



# **PRESSURE RELIEF VALVE**

# PRESSURE RELIEF VALVE:

## Application :

Pressure Relief Valve (P.R.V.) is a mechanical safety device used for relief of excessive pressure build up and Transformer, Top Changer, Pressure Tanks & Pressure Lines for indoor & outdoor application. Suitable for repeated operation as compared to Conventional Explosion Vent which is for single use.

## Working :

The release Port is sealed by a Stainless-Steel Diaphragm resting on an "O" Ring. Heavy-Duty Spring Set keeps the port closed in normal condition. As soon as the pressure exceeds the pre determined safe limit due to any reason like change in temperature, formation of vapor etc. The diaphragm gets lifted from the seat.

This exposes the tank pressure to a greater area. Resulting to sudden increase of force. Thus instantaneously opening of release port and allowing vapor, gas & liquid to flow out of tank. Resulting to fall of pressure. The diaphragm restores its normal position as soon as pressure drops below the set limit and is ready for second jump. Spring retainer prevents the dislocation of spring during repeated operation. The lift of diaphragm also operates the Limit Switch (Double Pole/ Double Throw type) & Visual Indicator (Flag) by help of Rod. Engineered for rugged use & long life each P.R.V. is checked for its operational condition individually. It is important to note that depending upon the tank fluid different "O" Ring material is suggested.

**Note :** - Our standard product feature is

- 1). PRV with Nitrile Rubber Gasket.
- 2). Limit Switch confirms to weather protection IP-67 and is with 3/4" 16 T.P.I. (B.S.C.) PVC Cable Gland.

## Mounting :

Mounting details of different Model/ Size are as follows :

Model	Appx. Port Size	No. of Mounting Holes	Bolt Size / Hole Size	P.C.D
DP-1	1"	4	M08 / 10 mm. Ø	85 mm
DP-3	3"	4	M10 / 12 mm. Ø	125 mm
DP-6	6"	6	M12 / 14 mm. Ø	235 mm

Different Models available are :

Features	Model
Without Electrical Contact & Visual Indicator	DP-Ø
With Electrical Contact & Visual Indicator	DP-ØEF#
With Shroud/ Oil Collection Cap	DP-ØEF#S
With Plug and Socket Type Limit Switch Connection	DP- ØEF#P
With Shroud /Oil Collection Cap & Plug and Socket Connection	DP- ØEF#SP
With Shroud /Oil Collection Cap & Plug and Socket Connection & Cable	DP- ØEF#SPC

**DP-3EF#**



**DP-6EF#**



**DP-3EF#S**



# PRESSURE RELIEF VALVE:

Where : Ø - Size of Release Port i.e., 6";3";1"

# - No. of Electrical Contacts [(1 for 1 N.O. & 1 N.C.) & (2 for 2 N.O. & 2 N.C.)]

S - With Shroud / Oil Direction Cap

P - Number of Pins

C - Number of Cable Core

## Standard Operating :

All the above models are available in the following standard pressure:

0.35±0.07 Kg / cm sq.	5±1 psi
0.42±0.07 Kg / cm sq.	6±1 psi
0.49±0.07 Kg / cm sq.	7±1 psi
0.56±0.07 Kg / cm sq.	8±1 psi
0.70±0.07 Kg / cm sq.	10±1 psi
0.84±0.07 Kg / cm sq.	12±1 psi
1.40±0.07 Kg / cm sq.	20±1 psi

## Special Add-ons :

- These models are also available with VITON Rubber Gasket, suitable for Silicone Oil.
- Bleed Screw for venting air or gas bubbles can be provided if asked.
- "C" Copper Core Armored Cable of specified length and specification can be provided as required by customer.
- PRV at different operating pressure (higher/lower) can be supplied as per your request.

## Routine Test :

Test is carried on each P.R.V. as follows and test certificate furnished along with supply.

Operating Pressure individually.

Contact / Operation of Switch & Flag is checked in Before & After Valve Operation condition.

Leakage Test at 75% of Operating Pressure for 12 hr is done.

Dielectric Test of 2 K.V. for 1 minute.

## Type Test :

Our P.R.V. qualifies Environmental Test IP-67 Test condition for practical adaptability in real life condition and rugged use.



**DP-1EF#**