Distribution Automation – Smart Switches

ECG 743

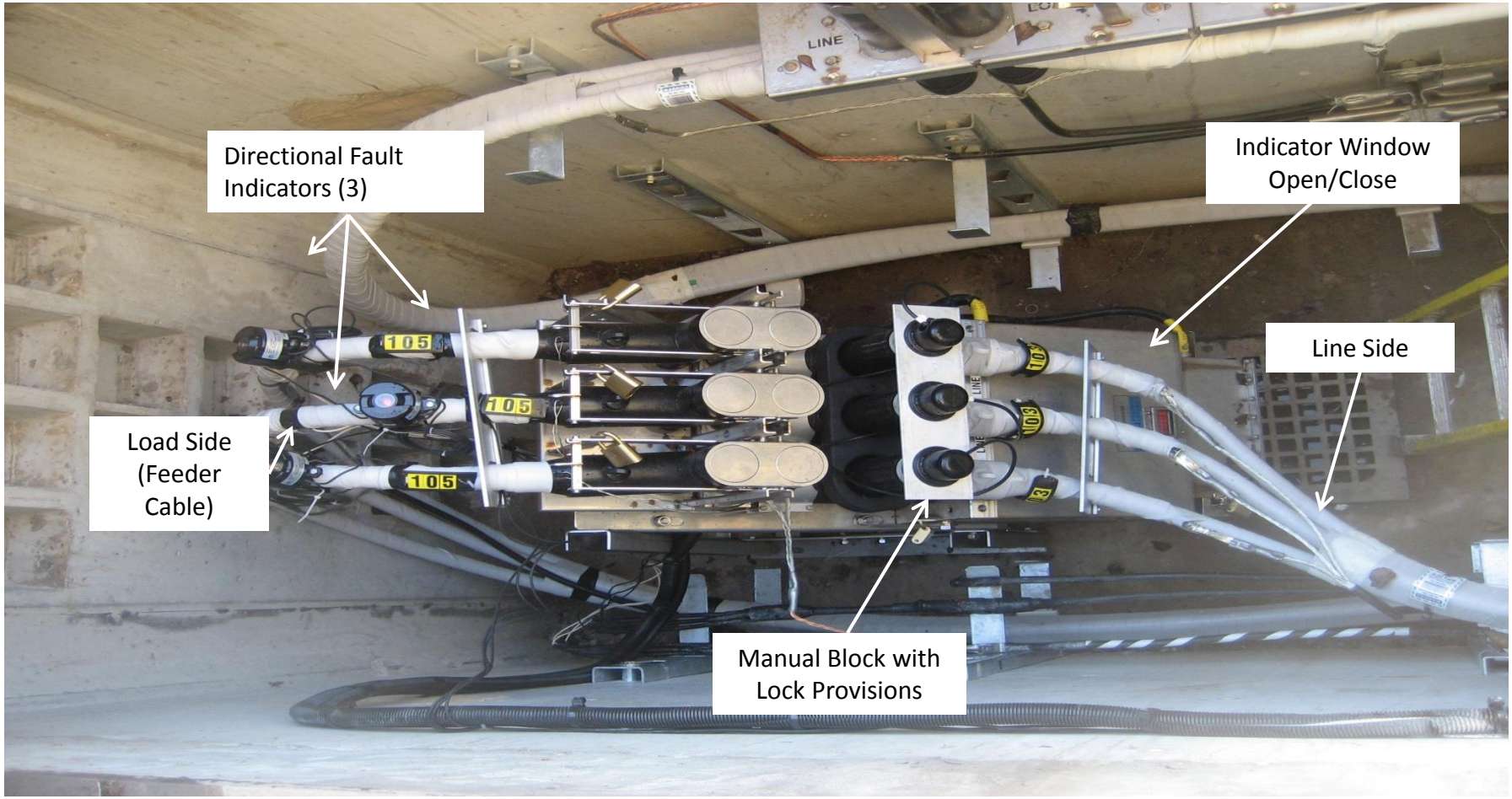
Conventional Switches

- Manually operated when feeder is de-energized.
- Do not measure any electrical quantity.

Smart Switches

- These are advanced switch that include
  - sensors to detect outages,
  - A computer that quickly analyzes the problem,
  - A communication system that talks with utility operators and other devices.
  - Automated opening and closing.
- The result is
  - higher power reliability,
  - Faster power restoration time,
  - shorter outage duration for many customers.

Underground Smart Switch



Overhead Smart Switch

Application of Smart Switches for Improving the Reliability of Distribution Systems

- https://www.sandc.com/en/solutions/smart-grids/

- Reading Assignment: “Reliability improvements from the Application of Distribution Automation Technologies – Initial Results “

https://www.smartgrid.gov/files/Distribution_Reliability_Report_-_Final.pdf

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