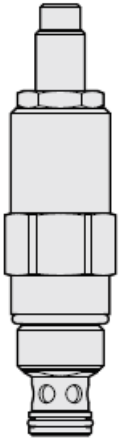




Overview



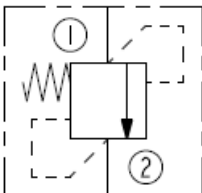
Description

The RV10-21X is a screw-in, cartridge style, hydraulic relief valve for use as a blocking or load-holding device.

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



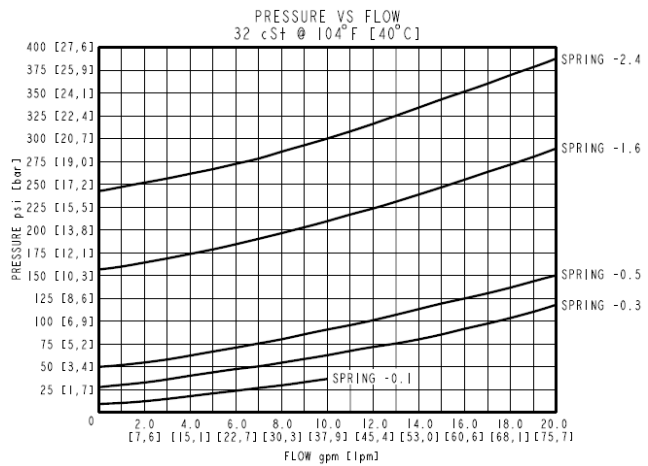
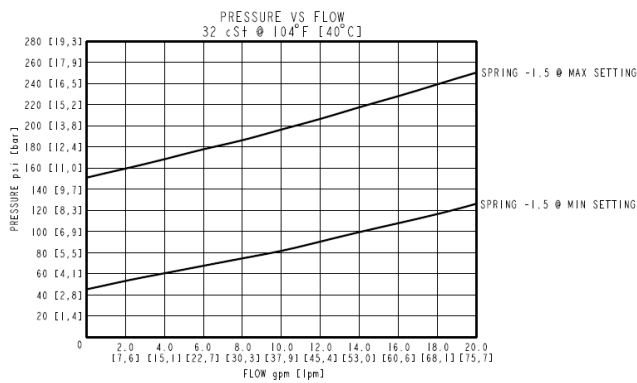
Properties

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)	- Note: Option A and C, spring code 1.5
	1.2 bar (17 psi)	- Note: Option H, spring code 1.5

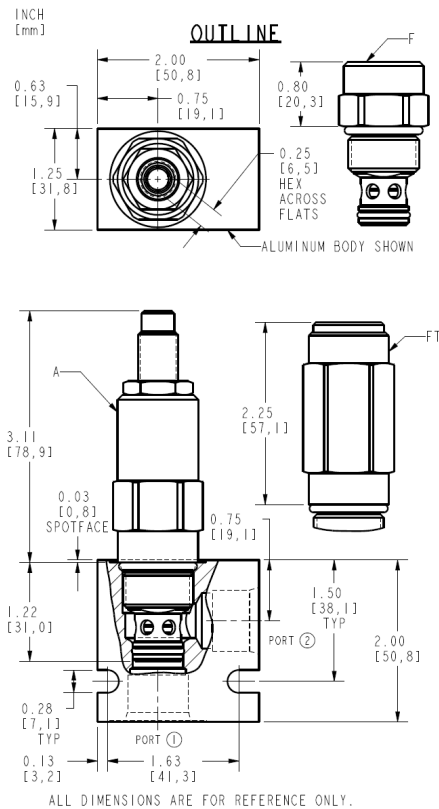
Performance

FIXED PERFORMANCE

ADJUSTABLE "A" AND "C" PERFORMANCE RANGE



Dimensions





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
Housings		

Order Code

POSITION	CODE	DESCRIPTION
		RV10-21F-H-J-R/S
F		Adjustment Option
F	A	1/4" Hex Allen Head
F	C	1/4" Hex Allen Head with Cover Cap
F	F	Factory Preset Non-Adjustable
F	FT	Factory Preset Non-Adjustable Tall
F	H	Factory Preset Hidden Adjustment
H		Line Body
H	0	No Body
H	6T	Aluminum SAE 6
H	8T	Aluminum SAE 8
H	6TD	Ductile Iron SAE 6
H	8TD	Ductile Iron SAE 8
H	2B	Aluminum BSPP 1/4" (2)
H	3B	Aluminum BSPP 3/8" (3)
H	4B	Aluminum BSPP 1/2" (4)
H	4BD	Ductile Iron BSPP 1/2" (4)
J		Seal
J	N	Buna-N
J	V	Fluorocarbon
J	P	Polyurethane
R		Spring
R		Fixed Options (code F)
R	0.1	0.7 bar (10 psi)
R	0.3	2.1 bar (30 psi)
R	0.5	3.4 bar (50 psi)
R		Fixed Options (code FT)
R	1.6	10.7 bar (155 psi)
R	2.4	16.5 bar (240 psi)
R		Adjustable Options (A, C, H)
R	1.5	3.1 to 10.3 bar (45 to 150 psi)
S		Setting
S	MXXX	Pressure Setting in XXX bar
S	XX	Pressure Setting in XX psi (x 100)



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 }
 155 psi [10,7 bar] - 1.6 } FT
 240 psi [16,5 bar] - 2.4 }

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