

Wireless electricity sensor family overview



Technical specifications

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-12P wireless current sensors specifications

	PAN-12P
Physical dimensions	46.2 x 22.8 x 32.6 mm 1.82 x 0.90 x 1.28 inch
Max hot-wire outer diameter (including insulation)	18.8 mm 0.74 inch
Current measurement range	0 – 225 A
Current measurement accuracy	Typically <2% at I > 10 A
Minimum operating current	0.7 – 1.2 A (typical)
AC frequency supported	60 Hz
Transmission frequency	915 MHz
Transmission interval	10 seconds

Key features

- Non-invasive – snaps and fits without disconnection
- No maintenance; self-powered
- High accuracy
- Wireless – no wiring, unlike standard CT-based monitoring systems
- Real-time current data transmitted every 10 seconds

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Certification¹

USA and Canada

Safety: UL 61010-2-030

EMC: FCC Part 15 subpart B, FCC Part 15 subpart C

Europe

EMC: EN ETSI 301 489-1, 301 489-3

Radio: EN ETSI 300 220-1, 300 220-2

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

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

Radio: ARIB STD-T108

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

Flammability rating of external enclosure

UL94 V-0

Ingress protection (IP) rating

IP5X

Operating temperature

-25 – 60°C / -13 – 140°F²

Operating humidity range

5% – 95% non-condensing

Storage temperature

-25 – 65°C / -13 – 149°F

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-10-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.