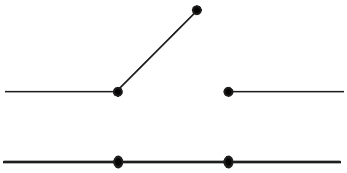
ST SWITCH. Safety First.

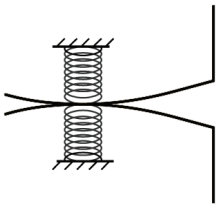
Why Is A Double Pressure-Spring Mechanism Safer Than A Knife-Blade Mechanism For Use In Current Transformer Circuits?

In current transformer (CT) circuits the overarching concern is for the circuit to remain closed and to avoid dangerous open CT conditions. Devices built into the current transformer circuit, like test switches, should be designed based on the best possible principle of operation to ensure this goal.

PRINCIPLE OF OPERATION

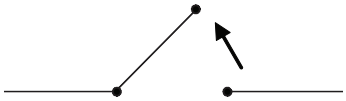


Knife-Blade Mechanism:
- Stable in both open and closed state
- Must be manually set to close
- Operator errors are possible

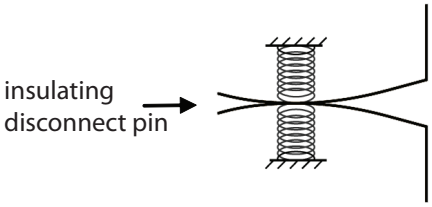


Double Spring Mechanism:
- Automatic reclosing due to spring pressure
- Redundant pressure springs ensure failsafe connection

DANGER OF ARCING



Knife-Blade Mechanism:
- The opening direction is pulling open an air gap, which can cause an arc to form



Double Spring Mechanism:
- By inserting insulating material between the contacts, the opening direction naturally works against any arc formation

CONCLUSION

Due to its principle of operation, the double pressure spring mechanism is the safer contact type for use in current transformer (CT) circuits. All SecuControl test blocks use double pressure spring contacts to provide the best possible protection against open CT conditions and arcing.

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Testing Solutions for Electric Power

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