



Ricardo
Energy & Environment

Innovative KlikFit sensors for monitoring network equipment

Ricardo Energy & Environment's suite of non-contact and non-invasive KlikFit sensors provide quick, safe, live and non-interruption installation possibilities for a variety of network equipment. The suite comprises a wide range of sensors suitable for different applications.

The sensors use ultra-low-power electronics with scavenged power or battery power options. They are fully insulated, compact, easy to fit and can be wired or wire free.

KlikFit sensors also have a wide range of data storage, communication and power options to suit every application and integration with existing network monitoring equipment. They are designed for simple commissioning and test.

The concept and some components of the KlikFit suite have been developed with financial support from Innovate UK (previously the Technology Strategy Board). The sensors are at various stages of development.

Some of the sensors are described overleaf.

KlikFit Wirefree Sensor and KlikFit Ring Sensor

The KlikFit Wirefree Sensor is used to measure current and voltage. It is ideal for use with legacy exposed conductors and single-core cables, busbars and risers.



KlikFit Wirefree Sensor

The split-core KlikFit Ring Sensor provides simple three-phase monitoring of voltage and current on wire armoured and unarmoured cables – combined neutral and earth (CNE) and multicore cables operating at up to 33kV.



KlikFit Ring Sensor

Both sensors are ideal for temporary or permanent real-time monitoring and can be used in a wide range of smart network, low carbon and real-time asset management applications including:

- Voltage and power flow monitoring.
- Load profile management.

- Dynamic asset rating.
- Power quality monitoring.
- Incipient fault management.
- Fault classification and distance to event.

KlikFit Temperature Sensor

Installed in seconds, the KlikFit Temperature Sensor can be used in a variety of applications, and is perfect for temporary and permanent monitoring applications.

Potential applications include:

- Asset condition monitoring (for example, of transformers or cables).
- Estimating transformer or cable load profile.
- Substation environment monitoring.



KlikFit Temperature Sensor on low voltage (LV) transformer

Other KlikFit sensors

- The KlikFit Overhead Line Sensor measures current and voltage on overhead lines. There is no need for wiring as communications are wireless.
- The KlikFit Distribution Pole Ring measures high frequency (MHz) in neutral/earthing droppers from overhead lines.



For more information about our innovative KlikFit sensors, please contact one of our experts at enquiry-ee@ricardo.com or +44 (0) 1235 753000