

Application story

Leading electricity grid company selects Druck Pressure Indicator for leak detection



Industry supplied
Pressure Indicator



Application
SF6 gas density monitoring



Product/service
DPI 705E handheld
pressure indicator



Customer type
Manufacturer of
SF6 electric transformer



Benefits
High performance
and high accuracy
Easy-to-use
Enhanced leak time
Hazardous area
version available

Druck's customer

Druck's customer, is a global leader in providing electricity grid infrastructure products and services and offers a full range of Gas-Insulated Substations (GIS) for industries worldwide.

Druck's customer's challenge

To transmit electricity safely across the grid to end users, substations are used to help transform voltage levels from high to low or the reverse and to secure and dispatch the power flow.

Due to its strong insulating properties, Sulphur hexafluoride (SF6) is extensively used in GIS equipment such as instrument transformers. SF6 is a very potent greenhouse gas therefore precise early detection of gas leaks in GIS is essential.

Druck's customer required an instrument to measure gas pressure and temperature to track changes in density in order to detect gas leaks.

It was also essential that the instrument could provide a high level of accuracy when measuring pressure to ensure prompt and consistent detection.



Druck's solution

Druck's customer selected the DPI 705E handheld pressure and optional temperature indicator which combines a tough and rugged design with accurate and reliable measurements.

Druck's fast-response pressure indicator can achieve 0.1 FS over temperature range of -10°C to +50°C allowing the customer to continuously measure pressure and temperatures to identify any changes in gas density to determine if there are leaks.

The DPI 705E integrates a leak testing feature which can be used to determine whether there is a leak in the connected system by recording the pressure change over time. Leak tests can also be used with Resistive Temperature Detectors (RTD) -INTERFACE to record temperature change over time.

Druck's added value

The introduction of the DPI 705E handheld pressure and optional temperature indicator provided the following benefits:

- Ultra-high sensitivity: the DPI 705E provides 0.1% accuracy full-scale (FS) and is one of the most accurate pressure indicators in the field of precision measurement technology, giving the customer peace of mind as to the accuracy of their pressure measurements
- Reliability: quick response time and high sensitivity of the pressure indicator provides the customer with a cost-effective and reliable solution for leak detection
- Safe and Robust: ATEX certification for safe use in hazardous areas where explosive atmospheres are present



Picture 1: DPI 705E handheld pressure indicator