

Ultra-High Voltage Sensor Optical Means of High Reliability

SM, PM, MM



DATASHEET

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Based on a patent-pending optical sensor design, the HVSS provides a means to reliably, safely, and precisely measure ultra-high voltage. The sensor is a passive device that is readout by a single optical fiber strand, eliminating the risk of being damaged in high voltage environment. It uniquely offers advantageous features: highly accurate voltage measurement independent of temperature variations; zero phase shift and low noise flat response through 20th harmonic; lightweight; cost-effective optical readout, inductance based internal harvesting self-power supply. The design is an all-in-one unit that can be directly mounted onto a high-voltage conductor cable line. Custom configurations include remote fiber readout or LoT Bluetooth communication to an adjacent transmission unit.

Features

- Up To 300kV
- High Accuracy: $\pm 0.5\%$
- Temperature Independent Measurement
- Zero Phase Shift
- Self-Powered
- Bluetooth Data Interface
- Lightweight
- Cost Effective LED System

Specifications

Parameter	Min	Typical	Max	Unit
Measured Voltage		up to 250		kV
Voltage Accuracy		$< \pm 2$		%
Frequency Response		DC-1		kHz
Phase Shift		0		
Insulation Class		35		kV
Power		Self		
Communication		Bluetooth		
Operating Temperature	-45		65	$^{\circ}\text{C}$
Weight		2		lbs
Conductor Diameter Range	0.25		2	inch

Note: The specifications provided are for general applications with a cost-effective approach. If you need to narrow or expand the tolerance, coverage, limit, or qualifications, please [\[click this link\]](#):

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Ordering Information

Prefix	Type	Voltage	Current	Self Power	Bluetooth	Conductor Diameter	Remote Fiber
□□□	□	□	□	□	□	□	□
HVSS-	Standard = 300 Special = 000	15kv = 1 25kv = 2 35kv = 3 45kv = 4	Non =1 Yes = 2	Non =1 Yes =2	Non =1 Yes = 2	0.25 inch = 1 0.45 inch = 2 0.65 inch = 3 0.85 inch = 4 1.05 inch = 5 1.25 inch = 6 1.45 inch = 7 1.65 inch = 8 1.85 inch = 8 2 inch = 9	Yes =1 Non =2

Red is special order