



WORKING INSTRUCTIONS

TRANSFORMER RELIEF VALVES

MODELS TX50, 51 and 52 MODELS TX135, 136 and 137

INSTALLATION

Pyropress transformer relief valves are designed to vent and explosion induced overpressure. TX50 type models have a relief area of approximately 15cm² and are suitable for transformer tanks of oil capacity up to 3000 litres. TX50 type models have flange drillings: 4 holes ø18.0 on 125mm P.C.D.

TX135 type models have a relief area of approximately 120cm² and are suitable for transformer tanks of oil capacity up to 45,000 litres. Multiple valves may be installed to increase the capacity. In such cases the valves should be installed at points where the maximum internal pressure will be generated. TX135 type models have flange drillings: 6 holes ø14.0 on 235mm P.C.D. The cover on the TX136 and TX137 types have facility for attaching a direction ducting through 6 x M6 tapped holes to guide efflux safely away from personnel.

To install these models dismantle the cover assembly by removing the hex head screws and lifting the cover assembly clear of the carrier. Install the carrier through the flange drillings.

Under normal pressure conditions the valve is help in position by a spring. When the pressure within the tank reaches the pre-set opening pressure, the valve rises from its seat, opens the valve over the first seal and accelerates past the second seal as the exposed area of the second seal is larger than the first seal.

HEALTH AND SAFETY AT WORK ACT 1974

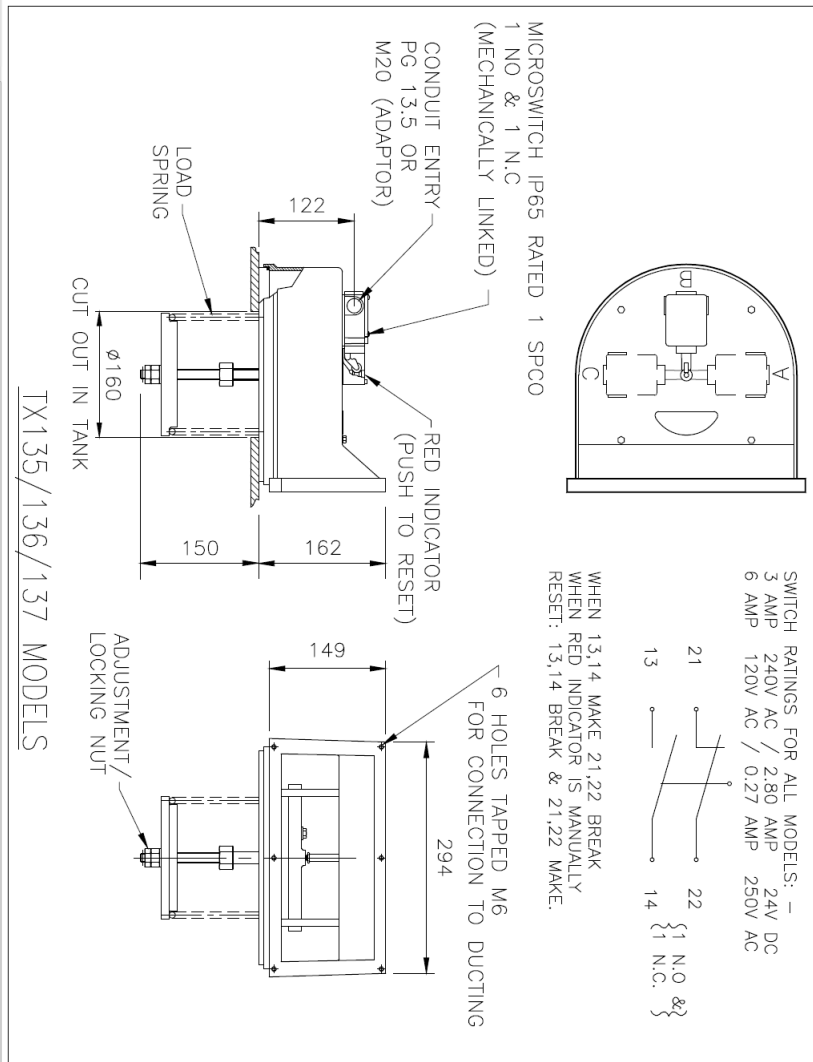
WARNING

Your attention is drawn to the voltages that will be present if the switch cover is removed while the switch is connected to a live supply. Precautions must be taken to ensure that the unit is 'safe' with respect to these voltages.

The unit must be specified, installed and maintained by competent personnel and its use be limited to within the published specifications and instructions.

The equipment has been tested and supplied to the published specification and relevant drawings. Unauthorised modification, repair or operation outside specific limits may invalidate the warranty.

These valves are designed to protect oil cooled transformer installations against the risk of explosion which may occur under severe fault or short circuit conditions. Extreme rapid pressure rises can result from arcing with immediate vaporisation of cooling oil. This pressure must be relieved instantly to avoid the risk of rupturing the transformer tank.



OPERATING HAZARD

Although covers on these valves are provided with a 120° aperture to direct the venting medium, your attention is drawn to the nature of valve movement when pressure is released.

As valve lifts from its seat a gap between the valve edge and the carrier is exposed for the duration of the valve to lift and reseal. The gas escape aperture should be installed in a position which protects personnel from efflux hazards.

ADJUSTMENT

The opening pressure on all valves is factory set. The opening pressure can be altered by unlocking the lock nut and altering the position of the full nut to either:

- Increase the load on the spring to raise the opening pressure
- Decrease the load on the spring to lower the opening pressure

The new opening pressure should be verified by cycling the valve using suitable equipment.

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ELECTRICAL INSTALLATION

Standard switch arrangement is a single Microswitch providing one normally open and one normally closed contact. Access to the switch is obtained by removing the Microswitch cover and making the connections as required (rising or falling operation) as shown on separate leaflets and G.A. drawings (available on request).

The switch housing is provided with an M20 or PG13.5 conduit thread entry (contact Sales Office for details).

ROUTINE MAINTENANCE

Regular visual inspection of the installations should be undertaken to check for leaks. Electrical connections and covers should be checked periodically for tightness.

