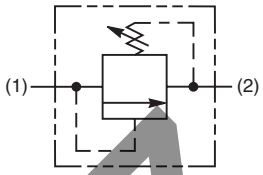
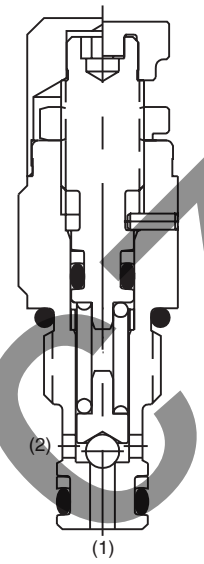
General Description

Direct Acting Ball-Type Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Compact size for reduced space requirements
- Low leakage design
- Fast response
- All external parts zinc plated





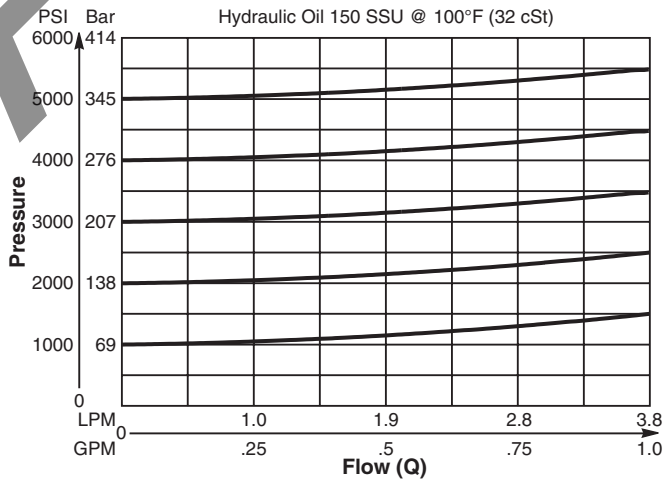
Specifications

Rated Flow	3.8 LPM (1 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**30** 105 Bar (1522 PSI) **50** 118 Bar (1710 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	80% of crack pressure
Leakage at 150 SSU (32 cSt)	10 drops/min. (.66 cc/min.) @75% of crack pressure
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	0.03 kg (0.07 lbs.)
Cavity	C04-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT04-2F

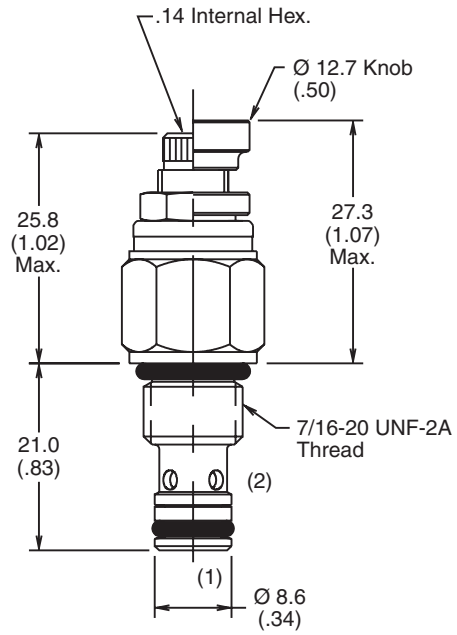
Performance Curve

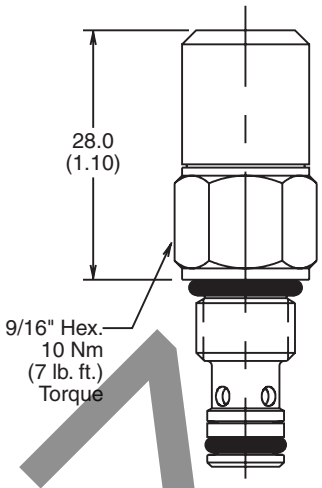
Flow vs. Inlet Pressure

(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)





Tamper Resistant

THIRD-ANGLE PROJECTION

Ordering Information

RDH042			
04 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (852544)
S	**Screw Adjust**
T	Tamper Resistant Cap (852519)

Code	Seals / Kit No.
Omit	**Nitrile / (SK04-2)**
V	Fluorocarbon / (SK04-2V)

Code	Pressure Range
30	**6.9 - 207 Bar (100 - 3000 PSI) Standard Setting: 103 Bar (1500 PSI) @ 1.9 LPM (.5 GPM)**
50*	**103 - 345 Bar (1500 - 5000 PSI) Standard Setting: 172 Bar (2500 PSI) @ 1.9 LPM (.5 GPM)**

**** If using 50 Pressure Range, Steel Body is required.***

Order Bodies Separately
See section BC

B04	–	2	–	
04 size		2-Way Cavity		Port Size

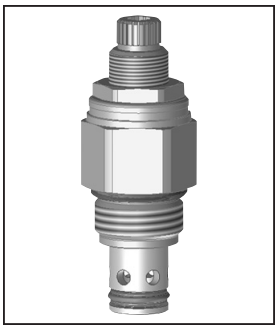
Code	Porting / Body Material
4T	SAE-4 / Steel (5000 PSI)
A4T	SAE-4 / Aluminium (3000 PSI)

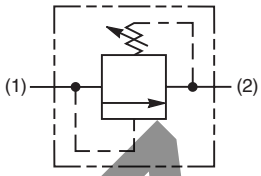
General Description

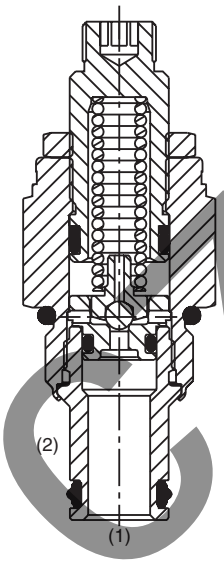
Direct Acting Relief Valve.
This valve is designed for pilot flow circuits.
For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided pilot for more consistent reseat
- Steel adapters are zinc plated
- Polyurethane “D”-Ring eliminates backup rings and prevents hydrolysis







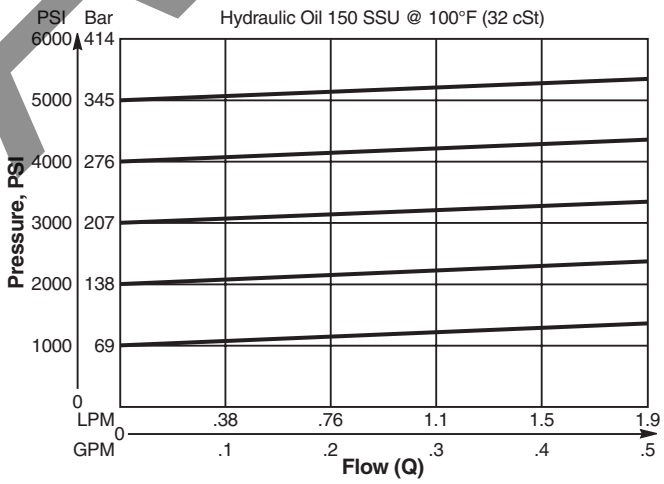
Specifications

Rated Flow	1.9 LPM (0.5 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**10** 19.6 Bar (285 PSI) **30** 58.9 Bar (859 PSI) **50** 131.7 Bar (1910 PSI
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @75% of crack pressure
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	0.09 kg (0.20 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

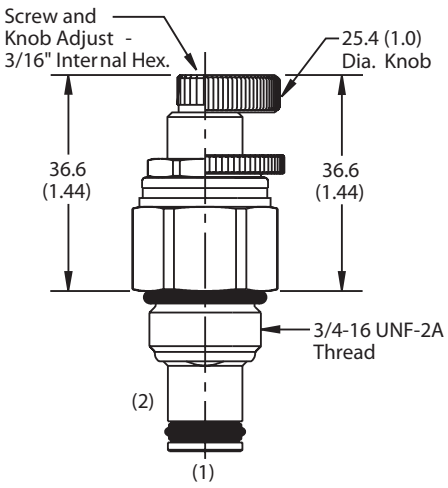
Performance Curve

Flow vs. Inlet Pressure

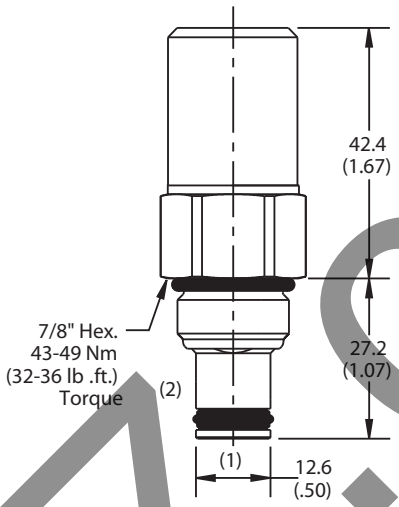
(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version



Tamper Resistant Version

THIRD-ANGLE PROJECTION

Ordering Information

RDH081			
08 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (717784-10)
S	**Screw Adjust**
T	Tamper Resistant Cap (717943)

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

Code	Pressure Range
10	**6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**
30	**13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**
50	**13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**

Order Bodies Separately
See section BC

B08	–	2	–	
08 size		2-Way Cavity		Port Size

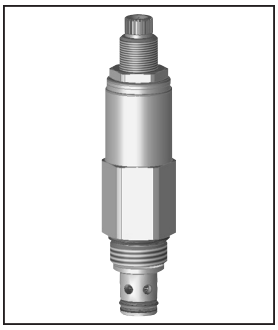
Code	Porting / Body Material
6T	SAE-6 / Steel (5000 PSI)
A6T	SAE-6 / Aluminium (3000 PSI)

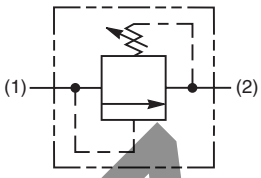
General Description

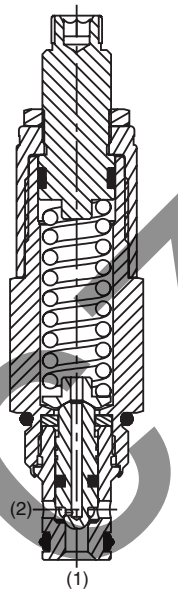
Direct Acting Poppet-Type Relief Valve.
For additional information see
Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Fast response
- Spherical poppets for low leakage
- Internal mechanical stop limits poppet travel eliminating spring solidification
- All external parts zinc plated
- Polyurethane “D”-Ring eliminates backup rings and prevents hydrolysis







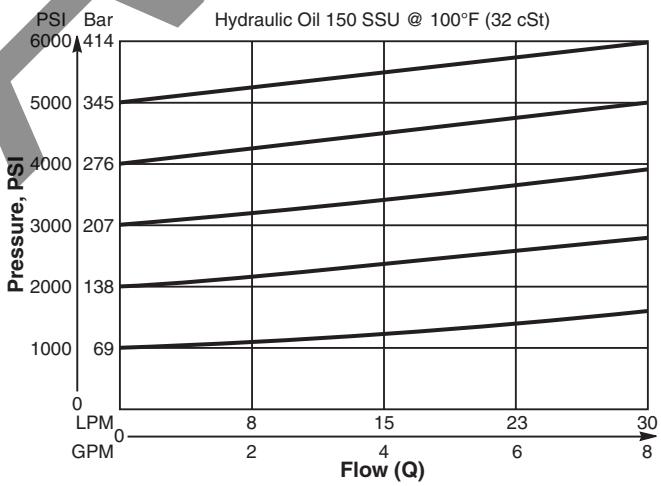
Specifications

Rated Flow	30 LPM (8 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**15** 19.3 Bar (280 PSI) **30** 35 Bar (508 PSI) **50** 54 Bar (787 PSI
Reseat Pressure	85% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @75% of crack pressure
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	0.18 kg (0.40 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

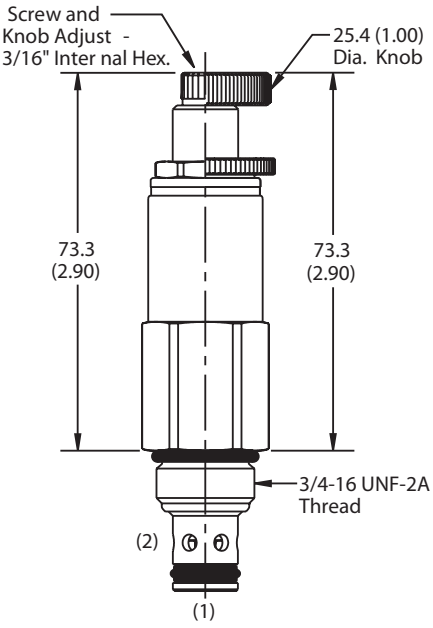
Performance Curve

Flow vs. Inlet Pressure

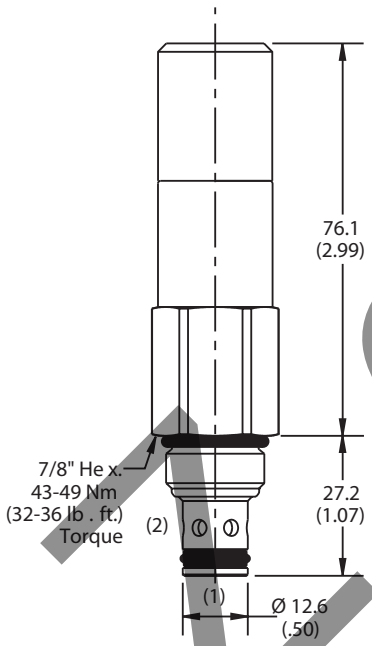
(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version



Tamper Resistant Version

THIRD-ANGLE PROJECTION

Ordering Information

RDH082			
08 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (717784-10)
S	**Screw Adjust**
T	Tamper Resistant Cap (717943)

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

Code	Pressure Range
15	6.9 - 103 Bar (100 - 1500 PSI) Standard Setting: 51.7 Bar (750 PSI) @ crack pressure approximately .95 LPM (.25 GPM)
30	**17.2 - 207 Bar (250 - 3000 PSI) Standard Setting: 103 Bar (1500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)**
50	**34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)**

Order Bodies Separately
See section BC

B08	–	2	–	
08 size		2-Way Cavity		Port Size

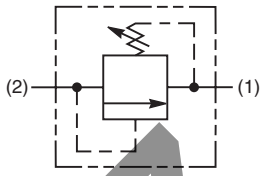
Code	Porting / Body Material
6T	SAE-6 / Steel (5000 PSI)
A6T	SAE-6 / Aluminium (3000 PSI)

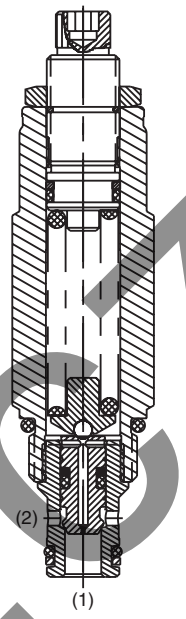
General Description

Differential Area Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Spherical poppets for low leakage
- High flow capacity
- Internal mechanical stop limits poppet travel eliminating spring solidification
- All external parts zinc plated





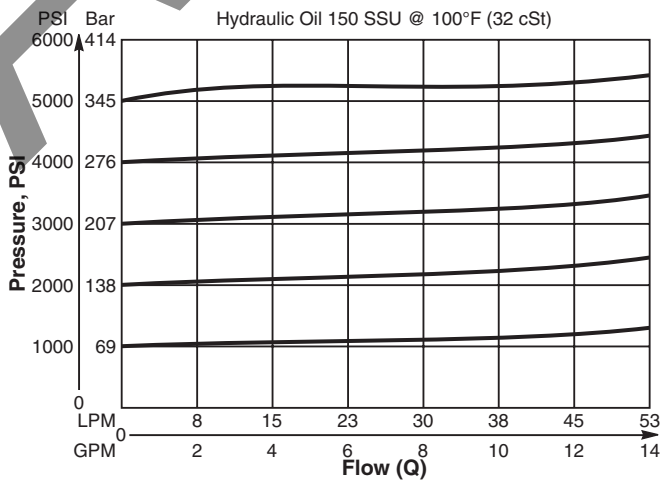
Specifications

Rated Flow	45 LPM (12 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**15** 15 Bar (218 PSI) **30** 27 Bar (396 PSI) **50** 42 Bar (614 PSI)
Maximum Tank Pressure	350 Bar (5000 PSI)
Reseat Pressure	75% of crack pressure
Leakage at 150 SSU (32 cSt)	10 drops/min. (.67 cc/min.) @75% of crack pressure
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	0.19 kg (0.43 lbs.)
Cavity	C08-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT08-2F

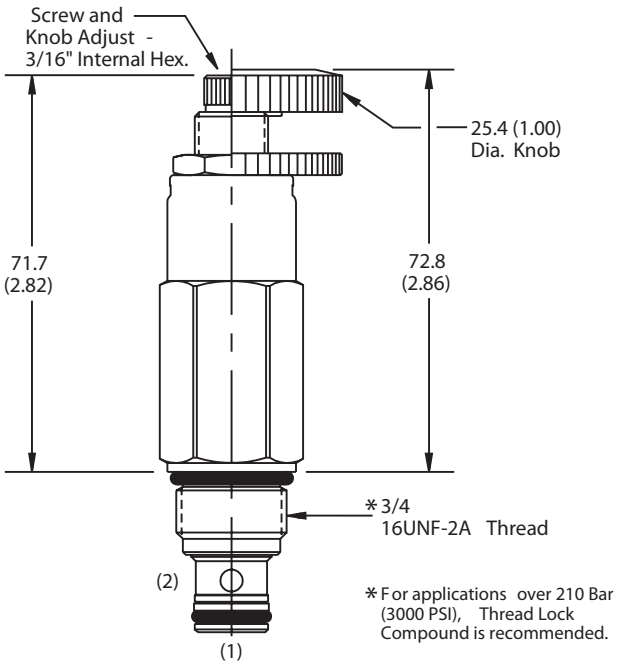
Performance Curve

Flow vs. Inlet Pressure

(Pressure rise through cartridge only)

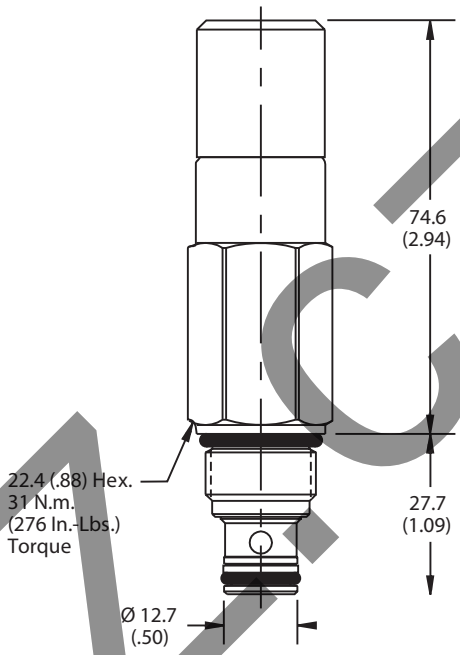


Dimensions Millimeters (Inches)



THIRD-ANGLE PROJECTION

Screw/Knob Version



Tamper Resistant Version

Ordering Information

RDH083			
08 Size Differential Area Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (717784-10)
S	**Screw Adjust**
T	Tamper Resistant Cap (718083)

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

Code	Pressure Range
15	6.9 - 103 Bar (100 - 1500 PSI) Standard Setting: 51.7 Bar (750 PSI) @ crack pressure approximately .95 LPM (.25 GPM)
30	**69 - 207 Bar (1000 - 3000 PSI) Standard Setting: 103 Bar (1500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)**
50	**138 - 345 Bar (2000 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure approximately .95 LPM (.25 GPM)**

Order Bodies Separately
See section BC

B08	–	2	–	
08 size		2-Way Cavity		Port Size

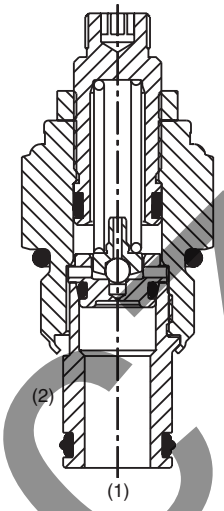
Code	Porting / Body Material
6T	SAE-6 / Steel (5000 PSI)
A6T	SAE-6 / Aluminium (3000 PSI)

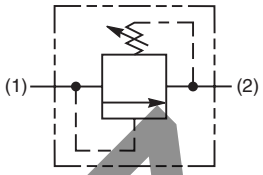
General Description

Direct Acting Relief Valve. This valve is designed for pilot flow circuits. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Low profile adapter for minimal space requirements
- Fully guided poppet for more consistent reseat
- Steel adapters are zinc plated
- Polyurethane “D”-Ring eliminates backup rings and prevents hydrolysis





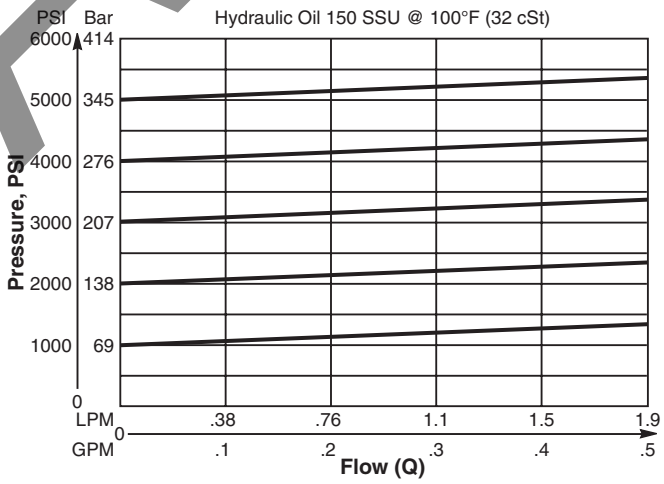
Specifications

Rated Flow	1.9 LPM (0.5 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**10** 19.6 Bar (285 PSI) **30** 58.9 Bar (859 PSI) **50** 131.7 Bar (1910 PSI
Reseat Pressure	90% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @75% of crack pressure
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	0.18 kg (0.40 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F

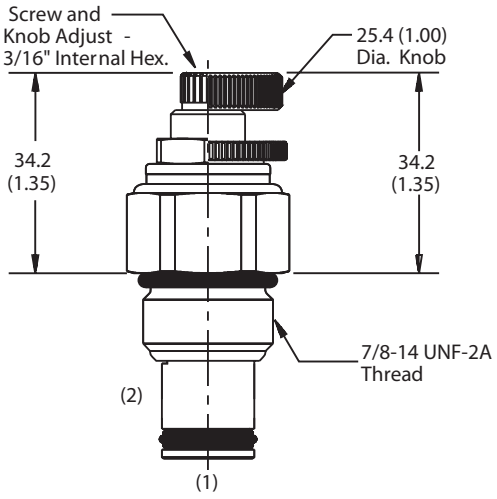
Performance Curve

Flow vs. Inlet Pressure

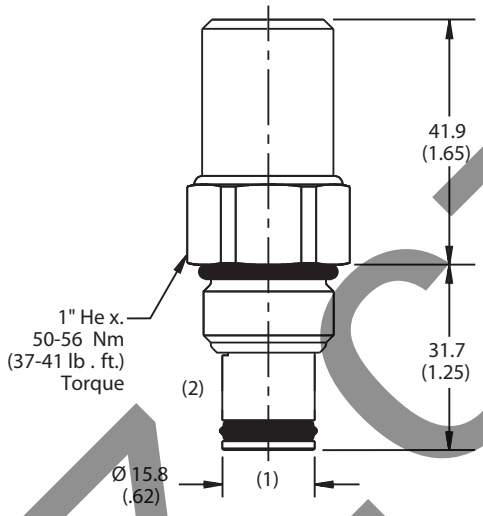
(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version



Tamper Resistant Version

THIRD-ANGLE PROJECTION

Ordering Information

RDH101			
10 Size Direct Acting Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (717784-10)
S	**Screw Adjust**
T	Tamper Resistant Cap (718083)

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

Code	Pressure Range
10	**6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**
30	**13.8 - 207 Bar (200 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**
50	**13.8 - 345 Bar (200 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ crack pressure, approximately 100 cc/min (6.1 in³/min)**

Order Bodies Separately See section BC

B10	–	2	–	
10 size		2-Way Cavity		Port Size

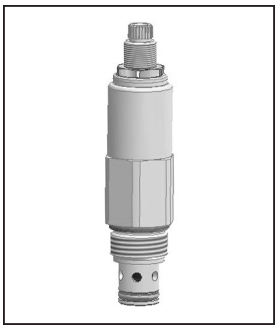
Code	Porting / Body Material
8T	SAE-8 / Steel (5000 PSI)
A8T	SAE-8 / Aluminium (3000 PSI)

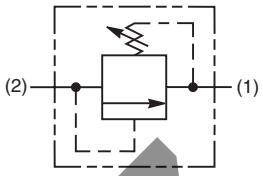
General Description

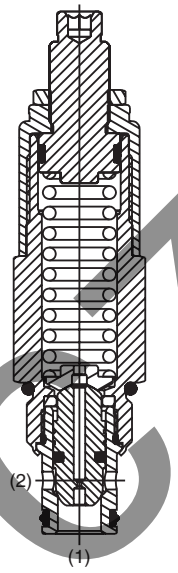
Differential Area Relief Valve. For additional information see Technical Tips on pages PC1-PC6.

Features

- Hardened, precision ground parts for durability
- Internal mechanical stop limits poppet travel eliminating spring solidification
- Spherical poppets for low leakage
- "D"-Ring eliminates backup rings
- All external parts zinc plated
- High flow capacity







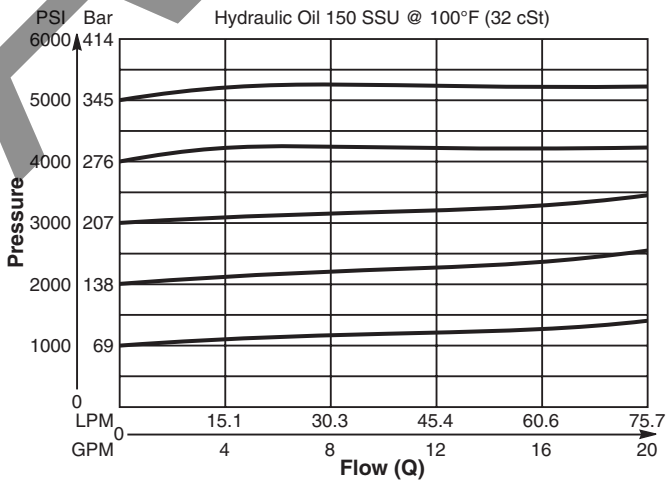
Specifications

Rated Flow	75 LPM (20 GPM)
Maximum Inlet Pressure	380 Bar (5500 PSI)
Maximum Pressure Setting	350 Bar (5000 PSI)
Sensitivity: Pressure/Turn	**10** 9.8 Bar (143 PSI) **30** 25.8 Bar (375 PSI) **50** 40.6 Bar (589 PSI
Reseat Pressure	85% of crack pressure
Leakage at 150 SSU (32 cSt)	5 drops/min. (.33 cc/min.) @75% of crack pressure
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	0.23 kg (0.50 lbs.)
Cavity	C10-2 (See BC Section for more details)
Form Tool	Rougher None Finisher NFT10-2F

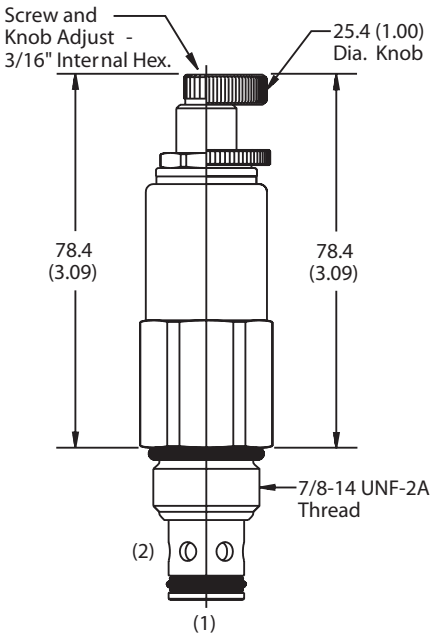
Performance Curve

Flow vs. Inlet Pressure

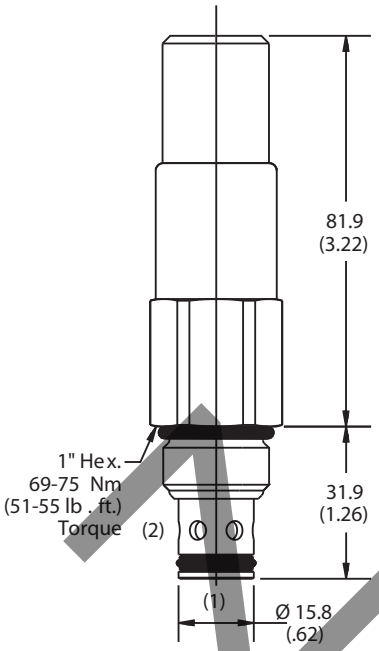
(Pressure rise through cartridge only)



Dimensions Millimeters (Inches)



Screw/Knob Version



Tamper Resistant Version

THIRD-ANGLE PROJECTION

Ordering Information

RDH103			
10 Size Differential Area Relief Valve	Adjustment Style	Pressure Range	Seals

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

Code	Adjustment Style / Kit No.
K	Knob Adjust (717784-10)
S	**Screw Adjust**
T	Tamper Resistant Cap (717943)

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

Code	Pressure Range
10	**6.9 - 69 Bar (100 - 1000 PSI) Standard Setting: 34.5 Bar (500 PSI) @ .95 LPM (.25 GPM)**
30	**34.5 - 207 Bar (500 - 3000 PSI) Standard Setting: 103.5 Bar (1500 PSI) @ .95 LPM (.25 GPM)**
50	**34.5 - 345 Bar (500 - 5000 PSI) Standard Setting: 172.4 Bar (2500 PSI) @ .95 LPM (.25 GPM)**

Order Bodies Separately
See section BC

B10	–	2	–	
10 size		2-Way Cavity		Port Size

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