

Arc Detecion System



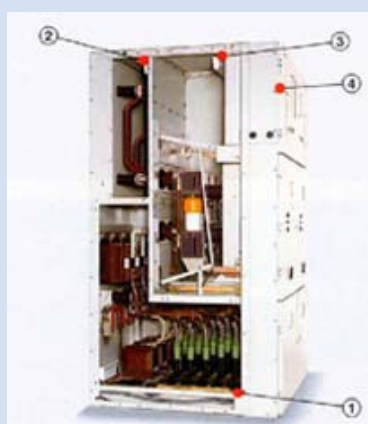
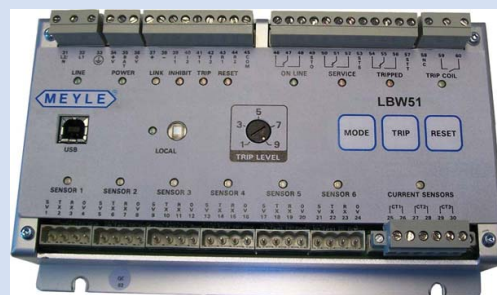
The arc detection system LBW is equipped with light - sensitive sensors which immediately detect the occurrence of internal arcs.

This means that the effective duration of the arc is considerably shortened and the gas discharge from the switch unit is appropriately reduced.

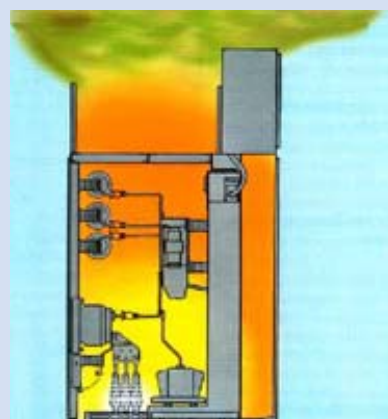
Maximum possible staff protection due to fast disconnection after 0.1 sec. reduces the load on the switchgear, decreases the gas discharge and minimises injuries.

Applications in:

- Medium voltage switch gears
- prevention of arcs in mining
- protection against injuries



1. Sensor in outgoing cable compartment
2. Sensor in busbar compartment
3. Sensor in circuit-breaker compartment
4. Arc detector fitted in relay cabinet



The arc detection system LBW complies with these requirements

Detection of the arc in its development phase and fast disconnection

Detection by means of light-sensitive detectors and fast disconnection by circuit-breakers.

Arc detection system does not respond to interfering light sources such as portable lamps.

Thanks to its dynamic mode of operation the arc detection system registers only large variations in the density of light.

Maximum possible staff protection

Fast disconnection after 0.1 sec. reduces the load on the switchgear and decreases the gas discharge.

Am detection System does not respond to interfering electromagnetic influences

Trials and laboratory tests on arcing showed ratings up to 50 kA (peak currents up to 125 kA). -

Protection of switchgear

The lower discharge of gas lessens the load of pressure on the building and reduces the thermal effects. Moreover, the surface of the pressure relief openings normally required is substantially reduced.

Employment of modern technology

The use of high-quality electronic components ensures a high degree of efficiency and reliability.

Improvement of availability

Shorter repair times following arcing due to reduced load on the switchgear and slighter consequence of damages. As a rule the switchgear room may be entered immediately after the defect.

High economic efficiency

The discharge can be prevented of combustion products from SF6-insulated switchgear after arcing.

In addition the disturbed areas such as busbar sections, may be detected. The disturbed area is disconnected and the unaffected area remains in service.

Improved staff protection during work on switchgear with open enclosure

Through the high availability of the switchgear. Minimum requirements on the building and reduction of the extent of damage in the event of arcing.

Decreasing fire hazard

Fast disconnection interrupts the inlet of heat energy and thus prevents the formation of origins of fire. Easy retrofitting of earlier, i. e. open and non-enclosed switchgear is possible. The use of the arc detection System is worth while particularly in installations where the staff safety could not be assured or only with considerable investments.

Hardening of earlier (open) switchgear

