

## DIFFERENTIAL POPPET STYLE RELIEF VALVES - RV AND DRV SERIES

### MODEL RV DIFFERENTIAL POPPET INLINE RELIEF



The PRINCE valve model RV is a differential poppet type inline relief. The valve is made up of a relief cartridge and a cast iron valve body. The differential poppet type relief provides smooth quiet performance with a minimum variation between cracking and full flow pressures. This type relief is also less sensitive to system contamination. The model RV is well suited as a system relief up to 30 GPM and 3000 psi. It is available in two pressure ranges and both an externally adjustable and shim adjustable version.

#### VALVE SPECIFICATIONS:

Capacity: 30 gpm max inlet flow      Weight: 3 lbs.  
Pressure: 3000 psi max

### MODEL DRV DIFFERENTIAL POPPET DOUBLE RELIEF



The PRINCE valve model DRV is a differential poppet type double relief. This valve uses the same relief cartridge as the model RV. The double relief is used in systems that require cross over relief protection such a reversible hydraulic motor, or systems that require a cushion valve such as double acting cylinders.

#### VALVE SPECIFICATIONS:

Capacity: 30 gpm max inlet flow      Weight: 5.5 lbs.  
Pressure: 3000 psi max

### MODEL RV-O DIFFERENTIAL POPPET RELIEF CARTRIDGE



The PRINCE valve model RV-O is the differential poppet relief cartridge used in many valve models. It is available preset to install into RV valves in the field or into a custom application. This relief cartridge can also be used in the RD5100, RD5200, RD5300 and SV stack valve inlet section.

#### VALVE SPECIFICATIONS:

Capacity: 30 gpm max inlet flow  
Pressure: 3000 psi max

#### STANDARD MODELS AVAILABLE

MODEL NUMBER	MODEL NUMBER	VALVE TYPE	RELIEF SETTING	PORT SIZE
RV-1H	DRV-1HH	ADJUSTABLE 1500-3000 PSI	2000 PSI @ 10 GPM	#12 SAE
RV-2H	DRV-2HH	ADJUSTABLE 1500-3000 PSI	2000 PSI @ 10 GPM	3/4" NPTF
RV-4H	DRV-4HH	ADJUSTABLE 1500-3000 PSI	2000 PSI @ 10 GPM	1/2" NPTF
RV-2L	DRV-2LL	ADJUSTABLE 500-1500 PSI	1000 PSI @ 10 GPM	3/4" NPTF

# MODEL RV AND DRV SPECIAL MODELS AND MOUNTING DIMENSIONS

## SPECIAL MODEL RV RELIEF VALVES

Other relief valve models not listed on previous page are available in OEM quantities. To select a model number use the order code matrix shown at right. Consult a sales representative if options other than those listed are required.

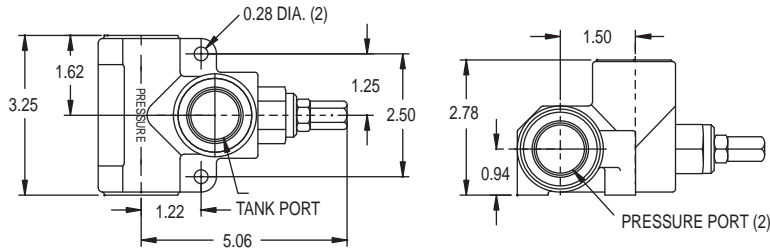
RV			
MODEL NUMBER	PORT SIZE	RELIEF TYPE	PRESSURE SETTING
RV	1 - #12 SAE 2 - 3/4 NPTF 3 - #10 SAE 4 - 1/2 NPTF 5 - #8 SAE  O - Cartridge Only. No Body.	H- Adjustable 1500-3000 PSI L- Adjustable 500-1500 PSI NH- Non-Adjustable 1500-3000 PSI NL- Non-Adjustable 500-1500 PSI	Specify Relief Pressure in PSI. Leave Blank for Standard Setting  <u>STANDARD SETTING</u> 2000 PSI for H and NH 1000 PSI for L and NL

## SPECIAL MODEL DRV RELIEF VALVES

Other relief valve models not listed on previous page are available in OEM quantities. To select a model number using the order code matrix at right. Consult a sales representative if options other than those listed are required.

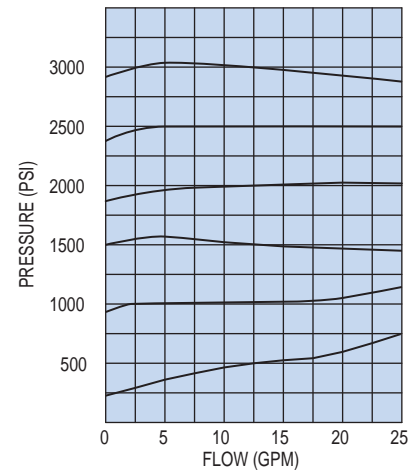
DRV				XX	XX
MODEL NUMBER	PORT SIZE	RELIEF TYPE		RELIEF SETTINGS (PSI)	
		Port A/B #1	Port C/D #2	Port A/B	Port C/D
DRV	1 - #12 SAE 2 - 3/4 NPTF 3 - #10 SAE 4 - 1/2 NPTF 5 - #8 SAE	H- Adjustable 1500-3000 PSI L- Adjustable 500-1500 PSI NH- Non-Adjustable 1500-3000 PSI NL- Non-Adjustable 500-1500 PSI	H- Adjustable 1500-3000 PSI L- Adjustable 500-1500 PSI NH- Non-Adjustable 1500-3000 PSI NL- Non-Adjustable 500-1500 PSI	Relief Settings: The two digits represent the relief settings in 100s to the nearest 100 PSI for the respective ports.  EXAMPLE: 08 = 800 PSI 17 = 1700 PSI	

## RV-SERIES MOUNTING DIMENSIONS

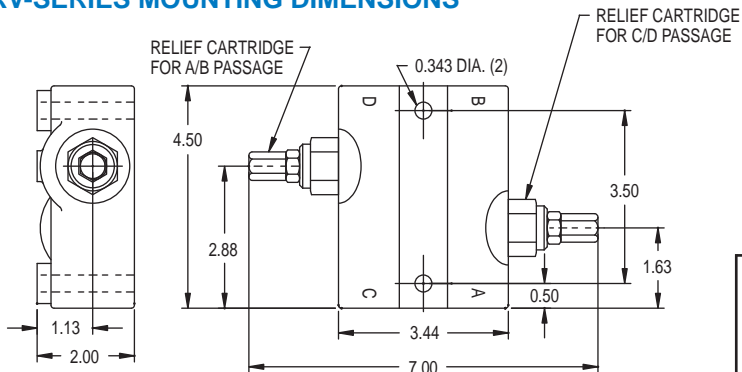


## RV-SERIES RELIEF CURVES

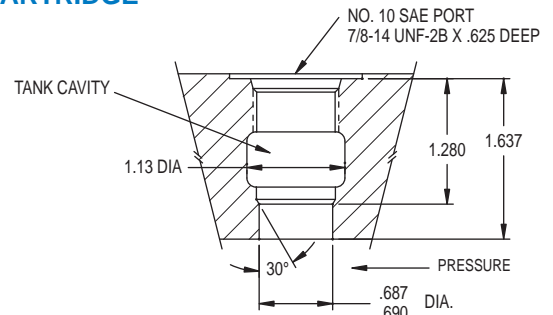
AT VARIOUS SET POINTS.  
110 SUS OIL AT 115°F.



## DRV-SERIES MOUNTING DIMENSIONS



## MACHING DIMENSIONS FOR RELIEF VALVE CARTRIDGE



### FIELD CONVERSION KITS:

- 660250002 ADJ. RELIEF CARTRIDGE 1500-3000 PSI RV ONLY
- 660250003 ADJ. RELIEF CARTRIDGE 500-1500 PSI\*
- 660250004 NON-ADJUSTABLE RELIEF CARTRIDGE 1500-3000 PSI RV ONLY
- 660250005 NON-ADJUSTABLE RELIEF CARTRIDGE 500-1500 PSI\*
- 660250011 ADJ. RELIEF CARTRIDGE 1500-3000 PSI DRV ONLY
- 660250012 NON-ADJUSTABLE RELIEF CARTRIDGE 1500-3000 DRV ONLY
- 660590001 RV SEAL KIT
- 660590004 DRV SEAL KIT
- 670300005 1500-3000 PSI RELIEF SPRING
- 670300006 500-1500 PSI RELIEF SPRING

\* NOTE: THESE CARTRIDGES ARE THE SAME ON BOTH RV AND DRV VALVES