

Instruction Manual

Amplified Wireless Temperature Sensor

K200S



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K200S Amplified Repeater

1 Part Description: K200S Wireless Amplified Repeater

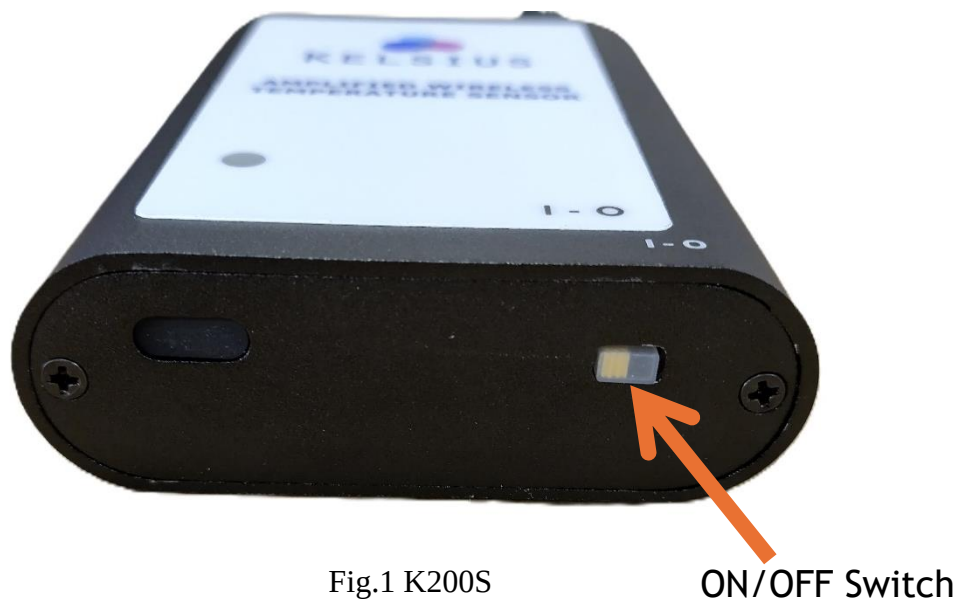


Fig.1 K200S

ON/OFF Switch

2 General Description and Purpose

The K200S device is designed to be portable or directly mountable within the desired location: Applications include fridges, freezers, cold rooms and ambient storage.

The K200S is equipped with an RF amplifier which increases the range of the device.

The K200S implements battery booster technology which allows the sensor to function at lower temperatures and extends the battery life.

Each K200S has an internal digital sensor which is calibrated and verified by Kelsius.

The K200S is activated by operation of the recessed on/off switch at the bottom of the device. (left position On, right Position Off)

The K200S communicates with the Network Controller wirelessly and directly, or via Repeaters, even when buried deep inside storage cabinets.

This equipment design typically applies to commercial or industrial equipment expected to be installed in locations by Kelsius trained engineers and where only adults are normally present.

3 LED Indications

Green LED

The Green Led (Fig.2) will indicate the power up sequence and if an established communication link has been discovered.

On power up the device will illuminate two times. After power up it will indicate if the device is communicating with a network controller.

- If the K200S is installed and communicated to a Kelsius Network Controller, the green LED will flash six times.
- If the K200S is not installed on a network controller the green LED will flash once.



Fig.2 K200S Green LED

4 Specification

Specification	
Measurement Ranges	-35°C → +50°C (-31°F → +122°F)
Accuracy	+/- 0.2°C (0.36°F)
Radio Frequency Band	902 - 928 MHz FHSS
Radio Range (line of sight)	700m
Antenna	Linx ANT-916-PW-LP [1]
Remote Configuration	Application settings and firmware updatable over RF [2]
Battery	Li-MnO ₂ 3.0V 6000mAh
Battery Duration	6 years with a 10-minute data transmission interval
Size	Width: 70.3mm Height: 126.1mm Depth: 24.5mm
Enclosure	Aluminum
Weight	146g

[1] [Antenna datasheet](#)

[2] The device accepts firmware updates only via the system's managed update process. Radio parameters are factory-set and not user-adjustable.

Installation Conditions	
Ambient Temperature	-35°C to +50°C
Relative Humidity	20% to 80%
Atmospheric Pressure	870hPa to 1085hPa

5. Regulatory Information

Product identification:

Model	FCC ID	IC
K200S	2BWIPK200S	35798-K200S

FCC Interference Statement

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.

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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ISED Canada Interference Statement

ISED Canada — Licence -Exempt Notice (RSS-Gen, English)

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause interference. (2) This device must accept any interference, including interference that may cause undesired operation of the device.

ISED Canada — Avis d'exemption de licence (CNR-Gen, Français)

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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 ; (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

RF Exposure Statement (FCC / ISED RSS-102)

This equipment complies with FCC and ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and any person.

Cet équipement est conforme aux limites d'exposition aux rayonnements de la FCC et d'ISDE établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé en maintenant une distance minimale de 20 cm entre la source de rayonnement et toute personne.