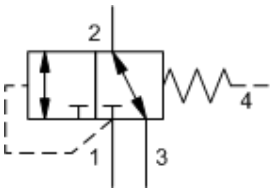
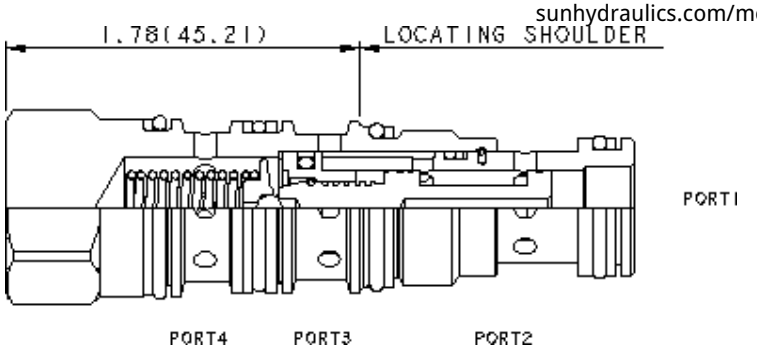
MODEL
DRBOX

3-way, direct-acting, fixed setting, directional valve with drain to port 4 (1 blocked, 2 to 3 open)
SERIES 1 / CAPACITY: 7 gpm / CAVITY: T-21A

sunhydraulics.com/model/DRBOX





CONFIGURATION

F	Shifting Pressure	100 psi (7 bar)
N	Seal Material	Buna-N
(none)	Material/Coating	

Direct-acting, 3-way directional cartridges (1 blocked, 2 to 3 open) are switching devices typically used in moderate flow circuits. They can be used by themselves or to actuate larger pilot-operated directional cartridges or logic cartridges. The valve shifts when the pressure differential between port 1 and port 4 exceeds the setting.

TECHNICAL DATA

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

Cavity	T-21A
Series	1
Capacity	7 gpm
Maximum Operating Pressure	5000 psi
Factory Pressure Settings Established at	4 gpm
Maximum Valve Leakage at 110 SUS (24 cSt)	2 in³/min.
Valve Hex Size	7/8 in.
Valve Installation Torque	30 - 35 lbf ft
Seal kit - Cartridge	Buna: 990021007
Seal kit - Cartridge	Polyurethane: 990021002
Seal kit - Cartridge	Viton: 990021006
Model Weight	0.32 lb.

CONFIGURATION OPTIONS

Model Code Example: DRBOXArray

SHIFTING PRESSURE (F)	SEAL MATERIAL (N)	MATERIAL/COATING
F 100 psi (7 bar)	**N** Buna-N	Standard Material/Coating
	V Viton	**/AP** Stainless Steel, Passivated
		/LH Mild Steel, Zinc-Nickel

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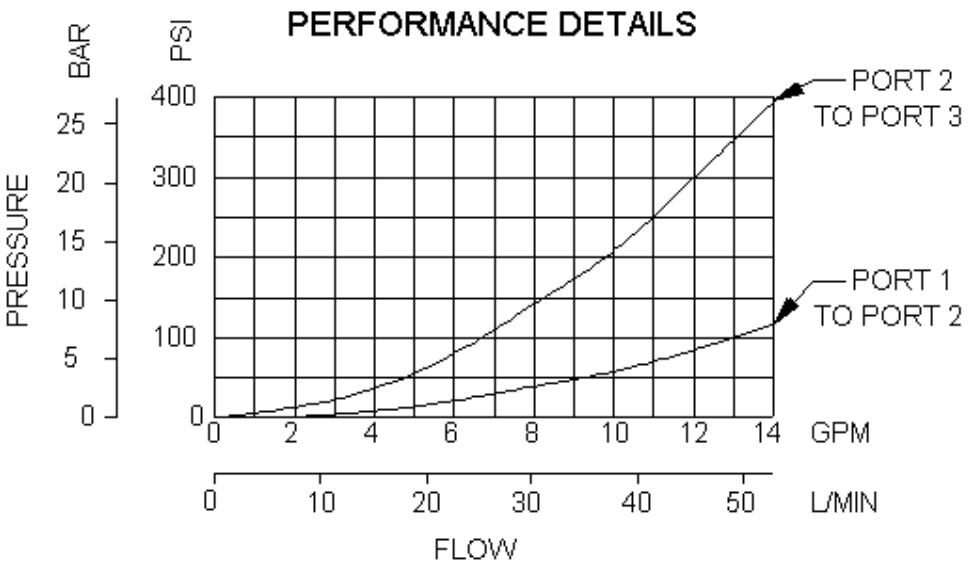
TECHNICAL FEATURES

- Port 3 can be used as a work port.
- The flow path between port 2 and port 3 is bidirectional.
- Because of their direct-acting design, these cartridges feature low internal leakage and low pilot flow consumption.
- Direct-acting and pilot-operated versions of these valves are interchangeable. They fit the same cavities and have the same flow paths.
- Pressure at port 4 is directly additive to the setting of the valve.
- This valve is not bistable; it is capable of modulating between the two positions shown.
- The flow path between port 1 and port 2 is bidirectional.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar). This is due to fatigue strength limits not hydraulic operating limits.
- Incorporates the Sun floating-style construction to minimize the possibility of internal parts binding due to excessive installation torque and/or cavity/cartridge machining variations.

PERFORMANCE CURVES



RELATED MODELS

- DRBO 3-way, direct-acting, directional valve with drain to port 4 (1 blocked, 2 to 3 open)

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