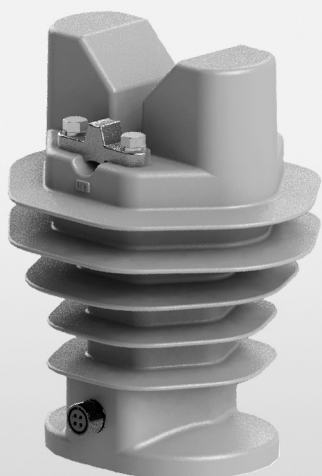


DISTRIBUSENSE® SENSORS

## VKS-110

### 15 kV outdoor current line post sensor



The VKS-110 current line post sensor is designed to connect with meters, relays, and capacitor bank controllers for real time data acquisition.

#### Overview

Today, utilities experience unprecedented challenges associated with power delivery. An aging grid infrastructure coupled with increasing consumer demand, stringent regulations, avoiding peak-time cost penalties, and integrating alternative energy sources into the grid are factors utilities must consider to improve power delivery and reliability. More data collection points, enabling greater grid intelligence, are required. Collecting from feeder locations to substations ensures the grid is optimized to address these challenges.

Current sensors are ideal for providing feeder intelligence that drives decision-making for a variety of important grid modernization applications. Utilities benefit from increased reliability and efficiency by decreasing energy costs, protecting revenue, avoiding costly regulatory penalties, and boosting customer satisfaction. Maximizing these benefits requires understanding grid conditions throughout the entire feeder network.

#### Applications

The VKS-110 current sensor is designed to connect with meters, relays, and capacitor bank controllers for real time data acquisition and is used in the following distribution automation solutions:

- Sensing at capacitor banks for Volt/Var optimization
- Sensing at overhead switches for fault detection, isolation, and restoration schemes
- Feeder sensing at the head and end of the feeder for conservation voltage regulation

To ensure accurate measurement and proper performance, the sensor and IED must be compatible. Due to the wide variety of relays and controllers offered in the market today, contact the factory or your ABB sales representative to ensure sensor compatibility.

#### Benefits

- Accurate current sensing provides a 10 V output
- Compact, with excellent balance between current accuracy and weight
- Easy to install
- Integrates with a wide selection of intelligent electronic devices
- The sensor acts as a line post insulator, allowing for installation without primary taps or cutting the line

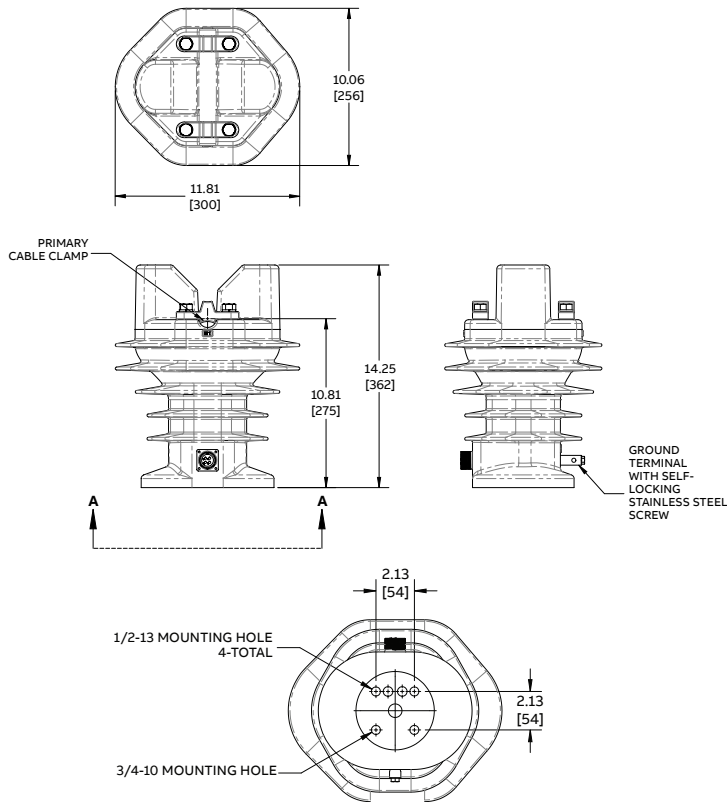
#### Construction features

The VKS-110 current sensing design utilizes hybrid Rogowski coil technology to output a high accuracy secondary voltage signal. It deploys novel technology for robust protection against short circuit conditions and protects downstream controllers.

## Installation

The VKS-110 can be installed on the existing cross-arm or on a variety of mounting racks. The separate secondary shielded cable and connector makes the connection from the low-end of the sensor to the controller. A separate, self-locking screw terminal provides an effective ground connection.

## Unit dimensions (inches [mm])



View A

## Product details

System voltage (L-L)	15 kV
BIL	110 kV
Load instrument impedance	1 MΩ
Current	10 V output
Accuracy*	+/-1% from 1.6% to 200% of rated current (10 - 1200 A)
Standard ratios	600 A:10 V
Frequency	60 Hz
Insulating material	HCEP
Strike	8.0" (203 mm)
Creep	20.25" (514 mm)
Weight	33 lbs. (15 kg)
Cantilever strength	2800 ft.-lbs.
Temperature range	-50°C to 70°C
Power frequency withstand	34 kV
Installation	Live wire mountable
Conductor range	#4 AWG - 600 MCM
Mounting	Vertical or cantilever
Connector	Amphenol
Cable length	Up to 49' (15 m)

\* Contact the factory for 6 - 10 A accuracy

Note: Performance is optimized with cable length provided from the factory. Cutting or using a different cable can impact accuracy. Contact factory before modifying the cable.

## Selection guide

Current ratio	Cable length	Style number
600 A : 10 V	5 m	E-923A669G01
	10 m	E-923A670G01
	15 m	E-923A671G01

Available with 3-in-1 cable to connect 3-phase sensors to IED using one cable.

Additional styles and cable lengths available upon request. Contact your ABB sales representative or call +1-252-827-3212 for more information.