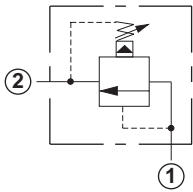


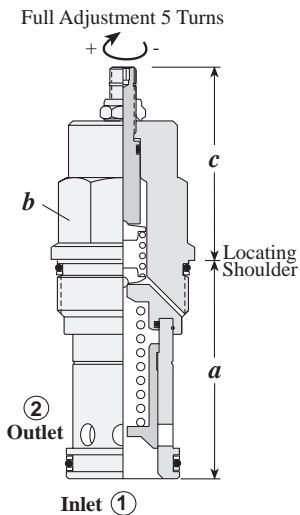
## Relief Valves

## PILOT OPERATED



Capacity	Typical Cartridge Model Code	Cavity	Cartridge Dimensions					Installation Torque (Nm)
			a	b	c			
					L	C	K	
45 L/min.	RPCC - LAN	T - 162A	31	19,1	54	56	59	35/40
95 L/min.	RPEC - LAN	T - 10A	39,7	22,2	51	53	58	40/50
200 L/min.	RPGC - LAN	T - 3A	47,8	28,6	54	56	61	60/70
380 L/min.	RPIC - LAN	T - 16A	61,9	31,8	62	64	69	200/215
760 L/min.	RPKC - LAN	T - 18A	79,4	41,3	72	74	78	465/500

## OPTION ORDERING INFORMATION



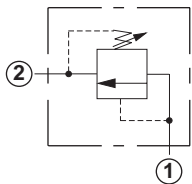
**RP \* C - \* \* \***

Nominal Capacity	Control**	Adjustment Range	Seal
<b>C</b> 45 L/min.*	<b>L</b> Standard Screw	<b>A</b> 7 - 210 bar	<b>N</b> Buna-N
<b>E</b> 95 L/min.	<b>C</b> Tamper Resistant	<b>W</b> 10 - 315 bar	<b>V</b> Viton
<b>G</b> 200 L/min.	<b>K</b> Handknob	<b>B</b> 3,5 - 105 bar	
<b>I</b> 380 L/min.		<b>C</b> 10 - 420 bar	
<b>K</b> 760 L/min.		<b>N</b> 4 - 55 bar	
		<b>Q</b> 4 - 25 bar	

Adjustment Range Options:  
A, B, C, and W are standard set at 70 bar.  
N Option is standard set at 25 bar.  
Q Option is standard set at 14 bar.  
\* Minimum setting 5 bar on all ranges.  
**Customer may specify pressure setting.**

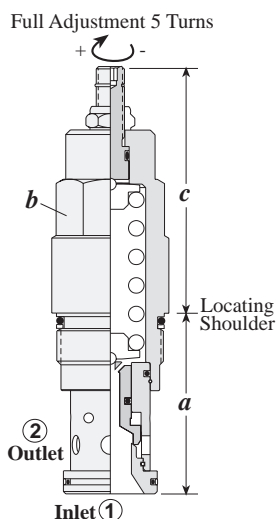
\*\* See page 244 for information on Control Options

## DIRECT ACTING



Capacity	Typical Cartridge Model Code	Cavity	Cartridge Dimensions				Installation Torque (Nm)
			a	b	c		
					L	C	
45 L/min.	RDBA - LAN	T - 162A	31	19,1	54	56	35/40
95 L/min.	RDDA - LAN	T - 10A	39,7	22,2	61	53	40/50
200 L/min.	RDFA - LAN	T - 3A	47,8	28,6	64	66	60/70
380 L/min.	RDHA - LAN	T - 16A	61,9	31,8	83	85	200/215
760 L/min.	RDJA - LAN	T - 18A	79,4	41,3	100	104	465/500

## OPTION ORDERING INFORMATION



**RD \* A - \* \* \***

Nominal Capacity	Control**	Adjustment Range	Seal
<b>B</b> 45 L/min.	<b>L</b> Standard Screw	<b>A</b> 35 - 210 bar	<b>N</b> Buna-N
<b>D</b> 95 L/min.	<b>C</b> Tamper Resistant	<b>W</b> 70 - 315 bar	<b>V</b> Viton
<b>F</b> 200 L/min.		<b>B</b> 20 - 105 bar	
<b>H</b> 380 L/min.		<b>C</b> 70 - 420 bar	
<b>J</b> 760 L/min.		<b>D</b> 14 - 55 bar	
		<b>E</b> 7 - 25 bar	
		<b>S</b> 3,5 - 14 bar	

Adjustment Range Options:  
A, B, C, and W are standard set at 70 bar.  
D Option is standard set at 25 bar.  
E Option is standard set at 14 bar.  
S Option is standard set at 7 bar.  
**Customer may specify pressure setting.**

\*\* See page 244 for information on Control Options

U.S. Patent #4,742,846  
European Patent Pending

## TECHNICAL TIPS / PERFORMANCE CURVES

### Relief Valves, Pilot Operated

#### Applications

These relief cartridges are normally closed, pressure control elements that are fully adjustable over a wide range of operating pressures up to 350 bar. They are typically used when accurate pressure regulation is required and spool leakage is not critical.

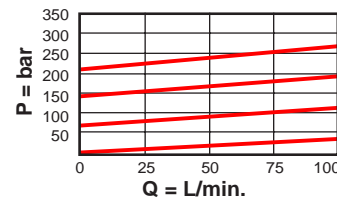
#### Design Concepts and Features

- Incorporates 150 micron stainless steel screen to protect the main stage control orifice.
- Low leakage, 50 to 115 cc/min./100 bar, dependent on frame size.
- Low hysteresis, less than  $\pm 1\%$
- Selection of spring adjustment ranges with low adjustment effort.

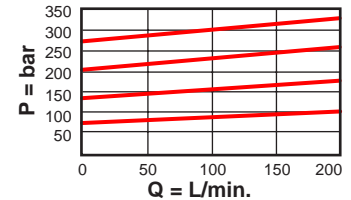
#### Performance Curves

##### Typical Pressure Rise

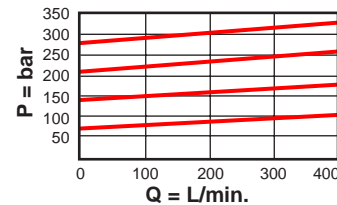
#### RPCC-L\*N



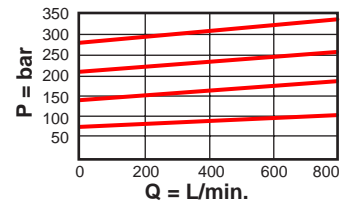
#### RPEC-L\*N



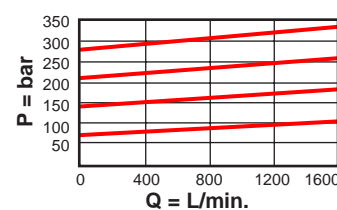
#### RPGC-L\*N



#### RPIC-L\*N



#### RPKC-L\*N



### Relief Valves, Direct Acting

#### Applications

This patented, direct acting, differential area valve with broad operating characteristics is adjustable to 350 bar. Because of its exceptional performance, this relief cartridge should be considered for applications where fast response, dirt tolerance and leakage are critical. Examples of this type of application would include overshoot protection of fixed and variable volume pumps and shock protection of actuators (cylinders and motors).

#### Design Concepts and Features

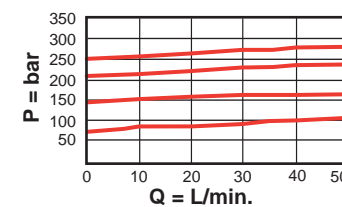
- Maximum leakage is 10 drops/min. at reseal.
- Reseat equals 90% of cracking pressure for all five frame sizes.
- Not recommended for repeated adjustment because of high adjustment effort.

**Note:** For both types of relief cartridge, any pressure at port 2 is directly additive to the valve settings. In situations where absolute pressure at port 1 is required; use **RS\*C-\*\*\*** sequence cartridge or **RV\*D**, four port relief cartridge.

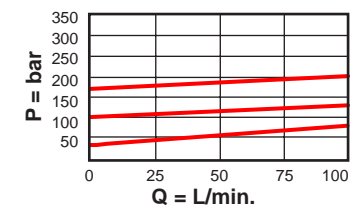
#### Performance Curves

##### Typical Pressure Rise

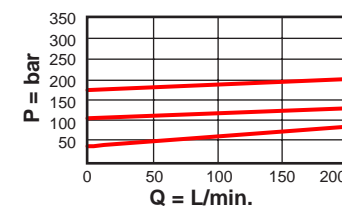
#### RDBA-L\*N



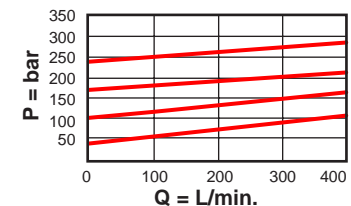
#### RDDA-L\*N



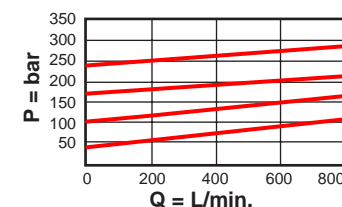
#### RDFA-L\*N



#### RDHA-L\*N



#### RDJA-L\*N



### General Application Requirements

- Operating Temperature Range: Buna-N seals  $-45^{\circ}\text{C}$  to  $90^{\circ}\text{C}$ , Viton seals  $-15^{\circ}\text{C}$  to  $120^{\circ}\text{C}$ .
- Viscosity Range: 10-600 centistokes.
- Fluid Contamination Level: ISO 4406 18/15 or better; Recommend  $\beta_{10} \geq 75$  to achieve ISO 18/15 or better in most systems.
- Factory Pressure Setting for cartridge is established at a 15 L/min. flow rate.