

Circuit breaker Monitoring

SF6 quality and leaks

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integrated



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Pioneering the future of power testing and monitoring

SF6 quality and leaks

🕒 Most precise measurement

Precisely measures temperature and gives information on SF6 density and dew point in atmospheric pressure.

✅ 7 SF6 parameters

The unit gives the key 7 parameters of SF6 gas quality

📄 Description

Electrical power transmission networks are protected and controlled by high-voltage circuit breakers. High-voltage circuit breakers are mechanical switching devices which connect and break current circuits (operating currents and fault currents) and carry the nominal current in closed position. They carry load current under normal power system conditions, direct current flow between desired sections of an electric power system and interrupt current flow under abnormal power system events and conditions, such as faults.

The proper function of a circuit breaker depends on various components such as: the operating mechanics, the coil currents, the quality of the insulating media etc.

Online assessment of SF6 gas insulated equipment is made easier with the Vaisala DPT145. This simple transmitter probe is easy to retrofit on existing SF6 equipment (adapters are available). Or it can be ordered with the new HV equipment.

The unit gives the key 7 parameters of SF6 gas quality and maintenance important factors such as:

SF6 leakage (even micro leakages are early detected with the stable SF6 pressure measuring, which saves outages and SF6 from being released into the atmosphere)

SF6 quality by measuring dew point (SF6 Moisture problems are now easy to address and it is possible to prevent SF6 degradation in an early stage with the built-in precise dew point measurement)

Additionally, DPT 145 precisely measures temperature and gives information on SF6 density and dew point in atmospheric pressure.

The signals can be connected to Scada by Modbus over RS485.

Digital outputs	
	The system is connected to RTU with either RS485 , Modbus ,or IEC 61850 system protocol
Temperature	-40 ... +70 °C
Accuracy	±1 °C
Temperature accuracy:	

💰 No spare parts consumables or recalibration

Absolutely no consumables or spare parts are needed.



🧠 Unique innovation

The DPT145 is a unique innovation that not only monitors dew point online but also pressure and temperature. In addition the instrument calculates four other values, including gas density and ppm. The DPT145 provides an excellent assessment of the SF6 insulation

SF6 or SF6/N2 mixture density	0 ... 100 kg/m3
Accuracy	(pure SF6, 1 ... 12 bara) ±2.5 %FS
Density accuracy:	
Dew point	-40 ... +30 °C
Accuracy	±5 °C (±5.4 °F)
Dew point accuracy:	
Pressure	absolute 1 ... 10 bar
Accuracy	at +23 °C ±0.5 %FS (Pressure stability Typical drift < 1 %FS / 5 years)
Pressure accuracy:	



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