

BUCHHOLZ RELAY

General specifications

The gas and oil actuated (Buchholz) relay is designed to detect faults as well to minimize the propagation of any damage which might occur within oil-filled transformers, capacitors and reactors supplied with oil conservator.

The relay is therefore particularly effective in case of:

- Short - circuited core laminations
- Broken-down core bolt insulation
- Bad contacts
- Overheating of some part of the windings
- Short - circuits between phases
- Earth faults
- Puncture of bushing insulators inside tank.

Furthermore the relay can prevent the development of conditions leading to a fault in the transformer, such as the falling of the oil level owing to leaks, or the ingress of air as a result of defects in the oil circulating system.

Construction

CASING : non porous weatherproof compact casting of light aluminium alloy painted.

COVER : non porous weatherproof compact casting of light aluminium alloy painted. On the cover are located: the terminal box, the valve of pneumatic test, the breather cock, the button for mechanical test of alarm and trip circuits.

INSPECTION WINDOWS : special tempered glass with graduated scale in cm³.

CONTACTS : they can be mercury switches or magnetic actuated switches (*reed contacts*). On request it's possible to supply change-over switches.

INSULATION : 2000V 50Hz between terminals and earth for a 60 secs. time

WORKING TEMPERATURE : oil temperature range:-25/+100°C.

VIBRATION TEST (in normal operative conditions) :

● oscillation amplitude: 2mm

● time diagram:

0Hz÷100Hz	30 sec.
100Hz (200 vibrations/sec.)	60 sec.
100Hz÷ 0Hz	30 sec.

**SWITCHES
CHARACTERISTICS:**

● rated voltage: 24, 250V AC
or DC

● rated current: 0,5A (10000
tests)

● breaking capacity:

2A AC ($\cos=0,4\pm 25\%$ -
50Hz)

2A DC (T=L/R=40msec).

**MECHANICAL PROTECTION
DEGREE: IP 54**

**CONTACTS CAPACITY TO
WITHSTAND VIBRATIONS :**

Mercury sw.:150 horizontal
vibrations/ sec. (75Hz)
first signals of closing contacts

120 vertical vibrations/sec. (75Hz)
first signals of closing contacts

Reed sw. : 200 horizontal
vibrations/sec. (100Hz)

no one signal of closing contacts
200 vertical vibrations/sec. (100Hz)
no one signal of closing contacts