

# Monitor your transformer health

## EcoStruxure™ Transformer Expert

### All-in-one sensors and software analytics

**EcoStruxure Transformer Expert** is an advanced monitoring system, which helps detect potential issues and proactively alerts customers when further actions are necessary. This enables a transition from time-based maintenance to a more efficient condition-based approach.

Thanks to the **all-in-one, easy-to-deploy** patented IoT **sensors and software analytics subscription**, you can leverage from:

- **State-of-the-art monitoring solution** which helps you track the critical health parameters of your transformers:
  - Water in oil
  - Temperature
  - Ultra-high frequency (UHF) noise
- **Advanced analytics and automatic interpretation** based on the latest industry standards (IEEE, IEC) and guides (Rogers, Doernenburg, Duval methods)
- **System insights and automated recommendations** based on:
  - Temperature and water content of paper profiling for top, bottom and hotspot
  - Partial discharge and vibration trends
  - Degree of polymerization (DP) assessment and forecast

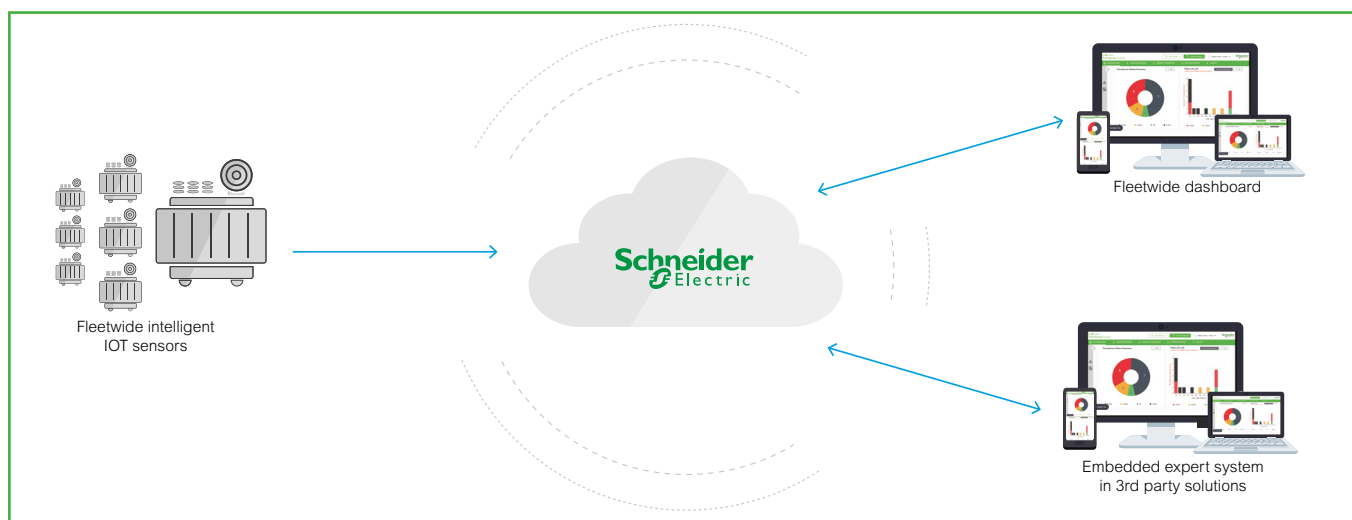
### Benefits

Through **powerful system insights and advanced cloud-based analytics**, you get operating and aging insights along with risk assessment to monitor your transformers' health, thanks to:

- Fleet-wide view of transformer health
- Efficient and insightful dashboards for each transformer
- Historical Dissolved Gas Analysis (DGA) oil test reports in the data hub

With EcoStruxure Transformer Expert, we can help you:

- Reduce risk of downtime
- Enable predictive maintenance
- Improve transformer's life expectancy, reliability and safety
- Make data-driven maintenance and asset replacement decisions, optimizing your budget



[se.com/services](https://se.com/services)

Life Is On

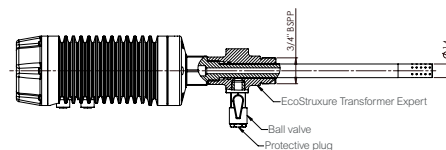
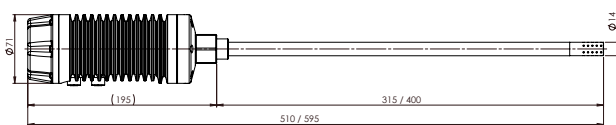
**Schneider**  
Electric

# EcoStruxure Transformer Expert IoT sensor



EcoStruxure Transformer Expert Probe measurements	Water Activity (AW) (Relative Humidity)	Measurement Range: 0 – 100 % Accuracy: < 2.0 % (20 – 95 % AW) at 0 to 100 °C
	Oil Temperature Sensor	Measurement Range: -20 to 125 °C Accuracy: < ±0.5 °C at 0 to 110 °C, < ±2 °C otherwise
	Partial Discharge (PD) Activity	Correlated multi-band Ultra-high frequency (UHF), targeting PD activity inside tank
	Vibration / Acoustic	50 – 2400 Hz (Tank and connected components)
External Temperature Sensor measurements	Tank Temperature	Measurement Rang: -20 to 100 °C Accuracy: < ±0.3 °C 10 M cable supplied
Measurement period		5 minutes
Data storage		8 GB
Connectivity		3G / 4G all available networks (standard)
Probe length		315 mm 400 mm
Sensor power supply		18 – 30 V DC < 5 W 5-pin male M12 all-weather connector Fuse, MOV and reverse polarity protected
Low voltage mains din power supply option (included with standard product)		Single width DIN rail mount 24V, 15 Watt 110 – 370 V DC 85 – 264 V AC
Lightning protection		Fuse/MOV/TVS Diode
Weather rating (excluding low voltage mains din power supply)	Ambient Temperature Wise Nominal Sensor Oil Pressure Humidity Maximum Elevation Environment	-20 to 60°C 19 PSI, 1.3 bar 0 - 100 % Relative humidity (RH) non-condensing 3000 m Indoor and outdoor
Low voltage cable		10 m low voltage cable with 5-pin female M12 all-weather connector
EcoStruxure Transformer Expert Adapter		Double O-ring seal with integrated oil sample valve 3/4" male BSPP/ NPT thread
Hardware warranty		Life-long replacement on failure Under subscription

## EcoStruxure Transformer Expert Probe



se.com/services

Life Is On

**Schneider Electric**  
 35 rue Joseph Monier,  
 92500 Rueil-Malmaison,  
 France  
 +33 (0)1 41 29 70 00