



# Smart Power Sensor

The InstruVU Smart Power Sensor is a non-invasive current transformer designed for real-time energy monitoring and remote consumption analysis. Key applications include facility power monitoring, refrigerator power monitoring, etc.

It features a unique self-powered design that harvests energy directly from the measured conductor, eliminating the need for batteries or external wiring in most applications.



# FEATURES

- **Non-Invasive Installation:** Features a detachable clamp design that allows for quick and safe setup without de-energizing facilities or cutting wires.
- **High-Precision Sampling:** Boasts an impressive sampling frequency of 3.3 kHz, providing highly accurate RMS current data and detailed energy tracking.
- **Energy Harvesting Technology:** Operates using induced current power supply, making it a "maintenance-free" solution for long-term deployments.
- **Real-Time Threshold Alarms:** Supports automated alerts for over-current or irregular status, with sampling intervals as frequent as one second for rapid response.
- **Flexible Monitoring:** Capable of calculating accumulated ampere-hours in real-time, ideal for facility billing or identifying energy waste patterns.
- **Secondary Power Option:** Includes a USB Type-C port for configuration or for powering the device when measuring very low currents below the harvesting threshold.

## SPECIFICATIONS

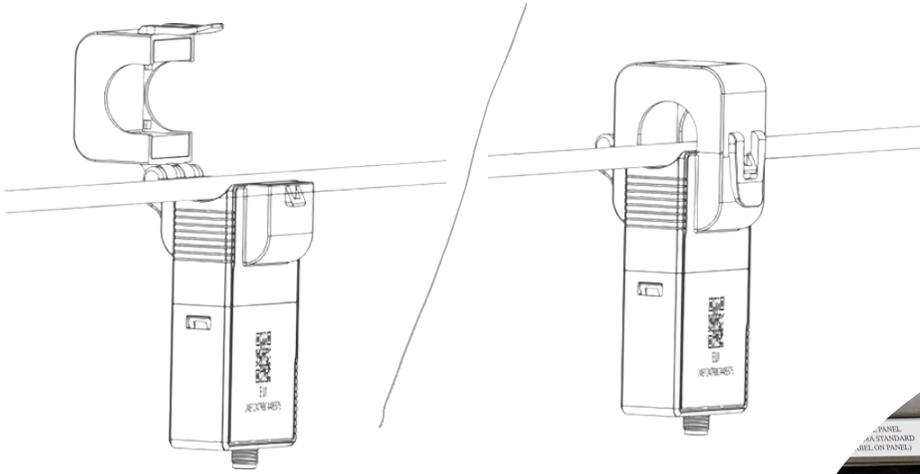
### Features:

|   |  |
|---|--|
| Detection Parameter:                        | RMS Current  |
| Sampling Frequency:                         | 3.3 kHz  |
| Accuracy:                                   | ±1% (>5A), ±3% (≤5A)   |
| Measurement Resolution:                     | 1 mA   |
| Current Range (Depending on Variant):       | Up to 100A, 250A (16mm wire hole), or 500A (36 mm wire hole) |
| Power Supply:                               | Induced Current (Self-Powered) or 5V USB-C                   |
| Operating Temperature:                      | -20°C to +70°C   |
| Ingress Protection:                         | IP30 (Indoor Use)  |
| Additional Sensors:                         | Supports external temperature probes (-20°C to 100°C)        |
| Cable Length:                               | 2 Meters   |
| Calibration Type (Snap/Swap) <sup>1</sup> : | Snap   |

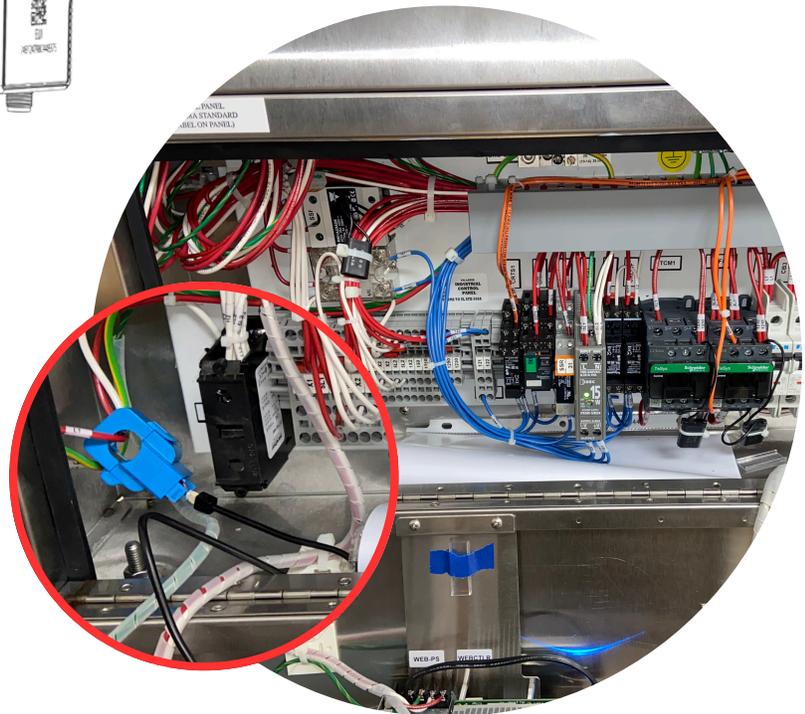
<sup>1</sup> Snap = replace only the probe with a pre-calibrated probe; the data logger remains installed and no cloud/device configuration changes are required.  
Swap = replace the probe and data logger together, typically requiring reassignment or configuration updates in the cloud.

# APPLICATIONS

Place open clamp around appropriate wire, then close clamp around it



Interior of Temperature Chamber



Exterior of Temperature Chamber