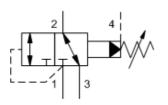




3-way, pilot-operated, directional valve with drain to port 4 (1 blocked, 2 to 3 open)

SERIES 1 / CAPACITY: 28 L/min. / CAVITY: T-21A





# sunhydraulics.com/model/DPBO 3.09(78.48) LOCATING SHOULDER PORTI PORT4 PORT3 PDRT2

# **CONFIGURATION**

L	Control	Standard Screw Adjustment	
Α	Adjustment Range	100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting	
N	Seal Material	Buna-N	
(none) Material/Coating		Standard Material/Coating	

Pilot-operated, 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	28 L/min.
Factory Pressure Settings Established at	15 L/min.
Maximum Operating Pressure	350 bar
Control Pilot Flow	0,11 - 0,16 L/min.
Maximum Valve Leakage at 110 SUS (24 cSt)	15 cc/min.@70 bar
Adjustment - No. of CW Turns from Min. to Max. setting	5
Valve Hex Size	22,2 mm
Valve Installation Torque	41 - 47 Nm
Adjustment Screw Internal Hex Size	4 mm
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
Model Weight	0.19 kg.

# **CONFIGURATION OPTIONS**

# Model Code Example: DPBOLAN

# L Standard Screw Adjustment

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

CONTROL

# **A** 100 - 3000 psi (7 - 210 bar), 1000 psi (70 bar) Standard Setting

(L) ADJUSTMENT RANGE

- **B** 50 1500 psi (3,5 105 bar), 1000 psi (70 bar) Standard Setting
- **D** 25 800 psi (1,7 55 bar), 400 psi (28 bar) Standard Setting
- **E** 25 400 psi (1,7 28 bar), 200 psi (14 bar) Standard Setting
- J 25 1500 psi (1,7 105 bar), 1000 psi (70 bar) Standard Setting
- **W** 150 4500 psi (10,5 315 bar), 1000 psi (70 bar) Standard Setting

# SEAL MATERIAL N Buna-N

**V** Viton

# Standard Material/Coating

(N) MATERIAL/COATING

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

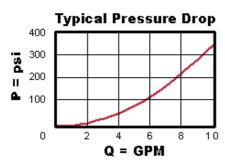
psi (70 bar) Standard Setting

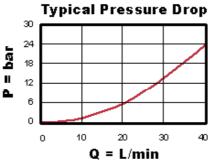
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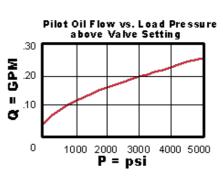
# **TECHNICAL FEATURES**

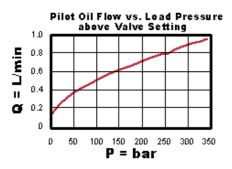
- Port 4 can be blocked to prevent the valve from shifting.
- Port 3 can be used as a work port.
- · Direct-acting and pilot-operated versions of these valves are interchangeable. They fit the same cavities and have the same flow paths.
- Pressure at port 4 is directly additive to the setting of the valve.
- This valve is not bistable; it is capable of modulating between the two positions shown.
- Maximum pressure at port 3 should be limited to 3000 psi (210 bar). This is due to fatigue strength limits not hydraulic operating limits.
- When pilot pressure exceeds the valve setting, pilot flow may be a consideration. See performance curves for pilot consumption vs. load pressure above the valve setting. If this is a problem, the direct acting version of this valve would be a solution.
- 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









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