

# OilQSens®

## Oil Condition Monitoring



**OilQSens® detects early changes in oil quality/condition from day 1 - before damage occurs.**

Contamination products, such as particles, cellulose fibres, moisture and their contaminating effects, such as acid, oil soaps and sludge are causing a change in the electrical properties of oil. This intelligent and patent system tracks related key parameters constantly and online. Timely information needed are captured with an unmatched sensitivity and accuracy, enabling exact condition based maintenance and helps avoiding transformer failures.

#### Measurements:

- Conductivity  $K$
- Permittivity  $\epsilon_r$
- Temperature
- Tan Delta TD (calculated)
- Breakdown Voltage (calculated)
- Water content (calculated)

#### Applications:

- High voltage transformers
- Insulating oils
- Oil deterioration monitoring
- Aging of oil

## Features

- Early warning before damage occurs
- Avoid transformer failures
- Condition based maintenance
- Online and continuous
- Easy retrofit
- Low cost of ownership
- No consumables
- No service contract required

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## Oil Condition Monitoring

Type		
Article number		SB0100
Ranges	Conductivity	0.1 – 20,000 pS/m
	For transformer	0.1 – 50 pS/m
	Relative permittivity	1 - 5
Sensitivity	Conductivity	0.01 pS/m
	Relative permittivity	1*10 <sup>-6</sup>
Accuracy	Conductivity	±1% value, ±0.5 pS/m
	Relative permittivity	±1% value, ±0.0001
Max oil pressure		60 barg at 20°C (870 psig at 68°F)
Oil temperature		-10°C – +80°C (other on request)
Operating temperature		-20°C – +65°C
Sensor material		Stainless steel (bowl and carrier)
Cable		3 meter, shielded
Connections		¼" Swagelok® for 6mm o.d. tube (other on request)
Electrical requirements		90-264V, 50/60 Hz
Dimension	Sensor	103 (height) x 70 (diameter) mm
	Communication unit	210 x 250 x 150 mm
	Communication module	87 x 110 x 30 mm
Weight	Sensor	2.70 kg
	Communication unit	4.45 kg
	Communication module	0.25 kg



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