

PRESSURE RELIEF VALVES

According to ANSI Standards



VIAT

INSTRUMENTS

VI-C02A(R0)

A House of
Transformer
Accessories

PRESSURE RELIEF VALVES, SERIES 301 - 303

Specifications

| Model No. | Cracking Pressure | | Resealing Pressure | | Discharge Rate at 15 PSIG | Thread Size |
|-------------|-------------------|----------|--------------------|---------|---------------------------|--|
| | PSIG | KPA | PSIG | KPA | | |
| 301-010-02N | 5±2 | 34.5±14 | 3±2 | 20.7±14 | >35 SCFM | 1/4" NPT 18/ 1/4" BSP to ISO 228 |
| 301-010-04N | 8±2 | 55±14 | 6±2 | 41.4±14 | >35 SCFM | |
| 301-010-01N | 10±2 | 69±14 | 8±2 | 55±14 | >35 SCFM | |
| 301-010-03N | 15±2 | 103.5±14 | 13±2 | 89.7±14 | >35 SCFM | |
| 301-010-05N | 8±2 | 55±14 | 6±2 | 41.4±14 | >35 SCFM | |

| Model No. | Cracking Pressure | | Resealing Pressure | | Discharge Rate at 15 PSIG | Thread Size |
|-------------------|-------------------|-------|--------------------|-------|---------------------------|-------------|
| | PSIG | KPA | PSIG | KPA | | |
| Series 302 | | | | | | |
| 302-010-01N | 10±2 | 69±14 | 8±2 | 55±14 | >50 SCFM | 1/4" NPT 18 |
| 302-010-02N | 10±2 | 69±14 | 8±2 | 55±14 | >50 SCFM | 1/2" NPT 18 |
| 302-020-01I | 10±2 | 69±14 | 8±2 | 55±14 | >50 SCFM | 1/4" NPT 18 |
| 302-030-01I | 10±2 | 69±14 | 8±2 | 55±14 | >50 SCFM | 1/4" NPT 18 |

| Model No. | Cracking Pressure | | Resealing Pressure | | Discharge Rate at 15 PSIG | Thread Size |
|-------------------|-------------------|-------|--------------------|-------|---------------------------|-------------|
| | PSIG | KPA | PSIG | KPA | | |
| Series 303 | | | | | | |
| 303-010-01N | 10±2 | 69±14 | 8±2 | 55±14 | >60 SCFM | 1/4" NPT 18 |

Construction:

The 301 to 303 series pressure relief valves comprises of single piece brass body housing the complete assembly.

The stainless steel spring is factory selected to the desired rating and compressed to a pre-determined level. One end of the spring being fixed, the other end forces the brass poppet against the body. A Viton® "O" ring between the poppet and body ensures leak proof sealing.

The valve also features a cap which covers the exhaust port to prevent ingress of insects, dirt or external element. In indicating models the cap moves along the poppet/falls down and hangs with a chain thus exposing a red indicator when valve operates.

A stainless steel pull ring allows for manual operations of the valve.

Installation:

The NPT thread has to be wrapped with few layers of Teflon® tape, to ensure leak proof installation. For 301.2 and 301.3 series, permanent thread seal must be used on the nut.

Operation:

The operation of the valve is automatic. When the fluid pressure in the tank exceeds the specified limit, the valves opens and reseals the pressure. When pressure falls to safe levels, the valve reseals itself.

Maintenance:

Under the standard operating conditions these valves do not require any maintenance.

FEATURES

- Factory pre-set pressure for automatic venting and resealing.
- All brass and stainless steel construction.
- Viton® 'O' Ring for long trouble-free service.
- Stainless Steel pull ring for manual bleeding.
- Meets or exceeds ANSI and REA standards.
- Rugged design provides trouble free over pressure protection.
- Each unit individually tested for cracking and resealing.
- Standard operating temperature -25°C to 120°C.
- Optional Teflon® or Vibraseal® coated thread for mounting or Krytox® lubricated PRVs for FR3 oils.

KRYTOX® LUBRICATED PRV FOR TRANSFORMERS USING FR3 OIL

Additional Features for this Model:

- Every valve individually lubricated with Krytox® grease for easy operation and resealing in FR3 oil.
- Indicating and non-indicating model.
- Approved and meets all specifications of manufacturer of FR3 oil.

Specifications

| Model No. | Cracking Pressure | Resealing Pressure | Indicator | Discharge Rate at 15 PSIG |
|---------------------|-------------------|--------------------|-----------|---------------------------|
| | PSIG | PSIG | | |
| Series 302.5 | | | | |
| 302-050-011 | 5±2 | 3±2 | Red Band | >50 SCFM |
| 302-070-011 | 10±2 | 6±2 | Red Disk | >50 SCFM |
| Series 302.6 | | | | |
| 302-040-01N | 5±2 | 3±2 | None | >50 SCFM |
| 302-060-01N | 10±2 | 8±2 | None | >50 SCFM |
| Series 302.7 | | | | |
| 302-080-011 | 10±2 | 8±2 | Red Disk | >50 SCFM |



302-050-011 with ¼" NPT Mounting & Indicating Cap



302-040-01N with ¼" NPT Mounting



302-080-011 with ¼" NPT Mounting & Indicating Cap

PRESSURE RELIEF VALVES (Submersible Type) WITH ALL STAINLESS STEEL BODY

Additional Features for this Model:

- All Stainless Steel components for use in extreme outdoor conditions and underground transformers.
- Automatic venting & resealing.
- Maintenance free.
- More cost efficient than explosion vent.

Pressure Setting:

Cracking Pressure: 10 ±2 psig

Resealing Pressure: 8 ±2 psig

Discharge Rate At 15psig 50 SCFM



304 with ½" NPT Mounting

1 1/4" PRESSURE RELIEF VALVES, SERIES 310 & 311

Additional Features for this Model:

- All forged brass, stainless steel components for use in extreme outdoor conditions.
- Viton® 'O' Ring for long trouble-free service.
- 100% valve tested for operating pressure and resealing.
- Operating pressure options available from 2 to 10 psi for special application.
- Pre-wrapped Teflon® on mounting thread for fast & secure installation.

| Series | Model No. | Operating Pressure in psig | Operating Pressure in kPa | Indicator | Flow rate at 15 psig |
|--------|-----------|----------------------------|---------------------------|-----------|----------------------|
| 310 | 310 - 1 | 10±2 | 69±14 | No | 200 SCFM |
| | 310 - 2 | 5.8±1 | 40±7 | No | 350 SCFM |
| 311 | 311 - 1 | 10±2 | 69±14 | Yes | 200 SCFM |
| | 311 - 2 | 5.8±1 | 40±7 | Yes | 350 SCFM |

Construction:

The Pressure Relief Valve consists of a machined Brass body suitable for 1.25"-11.5 NPT thread mounting on the transformer tank. The valve shutter is spring loaded using shaft and lock nuts and seals against the body with Viton® "O" Ring.

Working Principle:

When pressure in the tank rises beyond the pre-set limit, the shutter moves up with the "O" Ring, thus releasing the excess pressure. When the pressure falls to allowable values, the spring forces the shutter back to its position.



310 with 1/4" NPT Mounting



311 with 1/4" NPT Mounting & Indicator

Please contact us for ordering form and any further details.

Due to our policy of continuous product improvement, dimensions and designs are subject to change.



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