

Technical Information

- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical Data

General Description

2-Way Manual Poppet Valve. The DL081 Series Valves are suited for emergency lowering applications and on-off flow applications.

Operation

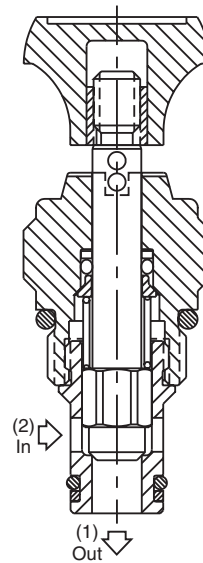
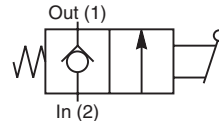
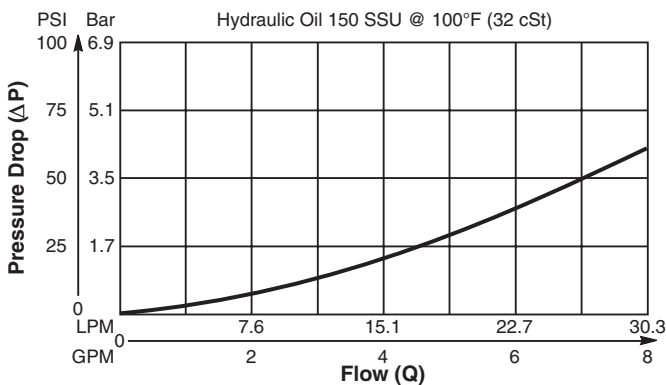
The DL081 Series Valves are mechanically operated check valves. Hydraulic force on the poppet is balanced by having equal area between the poppet seat and the valve stem, allowing the poppet to be manually pulled off the seat. When released, the bias spring will return the valve poppet to its closed position. Back pressure of more than 5.5 Bar (80 PSI) will prevent the bias spring from closing the poppet and must be avoided.

Features

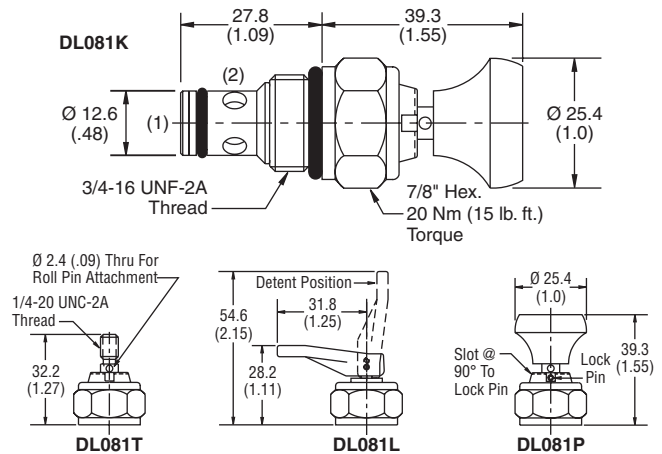
- Low leakage design
- Flip lever, pull handle, or detented pin design
- All external parts zinc plated

Performance Curve

Flow vs. Pressure Drop (Through cartridge only)



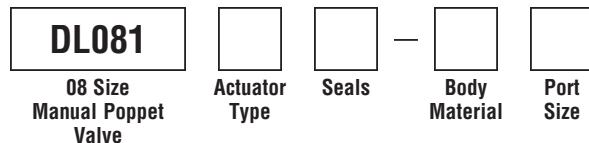
Dimensions Millimeters (Inches)



Specifications

Nominal Flow	30 LPM (8 GPM)
Max. Inlet Pressure	210 Bar (3000 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) at 210 Bar (3000 PSI)
Max. Allowable Tankline Pressure	5.5 Bar (80 PSI)
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Cartridge Material	Stem, stainless steel. All other parts hardened steel.
Filtration	ISO code 16/13, SAE Class 4 or better
Approx. Weight	0.08 kg (0.17 lbs.)
Cavity	C08-2
Form Tool	Rougher None Finisher NFT08-2F

Ordering Information



Code	Actuator Type
K	Knob (852525)
T	Stem
L	Lever
P	Lock Pin

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
Omit	Nitrile / (SK08-2N)
V	Fluorocarbon / (SK08-2V)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

* Add "A" for aluminum, omit for steel.



General Description

2-Way Manual Poppet Valve. The DL101 Series Valves are suited for emergency lowering applications and on-off flow applications.

Operation

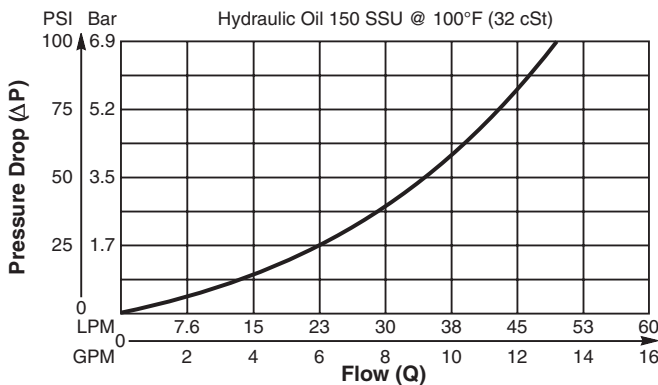
The DL101 Series Valves are mechanically operated check valves. Hydraulic force on the poppet is balanced by having equal area between the poppet seat and the valve stem, allowing the poppet to be manually pulled off the seat. When released, the bias spring will return the valve poppet to its closed position. Back pressure of more than 17.3 Bar (250 PSI) will prevent the bias spring from closing the poppet and must be avoided.

Features

- Low shut-off leakage
- Cartridge design
- Pull-to-Open design
- All external parts zinc plated

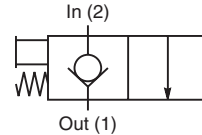
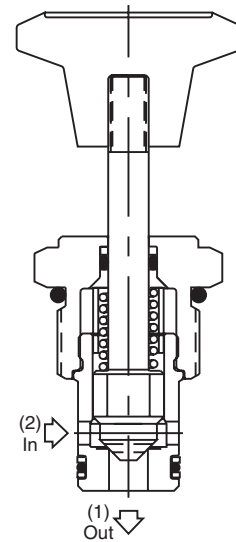
Performance Curve

Pressure Drop vs. Flow (Through cartridge only)

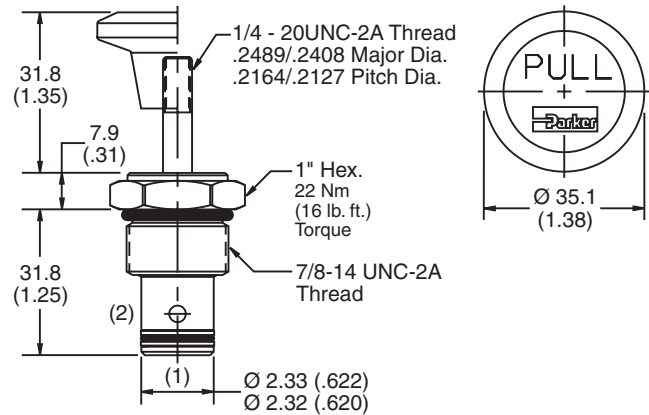


Specifications

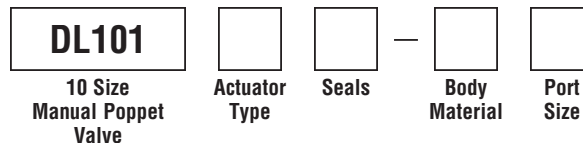
Nominal Flow	48.8 LPM (13 GPM)
Max. Inlet Pressure	240 Bar (3500 PSI)
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) at 240 Bar (3500 PSI)
Max. Allowable Tankline Pressure	17.3 Bar (250 PSI)
Operating Temp. Range (Ambient)	-40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Cartridge Material	Stem, stainless steel. All other parts hardened steel.
Filtration	ISO code 16/13, SAE Class 4 or better
Approx. Weight	0.09 kg (0.21 lbs.)
Cavity	C10-2
Form Tool	Rougher None Finisher NFT10-2F



Dimensions Millimeters (Inches)



Ordering Information



Code	Actuator Type
K	Knob (850020K)
T	Stem

Code	Body Material
Omit	Steel
A	Aluminum

Code	Seals / Kit No.
Omit	Nitrile / (SK10-2N)
V	Fluorocarbon / (SK10-2V)

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B10-2-*4P)
6P	3/8" NPTF	(B10-2-*6P)
8P	1/2" NPTF	(B10-2-*8P)
6T	SAE-6	(B10-2-*6T)
8T	SAE-8	(B10-2-*8T)
T8T	SAE-8	(B10-2-T8T)†

* Add "A" for aluminum, omit for steel.
 † Steel body only.

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Technical Information

CV Check Valves
SH Shuttle Valves
LM Load/Motor Controls
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LE Logic Elements
DC Directional Controls
MV Manual Valves
SV Solenoid Valves
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General Description

2-Way, 2 Position, Normally Open Manual Poppet Valve.

Features

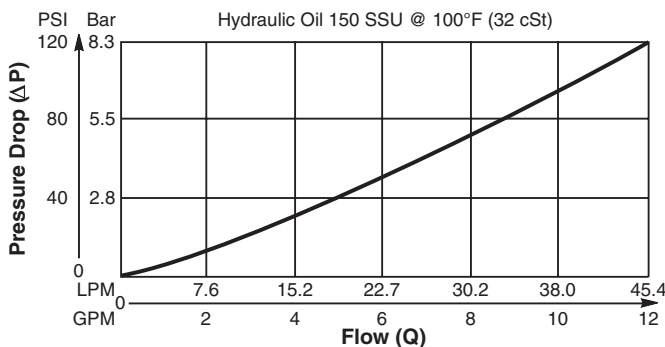
- Hardened poppet for minimal wear and greater durability
- Poppet type construction for minimal internal leakage
- Internal pilot operation provides “power leverage”
- Cavity common with solenoid operated valves
- Screw-on detent is optional
- All external parts zinc plated

Operation

In neutral position, pressure applied to port 2 creates pilot flow across the pilot seat causing poppet to lift. Flow passes from port 2 to port 1 until manual operator is pushed forcing pilot into its seat preventing pilot flow to firmly close the poppet. In neutral position, flow is restricted from port 1 to port 2.

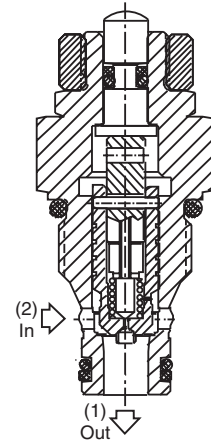
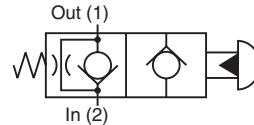
Performance Curve

Pressure Drop vs. Flow (Through cartridge only)

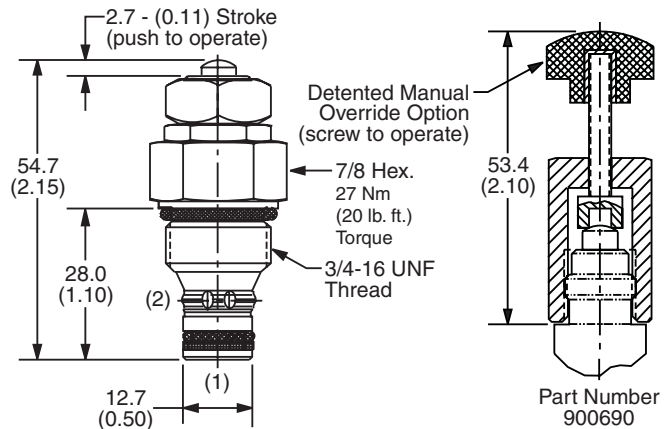


Specifications

Rated Flow	45 LPM (12 GPM)
Maximum Input Pressure @ Port 2	350 Bar (5000 PSI)
Leakage at 150 SSU (32 cSt)	0.33 ml/min. (5 drops/min.) @ 210 Bar (3000 PSI)
Cartridge Material	All parts steel. All operating parts hardened steel.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile, Buna-N) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F to +250°F)
Fluid Compatibility/Viscosity	Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt)
Filtration	ISO code 16/13, SAE Class 4 or better
Approx. Weight	.13 kg (.31 lbs.)
Cavity	C08-2 (See BC Section for more details)



Dimensions Millimeters (Inches)



Ordering Information

GM02 12

08 Size Manual Valve Poppet Type Normally Open	Manual Button	Filter Screen	Seals	Body Material	Port Size
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Code	Manual Button
0	Non-Detented (Std.)
1	Detented (With use of part #900690)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Filter Screen
0	Not required
1	60 mesh screen

Code	Port Size	Body Part No.
Omit	Cartridge Only	
4P	1/4" NPTF	(B08-2-*4P)
6P	3/8" NPTF	(B08-2-*6P)
4T	SAE-4	(B08-2-*4T)
6T	SAE-6	(B08-2-*6T)
6B	3/8" BSPG	(B08-2-*6B)

Code	Seals / Kit No.
N	Nitrile, Buna-N / (SK30065N-1)
V	Fluorocarbon / (SK30065V-1)

* Add "A" for aluminum, omit for steel.

