





Measuring Ambient Temperature, Relative Humidity, Settled Dust, and Direct Temperature in Industrial Equipment

## **Monitoring Environmental Conditions**

The most common failures in switchgear are either dielectric breakdowns or mechanical failures. Therefore, service conditions in the location of external cables or bus connect to the distribution or load terminations become a major factor in operational life expectancy.

Temperature and contamination are the principal environmental factors associated with dielectric system breakdown. And while most equipment is designed with ample safety margin for dielectric strength, prolonged operation outside of the design temperature limits can have a serious effect on the system components.

The EcoVisor Plus™ aids in the assurance of safe switchgear operation by providing continuous 24/7 monitoring of the ambient temperature, relative humidity, contaminants in a given area, and the primary conductor direct temperature, which have increasingly become risk factors for initiating partial discharge and tracking failures.

## Continuous Environmental Data

The EcoVisor Plus™ offers continuous real-time monitoring of ambient temperature, relative humidity, and settled dust contaminants and is intended for permanent, long-term use in switchgear compartments. The additional BriteSpot module now allows for connection temperature monitoring. This arms personnel with pertinent environmental data for targeted maintenance decisions & offers a cost-reduced replacement to IR windows. Therefore, if an abnormality is identified, a proactive remedial effort could be undertaken which could save costly equipment damage and process downtime.



Copper Conductor	
Hardware	
Supply Range	10 to 24 V DC
Power Consumption	4 W
Operating Temperature	-40 to +85 °C
Measurement	
Ambient Temperature Range	-40 to +85 °C
Direct Temperature Range	-50 to 200 °C
Temperature Accuracy	± 1.5 °C
Relative Humidity Range	20% to 95%
Relative Humidity Accuracy	±4% @ 20% to 60%
	±6% @ 80% to 95%
Settled Dust Range	0 to 1 mm
Settled Dust Accuracy	±0.05mm
Features	
Communication	RS-485
Protocol	Modbus RTU