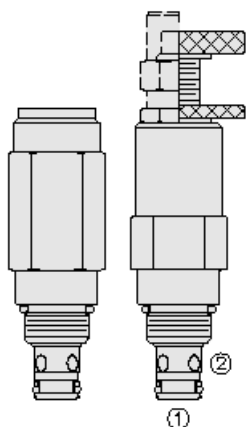
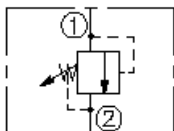




## Overview



### Symbol



### Description

RV08-20X is a screw in, cartridge style, direct acting, poppet type, hydraulic relief valve intended for lower flow circuits requiring low internal leakage.

### Operation

RV08-20X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the spring opposed poppet off its seat.

### Features

- Adjustments cannot be backed out of the valve.
- Variety of pressure adjustment options including non-adjustable factory preset.
- Adjustments options A, B, and C: positive stops prevent springs from going solid.
- Optional spring ranges to 248 bar (3600 psi).
- Rapid response to pressure changes.
- Optional bi-directional pressure (requires bi-directional pressure seal option).
- Compact size.

### Notes

#### Supersession: Existing and new applications.

[RVD58-20](#) is our best-in-class relief valve and can functionally replace this valve in most applications. We strongly encourage you to consider this newer alternative.

Considerations:

- Comparable pressure and flow ratings
- Comparable response rate
- Better pressure rise characteristics
- Smaller size
- No dynamic seal
- Competitive cost
- VC08-2B cavity variation is required. Some manifolds may allow drop-in replacement.
- Assistance is available to evaluate your application

## Ratings

### Pressure Ratings

Pressure rating	275.8 bar (4000 psi) 482.6 bar (7000 psi)
Burst pressure	896.3 bar (13000 psi)
Relief pressure defined	Pressure evident at 0.95 lpm (0.25 gpm)
Reseat pressure	Nominal 80% of crack

### Flow Ratings

Flow rating	22.7 lpm (6 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	0.25 ml/min (5 drops/min)	- <b>Note:</b> Max to 75% of nominal setting

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals with polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

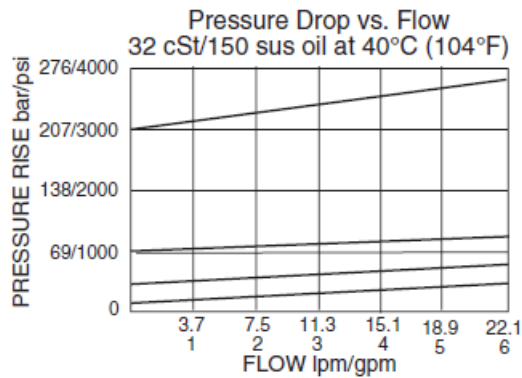
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



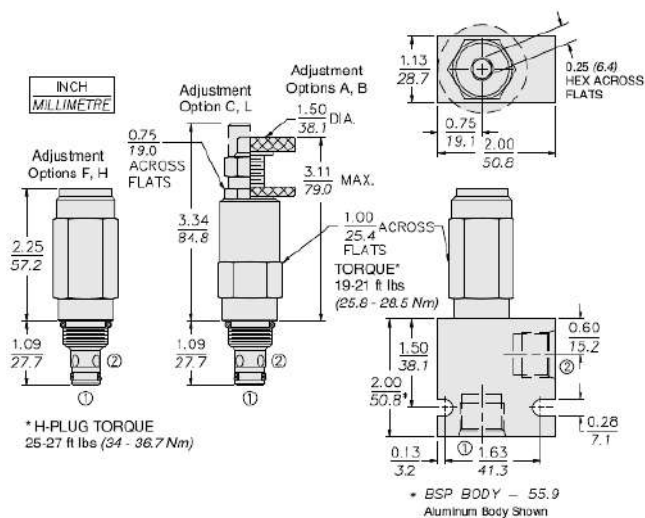
## Properties

Unit weight	0.17 kg (0.37 lb)	- <b>Note:</b> A
	0.19 kg (0.42 lb)	- <b>Note:</b> B
	0.22 kg (0.47 lb)	- <b>Note:</b> C I
	0.16 kg (0.35 lb)	- <b>Note:</b> F h
Internal wetted surface area	141 cm <sup>2</sup> (21.9 in <sup>2</sup> )	- <b>Note:</b> A b c I
	166 cm <sup>2</sup> (25.7 in <sup>2</sup> )	- <b>Note:</b> F h

## Performance



## Dimensions



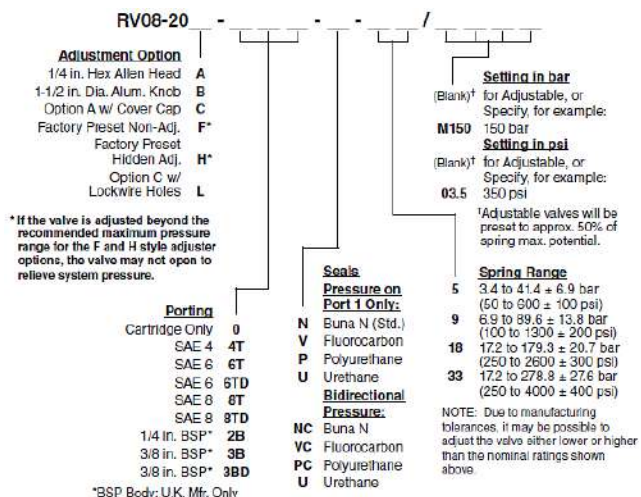
## Installation Specifications

Cavity	VC08-2
Cartridge installation torque	25.8 to 28.5 N-m (19 to 21 ft-lb)
Maximum allowable torque	40.7 N-m (30 ft-lb)
H style plug torque	10.8 to 13.6 N-m (8 to 10 ft-lb) - <b>Note:</b> N V P U 34 N-m (25 ft-lb) - <b>Note:</b> NC VC PC max
Orientation restriction	None

## Accessories

Seal kit	SK08-2X-B	- <b>Note:</b> X=seal option
	SK08-2X-M	- <b>Note:</b> X=seal option
	SK08-2U-O	- <b>Note:</b> X=seal option

## Order Code



**Model Options**

**RV08-20F-H-J-R/S**

**F Adjustment Option**

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

**H Line Body**

CODE	DESCRIPTION
0	No Body
4T	Aluminum SAE 4
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
3BD	Ductile Iron BSPP 3/8" (3)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
NC	Buna-N for Crossover Applications
V	Fluorocarbon
VC	Fluorocarbon for Crossover Applications
P	Polyurethane
PC	Polyurethane for Crossover Applications
U	PPDI Urethane

**R Spring**



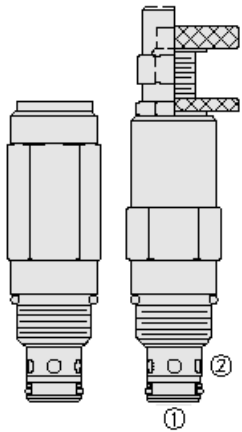
CODE	DESCRIPTION
05	3.4 to 34.5 bar (50 to 500 psi) Spring Range
09	6.9 to 75.8 bar (100 to 1300 psi) Spring Range
18	17.2 to 158.6 bar (250 to 2300 psi) Spring Range
33	17.2 to 251.2 bar (250 to 3600 psi) Spring Range

### S Setting

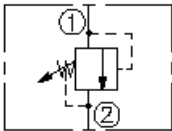
CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)



## Overview



### Symbol



### Description

RV10-20X is a screw in, cartridge style, direct acting, poppet type, hydraulic relief valve intended for use as a pressure limiting device for common hydraulic circuit protection. It is intended for use in mineral based or synthetic (with lubricating properties) hydraulic fluids.

### Operation

The RV10-20X blocks flow from port 1 to 2 until sufficient pressure is present at port 1 to force the poppet from its seat. The cartridge offers fast response to load changes in typical hydraulic circuits requiring low internal leakage.

### Notes

#### Supersession: Existing and new applications.

[RVD58-20](#) is our best-in-class relief valve and can functionally replace this valve in most applications. We strongly encourage you to consider this newer alternative.

Considerations:

- Smaller valve with comparable pressure and flow ratings
- Not a drop-in replacement
- Comparable response rate
- Better pressure rise characteristics
- Smaller size
- No dynamic seal
- Competitive cost
- Assistance is available to evaluate your application

#### Application:

- GRV10-20 (corrosion resistant version) not recommended for crossover applications

## Ratings

### Pressure Ratings

Pressure rating	228 bar (3300 psi)	- <b>Note:</b> RV10-20X
	228 bar (3300 psi)	- <b>Note:</b> Grv10-20x port 1
	34.5 bar (500 psi)	- <b>Note:</b> Grv10-20x port 2
Proof pressure	517.1 bar (7500 psi)	
Burst pressure	1037.7 bar (15000 psi)	
Crack pressure defined	Pressure evident at 0.95 lpm (0.25 gpm) attained port 1 to port 2	
Reseat pressure	Nominal 85% of crack pressure	
Relief pressure range	6.9 to 206.8 bar (100 to 3000 psi)	- <b>Note:</b> From zero to maximum control current

### Flow Ratings

Flow rating	38 lpm (10 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	5 drops/min	- <b>Note:</b> To 85% of nominal setting

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	RV10-20X type III clear zinc plating per ASTM B633 Grv10-20x 960 hour salt spray per ASTM b117
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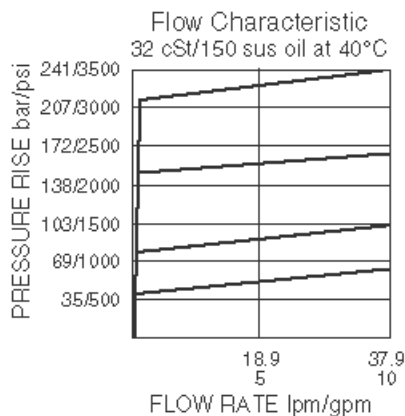
## Operating Parameters

Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406

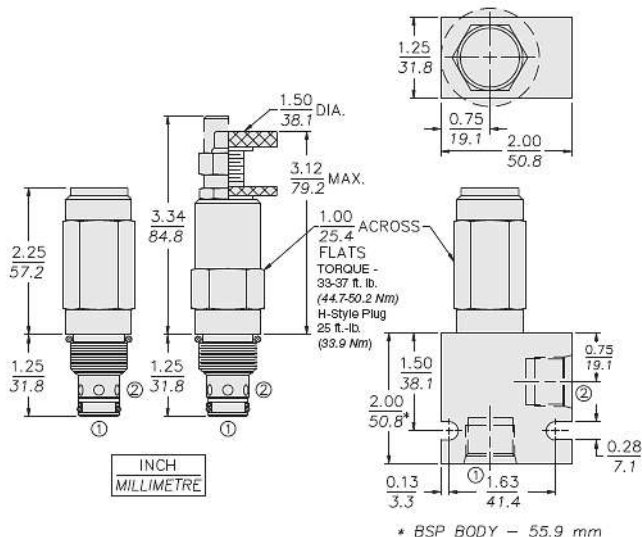
## Properties

Unit weight	0.23 kg (0.51 lb)	- <b>Note:</b> A
	0.25 kg (0.56 lb)	- <b>Note:</b> B
	0.28 kg (0.61 lb)	- <b>Note:</b> C/I
	0.22 kg (0.49 lb)	- <b>Note:</b> F/h
Internal wetted surface area	133 cm <sup>2</sup> (20.56 in <sup>2</sup> )	- <b>Note:</b> A b c l
	150 cm <sup>2</sup> (23.25 in <sup>2</sup> )	- <b>Note:</b> F h

## Performance



## Dimensions



## Installation Specifications

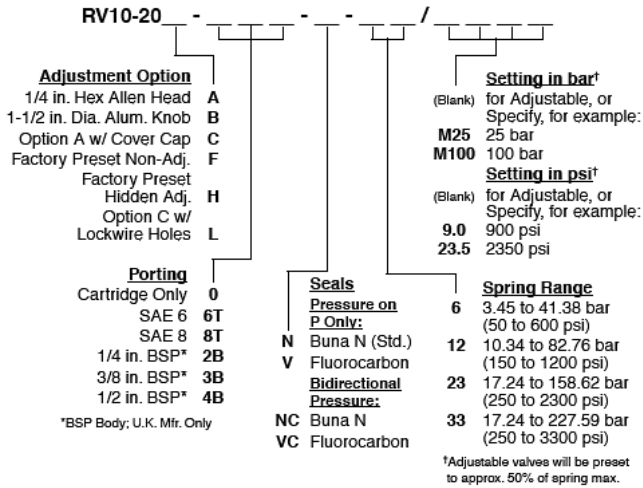
Cavity	VC10-2
Cartridge installation torque	33.9 to 36.7 N-m (25 to 27 ft-lb)
Maximum allowable torque	67.7 N-m (50 ft-lb)
H style plug torque	33.9 N-m (25 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-2X-B	- <b>Note:</b> X=seal option
	SK10-2X-M	- <b>Note:</b> X=seal option



Order Code



Model Options

RV10-20F-H-J-R/S

F Adjustment Option

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

H Line Body

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

J Seal

CODE	DESCRIPTION
N	Buna-N
NC	Buna-N for Crossover Applications
V	Fluorocarbon
VC	Fluorocarbon for Crossover Applications
P	Polyurethane
PC	Polyurethane for Crossover Applications
U	PPDI Urethane



## R Spring

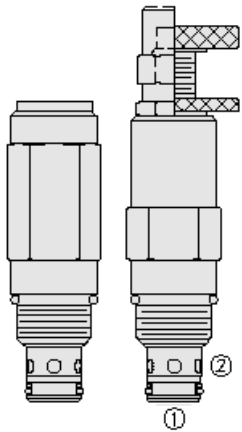
CODE	DESCRIPTION
06	3.4 to 41.4 bar (50 to 600 psi) Spring Range
12	10.3 to 82.7 bar (150 to 1200 psi) Spring Range
23	17.2 to 158.6 bar (250 to 2300 psi) Spring Range
33	17.2 to 227.5 bar (250 to 3300 psi) Spring Range

## S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)



## Overview



### Description

RV10-22X is a screw in, cartridge style, direct acting, differential area, poppet type hydraulic relief valve intended for use as a pressure limiting device in more demanding hydraulic circuits requiring low hysteresis and low internal leakage.

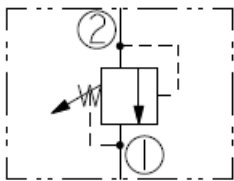
### Operation

The RV10-22X blocks flow from port 2 to port 1 until sufficient pressure is present at port 2 to force the poppet from its seat. The cartridge offers smooth transition in response to loads in common hydraulic circuits.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments options A, B, and C: positive stops prevent springs from going solid.
- Hardened poppet and cage for long life.
- Optional spring ranges to 241 bar (3500 psi).
- Rapid response to pressure surges.
- Industry-common size.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	241.3 bar (3500 psi)
Proof pressure	482.6 bar (7000 psi)
Burst pressure	965.3 bar (14000 psi)
Relief pressure defined	Pressure evident at 0.95 lpm (0.25 gpm)

### Flow Ratings

Flow rating	113.6 lpm (30 gpm)
Maximum internal leakage	5 drops/min - <b>Note:</b> To 85% of nominal setting

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	GRV10-22X 960 hr salt spray per ASTM b117
----------------------	---

## Operating Parameters

Fluids	Mineral based or synthetic hydraulic fluid with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406




**ORDERING INFORMATION:**  
 XRV10-22X-X-XX-XX/XXXX
**PROTECTION OPTION:**
 STANDARD PLATING - OMIT  
 960 HOUR PROTECTION - G
**BASE MODEL NUMBER:****ADJUSTMENT OPTIONS:**
 0.25 [6,4] HEX ALLEN HEAD - A  
 Ø1.50 [38,1] ALUMINUM KNOB - B  
 OPTION "A" WITH COVER CAP - C  
 FACTORY PRESET NONADJUSTABLE - F  
 FACTORY PRESET HIDDEN ADJUSTMENT - H  
 OPTION "C" WITH LOCK WIRE HOLES - L
**PORTING:**

CARTRIDGE ONLY - 0

**SEAL OPTION:**
 PRESSURE ON PORT 2 ONLY  
 BUNA N - N  
 FLUOROCARBON - V  
 POLYURETHANE - P  
 URETHANE - U  
 BIDIRECTIONAL PRESSURE  
 BUNA N - NC  
 FLUOROCARBON - VC  
 POLYURETHANE - PC
**SPRING RANGE:**
 100 TO 600 psi - 06  
 [6,9 TO 41,4 bar]  
 150 TO 1300 psi - 13  
 [10,3 TO 89,6 bar]  
 250 TO 2500 psi - 25  
 [17,2 TO 172,4 bar]  
 300 TO 3500 psi - 35  
 [20,7 TO 241,3 bar]
**PRESSURE SETTING:**
 FOR EXAMPLE:  
 (IN psi)  
 3500 psi - 35  
 (IN bar)  
 150 bar - M150
**Model Options****RV10-22F-H-J-R/S****F Adjustment Option**

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

**H Line Body**

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
NC	Buna-N for Crossover Applications



CODE	DESCRIPTION
V	Fluorocarbon
VC	Fluorocarbon for Crossover Applications
P	Polyurethane
PC	Polyurethane for Crossover Applications
U	PPDI Urethane

### R Spring

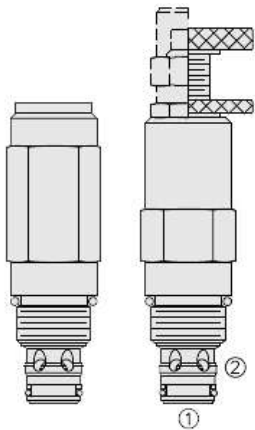
CODE	DESCRIPTION
06	6.9 to 41.5 bar (100 to 600 psi) Spring Range
13	10.3 to 89.6 bar (150 to 1300 psi) Spring Range
25	17.2 to 172.4 bar (250 to 2500 psi) Spring Range
35	20.7 to 241.3 bar (300 to 3500 psi) Spring Range

### S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)



## Overview



### Description

RV10-26X is a screw in, cartridge style, pilot operated (two stage), spool type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

### Operation

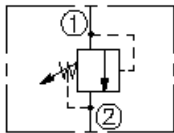
The RV10-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening port 1 to port 2.

**note:** this valve cannot be used in cross-over relief applications.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustment options A, B and C: positive stops prevent springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 207 bar (3000 psi).
- Fast, smooth response to pressure surges.
- Industry common cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	241 bar (3500 psi)	
Proof pressure	517.1 bar (7500 psi)	
Burst pressure	1037.7 bar (15000 psi)	
Relief pressure defined	Pressure evident at 7.57 lpm (2 gpm)	
Reseat pressure	Nominal 90% of crack	
Relief pressure range	6.9 to 206.8 bar (100 to 3000 psi)	- <b>Note:</b> From zero to maximum control current

### Flow Ratings

Flow rating	113.6 lpm (30 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	114.7 ml/min (7 in <sup>3</sup> /min)	- <b>Note:</b> At port 2 at 85% of crack pressure. Pressure setting below 137.9 bar (2000 psi)
	491.6 ml/min (30 in <sup>3</sup> /min)	- <b>Note:</b> At port 2 at 85% of crack pressure. Pressure setting above 137.9 bar (2000 psi)

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane and urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	Grv10-26x 960 hour salt spray per ASTM b117 cartridge weight
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## Operating Parameters

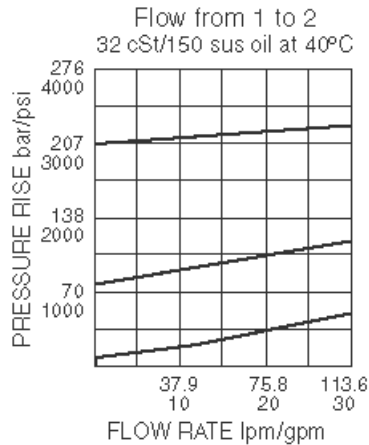
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



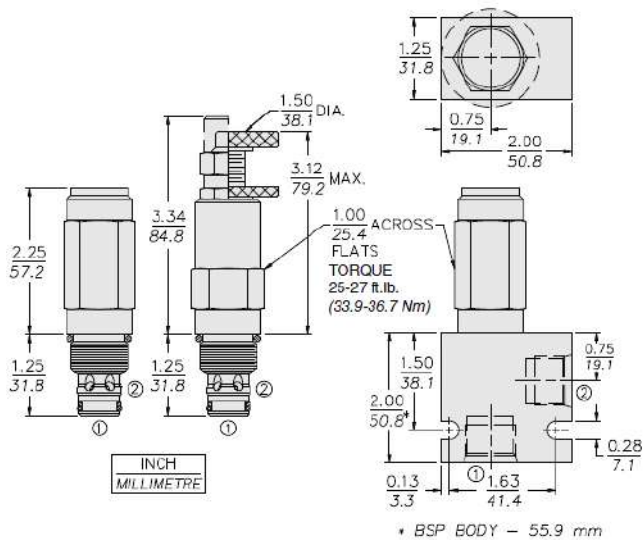
## Properties

Unit weight	0.25 kg (0.55 lb)	- <b>Note:</b> A
	0.27 kg (0.60 lb)	- <b>Note:</b> B
	0.29 kg (0.65 lb)	- <b>Note:</b> C I
	0.24 kg (0.53 lb)	- <b>Note:</b> F h
Internal wetted surface area	141 cm <sup>2</sup> (21.8 in <sup>2</sup> )	- <b>Note:</b> A b c I
	161 cm <sup>2</sup> (24.9 in <sup>2</sup> )	- <b>Note:</b> F h

## Performance



## Dimensions



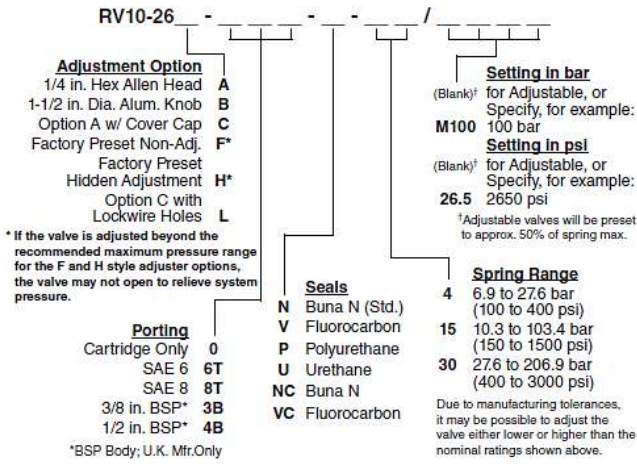
## Installation Specifications

Cavity	VC10-2
Cartridge installation torque	33.9 to 36.7 N-m (25 to 27 ft-lb) 66.7 N-m (50 ft-lb) - <b>Note:</b> Maximum allowable
Adjuster cap torque	32.5 to 35.3 N-m (24 to 26 ft-lb) - <b>Note:</b> H-style plug
Orientation restriction	None

## Accessories

Seal kit	SK10-2X-B	- <b>Note:</b> X = n, v, P
	SK10-2X-M	- <b>Note:</b> X = NC, VC
	SK10-2X-O	- <b>Note:</b> X = U

## Order Code



**Model Options**

**RV10-26F-H-J-R/S**

**F Adjustment Option**

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

**H Line Body**

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

**R Spring**

CODE	DESCRIPTION
04	6.9 to 27.6 bar (100 to 400 psi) Spring Range
15	10.3 to 103.4 bar (150 to 1500 psi) Spring Range



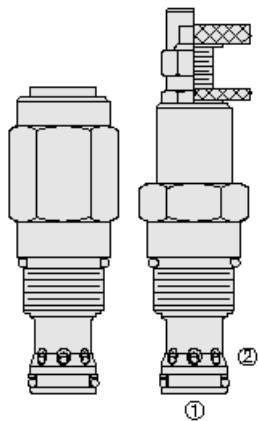
CODE	DESCRIPTION
30	27.6 to 206.8 bar (400 to 3000 psi) Spring Range

### S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)



## Overview



### Description

RV12-26X is a screw in, cartridge style, pilot operated (two stage), spool type relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

### Operation

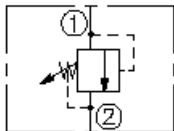
The RV12-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the pilot relief off its seat, allowing the main stage to shift, opening port 1 to port 2.

**note:** this valve cannot be used in cross-over relief applications.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Optional spring ranges to 240 bar (3500 psi).
- Rapid, smooth response to pressure surges.
- Cost-effective cavity.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	241.3 bar (3500 psi)	- <b>Note:</b> Port 1
	103.4 bar (1500 psi)	- <b>Note:</b> Port 2
Proof pressure	689.5 bar (10000 psi)	
Burst pressure	1379.0 bar (20000 psi)	
Crack pressure defined	Pressure evident at 7.6 lpm (2 gpm)	

### Flow Ratings

Flow rating	170.3 lpm (45 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	197 ml/min (12 in <sup>3</sup> /min)	- <b>Note:</b> At port 2 at 85% of nominal setting

### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

### Other Ratings

Corrosion protection	960 hr salt spray per ASTM b117 (grv12-26x)
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## Operating Parameters

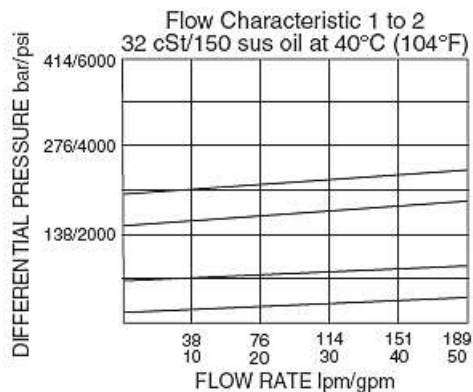
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



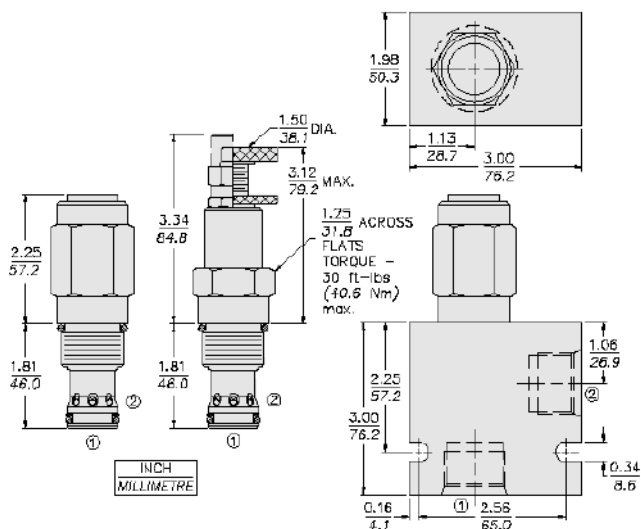
## Properties

Unit weight	0.35 kg (0.78 lb)	- <b>Note:</b> A
	0.38 kg (0.83 lb)	- <b>Note:</b> B
	0.40 kg (0.88 lb)	- <b>Note:</b> C I
	0.40 kg (0.89 lb)	- <b>Note:</b> F h
Internal wetted surface area	209 cm <sup>2</sup> (32.4 in <sup>2</sup> )	- <b>Note:</b> A b c I
	221 cm <sup>2</sup> (34.3 in <sup>2</sup> )	- <b>Note:</b> F h

## Performance



## Dimensions



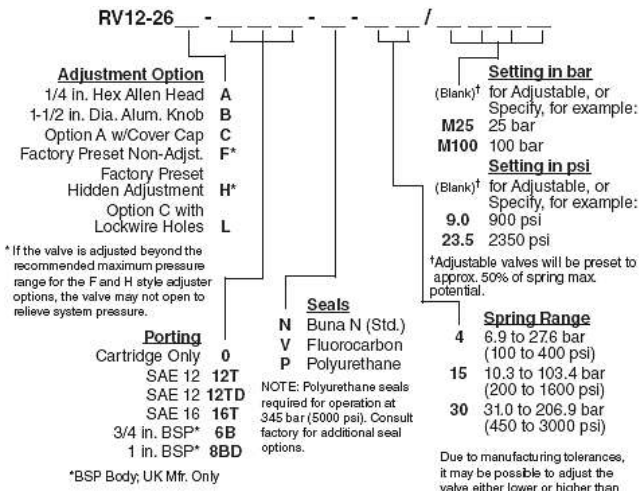
## Installation Specifications

Cavity	VC12-2	
Cartridge installation torque	44.7 to 50.2 N-m (33 to 37 ft-lb) 33.9 to 35.3 N-m (25 to 26 ft-lb)	- <b>Note:</b> H-style plug
Orientation restriction	None	

## Accessories

Seal kit	SK12-2X-B	- <b>Note:</b> X = seal option
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## Order Code



**Model Options**

**RV12-26F-H-J-R/S**

**F Adjustment Option**

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

**H Line Body**

CODE	DESCRIPTION
0	No Body
10T	Aluminum SAE 10
12T	Aluminum SAE 12
16T	Aluminum SAE 16
12TD	Ductile Iron SAE 12
16TD	Ductile Iron SAE 16
8B	Aluminum BSPP 1" (8)
8BD	Ductile Iron BSPP 1" (8)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane
U	PPDI Urethane

**R Spring**

CODE	DESCRIPTION
04	6.9 to 27.6 bar (100 to 400 psi) Spring Range
15	3.8 to 110.3 bar (200 to 1600 psi) Spring Range
30	31 to 206.9 bar (450 to 3000 psi) Spring Range



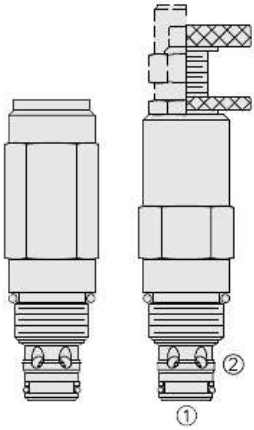
CODE	DESCRIPTION
35	34.5 to 241.5 bar (500 to 3500 psi) Spring Range

### S Setting

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar
XX	Spring Setting in XX psi (x 100)



## Overview



### Description

RV50-26X is a screw in, cartridge style, pilot operated (two stage), spool type hydraulic relief valve, intended for use as a pressure limiting device in demanding hydraulic circuits which require fast response and low hysteresis.

### Operation

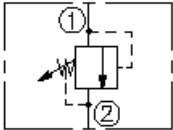
The RV50-26X blocks flow from port 1 to port 2 until sufficient pressure is present at port 1 to force the piloting relief off its seat, allowing the main (second stage) spool to shift, opening port 1 to port 2.

**note:** this valve cannot be used in cross-over relief applications.

### Features

- Adjustments cannot be backed out of the valve.
- Adjustments prohibit springs from going solid.
- Hardened spool and cage for long life.
- Rapid, smooth response to pressure changes.
- Industry-common size.

### Symbol



## Ratings

### Pressure Ratings

Pressure rating	344.7 bar (5000 psi)	
Proof pressure	517.1 bar (7500 psi)	
Burst pressure	1037.7 bar (15050 psi)	
Relief pressure defined	Pressure evident at 7.57 lpm (2 gpm)	
Reseat pressure	Nominal 90% of crack	
Relief pressure range	20.7 to 344.7 bar (300 to 5000 psi)	- <b>Note:</b> From zero to maximum control current

### Flow Ratings

Flow rating	113.6 lpm (30 gpm)	- <b>Note:</b> At max pressure
Maximum internal leakage	147 ml/min (9 in <sup>3</sup> /min)	- <b>Note:</b> Port 2, at 85% of max crack

### Other Ratings

Cycle life	500000 cycles at 241.3 bar (3500 psi)
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### Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- <b>Note:</b> With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- <b>Note:</b> With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With polyurethane seals
	-54 to 107 °C (-65 to 225 °F)	- <b>Note:</b> With urethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 70 °C (-40 to 160 °F)	

## Operating Parameters

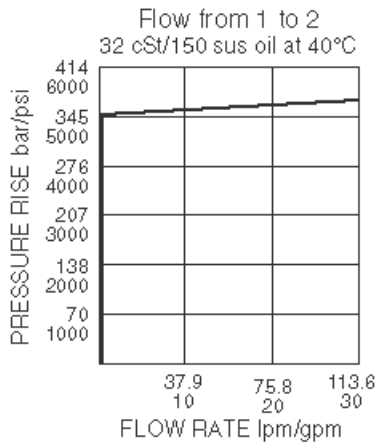
Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	18/16/13 per ISO 4406



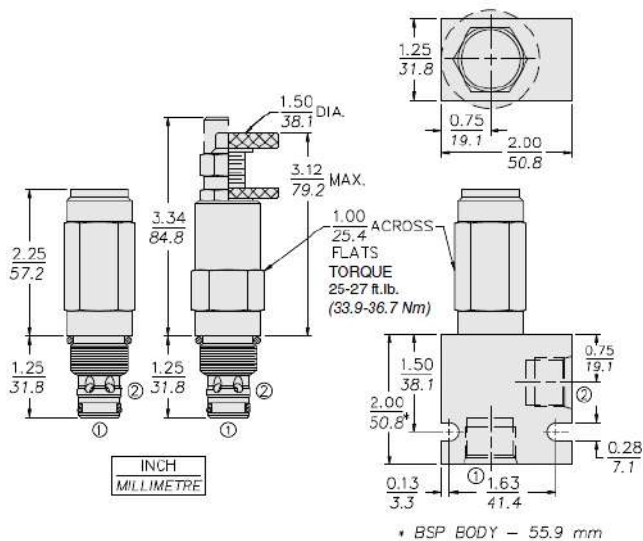
## Properties

Unit weight	0.25 kg (0.55 lb)	- <b>Note: A</b>
	0.27 kg (0.60 lb)	- <b>Note: B</b>
	0.29 kg (0.65 lb)	- <b>Note: C I</b>
	0.24 kg (0.53 lb)	- <b>Note: F h</b>
Internal wetted surface area	141 cm <sup>2</sup> (21.8 in <sup>2</sup> )	- <b>Note: A b c I</b>
	161 cm <sup>2</sup> (24.9 in <sup>2</sup> )	- <b>Note: F h</b>

## Performance



## Dimensions



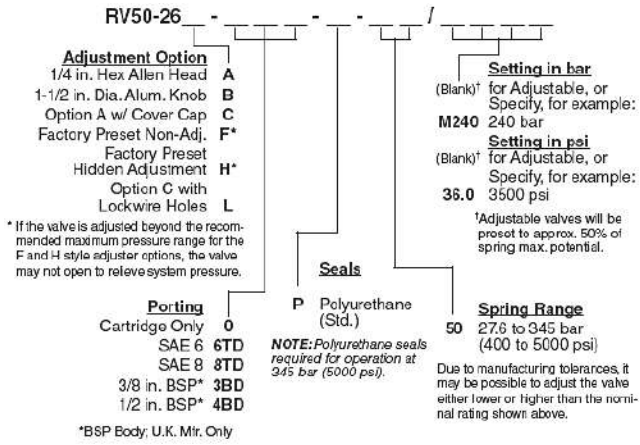
## Installation Specifications

Cavity	VC10-2
Cartridge installation torque	47.6 to 50.2 N-m (35 to 37 ft-lb)
Maximum allowable torque	67.8 N-m (50 ft-lb)
H style plug torque	10.8 to 13.6 N-m (8 to 10 ft-lb)
Orientation restriction	None

## Accessories

Seal kit	SK10-2X-B	- <b>Note: X=n,v,p</b>
	SK10-2U-O	- <b>Note: Urethane</b>

## Order Code



**Model Options**

**RV50-26F-H-J-R/S**

**F Adjustment Option**

CODE	DESCRIPTION
A	1/4" Hex Allen Head
B	1-1/2" Diameter Aluminum Knob with Aluminum Lock Knob
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
H	Factory Preset Hidden Adjustment
L	1/4" Hex Allen Head with Cover Cap and Lockwire Holes

**H Line Body**

CODE	DESCRIPTION
0	No Body
6T	Aluminum SAE 6
8T	Aluminum SAE 8
6TD	Ductile Iron SAE 6
8TD	Ductile Iron SAE 8
2B	Aluminum BSPP 1/4" (2)
3B	Aluminum BSPP 3/8" (3)
4B	Aluminum BSPP 1/2" (4)
4BD	Ductile Iron BSPP 1/2" (4)

**J Seal**

CODE	DESCRIPTION
N	Buna-N
V	Fluorocarbon
P	Polyurethane

**R Spring**

CODE	DESCRIPTION
50	27.6 to 344.7 bar (300 to 5000 psi) Spring Range

**S Setting**

CODE	DESCRIPTION
MXXX	Spring Setting in XXX bar



CODE	DESCRIPTION
XX	Spring Setting in XX psi (x 100)