

General Description

2-Way Poppet Valves. For additional information see Technical Tips on pages SV1-SV5.

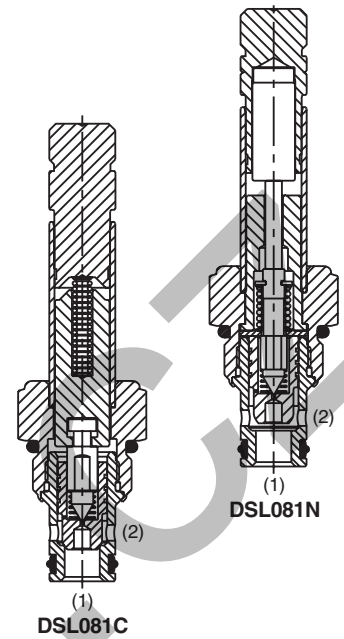
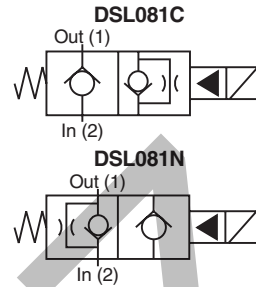


Features

- Replaceable, one piece encapsulated, coils with minimal amperage draw
- Variety of coil terminations and voltages
- Variety of manual override options available
- Fast response available, (CH and CHR) rated at 15 LPM (4.0 GPM)
- Polyurethane "D"-Ring eliminates need for backup rings
- Spherical poppet for low leakage
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

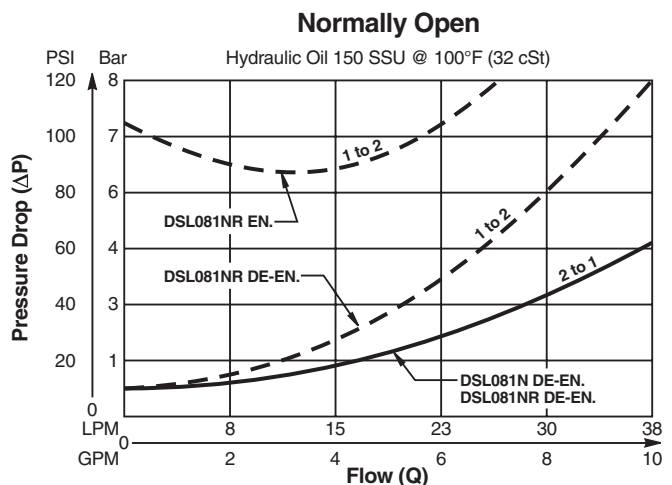
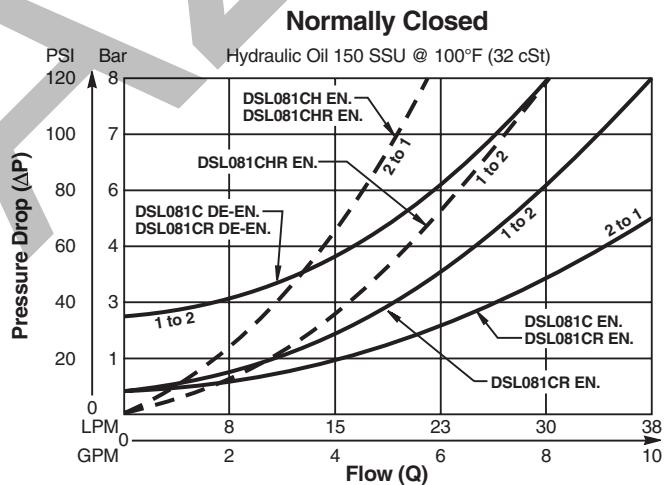
Specifications

| | | | |
|-------------------------------|---|-----------|--------------|
| Rated Flow | 30 LPM (8 GPM) | | |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | | |
| Leakage at 150 SSU (32 cSt) | 5 drops/min. (.33 cc/min.) | | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | | |
| Response Time | | Energized | De-Energized |
| | C, CR | 50 ms | 50 ms |
| | CH, CHR | 30 ms | 50 ms |
| | N, NR | 50 ms | 40 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. | | |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-50°F to +200°F) -35°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | | |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | | |
| Approx. Weight | .11 kg (.25 lbs.) | | |
| Cavity | C08-2 (See BC Section for more details) | | |
| Form Tool | Rougher Finisher | None | NFT08-2F |

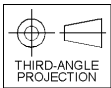
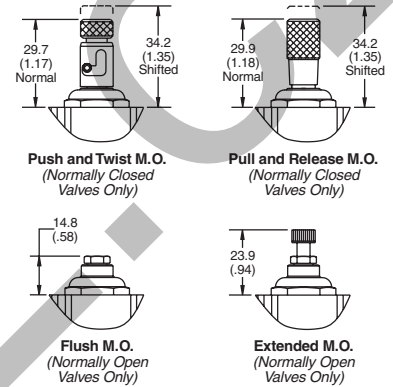
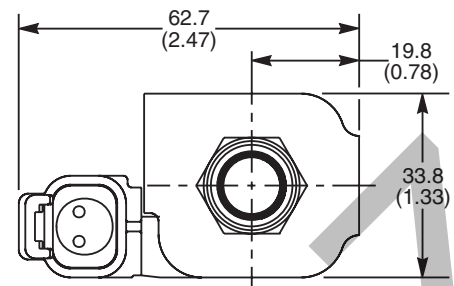
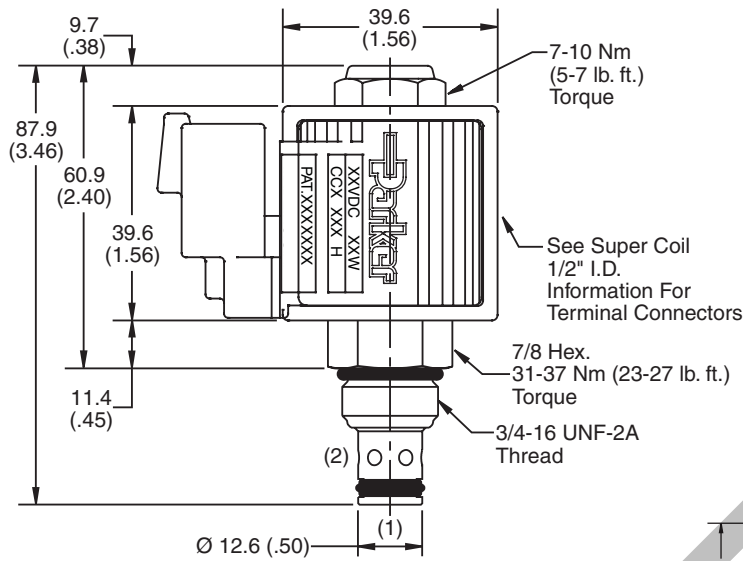


Performance Curves

Pressure Drop vs. Flow (Through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

DSL081

08 Size
Solenoid Valve

Style

Override
Option

Seals

Screen

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 1/2" Super-Coil (CC series), for ordering information.

Order Bodies Separately
 See section BC

| Code / Style | |
|---|--|
| C Normally Closed Metered reverse flow | |
| CH Normally Closed Metered reverse flow (Fast response) | |
| CHR Normally Closed Full reverse flow (Fast response) | |
| CR Normally Closed Free reverse flow | |
| N Normally Open Metered reverse flow | |
| NR Normally Open Free reverse flow | |

| Code | Override Options |
|-------------|---|
| Omit | None |
| E | Push Type with Extended Rod (N.O. Only) |
| M | Push Type with Flush Rod (N.O. Only) |
| P | Pull & Release (N.C. Only) |
| T | Push & Twist (N.C. & N.O.) |

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

| Code | Screen |
|-------------|-------------|
| Omit | None |
| S | Screen |

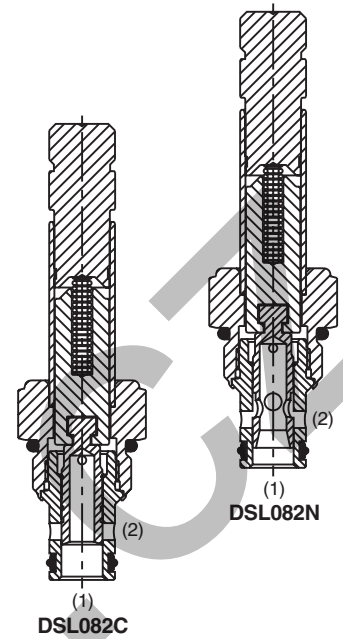
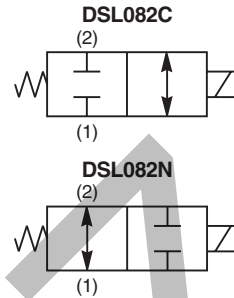
| B08 | 2 | |
|------------|------------------------------|-----------|
| 08 size | 2-Way Cavity | Port Size |
| Code | Port Size / Body Material | |
| 6T | SAE-6 / Steel (5000 PSI) | |
| A6T | SAE-6 / Aluminium (3000 PSI) | |

General Description

2-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring eliminates need for backup rings
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

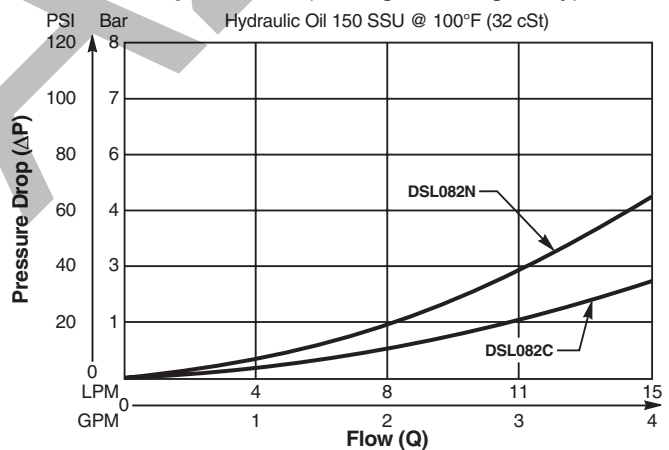


Specifications

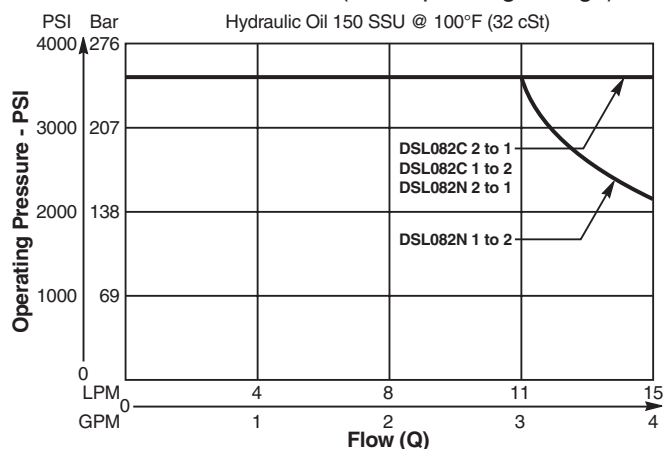
| | | | | | | | | | | | |
|-------------------------------|--|---------------------|--|------------------|---------------------|----------|-------|-------|----------|-------|-------|
| Rated Flow | C - 15 LPM (4 GPM) N - 11 LPM (3 GPM) | | | | | | | | | | |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | | | | | | | | | | |
| Leakage at 150 SSU (32cSt) | 120 cc/min. (7.5 in ³ /min.) at 250 Bar (3600 PSI) | | | | | | | | | | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | | | | | | | | | | |
| Response Time | <table><tr><td></td><td>Energized</td><td>De-Energized</td></tr><tr><td>C</td><td>40 ms</td><td>40 ms</td></tr><tr><td>N</td><td>40 ms</td><td>40 ms</td></tr></table> | | | Energized | De-Energized | C | 40 ms | 40 ms | N | 40 ms | 40 ms |
| | Energized | De-Energized | | | | | | | | | |
| C | 40 ms | 40 ms | | | | | | | | | |
| N | 40 ms | 40 ms | | | | | | | | | |
| Cartridge Material | All parts steel. All operating parts hardened steel. | | | | | | | | | | |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | | | | | | | | | | |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | | | | | | | | | | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | | | | | | | | | | |
| Approx. Weight | .11 kg (.25 lbs.) | | | | | | | | | | |
| Cavity | C08-2 (See BC Section for more details) | | | | | | | | | | |
| Form Tool | Rougher Finisher | None NFT08-2F | | | | | | | | | |

Performance Curves

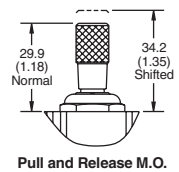
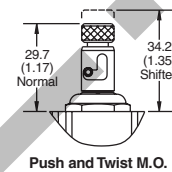
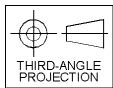
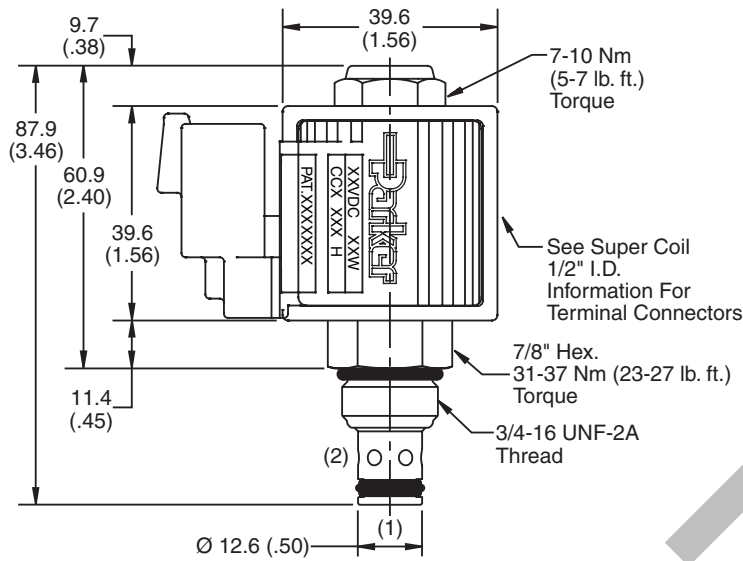
Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



Dimensions Millimeters (Inches)



Ordering Information

DSL082

08 Size
Solenoid Valve

Style

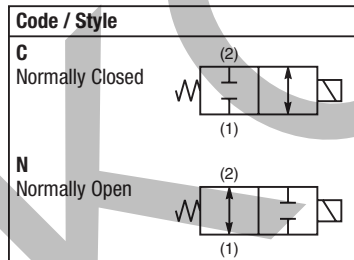
Override
Option

Seals

Screen

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 1/2" Super-Coil (CC series), for ordering information.



| Code | Override Options |
|------|------------------|
| Omit | None |
| P | Pull and Release |
| T | Push & Twist |

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

| Code | Screen |
|------|--------|
| Omit | None |
| S | Screen |

Order Bodies Separately
 See section BC

| | | | | |
|------------|---|--------------|---|-----------|
| B08 | — | 2 | — | |
| 08 size | | 2-Way Cavity | | Port Size |

| Code | Port Size / Body Material |
|------|------------------------------|
| 6T | SAE-6 / Steel (5000 PSI) |
| A6T | SAE-6 / Aluminium (3000 PSI) |

General Description

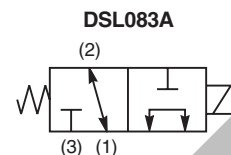
3-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One piece encapsulated coils with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring eliminates need for backup rings
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

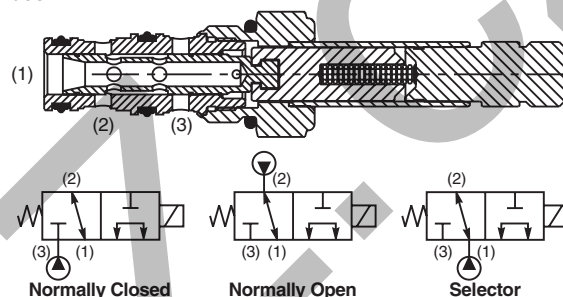
Specifications

| | |
|-------------------------------|---|
| Rated Flow | DSL083A N.O. 13.2 LPM (3.5 GPM) N.C. 8.4 LPM (2.25 GPM) Selector 8.4 LPM (2.25 GPM) DSL083B N.C. 15.0 LPM (4.0 GPM) Selector 15.0 LPM (4.0 GPM) DSL083C N.O. 15.0 LPM (4.0 GPM) DSL083N N.O. 12.3 LPM (3.25 GPM) Selector 15.0 LPM (4.0 GPM) |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) |
| Leakage at 150 SSU (32 cSt) | 120 cc/min. (7.5 in ³ /min.) at 250 Bar (3600 PSI) DSL083B - 180 cc/min. (11 in ³ /min.) DSL083N - 180 cc/min. (11 in ³ /min.) |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). |
| Response Time | 50 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) |
| Filtration | ISO 4406 18/16/13, SAE Class 4 |
| Approx. Weight | .13 kg (.28 lbs.) |
| Cavity | C08-3 (See BC Section for more details) |
| Form Tool | Rougher NFT08-3R Finisher NFT08-3F |

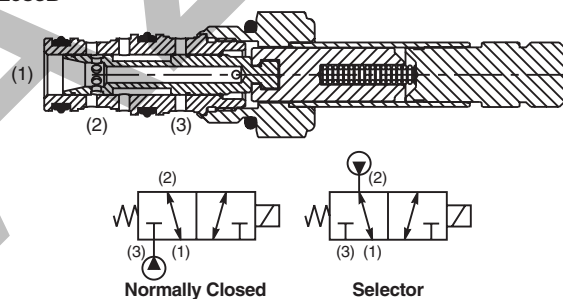


Construction/Symbols

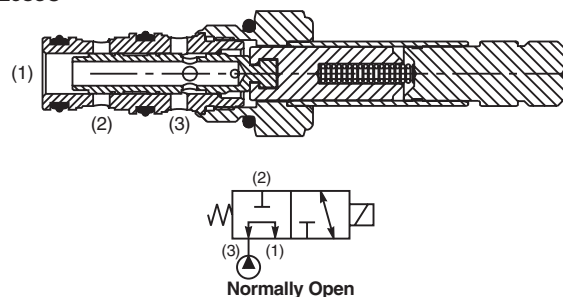
DSL083A



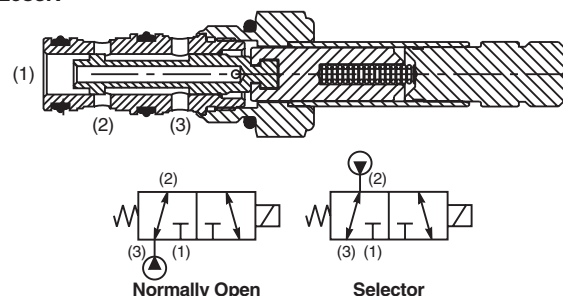
DSL083B



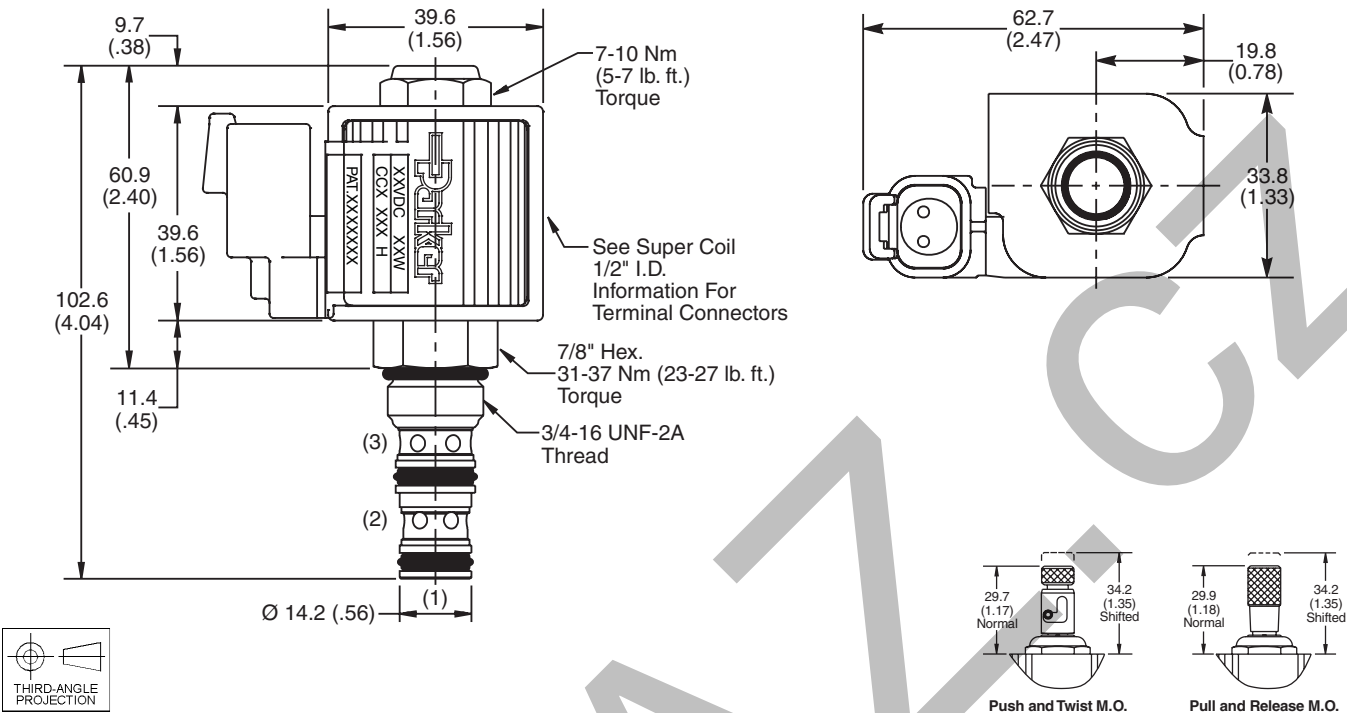
DSL083C



DSL083N



Dimensions Millimeters (Inches)



Ordering Information

| | | | |
|------------------------|--------------------------|--------------------------|--------------------------|
| DSL083 | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 08 Size Solenoid Valve | Style | Override Option | Seals |

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 1/2" Super-Coil (CC series), for ordering information.

| Code | Style |
|------|-------|
| A | |
| B | |
| C | |
| N | |

| Code | Override Options |
|------|------------------|
| Omit | None |
| P | Pull and Release |
| T | Push and Twist |

| Code | Seals / Kit No. |
|------|--------------------------|
| Omit | "D"-Ring / (SK08-3) |
| N | Nitrile (SK08-3) |
| V | Fluorocarbon / (SK08-3V) |

Order Bodies Separately
See section BC

| | | |
|------------|--------------|-----------|
| B08 | 3 | |
| 08 size | 3-Way Cavity | Port Size |

| Code | Port Size / Body Material |
|------|------------------------------|
| 6T | SAE-6 / Steel (5000 PSI) |
| A6T | SAE-6 / Aluminium (3000 PSI) |

| |
|----------------------|
| 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 |
| CB |
| Cartpak Bodies |
| BC |
| Bodies & Cavities |
| TD |
| Technical Data |

General Description

4-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring eliminates need for backup rings
- Nylon inserted jam-nut provides secure holding in high vibration applications
- All external parts zinc plated

Specifications

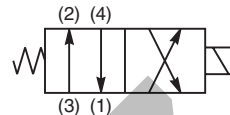
| | |
|-------------------------------|---|
| Rated Flow | 11-15 LPM (3-4 GPM) See Shift Limit Characteristics |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) |
| Leakage at 150 SSU (32 cSt) | 160 cc/min. (10 in ³ /min.) at 250 Bar (3600 PSI) |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). |
| Response Time | Energized - 50 ms De-energized - 30 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) |
| Filtration | ISO 4406 18/16/13, SAE Class 4 |
| Approx. Weight | .13 kg (.29 lbs.) |
| Cavity | C08-4 (See BC Section for more details) |
| Form Tool | Rougher NFT08-4R Finisher NFT08-4F |

Curve Selection Chart

| SPOOL CODE | NEUTRAL | | | | | SHIFTED | | | | |
|------------|---------|--------|--------|--------|--------|---------|--------|--------|--------|--------|
| | 4 to 1 | 3 to 2 | 2 to 1 | 3 to 1 | 3 to 4 | 4 to 1 | 3 to 2 | 2 to 1 | 3 to 1 | 3 to 4 |
| B | 4 | 3 | — | — | — | — | — | 2 | — | 4 |
| E1 | — | — | — | — | — | — | — | 2 | — | 3 |
| M | — | — | 3 | — | 1 | — | — | — | — | — |
| N | — | — | — | — | — | 4 | 3 | — | — | — |
| M9 | — | — | 3 | — | 1 | — | — | — | 4 | — |



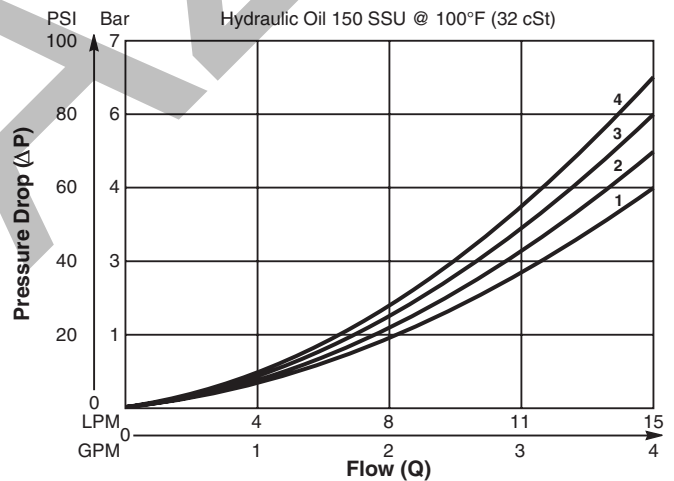
DSL084B



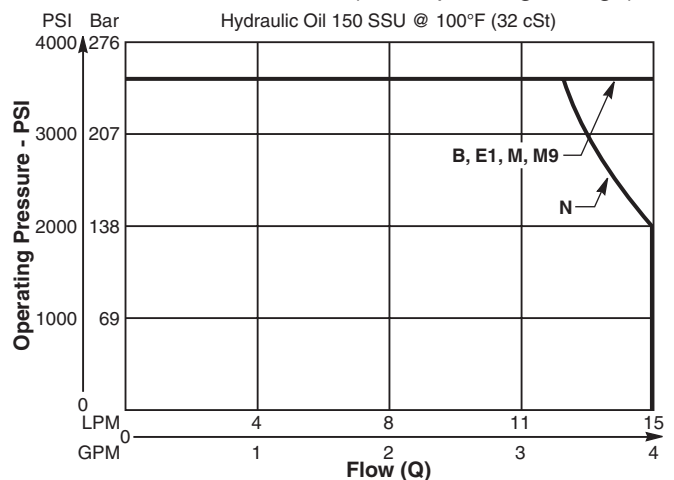
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Performance Curves

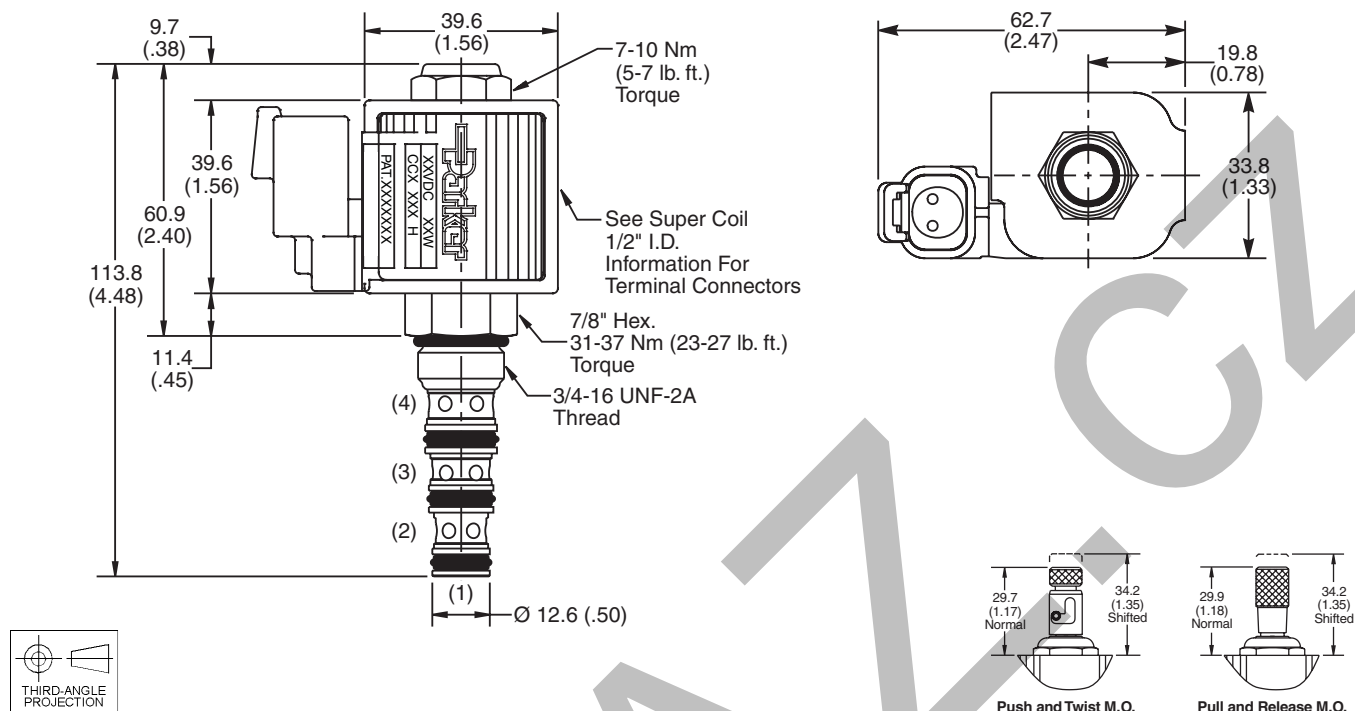
Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



Dimensions Millimeters (Inches)



Ordering Information

DSL084 ☐ ☐ ☐

08 Size Solenoid Valve Style Override Option Seals

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 1/2" Super-Coil (CC series), for ordering information.

| Code | Style |
|------|-------|
| B | |
| N | |
| E1 | |
| M | |
| M9 | |

| Code | Override Options |
|------|------------------|
| Omit | None |
| P | Pull & Release |
| T | Push & Twist |

| Code | Seals / Kit No. |
|------|--------------------------|
| Omit | "D"-Ring / (SK08-4) |
| N | Nitrile (SK08-4) |
| V | Fluorocarbon / (SK08-4V) |

Order Bodies Separately
 See section BC

B08 - **4** -

08 size 4-Way Cavity Port Size

| Code | Port Size / Body Material |
|------|------------------------------|
| 6T | SAE-6 / Steel (5000 PSI) |
| A6T | SAE-6 / Aluminium (3000 PSI) |

General Description

2-Way Poppet Valves. For additional information see Technical Tips on pages SV1-SV5.

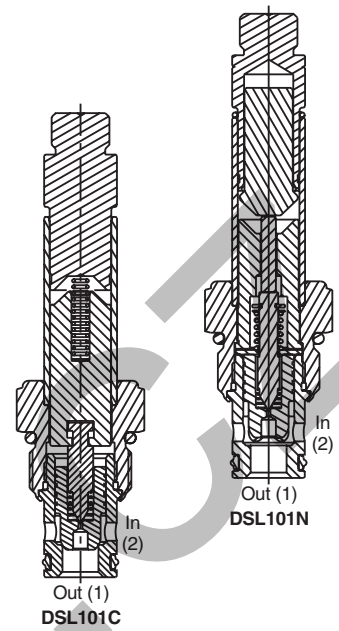
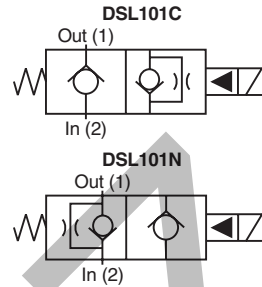


Features

- Replaceable, one piece encapsulated coils with minimal amperage draw
- Various coil terminations and voltages
- Various manual override options
- Fast response available, (CH and CHR) rated at 11 LPM (3.0 GPM)
- Polyurethane "D"-Ring
- All external parts zinc plated

Specifications

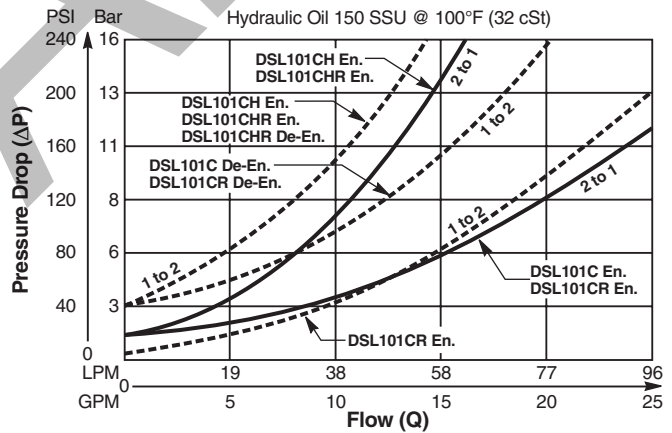
| | | | |
|--------------------------------|---|---|--|
| Rated Flow | 60 LPM (15 GPM) | | |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | | |
| Leakage at 150 SSU (32 cSt) | 5 drops/min. (.33 cc/min.) | | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | | |
| Response Time | C, CR CH, CHR N, NR | Energized 80 ms 50 ms 35 ms | De-Energized 150 ms 50 ms 175 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. | | |
| Operating Temp. Range/Seals | -35°C to +93°C ("D"-Ring) (-37°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | | |
| Fluid Compatibility/ Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | | |
| Approx. Weight | .20 kg (0.41 lbs.) | | |
| Cavity | C10-2 (See BC Section for more details) | | |
| Form Tool | Rougher Finisher | None | NFT10-2F |



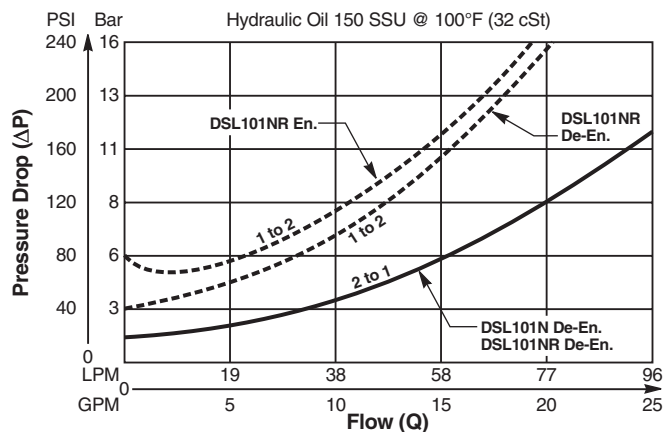
Performance Curves

Pressure Drop vs. Flow (Through cartridge only)

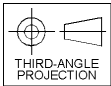
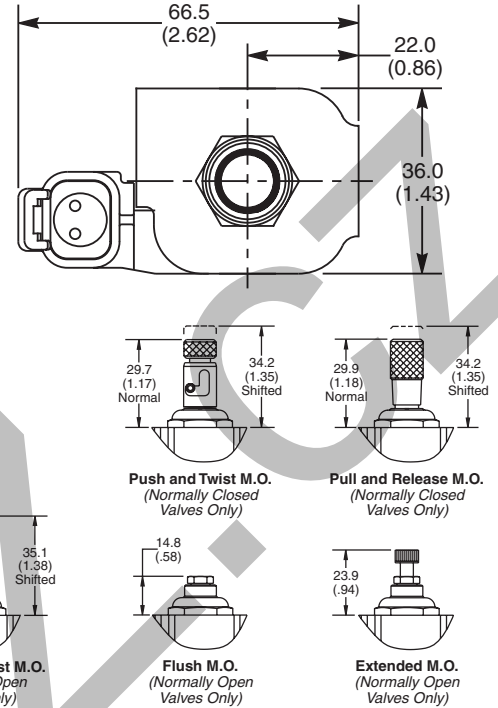
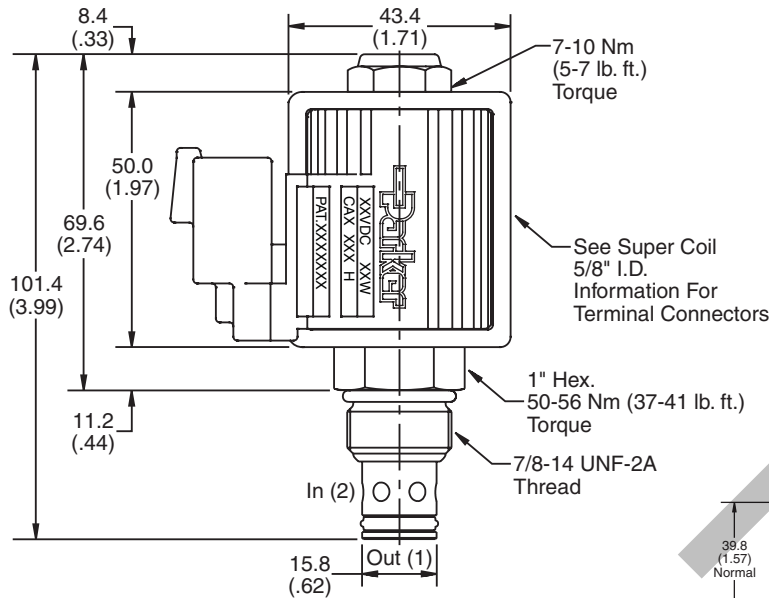
Normally Closed



Normally Open



Dimensions Millimeters (Inches)



Ordering Information

DSL101

10 Size
Solenoid Valve

Style

Override
Option

Seals

Screen

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.

Order Bodies Separately
 See section BC

| Code / Style | |
|---|--|
| C Normally Closed Metered reverse flow | |
| CH Normally Closed Metered reverse flow (Fast response) | |
| CHR Normally Closed Free reverse flow (Fast response) | |
| CR Normally Closed Free reverse flow | |
| N Normally Open Metered reverse flow | |
| NR Normally Open Free reverse flow | |

| Code | Override Options |
|-------------|---|
| Omit | None |
| E | Push Type with Extended Rod (N.O. Only) |
| M | Push Type with Flush Rod (N.O. Only) |
| P | Pull & Release (N.C. Only) |
| T | Push & Twist (N.C. & N.O.) |

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

| Code | Screen |
|-------------|-------------|
| Omit | None |
| S | Screen |

| B10 | 2 | |
|------------|------------------------------|--------------|
| 10 size | 2-Way Cavity | Port Size |
| Code | Port Size / Body Material | |
| 8T | SAE-8 / Steel (5000 PSI) | |
| A8T | SAE-8 / Aluminium (3000 PSI) | |

General Description

2-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

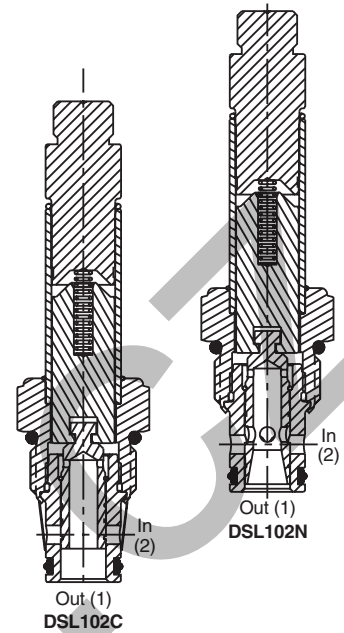
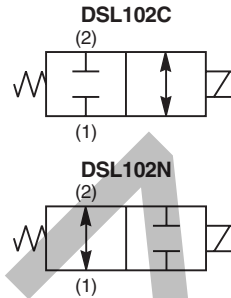


Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring
- All external parts zinc plated

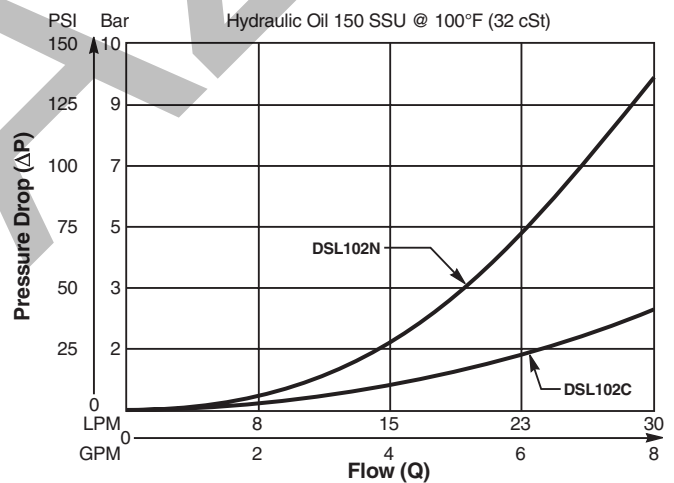
Specifications

| | | | | | | | | | | | |
|-------------------------------|--|---------------------|--|------------------|---------------------|----------|-------|-------|----------|-------|-------|
| Rated Flow | C - 30 LPM (8.0 GPM) N - 21 LPM (5.5 GPM) | | | | | | | | | | |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | | | | | | | | | | |
| Leakage at 150 SSU (32 cSt) | 120 cc/min. (7.5 in³/min.) | | | | | | | | | | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | | | | | | | | | | |
| Response Time | <table><tr><td></td><td>Energized</td><td>De-Energized</td></tr><tr><td>C</td><td>30 ms</td><td>20 ms</td></tr><tr><td>N</td><td>50 ms</td><td>25 ms</td></tr></table> | | | Energized | De-Energized | C | 30 ms | 20 ms | N | 50 ms | 25 ms |
| | Energized | De-Energized | | | | | | | | | |
| C | 30 ms | 20 ms | | | | | | | | | |
| N | 50 ms | 25 ms | | | | | | | | | |
| Cartridge Material | All parts steel. All operating parts hardened steel. | | | | | | | | | | |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | | | | | | | | | | |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | | | | | | | | | | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | | | | | | | | | | |
| Approx. Weight | .18 kg (.41 lbs.) | | | | | | | | | | |
| Cavity | C10-2 (See BC Section for more details) | | | | | | | | | | |
| Form Tool | Rougher None Finisher NFT10-2F | | | | | | | | | | |

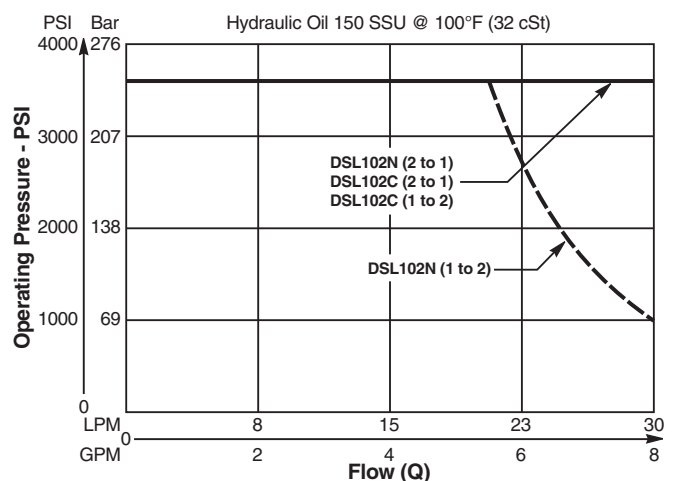


Performance Curves

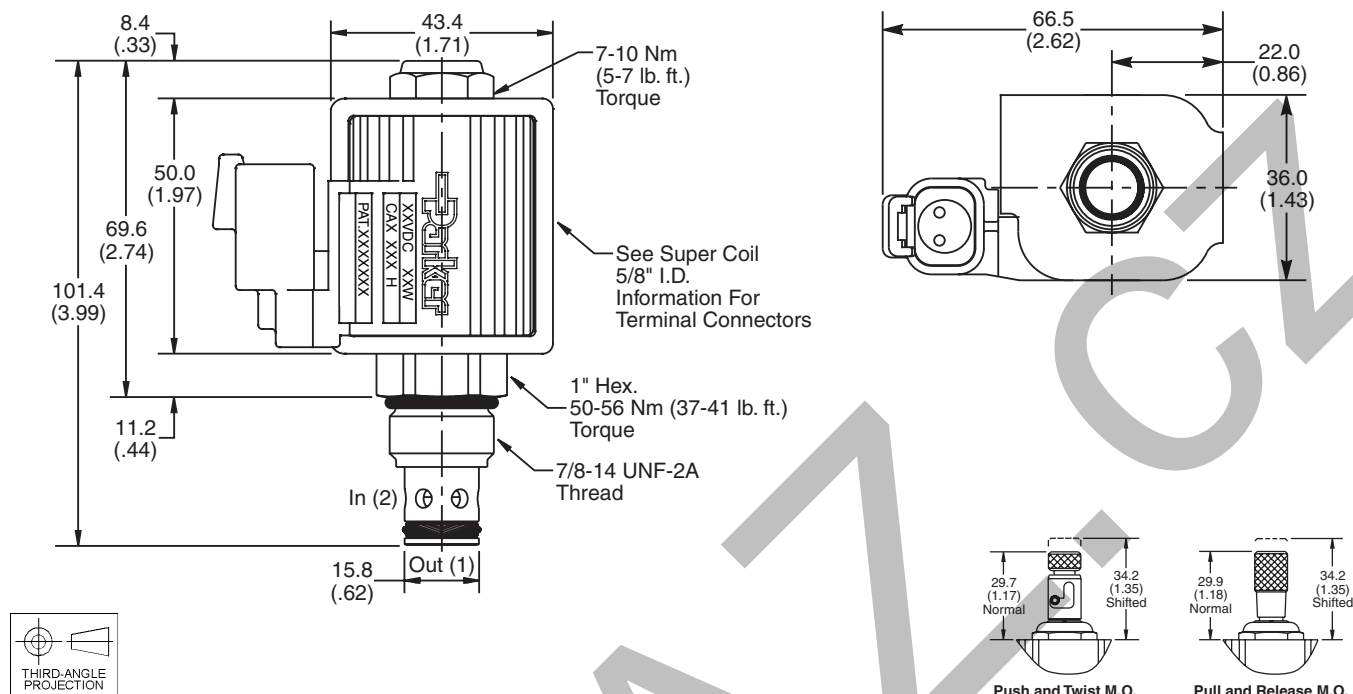
Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



Dimensions Millimeters (Inches)



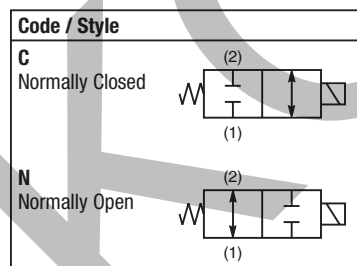
Ordering Information

DSL102 ☐ ☐ ☐ ☐

10 Size Solenoid Valve **Style** **Override Option** **Seals** **Screen**

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.



| Code | Override Options |
|-------------|------------------|
| Omit | None |
| P | Pull and Release |
| T | Push & Twist |

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

| Code | Screen |
|-------------|-------------|
| Omit | None |
| S | Screen |

Order Bodies Separately
 See section BC

B10 - **2** -

10 size 2-Way Cavity Port Size

| Code | Port Size / Body Material |
|------|------------------------------|
| 8T | SAE-8 / Steel (5000 PSI) |
| A8T | SAE-8 / Aluminium (3000 PSI) |

General Description

3-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

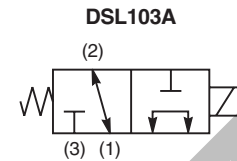


Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring
- All external parts zinc plated

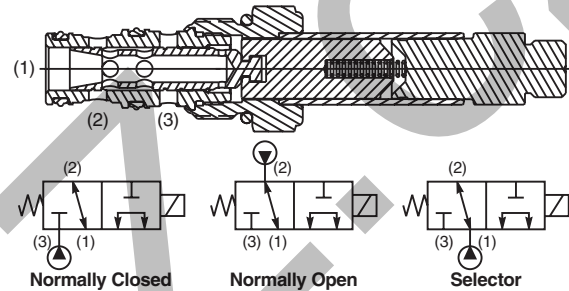
Specifications

| | | |
|-------------------------------|---|--------------------|
| Rated Flow | DSL103A | |
| | N.O. | 22.7 LPM (6.0 GPM) |
| | N.C. | 17.0 LPM (4.5 GPM) |
| | Selector | 17.0 LPM (4.5 GPM) |
| | DSL103B | |
| | N.C. | 30.2 LPM (8.0 GPM) |
| | DSL103C | |
| | N.O. | 30.2 LPM (8.0 GPM) |
| | DSL103N | |
| | N.O. | 18.8 LPM (5.0 GPM) |
| | N.C. | 18.8 LPM (5.0 GPM) |
| | Selector | 30.2 LPM (8.0 GPM) |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | |
| Leakage at 150 SSU (32 cSt) | 120 cc/min. (7.5 in ³ /min.) DSL103B - 180 cc/min. (11 in ³ /min.) DSL103N - 180 cc/min. (11 in ³ /min.) | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | |
| Response Time | 50 ms to 100 ms | |
| Cartridge Material | All parts steel. All operating parts hardened steel. | |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | |
| Approx. Weight | .19 kg (.42 lbs.) | |
| Cavity | C10-3 (See BC Section for more details) | |
| Form Tool | Rougher | NFT10-3R |
| | Finisher | NFT10-3F |

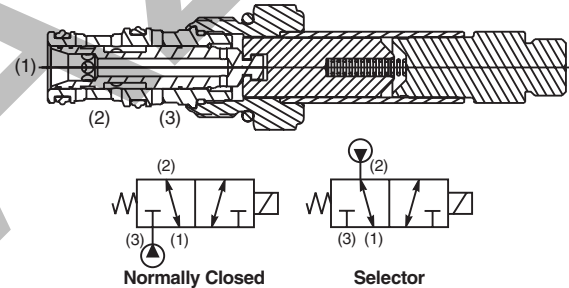


Construction/Symbols

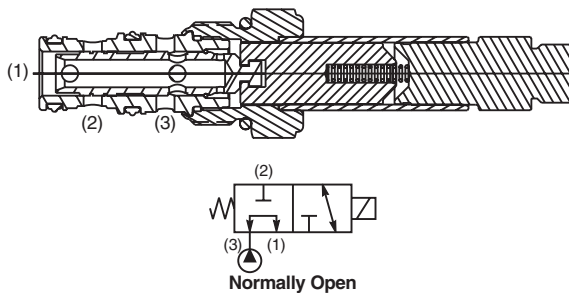
DSL103A



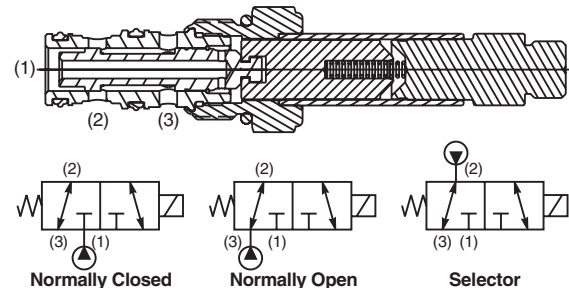
DSL103B



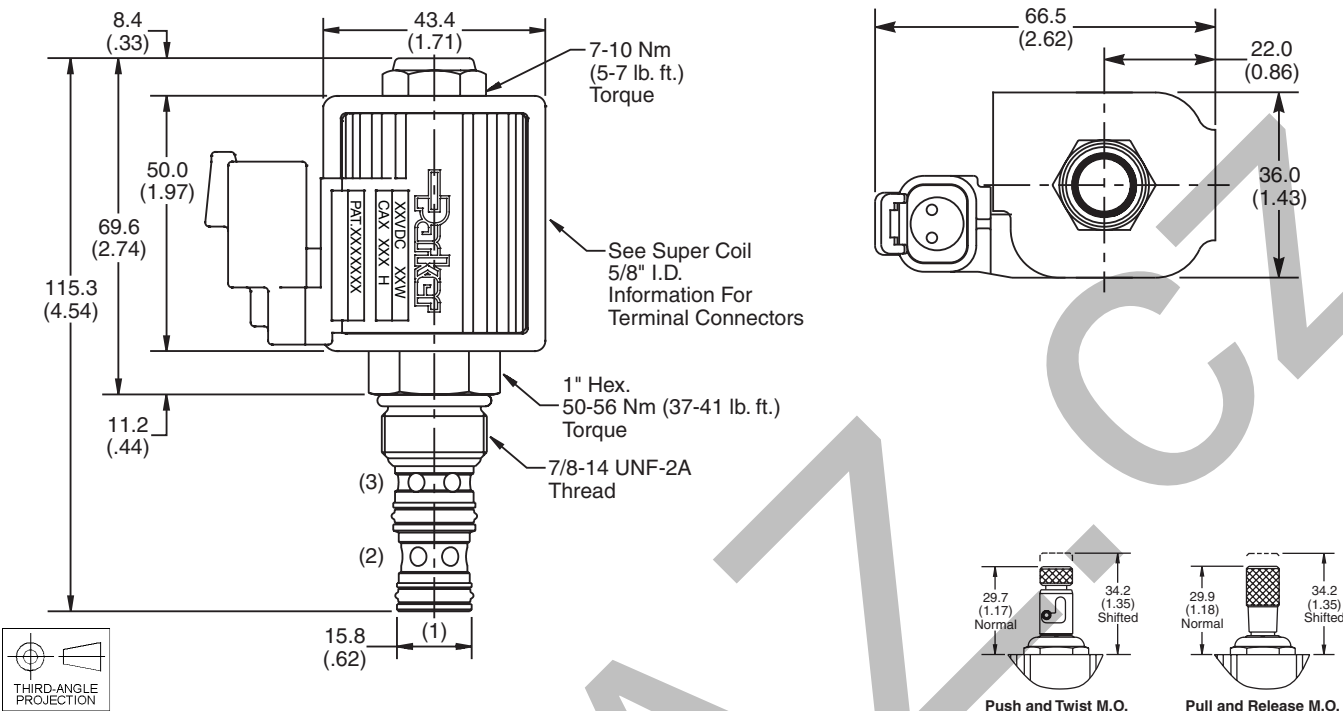
DSL103C



DSL103N



Dimensions Millimeters (Inches)



Ordering Information

DSL103

10 Size
Solenoid Valve

Style

Override
Option

Seals

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.

| Code | Style |
|------|-------|
| A | |
| B | |
| C | |
| N | |

| Code | Override Options |
|------|------------------|
| Omit | None |
| P | Pull & Release |
| T | Push & Twist |

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

Order Bodies Separately
See section BC

| | | |
|---------|-----------------|--------------|
| B10 | 3 | |
| 10 size | 3-Way Cavity | Port Size |

| Code | Port Size / Body Material |
|------|------------------------------|
| 8T | SAE-8 / Steel (5000 PSI) |
| A8T | SAE-8 / Aluminium (3000 PSI) |

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

CB

Cartpak
Bodies

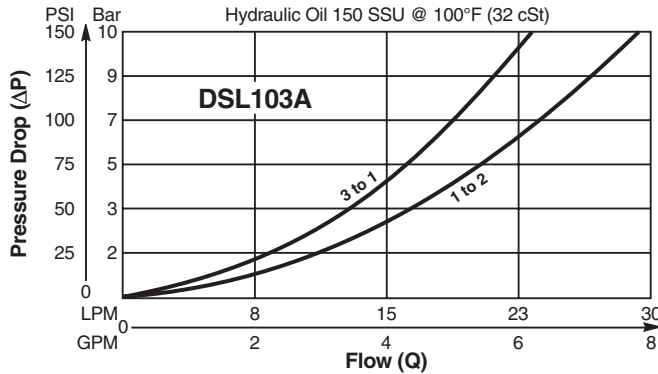
BC

Bodies &
Cavities

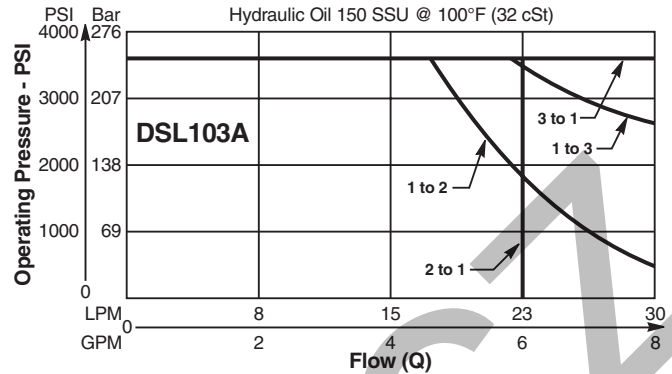
TD

Technical
Data

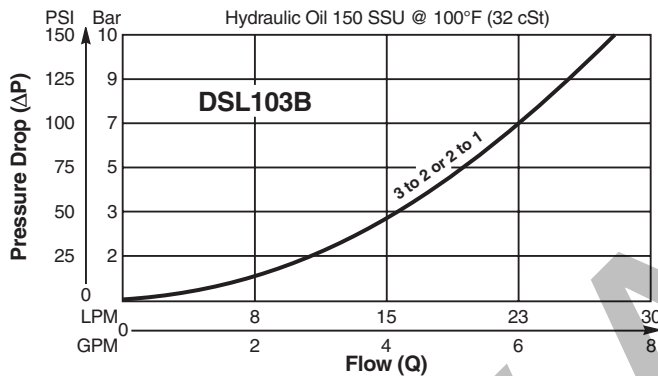
Pressure Drop vs. Flow (Through cartridge only)



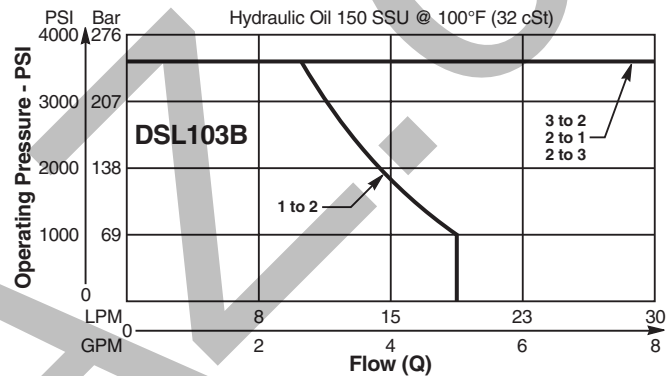
Shift Limit Characteristics (Min. Operating Voltage)



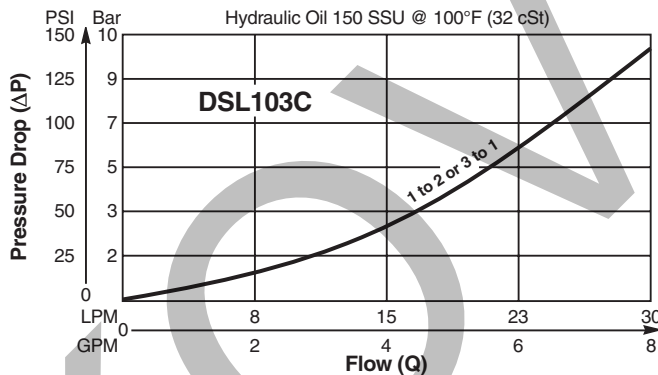
Pressure Drop vs. Flow (Through cartridge only)



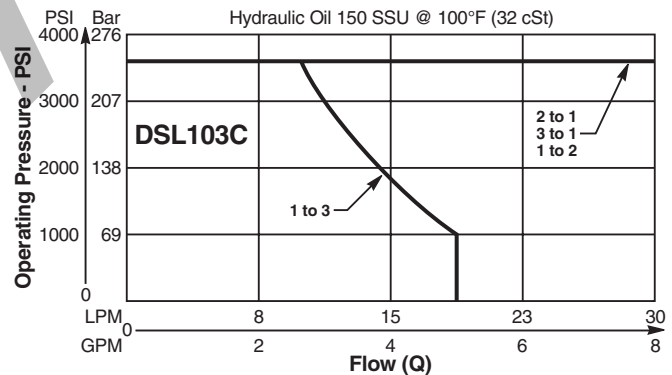
Shift Limit Characteristics (Min. Operating Voltage)



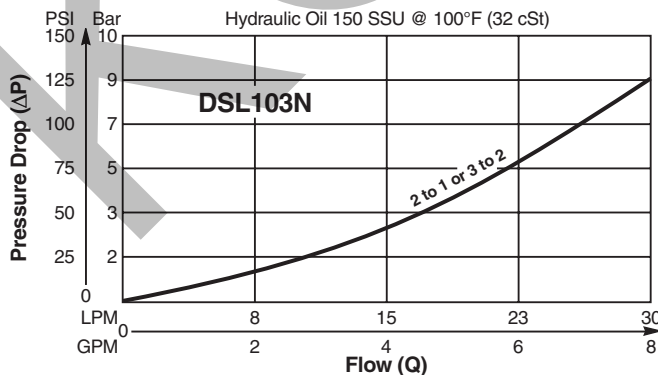
Pressure Drop vs. Flow (Through cartridge only)



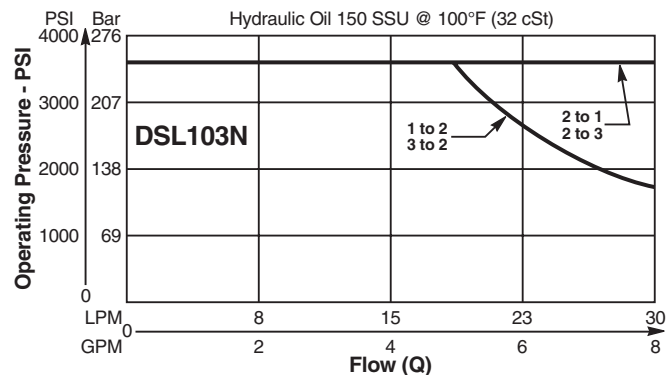
Shift Limit Characteristics (Min. Operating Voltage)



Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



General Description

4-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.

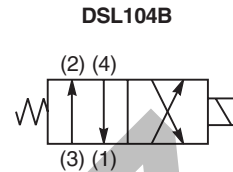


Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- One-piece encapsulated coil with minimal amperage draw
- Manual overrides, seal variations and other options available
- No dynamic seals
- Variety of coil terminations
- Polyurethane "D"-Ring
- All external parts zinc plated

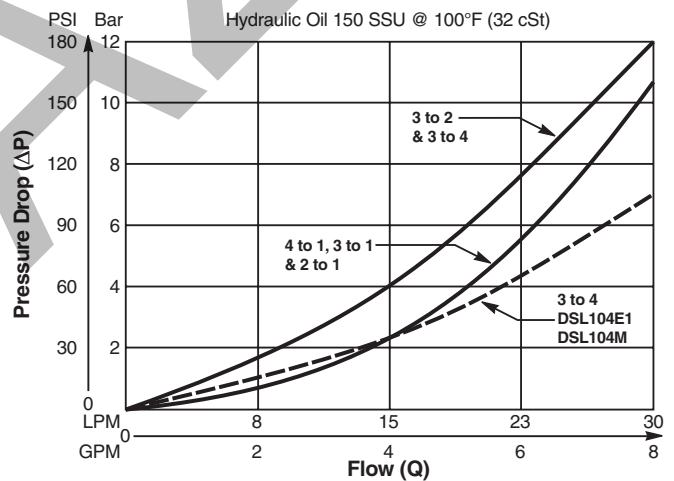
Specifications

| | |
|-------------------------------|---|
| Rated Flow | 27-38 LPM (7-10 GPM) See Shift Limit Characteristics |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) |
| Leakage at 150 SSU (32 cSt) | 230 cc/min (14 in ³ /min) |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). |
| Response Time | Energized - 30 - 60 ms De-energized - 30 - 60 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) |
| Filtration | ISO 4406 18/16/13, SAE Class 4 |
| Approx. Weight | .20 kg (.44 lbs.) |
| Cavity | C10-4 (See BC Section for more details) |
| Form Tool | Rougher NFT10-4R Finisher NFT10-4F |

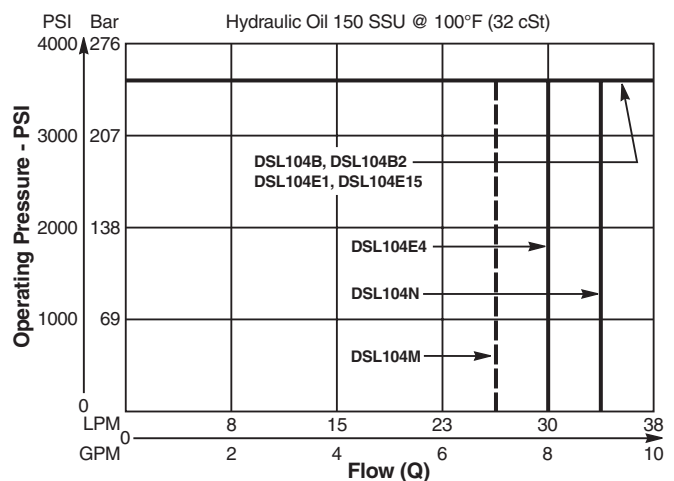


Performance Curves

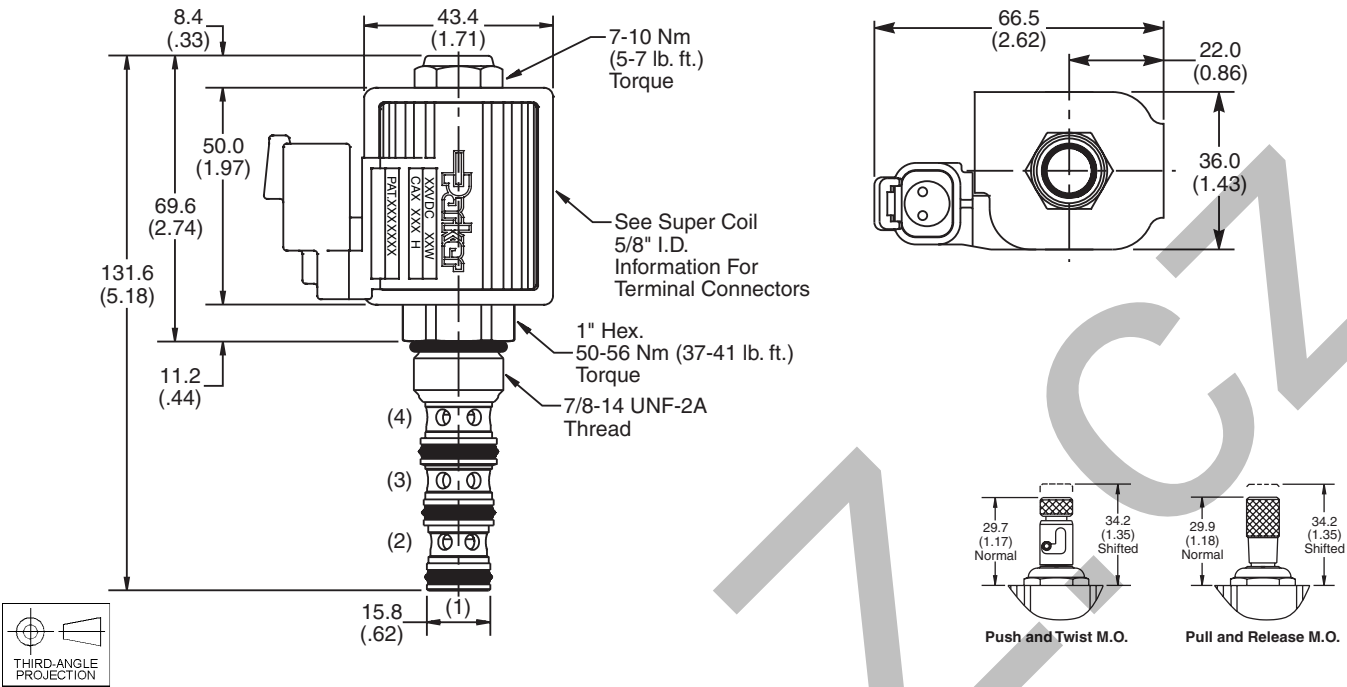
Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



Dimensions Millimeters (Inches)



Ordering Information

DSL104 ☐ ☐ ☐

10 Size Style Override Seals
Solenoid Valve

| Code | Style |
|------|-------|
| B | |
| B2 | |
| E1 | |
| E4 | |
| E15 | |
| H | |
| M | |
| N | |

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.

| Code | Override Options |
|------|------------------|
| Omit | None |
| P | Pull & Release |
| T | Push & Twist |

| Code | Seals / Kit No. |
|------|--------------------------|
| Omit | "D"-Ring / (SK10-4) |
| N | Nitrile (SK10-4) |
| V | Fluorocarbon / (SK10-4V) |

Order Bodies Separately
See section BC

B10 - **4** -

10 size 4-Way Port
Cavity Size

| Code | Port Size / Body Material |
|------|------------------------------|
| 8T | SAE-8 / Steel (5000 PSI) |
| A8T | SAE-8 / Aluminium (3000 PSI) |

- 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
- CB Carpak Bodies
- BC Bodies & Cavities
- TD Technical Data

General Description

4-Way Spool Valves. For additional information see Technical Tips on pages SV1-SV5.



Features

- High flow capacity with reduced space requirements
- Standard valve bodies and common cavities
- Replaceable, one piece encapsulated coils with minimal amperage draw
- Manual overrides, seal variations and other options available
- Oil immersed armature solenoid, no dynamic seals
- Variety of coil terminations and voltages
- Polyurethane "D"-Ring

Specifications

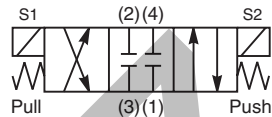
| | |
|-------------------------------|---|
| Rated Flow | C2, C7, C9 19 LPM (5 GPM) C1, C4 26 LPM (7 GPM) |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) |
| Leakage at 150 SSU (32 cSt) | 160 cc/min. (10 in ³ /min.) |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). |
| Response Time | 40 - 150 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. |
| Operating Temp. Range/Seals | -37°C to +93°C ("D"-Ring) (-35°F to +200°F) -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) |
| Filtration | ISO 4406 18/16/13, SAE Class 4 |
| Approx. Weight | .29 kg (.64 lbs.) |
| Cavity | C10-4 |
| Form Tool | Rougher NFT10-4R Finisher NFT10-4F |

Curve Selection Chart

| SPOOL CODE | SPOOL SHIFTED | | | | SPOOL CENTERED | | |
|------------|---------------|--------|--------|--------|----------------|--------|--------|
| | 3 to 2 | 3 to 4 | 2 to 1 | 4 to 1 | 3 to 1 | 2 to 1 | 4 to 1 |
| C1 | 2 | 2 | 4 | 4 | — | — | — |
| C2 | 1 | 1 | 2 | 2 | 5 | 4 | 3 |
| C4 | 2 | 2 | 5 | 5 | — | 4 | 4 |
| C7 | 1 | 1 | 2 | 2 | 5 | — | 3 |
| C9 | 1 | 1 | 2 | 2 | 5 | — | — |



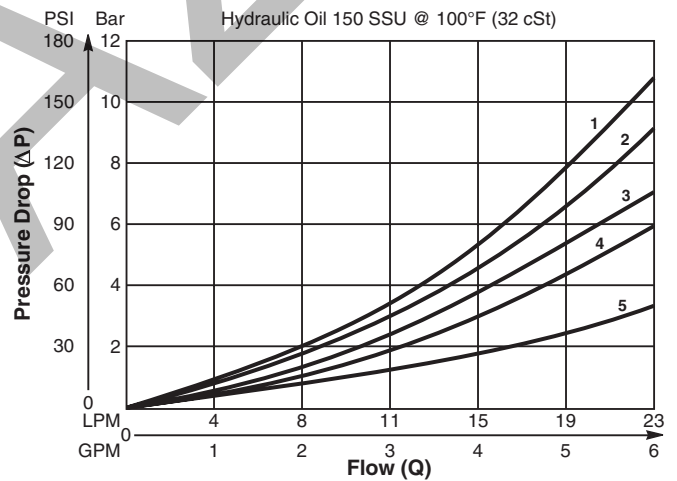
DSL105C1



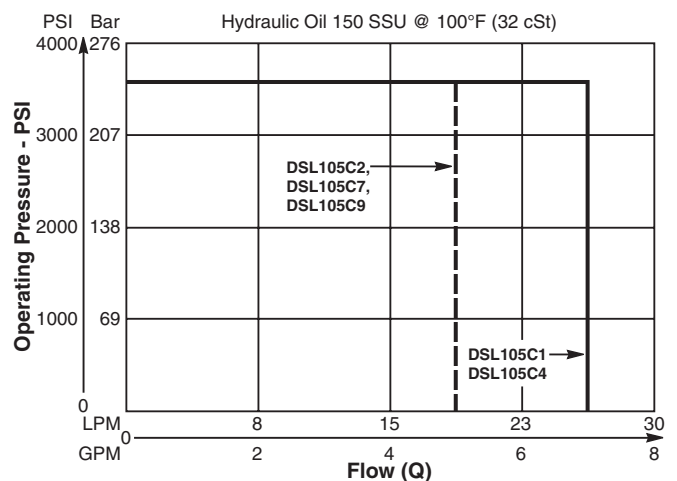
DSL105C1

Performance Curves

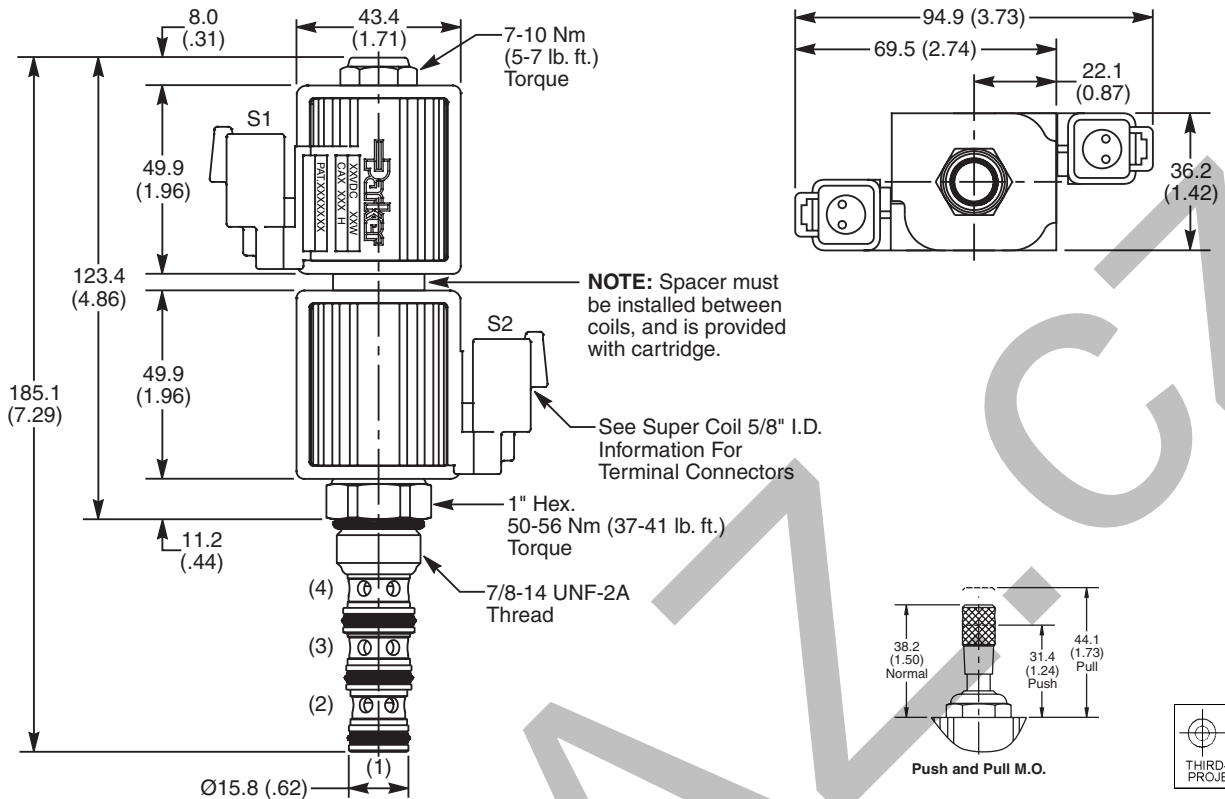
Pressure Drop vs. Flow (Through cartridge only)



Shift Limit Characteristics (Min. Operating Voltage)



Dimensions Millimeters (Inches)



Ordering Information

DSL105

10 Size
Solenoid Valve

Style

Override
Option

Seals

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.

| Code | Style |
|------|-------|
| C1 | |
| C2 | |
| C4 | |
| C7 | |
| C9 | |

| Code | Override Options |
|------|------------------|
| Omit | None |
| M | Push / Pull |

| Code | Seals / Kit No. |
|------|--------------------------|
| Omit | "D"-Ring / (SK10-4) |
| N | Nitrile (SK10-4) |
| V | Fluorocarbon / (SK10-4V) |

Order Bodies Separately
 See section BC

| | | | | |
|------------|---|-----------------|---|--------------|
| B10 | — | 4 | — | |
| 10 size | | 4-Way Cavity | | Port Size |

| Code | Port Size / Body Material |
|------|------------------------------|
| 8T | SAE-8 / Steel (5000 PSI) |
| A8T | SAE-8 / Aluminium (3000 PSI) |

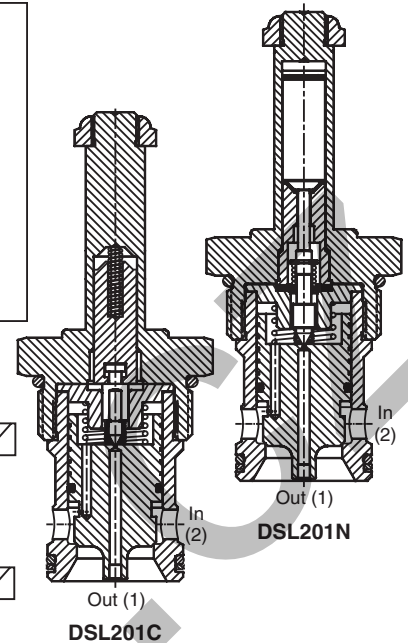
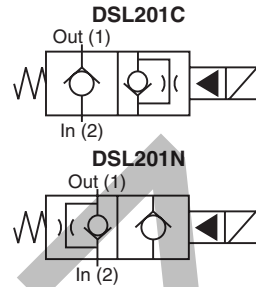
General Description

2-Way Poppet Valves. For additional information see Technical Tips on pages SV1-SV5.



Features

- Replaceable, one piece encapsulated coils with minimal amperage draw
- Various coil terminations and voltages
- Various manual override options
- All external parts zinc plated
- New 250 Bar (3600 PSI) rating

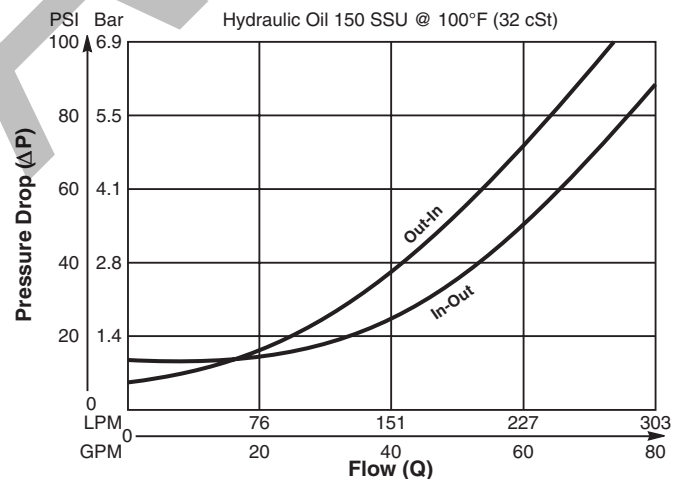


Specifications

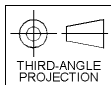
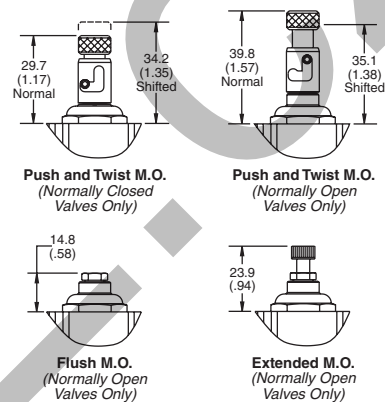
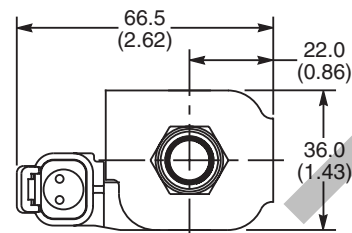
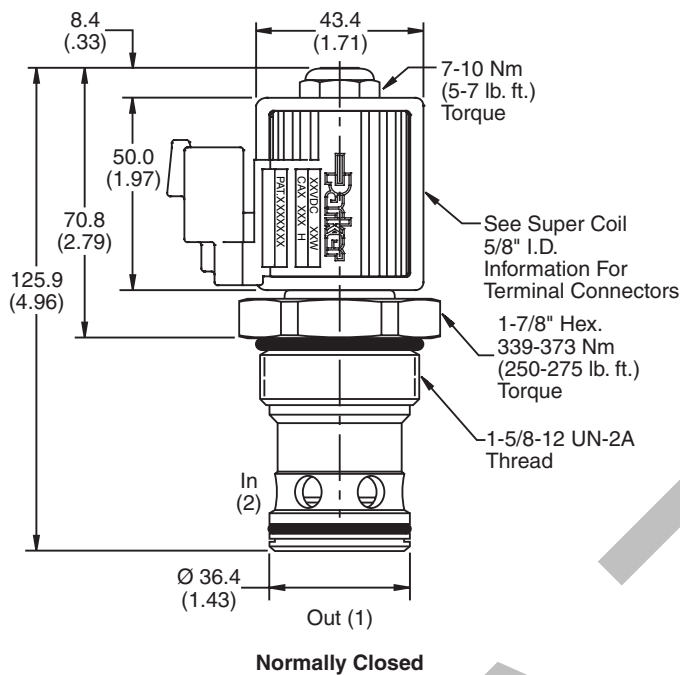
| | | | |
|-------------------------------|--|--------------------------------------|--|
| Rated Flow | 260 LPM (70 GPM) | | |
| Maximum Inlet Pressure | 250 Bar (3600 PSI) | | |
| Leakage at 150 SSU (32 cSt) | 5 drops/min. (.33 cc/min.) | | |
| Minimum Operating Voltage | 85% of rated voltage at 20°C (72°F). | | |
| Response Time | C, CR N, NR | Energized 350 ms 300 ms | De-Energized 160 ms 45 ms |
| Cartridge Material | All parts steel. All operating parts hardened steel. | | |
| Operating Temp. Range/Seals | -34°C to +121°C (Nitrile) (-30°F to +250°F) -26°C to +204°C (Fluorocarbon) (-15°F to +400°F) | | |
| Fluid Compatibility/Viscosity | Mineral-based or synthetic with lubricating properties at viscosities of 45 to 2000 SSU (6 to 420 cSt) | | |
| Filtration | ISO 4406 18/16/13, SAE Class 4 | | |
| Approx. Weight | .34 kg (.75 lbs.) | | |
| Cavity | C20-2 (See BC Section for more details) | | |
| Form Tool | Rougher Finisher | None NFT20-2F | |

Performance Curve

Pressure Drop vs. Flow (Through cartridge only)



Dimensions Millimeters (Inches)



Ordering Information

DSL201

20 Size
Solenoid Valve

Style

Override
Option

Seals

Highlighted represents preferred options that offer the shortest lead times. Other options may be available, but at extended lead times.

Coil(s) sold separately. Please see section CE of this catalog, 5/8" Super-Coil (CA series), for ordering information.

Order Bodies Separately
 See section BC

| Code / Style | |
|---|--|
| C Normally Closed Metered reverse flow | |
| CR Normally Closed Free reverse flow | |
| N Normally Open Metered reverse flow | |
| NR Normally Open Free reverse flow | |

| Code | Override Options |
|-------------|---|
| Omit | None |
| E | Push Type with Extended Rod (N.O. Only) |
| M | Push Type with Flush Rod (N.O. Only) |
| T | Push & Twist (N.C. & N.O.) |

| Code | Seals / Kit No. |
|-------------|--------------------------|
| Omit | Nitrile |
| V | Fluorocarbon / (SK20-2V) |

| | | |
|------------|--------------|-----------|
| B20 | 2 | |
| 20 size | 2-Way Cavity | Port Size |

| Code | Port Size / Body Material |
|------|-------------------------------|
| 20T | SAE-20 / Steel (5000 PSI) |
| A20T | SAE-20 / Aluminium (3000 PSI) |