SERGI CONSERVATOR SHUTTER Type TL



Essential fire protection for transformer safety



Prevent conservator oil spilling and feeding fire at the initial critical stage of the fire.

When a transformer is under normal operation, the SERGI CONSERVATOR SHUTTER Type TL is open, enabling oil volume expansion and retraction from the conservator.

When the SERGI CONSERVATOR SHUTTER Type TL detects an abnormal high oil flow, it quickly and effectively isolates the conservator by mechanically closing the flap and initiates an alarm. Thanks to the SERGI CONSERVATOR SHUTTER Type TL, the oil is prevented from spilling out through ruptured transformer.

In the event of transformer explosion and fire, the SERGI CONSERVATOR SHUTTER Type TL prevents the oil from the conservator feeding the fire at the early and critical stage of the fire.

The SERGI CONSERVATOR SHUTTER Type TL is applicable for all oil-filled transformers with conservator:

- Two sizes, DN 50 and DN 80.
- Corrosion resistant alloy.
- 42 live tests performed during strong transformer short-circuits by independent HV Laboratories (Test certificates available upon request).
- Easy installation to be located below or very close to transformer conservator and before Buchholz relay.
- Reliable with over 50 years' operation.
- Fully mechanical operation no risk on cyber security.

SERGI CONSERVATOR SHUTTER Type TL

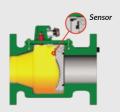
Operation & Validation

Open - normal transformer operation



The SERGI CONSERVATOR SHUTTER Type TL is open because oil flow is normal due to expansion and retraction of oil volume.

Closed - abnormal oil flow from conservator

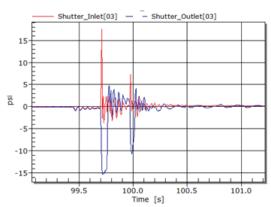


The SERGI CONSERVATOR SHUTTER Type TL closes because oil flow is abnormal.

The integrated Reed Switch sends an alarm to the control room.

In addition to the High Volatge Laboratory tests and certificates, SERGI TP has performed tests with transformer manufacturers. Tests were performed on several differents arrangements.

The SERGI CONSERVATOR SHUTTER Type TL TL34-8 always closes within 0.3 to 2.3 seconds, depending on test configuration. The closure always happen for a flowrate above the Maximum Oil Flowrate calculated at 67 liters per minute.



Test reference TL34-8 S/N: T3.1192/02

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