

LINE POST SENSORS

HPS UTILITY AUTOMATION

*ADVANCED CURRENT & VOLTAGE SENSORS
FOR SMART GRID APPLICATIONS*



INTRODUCTION

Hubbell Power Systems® Line Post Sensors are designed for 15kV, 27kV and 35kV outdoor pole or structure mounting applications. These sensors are used to measure voltage, current, or both, and provide a low voltage output proportional to the primary voltage or current being measured. Our ultra Lightweight design greatly simplifies the installation process, by allowing installation without the need to de-energize or cut the main conductor. The sensor is also designed to replace the functionality of in-line vertical or horizontal insulators.

PRODUCT APPLICATIONS

- Capacitor Banks
- Distribution Automation Ready Switches
- Distribution Line Monitoring (3 phase)
- Load break switches
- Power Quality Metering
- Voltage and current sensing for Reclosers

FEATURES AND BENEFITS

Engineering And Standards

- Cycloaliphatic Epoxy Material (CEP)- Better Insulator
- Best in Class highest leakage distance for high contamination environments. Improved dielectric performance
- Superior Strike Distance for better impulse withstand capability
- Compatibility with most legacy & newer controllers
- Safe Dual-Core Current Sensing Technology - inductor based, high accuracy, and complete phase shift compensation
- Improved Grounding Method (Ground Plate - Reliable and Reliable and Easy Grounding)

Operations & Linecrew

- Ultra Lightweight Design with rated mechanical strength
- Low Energy Analog Outputs (LEA) - Safety (compared to CT design)



Ultra Light weight design with “swing-style” conductor clamps and lay-in saddle for easy installation.



No cutting of line required



Both center pin mounting and 3 inch bolt circle mounting for simple installation process



Improved Grounding Method (Ground Plate -Reliable and Easy Grounding)

RATINGS AND SPECIFICATIONS

Product	Current Sensor			Voltage Sensor			Current and Voltage Sensor		
Measurement Output	600A:10V			10000:1			C - 600A:10V		
	1000A:10V			1400:1	2200:1	3300:1	C - 1000A:10V		
							V - 1400:1	V - 2200:1	V - 3300:1
Nominal Rating (kV)	15	27	35	15	27	35	15	27	35
Rated Line to Ground Voltage (kV)	8.66	15.59	20.21	8.66	15.59	20.21	8.66	15.59	20.21
Positive Impulse Rating or BIL (kV)	110	150	170	110	150	170	110	150	170

Withstand Rating (kV)

60Hz Dry Withstand	34	40	50	34	40	50	34	40	50
60Hz Wet Withstand	34	40	50	34	40	50	34	40	50
Leakage Distance (Inches)	23.2	35.4	35.4	23.2	35.4	35.4	23.2	35.4	35.4
Dry Arcing Distance (Inches)	9.7	13.2	13.2	9.7	13.2	13.2	9.7	13.2	13.2
Overall Height (Inches)	12.3	15.8	15.8	12.3	15.8	15.8	12.3	15.8	15.8
Partial Discharge Test Voltages (kV)	11	20	27.4	11	20	27.4	11	20	27.4
Maximum Pico Coulomb	10 pC or less at PD Test Voltage								
Weight (lbs)	17	21	21	17	21	21	17	21	21
Ultimate Cantilever Strength* (lbs)	2800	2800	2800	2800	2800	2800	2800	2800	2800
Temperature Range	65° C to -45° C								

Current Signal Output (CMI and CVMI)

Ratio	600A:10V (or) 1000A:10V								
Output Burden/Load	1 Meg Ohm or Greater								
Accuracy	± 1%								
Phase Shift	0° nominal, ± 1.5°								

Sensors are calibrated at 300A for best accuracy across load current range of 0-600A.

Voltage Signal Output (VMI and CVMI)

Ratio	10000:1 / 1400:1 / 2200:1 / 3300:1								
Output Burden/Load	1 Meg Ohm or Greater								
Accuracy	± 1%								
Phase Shift	0° nominal, ± 1°								

Each sensor is provided with a detailed calibration report. Entering the exact voltage ratio in the controller would result in better than ±0.5% accuracy.

Conductor Diameter Range (Inches)	0.19 to 1.18								
Material	Cycloaliphatic Epoxy								

* Recommended maximum working load is 40% of the cantilever rating - Per ANSI C29.7

LIST OF HUBBELL SENSOR CATALOG NUMBERS

Sr.No	Type	Part Number	Configuration
1	Current Only - CMI	15kV, 600A:10V	PSC82011100
2		15kV, 1000A:10V	PSC82011200
3		27kV, 600A:10V	PSC82012100
4		27kV, 1000A:10V	PSC82012200
5		35kV, 600A:10V	PSC82014100
6		35kV, 1000A:10V	PSC82014200
7	Voltage Only - VMI	15kV, 1400:1	PSC82011020
8		15kV, 10000:1	PSC82011010
9		27kV, 2200:1	PSC82012030
10		27kV, 10000:1	PSC82012010
11		35kV, 3300:1	PSC82014040
12		35kV, 10000:1	PSC82014010
13	Current & Voltage - CVMI	15kV, 600A:10V, 1400:1	PSC82011120
14		15kV, 600A:10V, 10000:1	PSC82011110
15		27kV, 600A:10V, 2200:1	PSC82012130
16		27kV, 600A:10V, 10000:1	PSC82012110
17		35kV, 600A:10V, 3300:1	PSC82014140
18		35kV, 600A:10V, 10000:1	PSC82014110

Please contact your Hubbell representative for any custom current (or) voltage ratio configurations.

CABLE CATALOG NUMBERS

Sr.No	HUBBELL Catalog Number	Description
1	PSC820221XX	SENSOR, CABLE, 2 PIN ASSY, PIGTAIL
2	PSC820211XX	SENSOR, CABLE, 4 PIN ASSY, PIGTAIL

Please contact your Hubbell representative for any custom cable configurations.



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