

TPRV-80R

Digital Transformer Pressure Relief Valve



Description

TPRV-80R digital transformer pressure relief valve is a device specifically designed to protect the internal pressure safety of the transformer tank. It typically consists of a valve body, spring, valve disc, sealing ring, mechanical indicator, and micro-switch. It is used to monitor the internal pressure of the transformer tank in real time. When the internal pressure rises to a preset value, the pressure relief valve automatically opens to rapidly release the excess pressure and transmit the operation signal via the local mechanical indicator or to the monitoring system. This allows operators to confirm the pressure relief status, and an alarm signal is issued upon valve actuation, thereby ensuring the safe operation of the transformer. As a critical protective device for transformers, the pressure relief valve plays a vital role in power systems. Furthermore, the product features precise actuation, high reliability, safety, and ease of installation and maintenance.



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Features

- High protection level suitable for different installation needs indoors and outdoors;
- Max.3 pairs of oil-discharge alarm contacts;
- High precision pressure sensor, transmitting digital signals (compatible with 4-20mA analog signals) via RS485 to the background;
- Equipped with a mechanical indicator for clear visual confirmation of valve actuation status;
- Directional oil discharge outlet designed to prevent splashing of hot oil and ensure personnel safety;
- Integrated structural design, high strength, high reliability.

Application

- Main oil tank for oil-filled transformers

Options

- 24V power supply
- Additional rainproof cover shell
- C5 or above corrosion resistance grade

Technical parameters

| Product Features               | Description                                                                                |
|--------------------------------|--------------------------------------------------------------------------------------------|
| Orifice diameter               | Ø 80mm                                                                                     |
| Operating pressure             | 85±5kPa                                                                                    |
| Reseat pressure                | ≥ 45.5kPa                                                                                  |
| Sealing pressure               | ≥ 51kPa                                                                                    |
| Opening time                   | ≤ 2ms                                                                                      |
| Operating temperature          | -30°C ~ +115°C , relative humidity ≤ 95%RH                                                 |
| Electrical interface size      | M12×1.5                                                                                    |
| Degree of Protection           | IP66                                                                                       |
| Power supply                   | 220V /AC                                                                                   |
| Electrical connection          | M12×1.5 waterproof cable connector<br>Cable size: recommended 1.5 mm², upper limit 2.5 mm² |
| Contact insulation performance | insulation resistance: >300 MΩ<br>Power frequency withstand voltage: 2kV, 50/60 Hz, 1min   |
| Contact capacity               | AC 220V /5A or DC220V /0.3A                                                                |
| Shock level                    | three directions 15g                                                                       |
| Installation dimensions        | Ø 170mm, 6× Ø 14mm lugs                                                                    |
| Signal acquisition component   | accuracy 0.5% pressure sensor                                                              |

Dimensions

