +33-673063371 info@sunfr.com

Sun Hydraulics (India)

No. 48 'Regent Prime' Unit No. 306, Level 3 Whitefield Main Road, Whitefield, Bangalore - 560 066 India Ph: +0091-80-28456325 sunindiainfo@sunhydraulics.com