

# Model: GK100

## GK10x Optical Door/Window Sensor



### Benefits

- ▲ Optical sensing of a barrier, such as a door or window
- ▲ Wireless communication to room automation equipment
- ▲ Simple to use – simple to maintain
- ▲ No drilling of doors and frames for installation
- ▲ True IPv6 IoT connectivity to all devices
- ▲ Low cost
- ▲ Ten-year warranty
- ▲ Powered by CR2450 lithium coin cell battery lasting 5 years
- ▲ Designed for end-of-life product recoverability

### Models

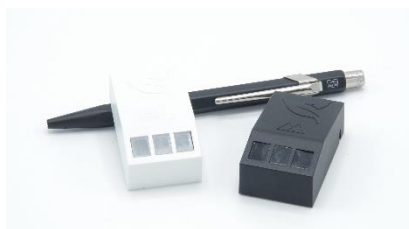
- ▲ Black and white housing colors

The GK10x optical sensor from AuVerte is part of a modern room automation solution. When used for a room entry door, this sensor is a key element to determine the occupancy status of an enclosed space in combination with one or multiple motion sensors. When used to monitor windows and balcony doors, this sensor can curtail HVAC energy during periods when the room is exposed to the outside environment. Battery powered and utilizing wireless RF communication, the GK10x is simple to install and to maintain.

C5xx Ondur Thermostat



FS10x PIR Motion Sensor



GK104 Aux. Temperature/Humidity Sensor



## Specifications

### Sensors

Optical Sensor	Two optical reflection sensors, sensing distance 3-10mm depending on reflexivity of detected surface
Sampling speed	Dynamic, less than 500 milli seconds

### Radio

Standard	IEEE 802.15.4
Frequency band	ISM 2.4 GHz
Interference immunity	DSSS (Direct sequence spread spectrum)
Data rate	250 kbps
Antenna	Build-in
Indoor range	Up to 50 m (150 ft)
Transmit power	+3 dBm
Receiver sensitivity	-95 dBm
Channels	16 (11 to 26, default 25)
Protocol	AuVerte mesh IPv6 over 802.15.4 with forward error correction (FEC-ECC) via proxy

### Software

Encryption	AES128
Routing	UDP over AuVerte Rf mesh and through an IPv6 proxy device
Cyber security	Packet authentication, configurable encryption keys with no backdoors

### Device

Power	CR2450 3V/620mAh coin-cell (not included) Approved battery vendors: <ul style="list-style-type: none"> <li>• Panasonic</li> <li>• Mitsubishi</li> <li>• Murata</li> </ul>
Battery life	5 years
Mounting	Surface mount, double-sided adhesive tape.

### Environmental and Physical Specification

Dimensions	49mm x 27.5mm x 12mm
Weight	0.018 kg, 0.42oz (incl. battery) 0.012 kg, 0.63oz (without battery)
Operating temperature	10 °C to 40 °C (50 °F to 104 °F)
Storage temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Operating humidity	10 % to 95 %RH, non-condensing
Storage humidity	5 % to 90 %RH, non-condensing
Electromagnetic emissions	FCC Part 15 Class A EN 62311 (EMR) ETSI EN 300 328 (2.5GHz ISM Band) ETSI EN 301489 (EMC)
Safety approvals	EN 60950
Environmental	RoHS
Cleaning	Mild cleaning liquid, soft towel
Recycling	6.5g ABS, 5.5g electronics, 6.0g battery

### Ordering Information

Part numbers	003003.GK101
Package content	6 GK101 sensors
Color Options	■ White ■ Black
Options	None

**FCC STATEMENT :**

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.

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

NOTE: 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.

**RF warning statement:**

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.