

PRESSURE RELIEF DEVICE



1-Inch Pressure Relief Device (PRD) / Pressure Relief Valve (PRV) for Distribution Transformers

The 1-inch Pressure Relief Device (PRD), also known as a Pressure Relief Valve (PRV), is designed for use on distribution transformers as a safety device to protect the transformer tank from excessive internal pressure.

Construction

The Pressure Relief Valve consists of a forged body designed for threaded mounting on the transformer tank. The valve shutter is spring-loaded through a tie rod and lock-nut arrangement and seals against the valve body using an NBR O-ring. A protective cap is provided to prevent the ingress of dust and other contaminants.

All Pressure Relief Valves are supplied with a mounting O-ring gasket to ensure leak-tight installation. The operating pressure is factory preset and calibrated, and therefore cannot be adjusted at the installation site.

Working.

PRD bottom thread is 1" BSP for the mounting. A port is providing for the operation and sealed by a spring-loaded diaphragm. When the pressure inside the transformer tank and exceeds load applied by the spring and diaphragm moves upwards and exceed pressure out from diaphragm. When the pressure falls down the diaphragm automatically set back to original position.

Application

The Pressure Relief Device (PRD) is designed for use in small distribution transformers. It provides reliable protection against excessive internal pressure, helping to prevent tank deformation and damage during abnormal operating conditions.

Technical Data at a Glance Testing

- 100% leak-proof tested.
- 100% pressure-setting and functional operation tested before dispatch.
- Each unit is inspected to ensure reliable performance and compliance with specified operating parameters.

Parameter	Specification
Connection Size	1-inch BSP threaded connection
Body Material	Forged or cast brass for high strength, durability, and corrosion resistance
Operating Pressure	4.26 PSI to 11.37 PSI (0.29 to 0.78 bar)
Operating Pressure Tolerance	±1.42 PSI (±0.10 bar)
Operating Temperature Range	-10°C to +110°C
Sealing Gasket	NBR rubber gasket
Protective Cap	UV-resistant protective cap to prevent ingress of dust and foreign particles

