

Technical Information

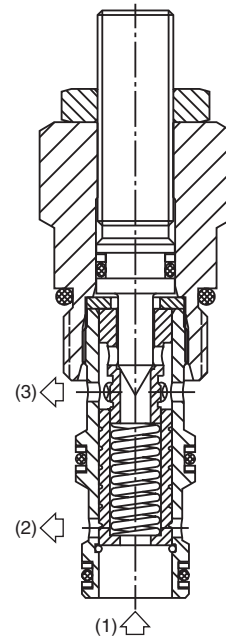
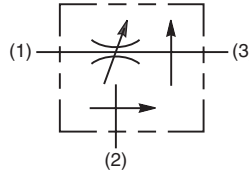
- CV Check Valves
- SH Shuttle Valves
- LM Load/Motor Controls
- FC Flow Controls
- PC Pressure Controls
- LE Logic Elements
- DC Directional Controls
- MV Manual Valves
- SV Solenoid Valves
- PV Proportional Valves
- CE Coils & Electronics
- BC Bodies & Cavities
- TD Technical Data

General Description

Needle Type, Pressure Compensated Flow Regulator Valve. For additional information see Technical Tips on pages FC1-FC4.

Features

- Good adjustment from 1-15 LPM (0.3-4 GPM)
- Used for systems requiring priority flow such as steering systems
- Hardened working parts for maximum durability
- Reverse flow function 3 to 1
- Adjustable and tamperproof versions available
- All external parts zinc plated

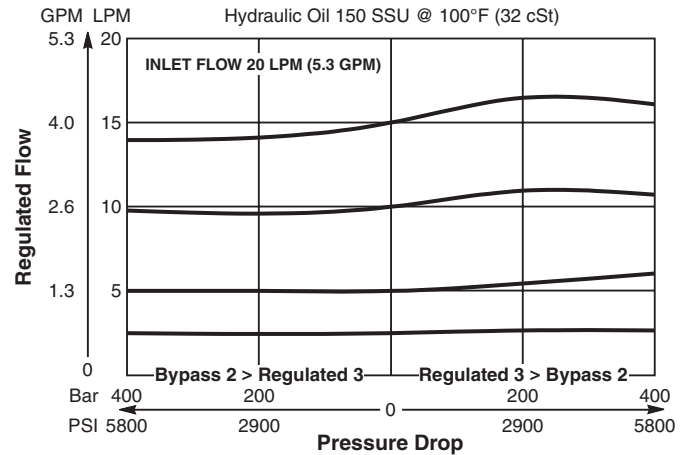


Specifications

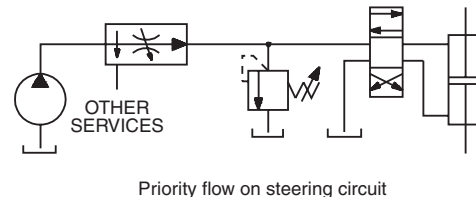
| | |
|---------------------------------------|--|
| Rated Flow | 15 LPM (4 GPM) |
| Maximum Inlet Pressure | 420 Bar (6000 PSI) |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (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 | .08 kg (.18 lbs.) |
| Cavity | C08-3 (See BC Section for more details) |
| Form Tool | Rougher NFT08-3R Finisher NFT08-3F |

Performance Curves (Through cartridge only)

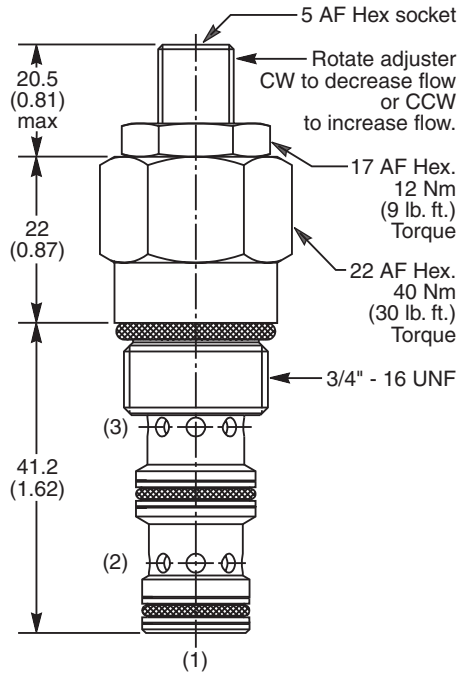
Flow Regulating Performance



Application



Dimensions Millimeters (Inches)



Ordering Information

| | | | | | | |
|---|--------------------------|------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| J02D3 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pressure Compensated Priority Flow Control Valve | Adjustment Style | Optional Flow Setting | Seals | Body Material | Port Size | |

| Code | Adjustment Style |
|------|-------------------------------|
| Z | Screw Adjust (Std.) |
| W | Knob Adjust |
| T | Tamper Resistant Cap (TC1130) |

| Code | Seals / Kit. No. |
|------|---------------------------------------|
| N | Nitrile, Buna-N (Std.) / (SK30501N-1) |
| V | Fluorocarbon / (SK30501V-1) |

| Code | Body Material |
|------|---------------|
| Omit | Steel |
| A | Aluminum |

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

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

| Code | Optional Flow Setting |
|------|---|
| Omit | Omit for no setting* Specify setting if required (LPM) |

* Appropriate mid-range setting for Standard = 7 LPM

- 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
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Bodies & Cavities
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Technical Data

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

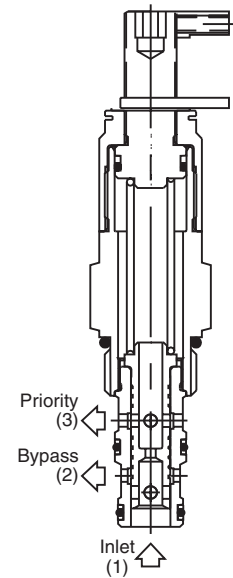
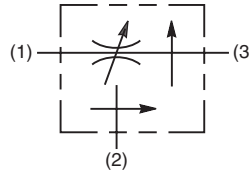
General Description

Pressure Compensated Priority Flow Regulator Valve. For additional information see Technical Tips on pages FC1-FC4.

Caution: If the priority line is blocked so that no flow can pass through the control orifice; the compensator spool will shift, blocking the bypass port and allowing inlet pressure to go to full system relief pressure. The FP101 cartridge does not provide a pressure relieving function.

Specifications

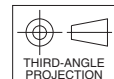
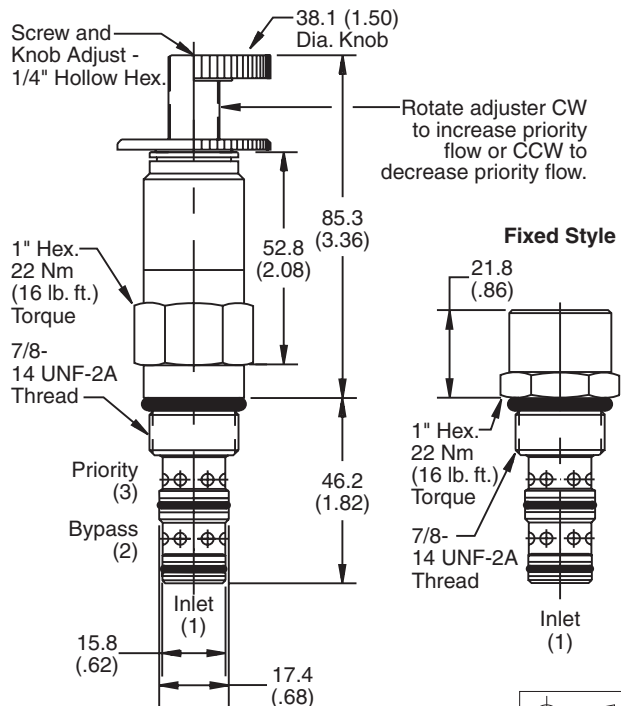
| | |
|--|--|
| Maximum Priority Flow | Fixed 30.0 LPM (8 GPM) Adjusted 33.8 LPM (9 GPM) |
| Maximum Inlet Flow | 56.3 LPM (15 GPM) |
| Minimum Inlet Flow | See Valve Performance Curves |
| Maximum Inlet Pressure | 245 Bar (3500 PSI) |
| Minimum Inlet Pressure | See Valve Performance Curves |
| Accuracy (Fixed) | ±20% |
| Adjustment Range (Adj. Version) | ±20% Nominal |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -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) |
| 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 | .23 kg (0.5 lbs.) |
| Cavity | No. C10-3 (See BC Section for more details) |
| Form Tool | Regulator NFT10-3R Finisher NFT10-3F |



Features

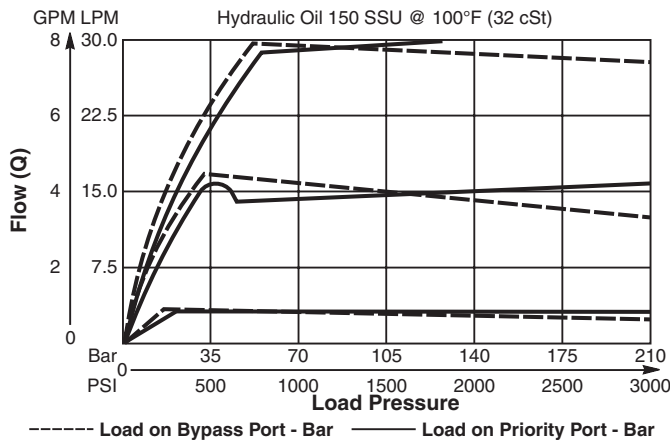
- Hardened, precision ground parts for durability
- Cartridge design
- Acts as a fixed orifice in reverse flow condition (Priority line only)
- All external parts zinc plated

Dimensions Millimeters (Inches)

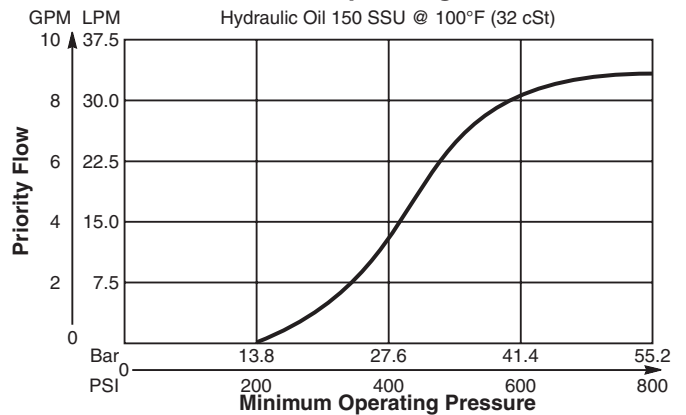


Performance Curves (Through cartridge only)

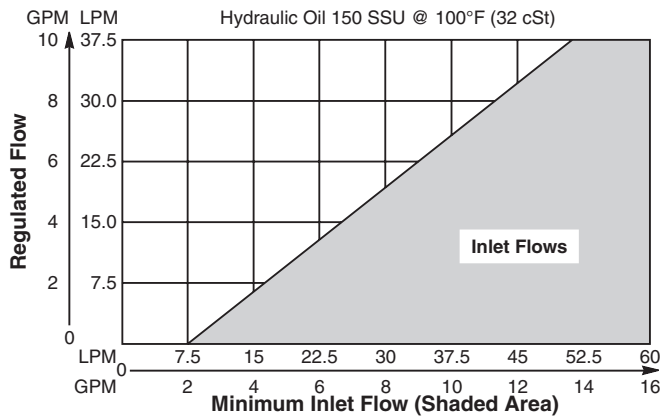
Regulated Flow vs. Load Pressure



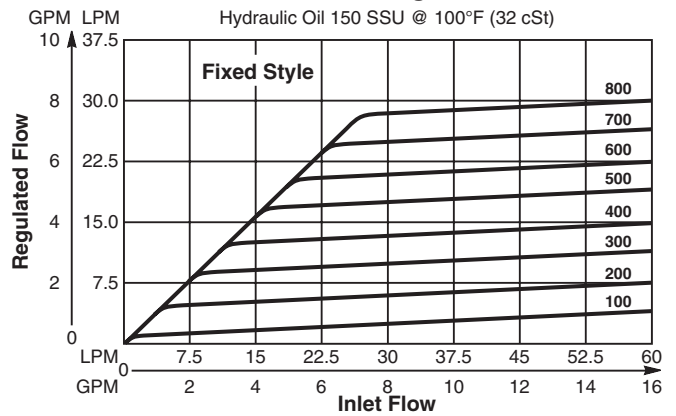
**Pressure vs. Priority Flow
 Minimum Operating Pressure**



Minimum Inlet Flow



Inlet Flow vs. Regulated Flow



Ordering Information

FP101 —

10 Size Pressure Compensated Flow Regulator **Adjustment Style** **Flow Setting/Range** **Seals** **Body Material** **Port Size**

| Code | Adjustment Style |
|------|--------------------------------|
| F | Fixed Style present at factory |
| K | Knob Adjust |
| S | Screw Adjust |

| Code | Fixed Style Flow | Code | Knob/Screw Style Flow Range |
|------|------------------|------|-----------------------------|
| 100 | 3.8 LPM (1 GPM) | 085 | 2.6-3.8 LPM (0.7-1.0 GPM) |
| 200 | 7.5 LPM (2 GPM) | 110 | 3.0-5.3 LPM (0.8-1.4 GPM) |
| 300 | 11.3 LPM (3 GPM) | 155 | 4.5-7.1 LPM (1.2-1.9 GPM) |
| 400 | 15 LPM (4 GPM) | 220 | 6.4-10.1 LPM (1.7-2.7 GPM) |
| 500 | 18.8 LPM (5 GPM) | 295 | 8.6-13.5 LPM (2.3-3.6 GPM) |
| 600 | 22.5 LPM (6 GPM) | 405 | 11.6-18.8 LPM (3.1-5.0 GPM) |
| 700 | 26.3 LPM (7 GPM) | 575 | 16.9-26.3 LPM (4.5-7.0 GPM) |
| 800 | 30 LPM (8 GPM) | 780 | 23.6-34.9 LPM (6.3-9.3 GPM) |

| Code | Seals / Kit. No. |
|------|--------------------------|
| Omit | Nitrile / (SK10-3N) |
| V | Fluorocarbon / (SK10-3V) |

| 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 body only.

Technical Information

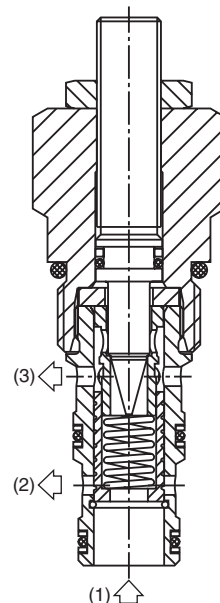
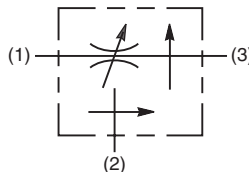
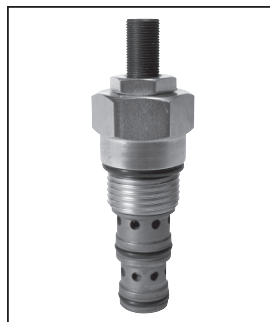
- CV** Check Valves
- SH** Shuttle Valves
- LM** Load/Motor Controls
- FC** Flow Controls
- PC** Pressure Controls
- LE** Logic Elements
- DC** Directional Controls
- MV** Manual Valves
- SV** Solenoid Valves
- PV** Proportional Valves
- CE** Coils & Electronics
- BC** Bodies & Cavities
- TD** Technical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

General Description

Priority Type, Pressure Compensated Flow Regulator Valve. For additional information see Technical Tips on pages FC1-FC4.

Features

- High flow capacity
- Good adjustment from 2-45 LPM (0.5-12 GPM)
- Used for systems requiring priority flow such as steering systems
- Hardened working parts for maximum durability
- Reverse flow function 3 to 1
- Adjustable and tamperproof versions available
- All external parts zinc plated

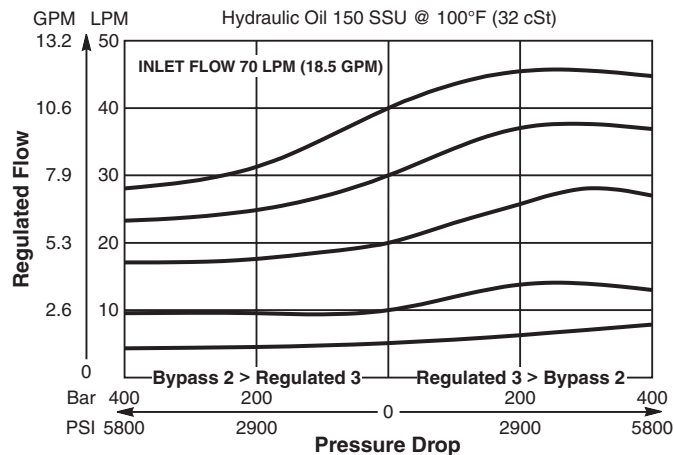


Specifications

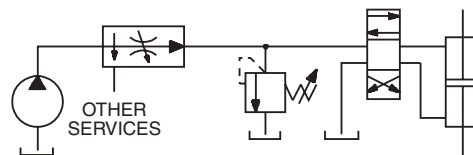
| | |
|---------------------------------------|--|
| Rated Flow | 45 LPM (12 GPM) |
| Maximum Inlet Pressure | 420 Bar (6000 PSI) |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -40°C to +93.3°C (Nitrile) (-40°F to +200°F) -31.7°C to +121.1°C (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 | .18 kg (.40 lbs.) |
| Cavity | C10-3 (See BC Section for more details) |
| Form Tool | Rougher NFT10-3R Finisher NFT10-3F |

Performance Curves (Through cartridge only)

Flow Regulating Performance

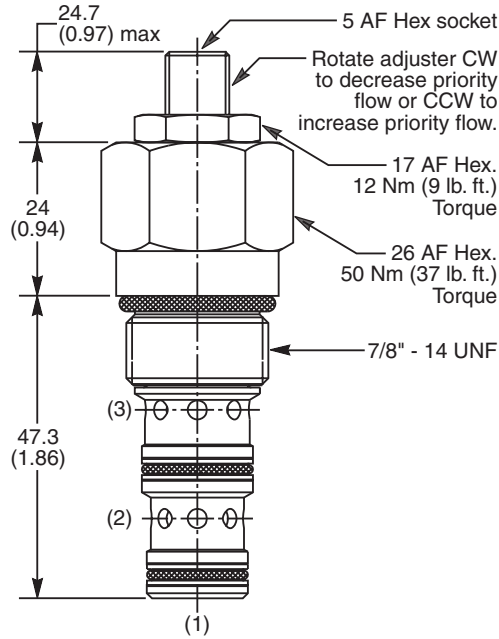


Application

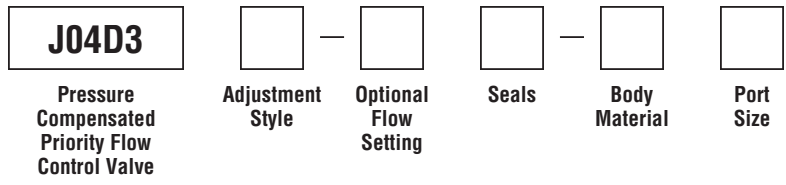


Priority flow on steering circuit

Dimensions Millimeters (Inches)



Ordering Information



| Code | Adjustment Style |
|------|-------------------------------|
| Z | Screw Adjust (Std.) |
| W | Knob Adjust (ASV014975) |
| T | Tamper Resistant Cap (TC1130) |

| Code | Seals / Kit. No. |
|------|---------------------------------------|
| N | Nitrile, Buna-N (Std.) / (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) |

| Code | Optional Flow Setting |
|------|-----------------------------------|
| Omit | Omit for no setting* |
| | Specify setting if required (LPM) |

* Appropriate mid-range setting for Standard = 20 LPM

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

- CV**
Check Valves
- SH**
Shuttle Valves
- LM**
Load/Motor Controls
- FC**
Flow Controls
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Pressure Controls
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Logic Elements
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Directional Controls
- MV**
Manual Valves
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Solenoid Valves
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Technical Data

Technical Information

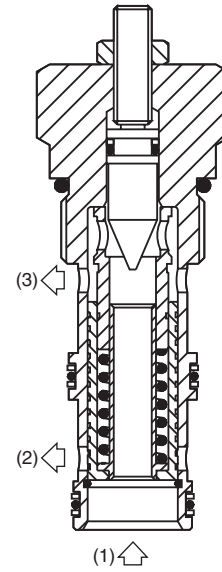
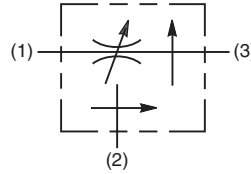
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General Description

Priority Style, Pressure Compensated Flow Regulator Valve With Bypass. For additional information see Technical Tips on pages FC1-FC4.

Features

- Free reverse flow function
- High flow capacity
- Used for systems requiring priority flow such as steering systems
- Hardened working parts for maximum durability
- Adjustable and tamperproof versions available
- All external parts zinc plated

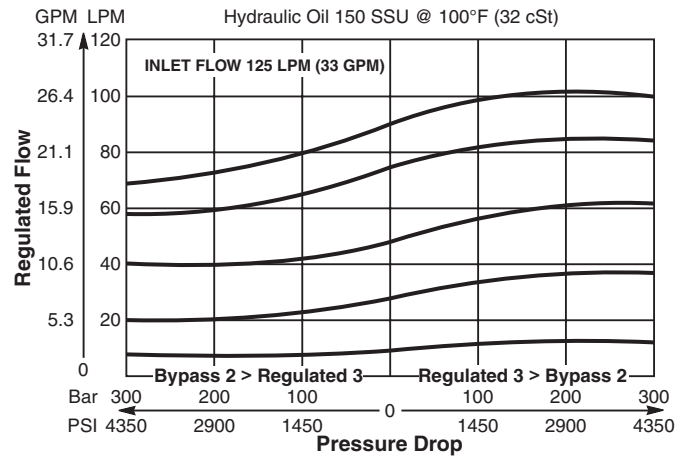


Specifications

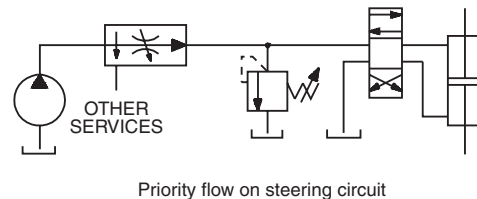
| | |
|---------------------------------------|--|
| Rated Flow | 90 LPM (24 GPM) |
| Maximum Regulated Flow | 38 LPM (10 GPM) |
| Maximum Inlet Pressure | 350 Bar (5000 PSI) |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -40°C to +93.3°C (Nitrile) (-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 | .45 kg (1.00 lbs.) |
| Cavity | 3A (See BC Section for more details) |
| Form Tool | Rougher Finisher |

Performance Curve (Through cartridge only)

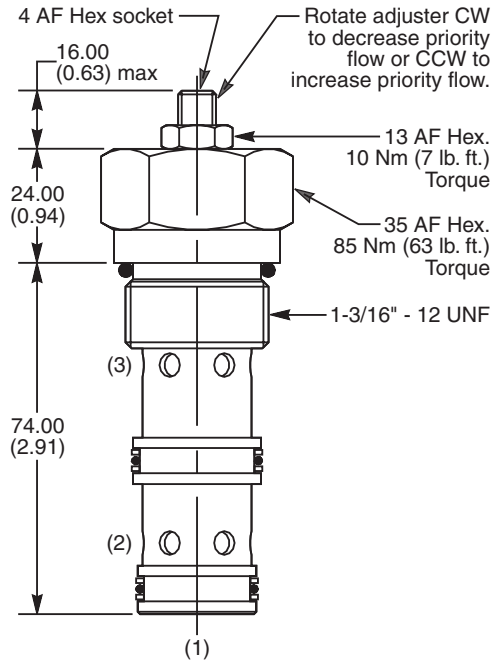
Flow Regulating Performance



Application



Dimensions Millimeters (Inches)



Ordering Information

| | | | |
|---|--------------------------|--|--------------------------|
| J1A125 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Pressure Compensated Priority Flow Control Valve | Adjustment Style | Optional Regulated Flow Setting | Seals |

| Code | Adjustment Style |
|------|-------------------------------|
| Z | Screw Adjust (Std.) |
| W | Knob Adjust |
| T | Tamper Resistant Cap (TC1124) |

| Code | Seals / Kit. No. |
|------|---------------------------------------|
| N | Nitrile, Buna-N (Std.) / (SK30011N-1) |
| V | Fluorocarbon / (SK30011V-1) |

| Code | Optional Regulated Flow Setting |
|------|--|
| Omit | Omit for no setting (Std.)* Specify setting if required (LPM) |

* Setting for standard: J1A125
 Inlet: 45 LPM (12 GPM)
 Regulated: 25 LPM (6.5 GPM)

Order Bodies Separately

| | | |
|-------------|--------------------------|--------------------------|
| LB10 | <input type="checkbox"/> | <input type="checkbox"/> |
| Line Body | Porting | Body Material |

| Code | Porting |
|------|----------|
| 007 | 3/4" BSP |
| 066 | 1" SAE |

| Code | Body Material |
|------|---------------|
| A | Aluminum |
| S | Steel |

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