



ISO 9001:2015 CERTIFIED

PRESSURE RELIEF VALVE

TYPE: T-3(50mm) TO T-6 (150 mm)

APPLICATION:

Pressure Relief Valve (PRV) is a safety device to be used in Transformer, Pressure Tanks & Pressure Lines for indoor & outdoor application. Suitable for repeated operation than the conventional Explosion Vent.

MOUNTING:

P.R.V. can be mounted both horizontally & vertically by help of 4 mounting holes in Aluminium Casted Body.

CONSTRUCTION&WORKING:

When pressure in the tank rises, the total force on the area defined by the top gasket on the operating disc also increases. As soon as this force exceeds the load applied by the springs, the operating disc moves slightly upwards. This exposes the transformer pressure to a greater area corresponding to the diameter of side gasket, resulting in sudden increase of force. The disc lifts instantaneously and vents out the excess pressure in the transformer. When the pressure falls to allowable values, the spring forces the disc back to its original position.

FOR T-3: Port of approximately 70mm. is sealed by Stainless Steel Diaphragm resting on an "O" Ring. Heavy- Duty Stainless Steel Spring Set keeps the port closed in normal condition.

FOR T-6: Port of 150 mm. 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 vapour etc. The diaphragm gets lifted from the seat. This exposes the tank pressure to a greater area, corresponding to the diameter of side gasket, thus sudden increase of

force. Thus, **instantaneously** opens port of 70 mm. and allowing vapour, gas & liquid to flow out of tank. This results to pressure fall. 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. Lift of diaphragm also operates the Limit Switch (Double Pole/ Double Throw type) & **Visual Indicator (Flag)** by help of **Rod**. Limit Switch is attached with $\frac{3}{4}$ " **16 T.P.I. (B.S.C.) Cable Gland of PVC**. Engineered for rugged use & long life each PRV is checked for its **operational condition** individually. It is important to note that depending upon the tank fluid different **"O" Ring** material is suggested. This design if used in transformer is suitable for operating pressure **0.42 / 0.49/ 0.56/ 0.63/ 0.70 kg/cm sq.** (± 0.07 Kg / cm sq.) i.e. 6 / 7 / 8/ 9/ 10 ± 1 psi.



PRV T-3



PRV T-6

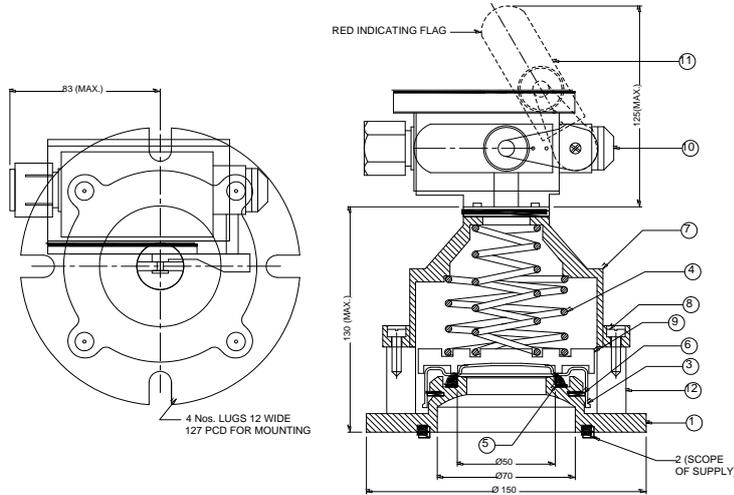
Routine Test:

Each P.R.V. as follows and test certificate furnished along with supply. a) Operating Pressure individually.

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

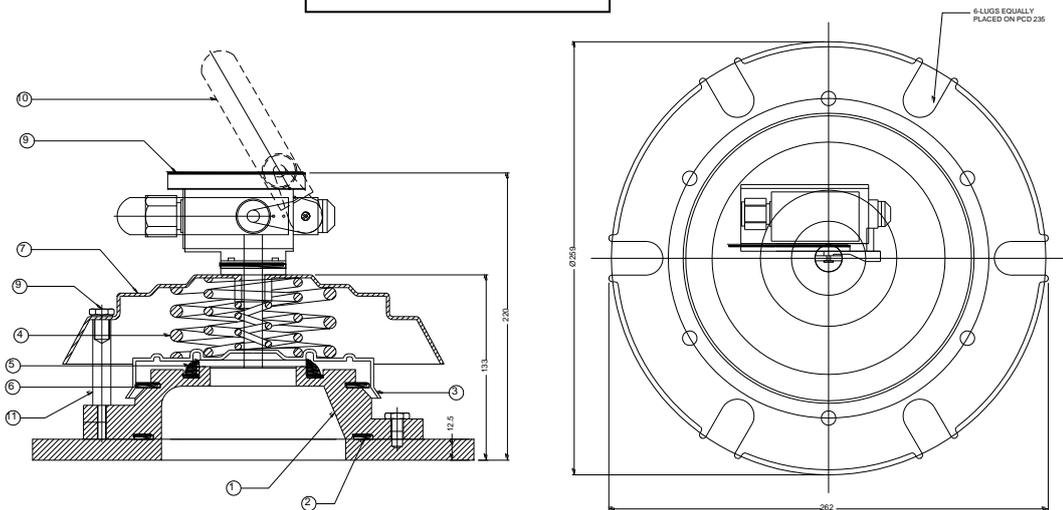
Leakage Test at 75% of Operating Pressure for 12 hr is done.

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



VIEW OF PRV – T3

PARTS LIST			
SL.	DESCRIPTION	MATERIAL / MFG.	QTY.
1	BASE	AL. ALLOY	1
2	MOUNTING RING	NBR	1
3	DIAPHRAGM	SS	1
4	SPRING	SPRING STEEL	1/2
5&6	GASKET	NBR	2
7	COVER	AL. ALLOY	1
8	SCREWS	SS	4
9	SPRING RETAINER	AL.	1
10	SWITCH ASSY. (1 NO + 1 NC)	JOY BALAJI / HONEYWELL	1
11	FLAG	AL. ALLOY	1
12	SPACER	SS	4



VIEW OF PRV – T6

PARTS LIST			
SL.	DESCRIPTION	MATERIAL / MFG.	QTY.
1	BASE	AL. ALLOY	1
2	MOUNTING RING	NBR	1
3	DIAPHRAGM	SS	1
4	SPRING	SPRING STEEL	2
5&6	GASKET	NBR	2
7	COVER	AL. ALLOY	1
8	SCREWS	SS	6
9	SWITCH ASSY. (1 NO + 1 NC)	JOY BALAJI / HONEYWELL	1
10	FLAG	AL. ALLOY	1
11	SPACER	SS	6

SPECIFICATION:

Operating Pressure: 0.42 Kg/cm² to 0.70 Kg/cm²

Operating Tolerance: ± 0.07 Kg/cm² (± 1 psi)

Switch: Limit switch SPDT (1NO + 1NC)

or (2NO + 2NC)

Switch Rating: 10 Amps 300V AC, 6 Amps 24V DC.

Cable Entry: T3 - 3/4" BSC, T6 - 1" BSC.

Port Opening: T3 - 70 mm, T6 - 150 mm.

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