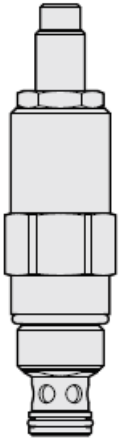




Overview



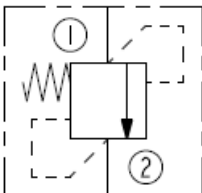
Description

The RV10-21X is a screw-in, cartridge style, hydraulic relief valve for use as a pressure limiter.

Operation

The RV10-21X allows flow passage from port 1 to port 2, while normally blocking oil flow in the opposite direction. The cartridge has a fully guided spool which is spring-biased closed until sufficient pressure is applied at port 1 to open to port 2.

Symbol



Ratings

Pressure Ratings

Pressure rating	69 bar (1000 psi)
Proof pressure	138 bar (2000 psi)
Burst pressure	896 bar (13000 psi)

Flow Ratings

Flow rating	75.8 lpm (20 gpm)
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Temperature Ratings

Operating fluid temperature	-40 to 100 °C (-40 to 212 °F)	- Note: With buna N seals
	-26 to 204 °C (-15 to 400 °F)	- Note: With fluorocarbon seals
	-54 to 107 °C (-65 to 225 °F)	- Note: With polyurethane seals
Storage temperature	-40 to 70 °C (-40 to 160 °F)	
Ambient temperature	-40 to 90 °C (-40 to 194 °F)	

Operating Parameters

Fluids	Mineral based or synthetic with lubricating properties
Fluid viscosity range	7.4 to 420 cSt
Maximum operating contamination level	20/18/14 per ISO 4406



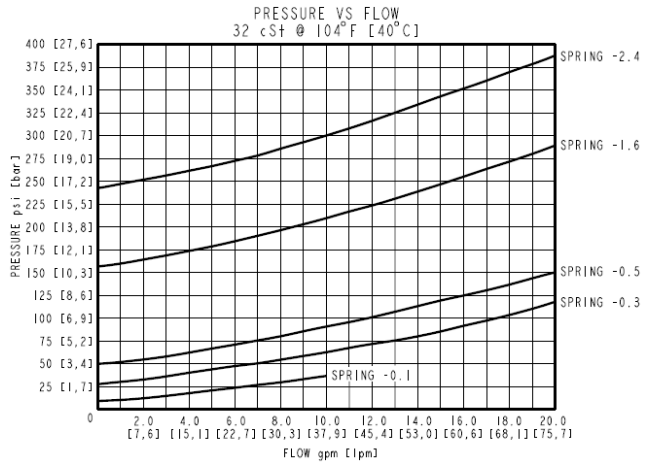
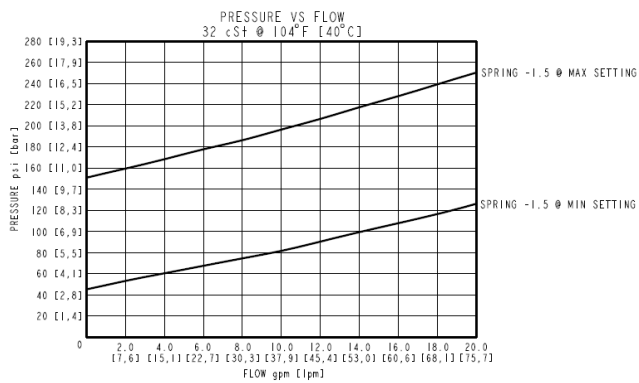
Properties

Unit weight	0.235 kg (0.52 lb)	- Note: A
	0.281 kg (0.62 lb)	- Note: C
	0.109 kg (0.24 lb)	- Note: F
	0.254 kg (0.56 lb)	- Note: FT
	0.231 kg (0.51 lb)	- Note: H
Internal wetted surface area	90 cm ² (14.0 in ²)	- Note: A, C
	69 cm ² (10.7 in ²)	- Note: F
	112 cm ² (17.3 in ²)	- Note: FT
	115 cm ² (17.8 in ²)	- Note: H
	Pressure change per adjustment screw turn	0.9 bar (13 psi)
1.2 bar (17 psi)		- Note: Option H, spring code 1.5

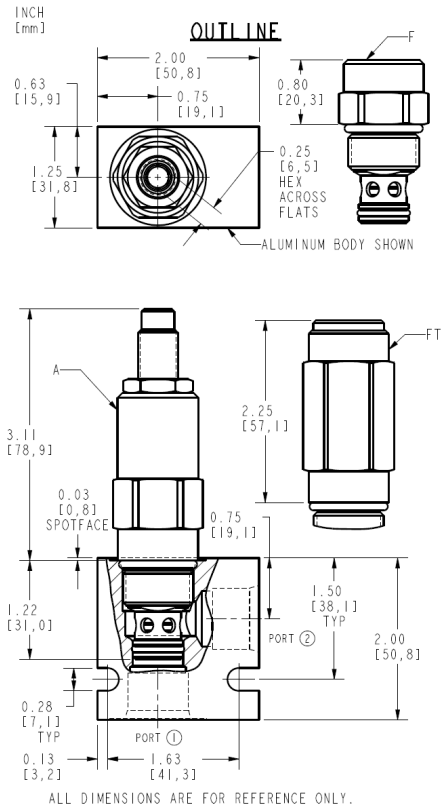
Performance

FIXED PERFORMANCE

ADJUSTABLE "A" AND "C" PERFORMANCE RANGE



Dimensions



ALL DIMENSIONS ARE FOR REFERENCE ONLY.



Installation Specifications

Cavity	VC10-2
Cartridge installation torque	32.6 to 35.4 N-m (24 to 26 ft-lb)
Orientation restriction	None

Accessories

Seal kit	SK10-2X-O	- Note: X=seal option
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Order Code

ORDERING INFORMATION:
RV10-21X-X-XX-XX/XXX

BASE MODEL NUMBER: []

ADAPTOR OPTION:

- 1/4" HEX ALLEN HEAD - A
- OPTION A WITH COVER CAP - C
- SHORT FACTORY PRESET - F
- NON-ADJUSTABLE
- TALL FACTORY PRESET - FT
- NON-ADJUSTABLE
- FACTORY PRESET - H
- HIDDEN ADJUSTMENT

PORTING:

- CARTRIDGE ONLY - 0

SEAL OPTION:

- BUNA N - N
- FLUOROCARBON - V
- POLYURETHANE - P

SPRING VALUE:

FIXED OPTIONS:

- 10 psi [0,7 bar] - 0.1
- 30 psi [2,1 bar] - 0.3 } F
- 50 psi [3,4 bar] - 0.5 } F
- 155 psi [10,7 bar] - 1.6 } FT
- 240 psi [16,5 bar] - 2.4 } FT

ADJUSTABLE OPTIONS (A, C, H):

- 45-150 psi - 1.5
- [3,1-10,3 bar]

PRESSURE SETTING:

FOR EXAMPLE:

- (IN psi)
- 10 psi - 0.1
- (IN bar)
- 20 bar - M20

Model Options

RV10-21F-H-J-R/S

F Adjustment Option

CODE	DESCRIPTION
A	1/4" Hex Allen Head
C	1/4" Hex Allen Head with Cover Cap
F	Factory Preset Non-Adjustable
FT	Factory Preset Non-Adjustable Tall
H	Factory Preset Hidden Adjustment

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)



CODE	DESCRIPTION
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
	Fixed Options (code F)
0.1	0.7 bar (10 psi)
0.3	2.1 bar (30 psi)
0.5	3.4 bar (50 psi)
	Fixed Options (code FT)
1.6	10.7 bar (155 psi)
2.4	16.5 bar (240 psi)
	Adjustable Options (A, C, H)
1.5	3.1 to 10.3 bar (45 to 150 psi)

S Setting

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