

TECHNICAL DATA SHEET

Combined Outdoor Sensor

Combined Voltage and Current sensor
PxxxFI-xx

**Non-conventional -
instrument voltage and current transformer**
Pole installations



Description

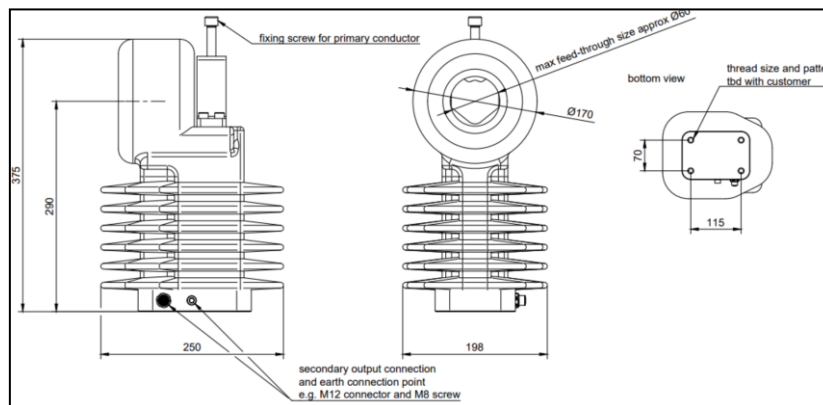
This combined outdoor voltage and current sensor for pole-mounted installations is designed for maximum market compatibility. With outputs compliant with IEC standards and full compatibility with LEA modules, it supports a wide range of applications.

In this thread-through version, the power-carrying conductor does not need to be cut, saving time and minimizing errors in the system.

Features

- No calibration on site needed
- Accuracy class according IEC61869-10,-11 for amplitude and phase accuracy
- Epoxy casting technology
- Internal screening for neighbour phase electric field immunity
- Accuracy over complete lifetime
- Installation on support beams

Dimensions



Installation

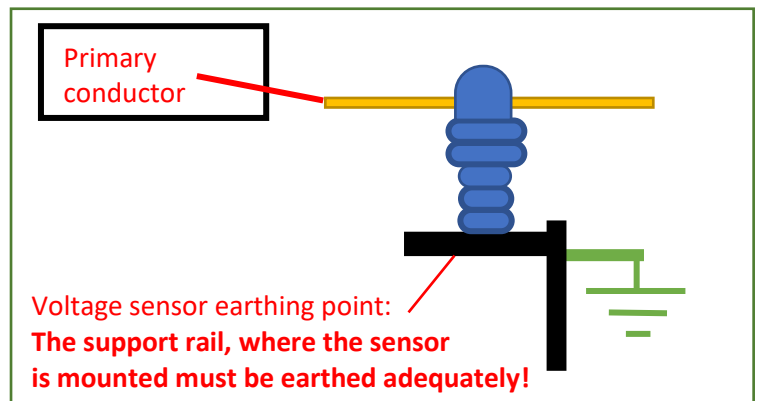
The sensor is typically installed on support beams of poles, similar to the mounting setup of a surge arrester.

The voltage measurement utilizes a capacitive-resistive measurement principle, enabling accurate amplitude and phase measurement for each phase.

The current measurement is based on an inductive principle with shunt resistor, ensuring a safe installation process without creating hazardous conditions.

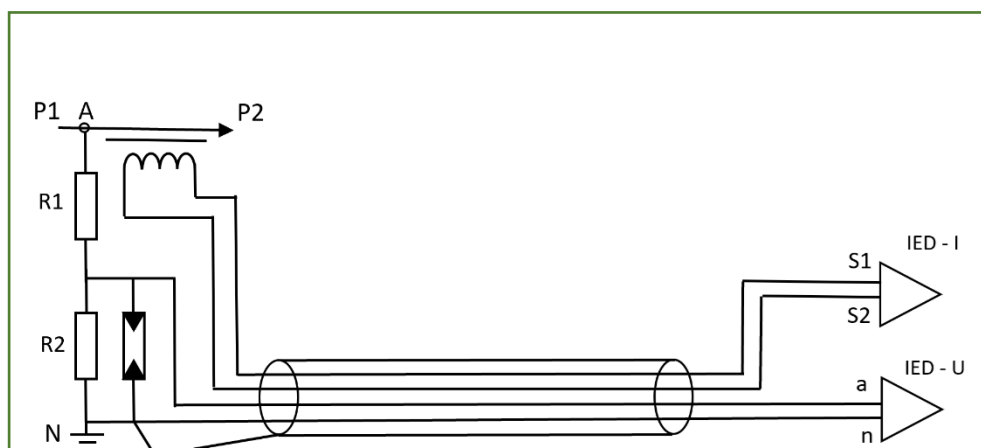
There are some important points that must be considered during the installation process:

- Always power down before installation
- Due to the product's design, there is no risk of damage if the sensor is short-circuited and connected to the ground



Connection

The combined voltage- and current sensor is directly connected to a measurement device. Contact sales@greenwood-power.com for a list of compatible devices. Three combined sensors should be used for each device.



Specification

Applied Standards:	IEC61869-1, IEC61869-6, IEC61869-10, IEC61869-11
VS: Primary voltage:	30000/ $\sqrt{3}$ V*
VS: Voltage factor	1.9 Un for 8h
VS: Secondary output:	3.25V/ $\sqrt{3}$ V*
CS: Primary voltage:	800A* Ext. 200%*
CS: Secondary output:	225mV*
Burden:	VS: >100k Ω , <500pF; CS: >10k Ω
Insulation level:	36/70/170kV
Accuracy class:	VS: 0,5/1/3 & 3P/6P according IEC61869-11 CS: 0,2/0,2S/0,5S/0,5/1/3 max. 5P20 according IEC61869-10
Operating temperature range:	-40°C to +80°C
Storage temperature range:	-40°C to +80°C
Frequency:	50/60Hz
Overvoltage protection:	Internal surge arrestor
Cable:	4-pole, shielded twisted pair, 8m with open ends*

01.2025 by Greenwood-Power