

Wireless electricity sensor family overview



Our electricity sensor series is comprised of non-invasive, self-powered, miniature wireless current sensors. The sensors clamp onto the electrical outgoing wire from the circuit breaker and are self-powered by the circuit's magnetic field. Hundreds of sensors can be installed in a few hours with no disturbance to daily operations. Once installed, the sensors become part of the building infrastructure, never requiring maintenance, service or battery replacement.

PAN-14P wireless high current sensor specifications

Physical dimensions	33.8 × 29 × 42.5 mm 1.33 × 1.14 × 1.67 inch
Current input range	0 – 5 A (up to 10 A peak) (from external current transformer)
Current measurement range	Determined by external current transformer
Current measurement accuracy	Typically <2% at I > 0.1 A (at input from external CT)
Minimum operating current	0.03 – 0.05 A (at input from external CT)
AC frequency supported	60 Hz
Transmission frequency	915 MHz
Transmission power (ERP)	0 dBm (max)
Transmission interval	10 seconds

The PAN-14P high-current sensor attaches to any size standard 0 – 5 A current transformer, allowing measurements at any current range or wire gauge.

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PAN-14P wireless high current sensor

Certification¹

USA and Canada

Safety: UL 61010-1, UL 61010-2-030, CAN/CSA-C22.2 No. 61010-1 (ETL listed)
EMC: FCC Part 15 subpart B, ICES-003
Radio: FCC Part 15 subpart C, RSS-210, RSS-Gen

Europe

Safety: EN 61010-1, EN 61010-2-030 (CE)
EMC: EN ETSI 301 489-1, 301 489-3, 613 326-1
Radio: EN ETSI 300 220-1, 300 220-2

Australia

ACMA compliant

Russia

EAC compliant

Japan

Radio: ARIB STD-T108

CB Certification IEC 61010-1, IEC 61010-2-030
by Intertek Testing Services

Key features

- Connects to any standard 5 A current transformer
- No maintenance; self-powered
- High accuracy
- Wireless sensor and CT are closed around the hot wire with no additional wiring
- Real-time current data transmitted every 10 seconds

Flammability rating of external enclosure

UL94 V-0

Ingress protection (IP) rating

IP5X

Operating temperature

-25 – 60°C / -13 – 140°F

Operating humidity range

5% – 95% non-condensing

Storage temperature

-25 – 65°C / -13 – 149°F

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FCC Warnings

Modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment under FCC Rules.

ISED Warning (Modification statement)

Panoramic Power n'approuve aucune modification apportée à l'appareil par l'utilisateur, quelle qu'en soit la nature. Tout changement ou modification peuvent annuler le droit d'utilisation de l'appareil par l'utilisateur.

RF Exposure Warnings

Mobile Device RF Exposure Statement

Statement in UM

RF Exposure - This device is only authorized for use in a mobile application. At least 20 cm of separation distance between the PAN-14-P Sensors and the user's body must be maintained at all times.

Interference statement

This device complies with Part 15 of the FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Wireless notice

This device complies with FCC/ISED radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines and RSS-102 of the ISED radio frequency (RF) Exposure rules. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Le présent appareil est conforme à l'exposition aux radiations FCC / ISED définies pour un environnement non contrôlé et répond aux directives d'exposition de la fréquence de la FCC radiofréquence (RF) et RSS-102 de la fréquence radio (RF) ISED règles d'exposition. L'émetteur ne doit pas être colocalisé ni fonctionner conjointement avec à autre antenne ou autre émetteur.

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Statement according to FCC part 15.105:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Statement according to FCC part 15.19:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Statement according to FCC part 15.21:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.