



# Installation Guidelines

## 200 A Deadbreak T-Body Voltage Sensor

15kV p/n 9542

**⚠ DANGER**

The system must be de-energized and grounded before attempting installation or retrofit. Failure to de-energize and ground equipment can result in serious injury or death.

**⚠ DANGER**

The sensor must be solidly grounded to earth before it is energized. Connection to the phase conductor will energize the sensor and will result in high voltage across the output unless grounded. Failure to ground before energizing can result in serious injury or death.

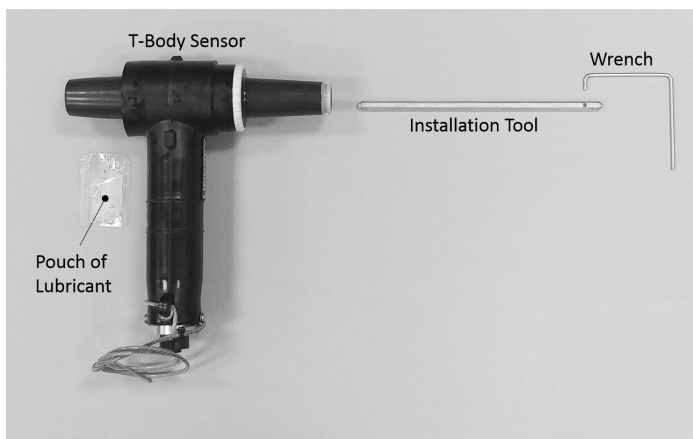
**⚠ DANGER**

Sensor must be applied within its electrical ratings. Application of sensor in excess of its ratings can result in immediate or delayed electrical or mechanical failure. Failure to apply the sensor within its ratings can result in serious injury or death, or in premature failure of the sensor.

**⚠ CAUTION**

Sensor must remain in packaging during transportation to installation site. Transportation of the sensor without its protective packaging may result in damage to the sensor body. Physical damage can result in premature failure of the sensor or reduced electrical ratings.

**Figure 1. Parts Shipped with T-Body Sensor**



**⚠ CAUTION**

Both the sensor cable connectors and the cable connector located on the sensor must remain dry and protected from inclement weather. The connectors are weatherproof once joined, but may allow moisture in the cable when the male or female connectors are left exposed to the elements. Moisture in the cable will result in inaccurate measurement readings.

**⚠ WARNING**

**DO NOT HIPOT.** HIPOT (high potential) testing will thermally damage the resistor assemblies in the sensor causing permanent damage. HIPOT testing voids the sensor's warranty.

**Specifications:**

ELECTRICAL RATINGS:	
CATALOG NUMBER SEQUENCE	9542
INSULATION CLASS	15kV
IMPULSE (BIL)	95kV
CORONA (extinction)	11kV
INTERFACE	IEEE Std. 386 interface provides convenient connection with other 200A deadbreak devices.

MECHANICAL:	
INSULATION CLASS	15kV
WEIGHT (lbs.)	4
SHIPPING WEIGHT (lbs.)	6

### Characteristics:

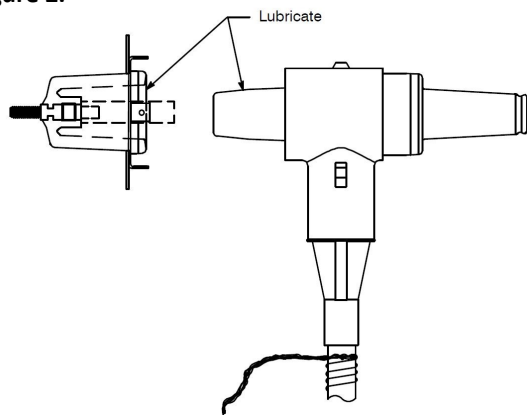
The Lindsey ElbowSense™ 200A voltage sensors are available at 15kV in an IEEE 386 tee tap connector for simple, fast, and flexible installation. Lindsey 200A class sensors are suitable for padmount and metal clad applications.

Lindsey ElbowSense sensors are designed and tested per IEEE Standard 386 and other industry standards as applicable.

### Installation:

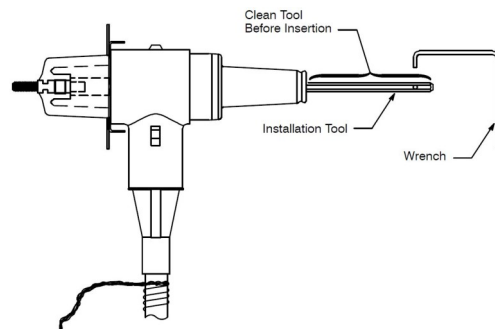
1. Using the sensor catalog number, use the Specifications tables to ensure the sensor is being applied in accordance with its ratings and utility underground construction and safety standards.
2. The system must be de-energized and grounded before attempting installation or retrofit.
3. Remove the existing elbow or insulated cap from the grounded bushing per utility operating procedures.
4. Secure the green grounding wire from the Voltage Monitoring Sensor to the ground bus.
5. Inspect the apparatus bushing well to ensure it is dry and free from all contaminants. Lubricate the bushing well interface area of the bushing tap with the supplied lubricant. See Figure 2.

**Figure 2.**



6. Place the lubricated portion of the bushing tap in the apparatus bushing well. Insert the installation tool in the bore of the bushing tap until fully seated. Insert the wrench through the wrench hole of the tool and turn in a clockwise direction until the wrench bends signifying the proper assembly torque has been reached. Remove the wrench and installation tool from the bushing tap. See Figure 3.

**Figure 3.**



Note: As an alternate to using the installation tool and wrench supplied with sensor, Lindsey recommends the BIT/E180AT Loadbreak Bushing Installation Tool by Speed Systems, Inc. which ensures proper torque is applied. Please see the manufacturer's instructions for proper and safe use of the tool. See Figure 4.

**Figure 4.**

Speed Systems' Loadbreak Bushing Installation Tool (Part # BIT/E180AT)



7. Plug in and hand tighten the waterproof signal cable and connect it to the input of the electronic monitoring device being used. The red wire is the output signal, and the white wire is the ground.
8. Install appropriate accessory on the loadbreak side of the sensor. If no accessory is to be installed, reinstall the insulated cap removed in Step 3.
9. Installation is complete. The system can now be re-energized.