

Technical Information

General Description

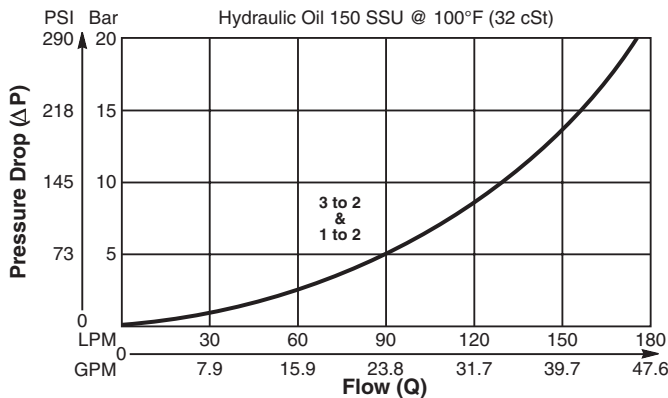
Two Position, Three Way, Spring Centered Shuttle Valve. For additional information see Technical Tips on pages SH1-SH2.

Features

- High flow capacity
- Compact cost effective design
- Various spring options available
- Used in transmission systems as purge valve where hydraulic parking brake is necessary
- Hardened working parts for maximum durability
- All external parts zinc plated

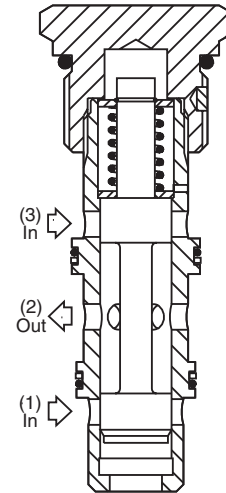
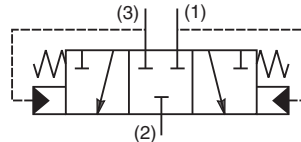
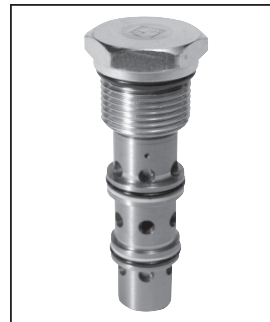
Performance Curve

Pressure Drop vs. Flow (Through cartridge only)

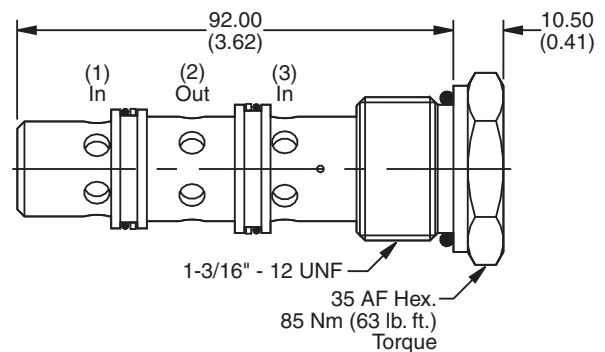


Specifications

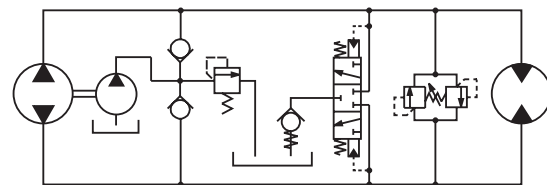
Rated Flow	175 LPM (46 GPM)
Nominal Flow @ 7 Bar (100 PSI)	105 LPM (28 GPM)
Maximum Inlet Pressure	350 Bar (5000 PSI)
Cartridge Material	Steel operating parts, hardened steel poppet.
Operating Temp. Range/Seals	-40°C to +93.3°C (Nitrile, Buna-N) (-40°F to +200°F) -31.7°C to +121.1°C (Fluorocarbon) (-25°F 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	.32 kg (.70 lbs.)
Cavity	3U (See BC Section for more details)



Dimensions



Application



Purge valve in transmissions with hydraulic parking brake

Ordering Information

K3A125 —
Shuttle Valve Switching Pressure Seals

Code	Switching Pressure
1.0	1.0 Bar (15 PSI) Std.
9.0	9.0 Bar (130 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N / (SK30040N-1)
V	Fluorocarbon / (SK30040V-1)

Order Bodies Separately

LB10
Line Body Porting Body Material

Code	Porting
092	3/4" BSP
093	1" SAE

Code	Body Material
A	Aluminum
S	Steel

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

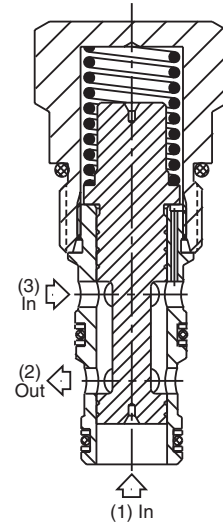
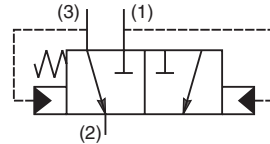
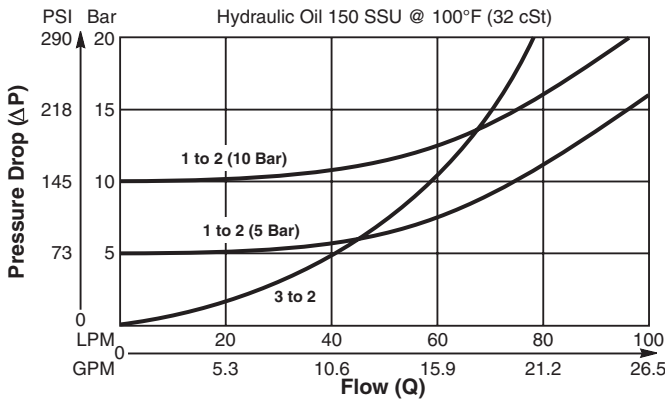
Two Position, Three Way, Spring Offset Shuttle Valve. For additional information see Technical Tips on pages SH1-SH2.

Features

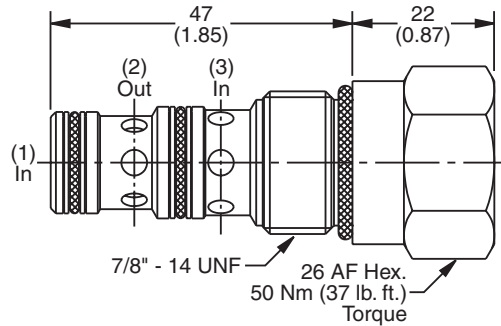
- High flow capacity
- Various switching pressures available
- Used as automatic brake release valve on motors, where brake release is required at pressures between 1 & 10 bar.
- Hardened working parts for maximum durability
- All external parts zinc plated

Performance Curve

Pressure Drop vs. Flow (Through cartridge only)



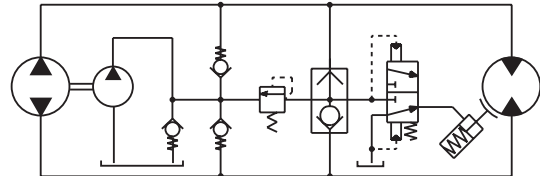
Dimensions Millimeters (Inches)



Specifications

Rated Flow	90 LPM (24 GPM)
Nominal Flow @ 7 Bar (100 PSI)	50 LPM (13 GPM)
Maximum Inlet Pressure	420 Bar (6000 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	.14 kg (.31 lbs.)
Cavity	C10-3 (See BC Section for more details)

Application



Brake release at various switching pressures.

Ordering Information

K04B3	Shuttle Valve	Switching Pressure	Seals	Body Material	Port Size
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Code	Switching Pressure
5.0	5.0 Bar (73 PSI) Std.
10.0	10.0 Bar (145 PSI)

Code	Seals / Kit No.
N	Nitrile, Buna-N / (SK30505N-1)
V	Fluorocarbon / (SK30505V-1)

Code	Body Material
Omit	Steel
A	Aluminum

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

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

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

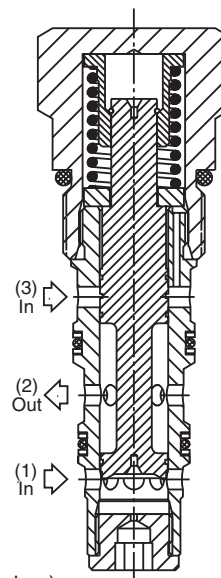
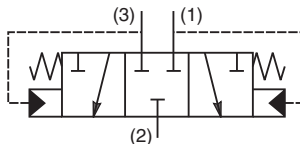
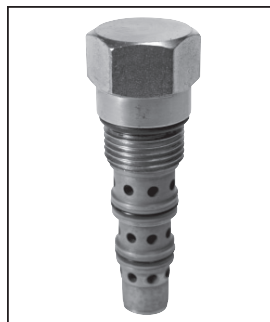
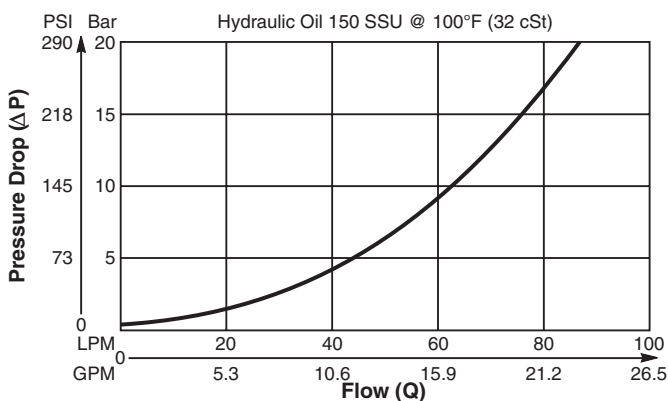
Two Position, Three Way, Spring Centered Shuttle Valve. For additional information see Technical Tips on pages SH1-SH2.

Features

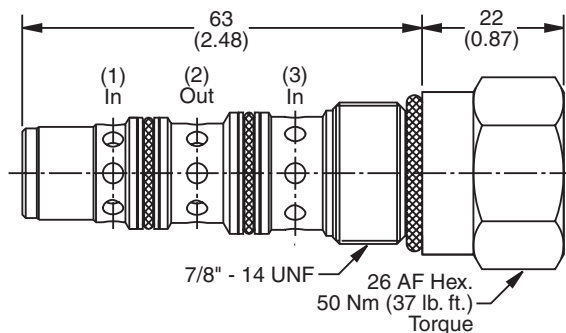
- High flow capacity
- Various switching pressures available
- Use as purge valve in transmission systems
- Hardened working parts for maximum durability
- All external parts zinc plated

Performance Curve

Pressure Drop vs. Flow (Through cartridge only)



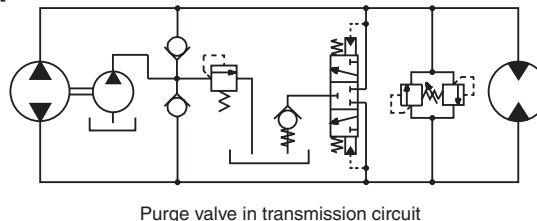
Dimensions Millimeters (Inches)



Specifications

Rated Flow	100 LPM (26 GPM)
Nominal Flow @ 7 Bar (100 PSI)	55 LPM (15 GPM)
Maximum Inlet Pressure	420 Bar (6000 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	.17 kg (.37 lbs.)
Cavity	C10-4 (See BC Section for more details)

Application



Ordering Information

K04C3 - - - - -

Shuttle Valve Switching Pressure Seals Body Material Port Size

Code	Switching Pressure
0.0	0 Bar (0 PSI)
2.5	2.5 Bar (36 PSI)
5.0	5.0 Bar (73 PSI) Std.
10.0	10.0 Bar (145 PSI)
15.0	15.0 Bar (218 PSI)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

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

Code	Seals / Kit No.
N	Nitrile, Buna-N / (SK30504N-1)
V	Fluorocarbon / (SK30504V-1)



General Description

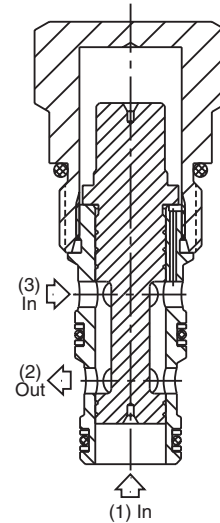
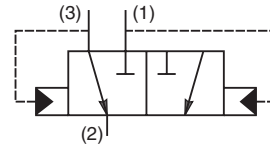
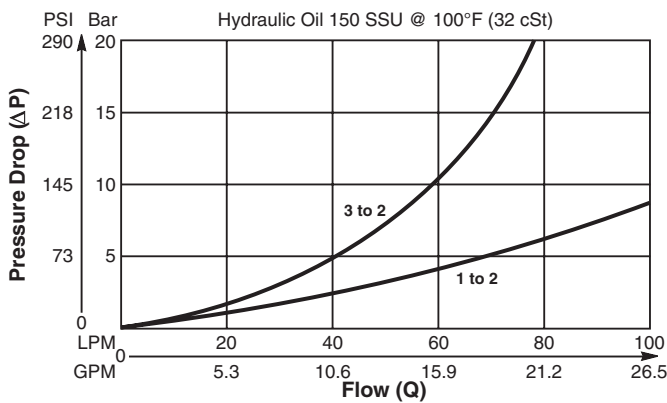
Two Position, Three Way Shuttle Valve.
For additional information see Technical Tips on pages SH1-SH2.

Features

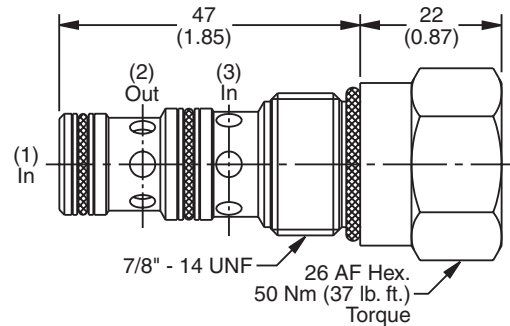
- High flow capacity
- Used as automatic brake release valve on motors
- Hardened working parts for maximum durability
- All external parts zinc plated

Performance Curve

Pressure Drop vs. Flow (Through cartridge only)



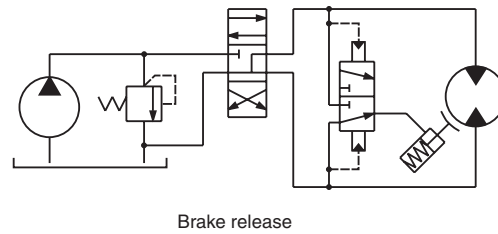
Dimensions Millimeters (Inches)



Specifications

Rated Flow	90 LPM (24 GPM)
Nominal Flow @ 7 Bar (100 PSI)	50 LPM (13 GPM)
Maximum Inlet Pressure	420 Bar (6000 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	.14 kg (.31 lbs.)
Cavity	C10-3 (See BC Section for more details)

Application



Ordering Information

K04D3 Shuttle Valve	Seals	Body Material	Port Size
Code	Seals / Kit No.	Code	Port Size Body Part No.
N	Nitrile, Buna-N / (SK30505N-1)	Omit	Cartridge Only
V	Fluorocarbon / (SK30505V-1)	4P	1/4" NPTF (B10-3-*4P)
		6P	3/8" NPTF (B10-3-*6P)
		8P	1/2" NPTF (B10-3-*8P)
		6T	SAE-6 (B10-3-*6T)
		8T	SAE-8 (B10-3-*8T)
		6B	3/8" BSPG (B10-3-6B)†
		8B	1/2" BSPG (B10-3-*8B)
Code	Body Material		
Omit	Steel		
A	Aluminum		

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

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

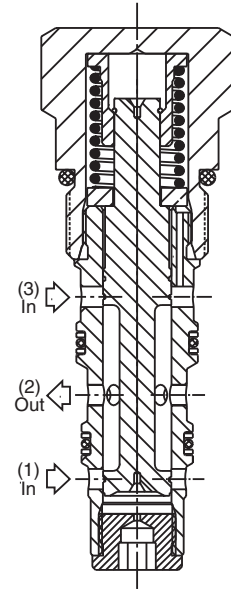
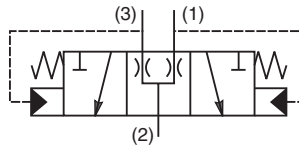
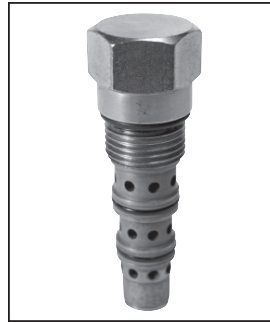
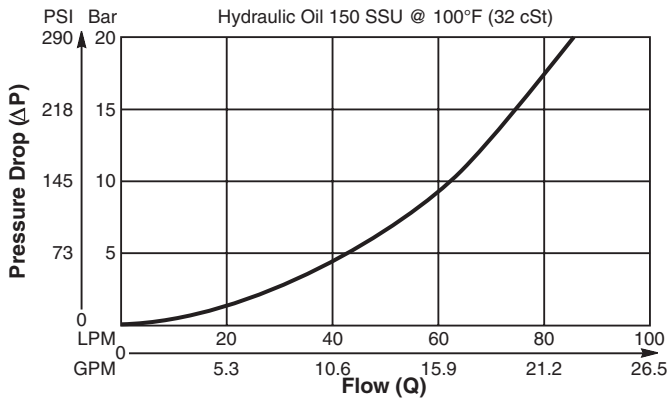
Two Position, Three Way, Spring Centered Shuttle Valve. For additional information see Technical Tips on pages SH1-SH2.

Features

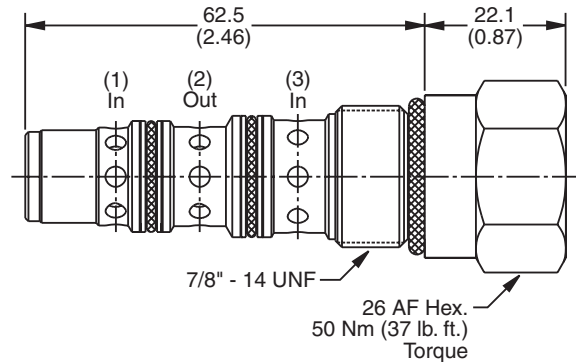
- High flow capacity
- Various switching pressures available
- Hardened working parts for maximum durability
- All external parts zinc plated

Performance Curve

Pressure Drop vs. Flow (Through cartridge only)



Dimensions Millimeters (Inches)



Specifications

Rated Flow	100 LPM (26 GPM)
Nominal Flow @ 7 Bar (100 PSI)	55 LPM (15 GPM)
Maximum Inlet Pressure	420 Bar (6000 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	.17 kg (.37 lbs.)
Cavity	C10-4 (See BC Section for more details)

Ordering Information

K04F3 — — — — —

Shuttle Valve Switching Pressure Seals Body Material Port Size

Code	Switching Pressure
0.0	0 Bar (0 PSI)
2.5	2.5 Bar (36 PSI)
5.0	5.0 Bar (73 PSI) Std.
10.0	10.0 Bar (145 PSI)
15.0	15.0 Bar (218 PSI)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit	Cartridge Only	
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

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



General Description

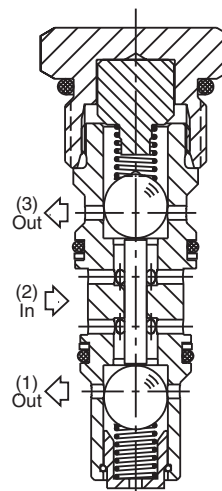
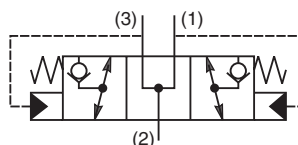
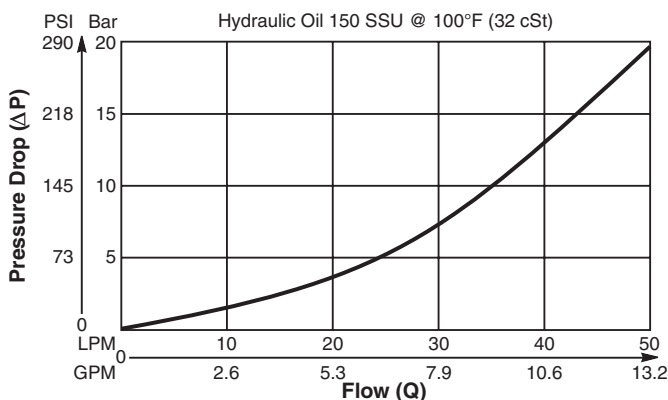
Three Way, Ball Type, Spring Centered Inverse Shuttle Valve. For additional information see Technical Tips on pages SH1-SH2.

Features

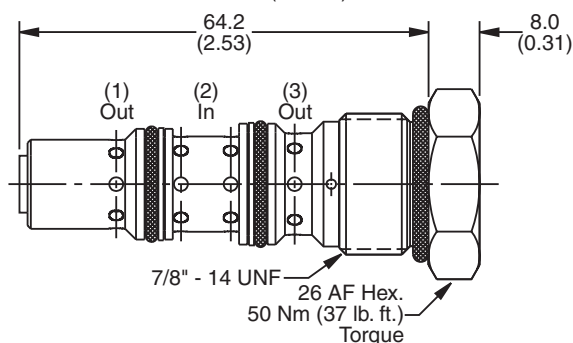
- Used to ensure that in a dual accumulator charging circuit the accumulator with the lowest pressure is sensed back to the charging valve
- Suitable for charge rates up to 25 LPM (7 GPM) per accumulator
- One size valve for most applications
- All external parts zinc plated

Performance Curve

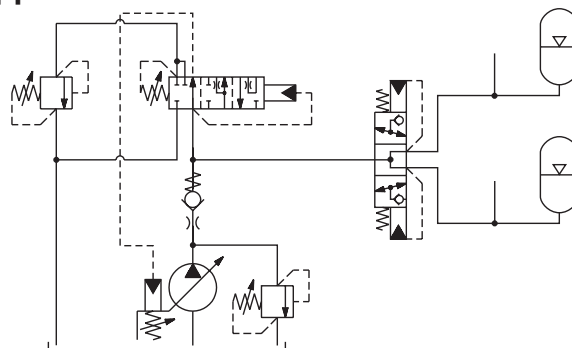
Pressure Drop vs. Flow (Through cartridge only)



Dimensions



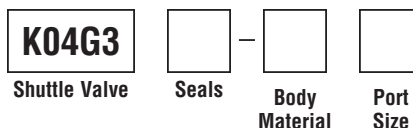
Application



Specifications

Rated Flow	50 LPM (13.2 GPM)
Nominal Flow @ 7 Bar (100 PSI)	30 LPM (7.9 GPM)
Maximum Inlet Pressure	350 Bar (5000 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	.14 kg (.31 lbs.)
Cavity	C10-4 (See BC Section for more details)

Ordering Information



Code	Seals / Kit No.
N	Nitrile, Buna-N / (SK30534N-1)
V	Fluorocarbon / (SK30534V-1)

Code	Body Material
Omit	Steel
A	Aluminum

Code	Port Size	Body Part No.
Omit Cartridge Only		
6P	3/8" NTPF	(B10-4-*6P)
6T	SAE-6	(B10-4-*6T)
8T	SAE-8	(B10-4-*8T)
6B	3/8" BSPG	(B10-4-6B)†

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